

OUR BACKYARD

Annual Report 2018–2019



TARONGA 
CONSERVATION SOCIETY AUSTRALIA

For the Wild

A SHARED FUTURE *for* WILDLIFE AND PEOPLE

At Taronga we believe that wildlife and people can share this planet.

We believe that all of us have a responsibility to protect the world's precious wildlife, not just in our lifetimes, but for generations into the future.

Our zoos create experiences that delight and inspire lasting connections between people and wildlife. We aim to change lives and create conservation champions eager to engage with their communities and to value the wildlife in their care, and around the world.

Our activities range from cryopreserving coral species of the Great Barrier Reef, to successfully breeding and releasing Bellingen River Turtles, a critical development for their long-term survival in the wild, and educating the conservation and wildlife champions of tomorrow.

Our conservation breeding programs for threatened and priority wildlife help a myriad of species, with our 10 Legacy Species program representing an increased commitment over the next decade to five Australian and five Sumatran species at risk of extinction.

In the last 12 months alone Taronga partnered with 39 organisations working on the front line of conservation across 18 countries.

Taronga is a not-for-profit organisation. The revenue we make through our zoos, our accommodation, events and through donations to the Taronga Foundation goes directly back into support, care and conservation of wildlife.



Overview

Taronga Conservation Society Australia (Taronga) operates Taronga Zoo in Sydney and Taronga Western Plains Zoo in Dubbo. Taronga is a leader in the fields of conservation, research and environmental education.

Taronga is constituted under the Zoological Parks Board Act 1973 as a statutory authority owned by the people of New South Wales (NSW) and administered by the Minister for the Environment and Heritage.

Amended legislation in 1992 defined Taronga’s responsibilities in education, conservation, research and recreation (see Appendix 1). A minor amendment to the Act was undertaken in 2008 to formally recognise Taronga Conservation Society Australia as the official name, to better describe the work of the organisation.

A letter to the Minister

The Hon. Matt Kean MP
Minister for Energy and Environment
Parliament House
6 Macquarie St
Sydney NSW 2000

Dear Minister,

It is with great pleasure that we present the 46th Annual Report of the Taronga Conservation Society Australia, which includes the statement of accounts, for your presentation to the NSW Parliament. This report covers in full Taronga Conservation Society Australia’s activities for the year ended 30 June 2019 in accordance with Sections 20 and 37 of the Zoological Parks Board Act 1973 (NSW) (as amended) and the Annual Report Statutory Bodies Act 1984 (NSW) (as amended).

Yours sincerely



Steve Crane
Chairman



Cameron Kerr
Chief Executive



Bradleys Head Rd, Mosman NSW 2088
PO Box 20, Mosman NSW 2088
Tel: 02 9969 2777 | Fax: 02 9969 7515
Open 9.30am – 5.00pm (Sep – Apr)
Open 9.30am – 4.30pm (May – Aug)
taronga.org.au



Obley Rd, Dubbo NSW 2830
PO Box 831 Dubbo NSW 2830
Tel: 02 6881 1400 Fax: 02 6884 1722
Open: 9.00am – 4.00pm
Open 8.30am – 5.00pm (during school holidays)
taronga.org.au/dubbo

CONTENTS

Our Strategic Direction	6
Our Organisation	8
Our Board	10
Chairman’s Report	12
Chief Executive Report	14
Conservation Science in Australia	16
Our Global Reach / Conservation and Community	18
Turning Visitation into Outcomes for the Wild	20
Conservation Science	22
Wildlife in Our Care	28
Excellence in Conservation Education	38
Transformational Guest Experiences	44
Engage and Influence	50
People and Organisational Strength	56
Financial and Environmental Sustainability	64
Centenary Capital Plan	74
Taronga Zoo and Taronga Western Plains Zoo’s Partners in Conservation	79
Statutory Financial Statements	80
Appendices	122

OUR STRATEGIC DIRECTION

Our vision is to secure a shared future for wildlife and people.

Our strategic plan defines our unique role, and the way we contribute to wildlife conservation, science and learning.



Symbol	Platypus (<i>Ornithorhynchus anatinus</i>)
Opened	October 1916
Site	28 hectares
Animals	Number of animals: 4,558 Species/sub-species: 307



Symbol	Giraffe (<i>Giraffa camelopardalis</i>)
Opened	February 1977
Site	758.3 hectares
Animals	Number of animals: 697 Species/sub-species: 63



SOUTHERN CORROBOREE FROGS — CHRIS WHEELER

OUR ORGANISATION

MICHELLE SHAW, ZOO NUTRITIONIST — OGLIVY



Minister for Energy and Environment

The Hon. Matt Kean MP *BBus, GradDipCA MP*

Taronga Conservation Society Australia Board

Chairman Mr Steve Crane *BCom, FAICD, SF, Fin*

Executive Director and Chief Executive

Mr Cameron Kerr *BSc (Hons), MCom, GAICD*

Executive Team

Ms Bettina Sammut

BA, Cert (PR), Grad Cert (HRM), Grad. Cert Change Mgt AGSM

**Director,
People, Culture
and Safety**

- Human Resources and Payroll
- Work Health and Safety
- Volunteer Programs
- Organisation Development and Learning
- Diversity and Inclusion

Ms Narelle Beattie

BCom, MA, CA

**Director,
Corporate Services
and Governance**

- Finance
- Procurement
- Governance
- Information and Digital Technology
- Capital Project Management

Mr Simon Duffy AM

*BTeach, BEd
GAICD*

**Director,
Taronga Zoo**

- Environmental Sustainability
- Wildlife Operations:
 - Animal Presentation Precinct
 - Australian Fauna Precinct
 - Exotic Fauna Precinct
 - Horticulture and Browse
 - Exhibit Projects
- Facilities and Asset Operations
- Maintenance, Works and Trades
- Education
 - University Programs
 - School Education
 - Taronga Training Institute
 - Cultural and Community Programs

Mr Steve Hinks

DipMgt, DipBus, MMgt

**Director,
Taronga Western
Plains Zoo**

- Commercial Operations
- Guest Operations and Guest Experience
- TWPZ Accommodation
- Facilities and Asset Operations
- Wildlife Operations and Animal Nutrition
- Conservation and Science
- Marketing and Communications

Mr Paul Maguire

PSM BEd (PE and Sci)

**Director,
Guest Experience
and Community
Conservation**

- Guest Experience Programs
- Guest Experience Operations
- Community Conservation
- Interpretation
- Security and Cleaning
- Sky Safari

Ms Libby Hodgson

BA (Hons)

**Director,
Marketing, Commercial
and Fundraising**

- Marketing, Communications, Design and Digital
- Events
- Retail
- Accommodation
- Catering
- Tourism
- Fundraising and Memberships
- Corporate Partnerships

Mr Nick Boyle

BSc (Comms), LLB

**Director,
Welfare, Conservation
and Science**

- Conservation Science
- Population and Welfare
- Taronga Wildlife Hospital
- Nutrition
- Recovery Programs

OUR BOARD

Appointed Board

Section 6 of the Zoological Parks Board Act 1973 (NSW) stipulates the criteria under which the members are appointed to the Board. The Board met six times during the year and the number of meetings attended by each member is shown in brackets.

Mr Steve Crane BCom (6)
FAICD, SF Fin

Ministerial appointee. Chairman of Taronga Conservation Society Australia. Mr Crane is Chairman of nib Holdings Limited and Global Valve Technology, and a Director of Australian Pipeline Limited (APA Group) and SCA Property. Steve has more than 40 years of financial market experience, as well as an extensive background in publicly-listed companies. Term expires 30 June 2021.

Clr Roy Bendall (5)

Representing Mosman Council. Member of the Corporate Services, Audit and Risk Committee. Clr Bendall has broad experience working in international financial and capital markets, and project management specialising in the trade and maritime infrastructure sector. He is also a legal practitioner with experience in regulatory reform and the provision of regulatory advice to corporations and the Government. Term expires 3 May 2020.

Ms Penny Bingham Hall (5)
BA FAICD SF Fin

Ministerial Appointee. Member of the Corporate Services, Audit and Risk Committee. Ms Bingham-Hall spent 23 years with Leighton Holdings (CIMIC Group Limited) including as Executive General Manager Strategy and Executive General Manager Corporate. She is a Director on the boards of BlueScope Steel Ltd, Dexu Property Group, Fortescue Metals Group, Port Authority of NSW, Macquarie Specialised Asset Management and the Crescent Foundation. Ms Bingham Hall has extensive experience in the building, construction and property industries. She also spent 10 years as a Director and Deputy Chair of the Tourism and Transport Forum. Term expires 31 December 2020.

Ms Nancy Fox (6)
BA JD (Law) FAICD

Ministerial appointee. Chair of the Corporate Services, Audit and Risk Committee. Ms Fox is a Director on the Boards of Perpetual Limited, ING Bank Australia and Lawcover. She is Chairman of the Perpetual Equity Investment Company and a former Director of the Australian Theatre for Young People and HCF Life. Nancy has more than 25 years of experience in financial services and risk management gained in Australia, the United States and across Asia. Term expires 30 June 2021.

Mr John Walkom (4)

Representing Dubbo Community. Member of the Marketing Committee. Mr Walkom is Chair of Regional Development Australia Orana, Independent Chair Dubbo Regional Council Audit Risk Management Committee, Board member of Western Regional Local Health District and Company Director Techni-Clean Australia. He is an active and highly regarded member of the local community in Dubbo, having worked closely with a broad range of stakeholders including community, business, federal, state and local government representatives. Term expires 1 September 2021.

Mr Graham Wackett (5)

Representing Taronga’s volunteer community. Member of the Corporate Services, Audit and Risk Committee and the Marketing Committee. Mr Wackett has been an active volunteer at Taronga Zoo in Sydney since 2006 and has a strong background in hotel, resort and attractions ownership and management. Previous executive roles include Managing Director and CEO of Southern Pacific Hotel Corporation, and Managing Director Travelodge Australia and Travelodge Developments. Mr Wackett also has strong tourism industry experience, having previously served as a member of the Board of Tourism NSW, Tourism Training Australia and the Tourism Task Force. Term expires 31 December 2019.

Dr Ian Roth PSM (6)
BVSc MANZCVs GAICD

Ministerial Appointee. Chair of the Wildlife Committee. Director on the Board of RSPCA NSW and RSPCA Australia, life member of the Australian and New Zealand College of Veterinary Scientists, member of the Australian Veterinary Association and a graduate of the Australian Institute of Company Directors. Until January 2016, Dr Roth was the NSW Chief Veterinary Officer, Director of the Animal Welfare Unit within NSW Department of Primary Industries and a Director of Wildlife Health Australia. He has worked in the areas of animal health and animal welfare for 40 years and was honoured in the 2016 Australia Day Awards with a Public Service Medal “for outstanding public service to veterinary science, particularly animal welfare and biosecurity in NSW”. Term expires 30 June 2020.

The Hon. Robyn Parker (6)
GAICD

Ministerial Appointee. Chair of the Marketing Committee. Ms Parker has over 30 years of public sector experience which began with roles in child and family services across a number of disadvantaged communities. Ms Parker is a non-executive Director of several education and charitable organisations as well as Local Land Services Hunter Region. She was a specialist TAFE teacher for over 14 years before moving into the political arena, spending 12 years as an MLC, MP and Cabinet Minister in the NSW Parliament. Ms Parker was the CEO of Delphis Australia until March 2017. Term expires 31 December 2019.

Dr Rosalind Dubs (5)
BSc Dr ès Sc FTSE FAICD

Dr Dubs has had a diverse international business career, with senior executive and board roles in publicly listed, private and government companies. Currently a Director of ASC Pty Ltd, the Australian Academy of Technology and Engineering, ANU Enterprise Pty Ltd, Astronomy Australia Ltd, and former Director of Aristocrat Leisure Ltd. Previously she ran business lines for engineering multinational Thales SA in Paris, Stuttgart and Sydney. Dr Dubs has also been Deputy Vice-Chancellor (External Relations) at the University of Technology Sydney and chaired the Australian Space Industry Innovation Council. Term expires 29 August 2020.

Board Committees

Corporate Services, Audit and Risk Committee (7)
Chair – Ms Nancy Fox

Monitors financial performance, including work health and safety, environmental sustainability, human resource management, capital works programs and facilities management. Monitors and covers issues relating to internal control systems, risk management systems, financial reporting and other financial responsibilities. Consists of selected board members:

- Ms Nancy Fox
- Mr Roy Bendall
- Ms Penny Bingham-Hall
- Mr Graham Wackett

Marketing Committee (6)
Chair – Ms Robyn Parker

Monitors all marketing activities including communications, Taronga Foundation, guest experience, community programs and tourism development. Consists of selected board members:

- Ms Robyn Parker
- Mr Graham Wackett
- Mr John Walkom

Wildlife Committee (6)
Chair – Dr Ian Roth

Monitors population management, wildlife conservation, research and veterinary services.

Consists of selected board members and external contributors from appropriate specialist fields:

- Dr Ian Roth
- Dr Rosalind Dubs
- Prof Richard Kingsford, University of NSW
- Ms Brooke Taylor
- Mr Paul Sinclair, Mirri (until April 2019)
- Mr Steve Coleman, W NSW, RSPCA
- Dr Simon Longstaff AO, The Ethics Centre

Animal Ethics Committee (6)
Chair – Dr Justine O’Brien

Statutory committee through which all research projects involving animal research must be approved. Constituted in accordance with the Animal Research Act 1985 and consists of the following representatives:

- Dr Justine O’Brien
- Dr Monique Van Sluys (Researcher)
- Dr Jo Day (Researcher)
- Dr Frances Hulst (Veterinarian)
- Dr Michelle Campbell (Veterinarian)
- Dr Peter Johnson (Veterinarian)
- Mr Brendon Neilly (Animal welfare representative)
- Mr David Roden (Independent representative)
- Mr Harold Eagleton AM (Independent representative)

The committee reviewed and approved 16 new projects. The committee also approved 13 ongoing projects and 1 amendment application.

CHAIRMAN'S REPORT

Taronga's reputation and influence continued to grow with a new wave of historic achievements shaping the direction of our second centenary of operation. Our zoos showed leadership in wildlife, conservation and education, further building on our vision to secure a shared future for wildlife and people.

This year over two million people visited our zoos, which was another year of record attendance. This extraordinary number of guests included growth in international guests and a rise in Zoo Friend memberships as notable strengths for the year.

Our zoos continue to grow in popularity as a place to connect with wildlife and learn about conservation and the environment. Taronga is a haven to foster and nurture future generations of conservation leaders and advocates for the wild, and this is evident through record education attendance.

We again committed financial support to various conservation programs both in Australia and internationally, through new and ongoing corporate partnerships and generous donations to the Taronga Foundation.

Our capital expenditure was significant with investment in redevelopment of animal exhibits and creating new ways to connect with our guests. The most notable being the completion and opening of the Taronga Institute of Science & Learning. This new facility puts science on display and includes world-first immersive learning environments that connect school students with Australian native and exotic wildlife and facilitate inquiry based learning. Led by a broad and diverse team of Taronga staff, the design of these habitat classrooms reflects Taronga's innovation and creativity in designing and delivering conservation education programs.

Construction progressed further on the Wildlife Retreat at Taronga and African Savannah exhibit at Taronga Zoo Sydney, as well as commencement of the Waterhole Café and water play area at Taronga Western Plains Zoo. These exciting developments see our zoos constantly evolving and staying at the forefront of animal care and welfare as well as providing guest experiences to inspire behavior change that will positively impact wildlife.

This year Taronga Zoo welcomed Sumatran Tiger cubs and as a result the Tiger Trek experience exposed more guests to the important message of Certified Sustainable Palm Oil. This year saw us reach the major milestone of 100,000 emails being sent from guests to consumer brands encouraging them to make the transition to Certified Sustainable Palm Oil.

On the sustainability front Taronga's Institute of Science & Learning became the first building in a zoo environment to achieve a six star GreenStar rating, another accolade for this cutting-edge space. Both Taronga Zoo and Taronga Western Plains Zoo also achieved carbon neutral certification six years ahead of the target date, a significant achievement that will continue to be built on in the future.

Celebrating the breeding success across both zoos is always a highlight and this year was no different. We welcomed a number of exciting births including an Australian Sea-lion pup, Chimpanzee and Western Lowland Gorilla babies born at Taronga Zoo, whilst Giraffe calves, Oriental Small-clawed Otter pups and Spider Monkey babies were born at Taronga Western Plains Zoo.

Finally, I recognise the contribution and support of the Hon. Gabrielle Upton, former Minister for the Environment and Heritage and the Hon. Matt Kean, Minister for Energy and Environment. I would like to thank the Taronga Board members for their support and guidance throughout the year. To all the dedicated staff and volunteers whose hard work results in the conservation outcomes and amazing guest experiences across both sites – thank you. We are very proud of your accomplishments.



Steve Crane
Chairman



CHIEF EXECUTIVE REPORT

The past 12 months have heralded a new era for Taronga and further strengthened our position as a global leader in conservation and an advocate for the wild, both in Australia and around the world.

CAMERON KERR WITH REGENT HONEYEATER — GUY DIXON

The official opening of the Taronga Institute of Science & Learning by Their Royal Highnesses the Duke and Duchess of Sussex, was a monumental milestone.

It put an international spotlight on Taronga's conservation science and education programs and provides a platform for new and expanded collaborations that will advance our efforts to secure a shared future for wildlife and people. The first of its kind in the Southern Hemisphere, we are ambitious about the role of the Taronga Institute in inspiring future generations and have been encouraged by its success in the first year of operations.

Our conservation programs both in Australia and overseas saw Taronga partner with 39 different organisations working on the frontline of conservation, many with a specific focus on our 10 Legacy Species. For example, Taronga has partnered with Sahara Conservation Fund who are working with partners in the UAE to release critically endangered Addax and Scimitar-horned Oryx into Niger and Chad. These programs provide real conservation action to support wildlife, habitat and communities.

Meanwhile, conservation work in our own backyard was at the forefront this year. Among other projects the Taronga team were very proud to assist with the Lord Howe Island conservation project to remove invasive species and protect endangered and endemic wildlife on the island. A team from Taronga is based on Lord Howe Island caring and managing the Lord Howe Island Woodhen and Lord Howe Island Pied Currawong populations, both species identified as being at risk during the rodent eradication process. The team will remain there until these species are successfully re-introduced into the wild.

Taronga's scientists continued their critical work to preserve the Great Barrier Reef, sending a team into the field to cryopreserve more coral species. Taronga's CryoDiversity Bank now holds 21 species of coral from different regions of the Great Barrier Reef, the largest living bank in existence. Taronga's breed for release programs achieved big wins for the Bellinger River Turtle and the Yellow-spotted Bell Frogs. Wild populations for both species are critically low; being able to reintroduce 10 Bellinger River Turtles and 1,576 young Yellow-spotted Bell Frogs is vital to keeping these species persistent in the wild.

The 110-hectare Sanctuary situated in Dubbo, alongside Taronga Western Plains Zoo, saw the commencement of the conservation breeding programs for the critically endangered Plains-wanderer and Greater Bilby this year. The Sanctuary plays an important role in the National Recovery Program for these iconic species and will continue to be a key focus over the next 12 months. The Wild Herds exhibit opened at Taronga Western Plains Zoo in July 2018, showcasing the Mongolian Takhi complete with a replica Mongolian village. This species has come back from the brink of extinction thanks to reintroduction programs and the crucial role played by zoos.

At Taronga we are a champion for wildlife, and are dedicated to inspiring the next generation of conservation advocates and scientists. This year Taronga Zoo welcomed record education attendance with students across primary, secondary, vocational and tertiary levels participating in a variety of education programs as well as a significant rise in onsite teacher professional learning.

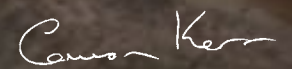
A unique education alliance was also established with the University of Sydney

through which students studying a Bachelor of Science / Bachelor of Advanced Studies (Taronga Wildlife Conservation) and Master of Education (Taronga Conservation Education) complete part of their studies at the Taronga Institute. More than 1,100 students completed part of their undergraduate or postgraduate programs at Taronga in the inaugural year of the alliance.

Our Burbangana and Walanmarra programs for at-risk youth are run in partnership with Family and Community Services across both zoos. The programs provide strong cultural connection, engagement and training to create career pathways for young people. This year the first two participants gained successful employment as Indigenous Guest Experience Officers joining the Taronga family.

Both Taronga Zoo and Taronga Western Plains Zoo were involved in a number of community events across the year, including Mardi Gras, Eid Festival, Vivid Sydney, DREAM Festival and Dubbo Stampede.

This year's numerous achievements and awards across both zoos have seen another successful 12 months for Taronga, which you will see in the following report. These achievements are not possible without the dedicated and passionate team who strive on a daily basis to create a better world for wildlife. I offer a heartfelt thank you to the Board, valued partners and supporters and the employees and volunteers who work tirelessly towards our vision.



Cameron Kerr
Chief Executive

CONSERVATION SCIENCE *in* AUSTRALIA

Over the last twelve months Taronga scientists and partner organisations conducted multidisciplinary programs under our unified mission of increasing understanding and protection of wildlife through investigation, evidence-based application and communication of science to the community.

Taronga's programs and partnerships within and beyond Australia have been carefully selected to ensure effective, practical and timely outcomes that address current and future conservation challenges, particularly in wildlife and ecosystem health. With our partners in university, governmental agencies and non-governmental conservation groups, we have garnered scientific grants from highly competitive funding bodies, including the Australian Research Council, to support these programs. Since 2011, almost \$1.2 million of philanthropic donations acquired through the Taronga Foundation have been leveraged to provide over \$7 million in scientific grants, allowing Taronga to continue wildlife conservation initiatives underpinned by our expertise spanning wildlife health, ecology, biodiversity conservation (reproduction and genetics), behaviour and nutrition.



Christmas Island

Christmas Island reptile disease investigation



Great Barrier Reef

Coral cryobanking saving new genetic diversity from the northern and central region of the Great Barrier Reef

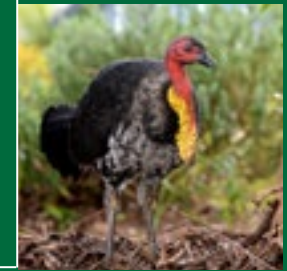
Photo: Gary Cranitch



Sydney

Improved diet for echidnas

Photo: Dave Katague



Sydney

Assessing the ecological role of Brush-turkeys in urban Sydney

Photo: Tony Britt-Lewis



Booderee National Park, Jervis Bay

Translocation of Eastern Quoll from Tasmania



Sydney Oceans

Satellite tracking of marine turtles released from Taronga Wildlife Hospital (TWH)

Photo: Toby Zerna, Daily Telegraph



Taronga Western Plains Zoo Dubbo

Plains-wanderer breeding program

Photo: Corrine Symons



Brindabella Mountains

Northern Corroboree Frog release

Photo: Lorinda Taylor



Yass

Yellow-spotted Bell Frog reintroduction

Photo: Amy Russell



Montague Island

Sensing the seascape research into the impact of climate on marine ecosystems

Photo: Anders Alexander

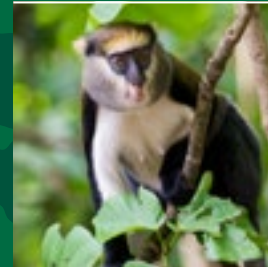
OUR GLOBAL REACH / CONSERVATION & COMMUNITY

Taronga's conservation work supports 39 projects focussed on wildlife, habitats and communities in 18 countries around the world.

Taronga plays a leading role in several national threatened species recovery programs and contributes to 16 state and national recovery programs. Taronga also works with communities to inspire and support individuals and businesses to choose, champion and change their everyday behaviours to support wildlife conservation and environmental sustainability. Taronga directly contributes over \$500,000 annually, and more in in-kind support through expert staff, conservation partners and through the long established field grants program.

This work, along with that of our partners is vital to identify and reduce key threatening processes, protect important habitat for wildlife, and support healthy communities. From Fiji to Kenya, Morocco to Sumatra, and all around Australia, Taronga works with global conservation experts in the field to secure a shared future for wildlife and people.

Our overall commitment through conservation science, threatened species recovery, community conservation and education for conservation totals over \$11 million directly invested in conservation in 2018/2019.



Benin

Strengthening the conservation of Benin's threatened primates through community empowerment



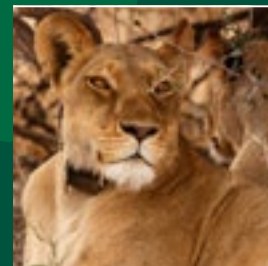
Kenya

Partnering with Northern Rangelands Trust to protect African Lion, zebra, Giraffe and African Elephant
Photo: Kira Mileham



Republic of Congo

Partnership with Jane Goodall Institute Australia caring for Chimpanzees at Tchimpounga Sanctuary
Photo: Rick Stevens



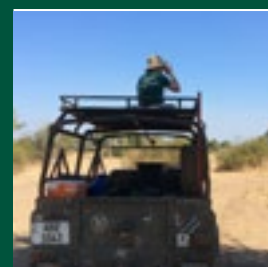
Northern Botswana

Supporting a community-led early warning system for carnivore and people coexistence



Botswana

Reducing conflict between communities and lions with Eye-Cow
Photo: Bobby-Jo Clow



Zambia

Supporting critical ground based and aerial anti-poaching patrols in South Luangwa National Park
Photo: Michelle Campbell



Nepal

Funding vital research programs in Kathmandu Valley to support pangolin conservation



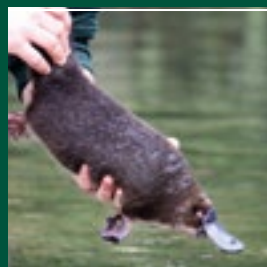
Cambodia

Conservation partnership with Free the Bears to rescue Sun Bears
Photo: Rick Stevens



Madagascar

Partnership to support the recovery of 10,000 confiscated Radiated Tortoises
Restoring habitat for the critically endangered Greater Bamboo Lemur with The Karianga Project



Australia

Improving our understanding of environmental impacts on Platypus health and distribution
Photo: Amy Russell



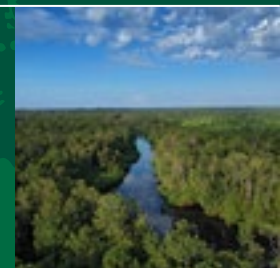
Sumatra, Indonesia

Supporting the protection of Taronga's Sumatran Legacy Species in Way Kambas National Park
Rhino protection with the International Rhino Foundation
Supporting the protection of Painted Terrapin eggs from poaching and natural predation
Photo: Rick Stevens



Vietnam

Supporting staff training to conserve the White-cheeked Gibbon and Saola in Pu Mat National Park



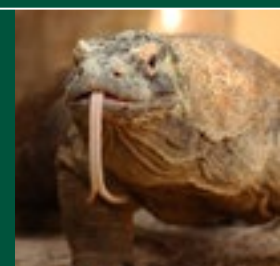
Central Kalimantan Indonesia

Initiating Biodiversity Conservation in the Rungan River landscape



Indonesia

Stable isotope analysis of echidna quills to assess animal origin
Photo: Paul Fahy



Komodo, Indonesia

Supporting community initiatives to preserve habitat for the Komodo Dragon
Photo: Gary Ramage



Fiji

Supporting the survival of the Fijian Crested Iguana
Photo: Lorinda Taylor

TURNING VISITATION *into* OUTCOMES *for* THE WILD

VISITATION



2.04m

visitation across both zoos



1.26m+

digital community



32,000+

schools, community groups and charities attended **free of charge or heavily subsidised community events** including Eid at the Zoo and Dream Night

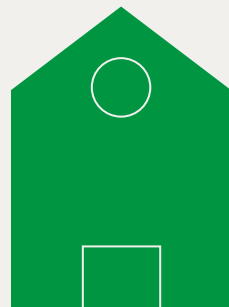
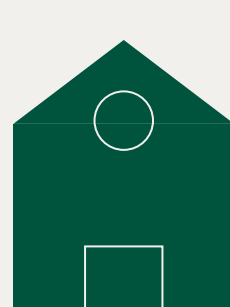


5th

consecutive year of **growth** for visitation to Taronga Western Plains Zoo, Dubbo

11/15

sold-out Twilight concert shows. A new record!



18%

growth in school excursions with the opening of the Taronga Institute of Science and Learning

One of the ways that Taronga achieves its vision for a shared future for wildlife and people is by creating positive connections between people and the animals in our care. In 2018/19 Taronga achieved visitation success and records across all areas and more importantly saw many positive outcomes for the wild achieved as a result of this.

OUTCOMES



100,000

emails sent through **Tiger Trek** campaigning for Sustainable Palm Oil



\$10.9m

Direct contribution to **in-situ conservation**



1,000+

schools and business take up the **litter free oceans pledge**



240,000+

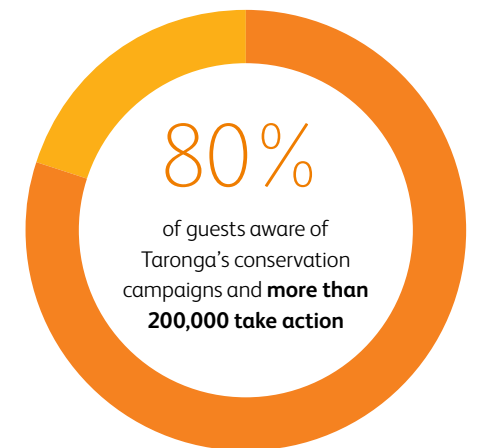
single-use plastic items removed from Taronga's waste streams



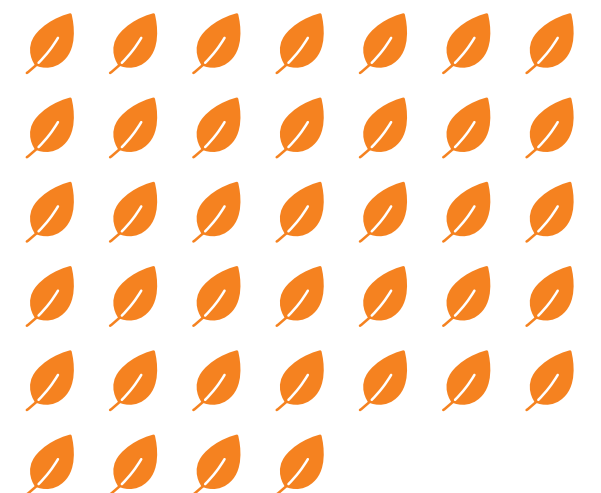
1,000,000+

items of **compostable food packaging** segregated and sent to organic waste composting

Guest Awareness



Conservation Projects



CONSERVATION SCIENCE

Actively participate in wildlife conservation initiatives that ensure the long-term security of wildlife in suitable ecosystems and habitats

Key Achievements

Lord Howe Island Bird Conservation Project

Lord Howe Island (LHI) is the largest populated island to undertake a full-scale eradication of rodents. For over 15 years, experts from around the world have been involved in the development of the rodent eradication program, which aims to remove destructive invasive species, conserve threatened species and protect unique world heritage values.

Taronga is responsible for the care and management of two endangered and endemic non-target species, the LHI Woodhen and LHI Pied Currawong, both identified at risk to the baiting process. The specially built, on-island facility is designed to care for up to 350 birds. A team of experienced Taronga staff are based full time on island and responsible for the daily management of the facility providing expert husbandry and veterinary care for the birds. The birds remain in Taronga's care for the duration of the project and will be released in stages once baiting is completed.

Bellinger River Turtle Release

Securing the future of the Bellinger River Turtle in the wild saw a significant milestone this year. Ten zoo-bred juvenile turtles were reintroduced to the Bellinger River with radio transmitters attached to their shells for the first time. Six months after the release, nine turtles were found to be still alive and doing well. This is a critical development for the species whose long-term survival may rely on the ex-situ breeding program. Taronga Zoo also bred another 30 turtles this year bringing the total Taronga population to 80 individuals.

Bringing Back the Yellow-spotted Bell Frog

Thought to be extinct in the wild the Yellow-spotted Bell Frog hasn't been seen in the wild since 2015. This year both adult females at Taronga Zoo produced healthy clutches of eggs permitting staff to release 1,576 young frogs at two sites in NSW, keeping this species persistent in the wild. Taronga researchers have undertaken post-release monitoring of the frogs and aim to develop a reintroduction protocol to see this species re-establish in the wild.

Taronga Sanctuary

The 110-hectare site dedicated to breeding Australian fauna for reintroduction programs is currently focused on creating insurance populations and breed for release programs for the critically endangered Plains-wanderer and the Greater Bilby.

Plains-wanderer

Collection of additional birds from the wild took place in September, November and December 2018. One male and one female were found and brought to the Sanctuary increasing the population to eight wild-caught birds. The Plains-wanderer has experienced a decline of >90% since 2001, and recent monitoring has found no Plains-wanderers in the wild. The facilities at Taronga Western Plains Zoo can hold up to 30 birds per year and also enable keepers to monitor and study the birds, which is critical to generate an understanding of their behaviour in the early stages of this conservation breeding program.

“The Plains-wanderer has experienced a decline of >90% since 2001, and recent monitoring has found no Plains-wanderers in the wild.”

Greater Bilby

The Sanctuary was declared invasive predator free in October 2018 and has remained so since this time, a testament to the integrity of the predator exclusion fence surrounding the Sanctuary. In November, three pairs of Greater Bilby were established in the breeding facility in the Sanctuary. The pairs have produced nine offspring, some of which have been identified for release into the Sanctuary and other reintroduction sites. Research that will inform and improve reintroductions of the Greater Bilby is also prioritised as part of the program with a PhD candidate established and co-supervised by Taronga and University of NSW.

Great Barrier Reef Recovery

Taronga continued its involvement with partner organisations to further build on the species cryopreserved from the Great Barrier Reef. A total of 390 sperm samples were cryopreserved and banked from 69 colonies, representing 12 coral species. Five of these species had not previously been banked. Taronga's CryoDiversity Bank now has a total of 21 species of coral from the field trips

since 2011, including live samples from the northern Great Barrier Reef region, an area that has suffered greatly from bleaching yet retains isolated pockets of surviving corals.

This year’s program also included cross-fertilisation experiments using fresh and frozen sperm. The team were able to show for the first time that frozen sperm collected from *A. tenuis* corals of the central region were able to fertilise *A. tenuis* oocytes from the northern region and vice versa, demonstrating the potential for cryopreservation technologies to assist coral reef restoration and gene flow.

Veterinary Training in Wildlife Care

Taronga is developing a continuing education program in wildlife treatment and care for veterinarians and veterinary nurses, as part of the NSW Government’s Koala Strategy. This program will support the assessment and treatment of native wildlife that are presented to domestic pet and specialist veterinary hospitals in NSW each year. To date Taronga has developed two of five online learning modules that aim to provide veterinarians and veterinary nurses with the knowledge and skills to effectively treat and manage wildlife patients. This education program will ensure positive welfare and conservation outcomes for NSW wildlife.

Wildlife Health Education

Training the next generation of conservation scientists in the fields of wildlife health and disease saw 142 scientists congregate at Taronga Zoo for the Pathology Short Course and Wildlife Translocation Health Symposium. The course addressed the critical skill shortages in the field of wildlife health and comparative pathology. The four-day systematic review of wildlife disease was paired with the delivery of hands-on workshops to provide participants with practical skills and field-adaptable disease investigation techniques. The one day translocation health symposium highlighted the many disciplines in translocation science including ecology, nutrition, behaviour, welfare and disease risk analysis.

Taronga’s Work in Sumatra

There is a 360-degree approach to conservation in Sumatra, with wildlife, habitat and community a strong focus. In the support of wildlife, Taronga provides veterinary advice and assistance, leadership in reproductive biology and funding of protection units that benefit all five Sumatran Legacy Species. Taronga has begun work with partners to maintain and expand on reforestation projects in Way Kambas National Park, a major focus for the coming years. Taronga is also seeking to engage the community with the primary objective to generate income and opportunity through eco-tourism.

This is established through Taronga’s partnership with Ecolodges Indonesia and saw the first Taronga led tour to Way Kambas National Park in August 2018.

International Recognition

Taronga is a global leader in wildlife conservation and was awarded the World Association of Zoos and Aquariums (WAZA) Conservation Award in October 2018. The award was assessed against eight zoos and aquaria, all highly respected around the world for their conservation work. Taronga was recognised for the depth and breadth of its conservation work including education, community campaigns, research and field programs.

Wild ENFORCE Project

The fight against illegal trade of wildlife is the driving force of a Taronga-led, multi-national research group called Wild ENFORCE. Through sponsorship from Australian Geographic and the Taronga fellowship program researchers collected wild and captive reference keratin samples from the Philippine Pangolin, Red-vented Cockatoo and Palawan Forest Turtle. These three species are the most trafficked in the region and a priority for TRAFFIC South-east Asia. 150 samples were transported to Taronga laboratories where they are awaiting analysis. These samples add to the growing Forensic Reference Library covering both Asian and Australian species.

“Taronga’s CryoDiversity Bank now has a total of 21 species of coral from the field trips since 2011, including live samples from the northern Great Barrier Reef region, an area that has suffered greatly from bleaching yet retains isolated pockets of surviving corals.”

Animal Nutrition

This year Taronga’s nutrition team contributed expertise to assist Australian conservation efforts for critically endangered species, and internationally to improve the diets of at risk species being cared for by South-East Asian rescue organisations. The team also collaborated with honours students to undertake nutrition research at Taronga Zoo. This involved a variety of areas including assessing supplements to aid foot health in Asian Elephants and Giraffes, feeding behaviour in Red Pandas and Sun Bears and optimising gut microbial population in a range of native Australian species. The relationship between dietary carotenoids and feather colour in Regent Honeyeaters and Golden Whistlers was also assessed along with developing guides to monitor body condition of animals and the environmental impact and sustainability of Taronga’s animal food.

PERFORMANCE INDICATORS	Target by 2020	Definition	2018/19
Wildlife Conservation Wildlife in Taronga’s care has an identified and communicated role in conservation	100%	Percentage is assessed via the Animal Population Assessment tool	90%

Conservation Science

Taronga has a core science team, and the broader scientific expertise continues to grow across the organisation. This expertise, coupled with the Taronga Institute of Science & Learning, is driving the next era of conservation science at Taronga and its role as a conservation leader. The Institute of Science & Learning is the hub of science and education initiatives, and increases Taronga’s capacity to conduct essential research and to nurture the next generation of scientists.

The pillars of this initiative are Taronga’s expertise in the fields of wildlife health, ecology, biodiversity conservation (reproduction and genetics), behaviour and nutrition. This expertise combined with the generous and critical support of donors, help Taronga deliver tangible conservation outcomes. Taronga’s scientific grants and partnerships continue to yield new knowledge, forming Taronga’s contributions to species recovery programs and peer-reviewed publications.

In the Water

In November 2018, Taronga’s Reef Recovery Program team attended the Australian Institute of Marine Science’s (AIMS) National Sea Simulator in Townsville to collect and bank Great Barrier Reef (GBR) coral cells during the annual coral mass spawning event. This year the project team (consisting of scientists from AIMS, the Smithsonian Institution and Taronga) had the unique opportunity to expand Taronga’s CryoDiversity Bank collection by preserving coral samples from the northern GBR region. This was achieved through a new partnership with not-for-profit organisation, Great Barrier Reef Legacy along with continued support from the Great Barrier Reef Foundation. The team cryopreserved approximately 400 sperm samples from 12 species of hard coral, five of which have not been collected before. Taronga’s CryoDiversity Bank now has a total of 21 species of coral from the GBR, including genetics from northern GBR acroporid populations that have survived recent mass-bleaching events. The project team was also able to show for the first time that frozen sperm collected previously from the central GBR were able to fertilise fresh oocytes from the northern region of the GBR, and vice versa, demonstrating the potential for cryopreservation technologies to assist coral reef restoration and gene flow.



Coral spawning – Gary Cranitch, Queensland Museum

In collaboration with Macquarie University and other partners on an Australian Research Council (ARC) Linkage Project grant, Taronga scientists examined patterns of genetic structure between breeding aggregations of Port Jackson Sharks in Sydney and Jervis Bay. Significant genetic differentiation was detected between Sydney and Jervis Bay populations using mitochondrial DNA. This is the first study to document reproductive philopatry in an egg-laying shark, highlighting the importance of conserving and appropriately managing breeding sites for Port Jackson Sharks and potentially other egg-laying shark species.

Warming coastal waters due to a strengthening western boundary current has unknown consequences for coastal marine food webs. This ARC Linkage Project grant with Macquarie University and partners aims to integrate information on oceanographic conditions and fish distributions with the foraging patterns and breeding success of seabirds on and around NSW’s Montague Island. This research utilises a range of research methods including acoustic surveys and penguin tracking. Collectively, this research is demonstrating how marine predators find prey in relation to the dynamic features of the marine ecosystem and how their prey is related to and changes with physical features such as currents, eddies and ocean temperature. It is also assessing how climate change and the associated increase in strength of the Eastern Australian Current will impact on this.

On the Land

Taronga, the University of NSW and the Botswana Predator Conservation Trust are working together to reduce human-wildlife conflicts in Africa. The Eye-Cow project tests whether painting eye patterns on cattle deters attacks by lions and leopards by persuading these ambush predators that they have been seen by their prey, therefore discouraging attacks. No eye-painted cows were killed by predators across 13 study herds, from which 12 unmarked and two X-painted control cows have been taken by big cats during the study. This statistically significant result is very good evidence that the technique continues to be effective more than three years since its first application. This low-cost potential solution is designed to benefit both farmers and predators by reducing livestock losses and retaliatory killing of predators, a key threat for many of the world’s carnivores.

Taronga’s terrestrial ecologist returned to Fiji to survey and search for Fijian Crested Iguanas and produce a total census for Monuriki Island, along with collaborators the National Trust of Fiji and Kula Eco Park. During the surveys, one of the iguanas identified was from the initial ‘founders’ group collected in 2010. The iguanas were bred at Kula Eco Park for six years and released in 2017. This census is providing essential data on long-term survival and reproduction of iguanas from the breeding program compared with wild

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Taronga’s behaviourists and university partners continue to conduct programs that monitor the wellbeing of the animals in Taronga’s care.

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iguanas. This is important information for future breed and release programs.

Taronga’s Australian Registry of Wildlife Health, Booderee National Park (Parks Australia) and the Australian National University, alongside other conservation NGO’s, community groups and wildlife parks, continued a collaborative project to re-populate Booderee National Park with a variety of terrestrial mammals. These mammals have been extirpated for more than 100 years from the area. This project has assisted all involved to learn more about the factors driving species decline, and what is required for successful species reintroductions. To date, 60 Eastern Quolls, 54 Long-nosed Potoroos and 29 Southern Brown Bandicoots have been translocated to Booderee National Park. Post-release monitoring has identified Booderee-born pouch young in all three species, bringing this program closer to the goal of establishing stable wild populations of these threatened marsupials.

Taronga’s behaviourists and university partners continue to conduct programs that monitor the wellbeing of the animals in Taronga’s care. This focus extends to local species through the Taronga is Habitat project, which recognises the zoo sites as important habitat. It aims to better understand and support native wildlife, including the Long-nosed Bandicoot. The purpose of this project is to provide detailed data on habitat requirements, foraging areas, movement and day time retreat-site selection in free-ranging zoo bandicoots to help make decisions on how to manage the zoo habitat to support them.

Australian Shark Attack File

The Australian Shark Attack File (ASAF) has continued to collaborate with academia and researchers throughout 2018/19. ASAF data was shared with Macquarie University researchers to investigate Environmental Predictive Models for Shark Attacks in

Australian Waters. Research findings from this study have been submitted for peer review in the Marine Ecology Progress Series, co-authored by Taronga’s Marine Ecologist.

Taronga’s ASAF staff also delivered a guest lecture and interview at the University of Sydney on the ASAF database as part of Sydney Data Stories, and provided scientific advice for the fact-finding podcast Science Vs.

The ASAF continues to work closely with State Government departments across Australia to compile unbiased shark attack statistics and report this data to the International Shark Attack file. In 2018/19, NSW and Queensland reported more incidents compared with other states, recording six unprovoked attacks each. There was a total of 23 unprovoked and four provoked shark attacks recorded across Australia for the 2018/19 year with one fatality occurring in Queensland. Summary information and educational material is accessible to the public online at: taronga.org.au/conservation-and-science/australian-shark-attack-file.

Threatened Species Recovery and Partnerships

Taronga leads several priority strategies in national threatened species recovery programs for species such as Regent Honeyeater, Plains-wanderer and the Greater Bilby. In total Taronga plays a leading role on 16 national and state based recovery programs and contributes to many more. Collaboration is vital to the success of any conservation endeavour, and Taronga partners with government agencies and many non-government organisations to deliver conservation outcomes for wildlife, habitat and communities.

Alongside the 16 threatened species recovery programs, Taronga also provides financial and technical support to many conservation organisations. Through Taronga’s Conservation Partnerships and Field Grants programs, 39 projects have been

supported, delivering frontline conservation action across Australia and around the world.

Lasting conservation outcomes can only be achieved when communities are engaged, habitats are healthy, and wildlife is protected. When identifying partners or projects to support, Taronga seeks out those who align with its holistic 360-degree approach to conservation, focusing on wildlife, habitat and communities.

Highlight Projects with Community Focus

Coexistence Between Carnivores and Communities: Cheetah Conservation Botswana

Taronga have increased their support of Cheetah Conservation Botswana from being a field grant recipient to a conservation partnership to enable expansion of their Communities for Conservation program. Cheetah Conservation Botswana are focused on the conservation of one of the last remaining sections of the Western Kalahari wildlife corridor where two rural San villages are located. The group is assisting these communities to reinvigorate their traditional ways of living with the natural resources around them, encouraging the transfer of indigenous knowledge, developing livestock farming techniques that minimise conflict and facilitating sustainable grazing management to encourage biodiversity. This is being achieved through farmer workshops and networks, a demonstration farm, testing mitigation measures, and establishment of a rapid response team to attend to conflict calls. The conservation of this corridor provides local benefit and protects the viability of the two protected areas that it connects.

Highlight Projects with Species Focus

Restoring Populations of Endangered Great Desert Skinks at Newhaven Wildlife Sanctuary: Australian Wildlife Conservancy, Australia

Newhaven Wildlife Sanctuary in Western Australia will soon become the largest fenced, invasive predator-free area on mainland Australia. Taronga has recently established a partnership with Australian Wildlife Conservancy to support the protection of the threatened Great Desert Skink. The project aims to manage the threat of invasive predation on the Great

Desert Skink population through targeted control of invasive feral cats and foxes, in locations where this skink sub-populations are largest. A vital component of the project is the extension of the predator-free fenced area with subsequent feral cat eradication within this area. Once the fence is established, Newhaven Sanctuary will protect about half of Australia’s largest known sub-populations of the Great Desert Skink. The success of the control measures will be assessed by ongoing monitoring programs.

Reintroduction of Scimitar-horned Oryx (Extinct in the wild) and Addax (Critically Endangered) into the Wild: Sahara Conservation Fund

Taronga have established a conservation partnership with Sahara Conservation Fund, providing funding to support their work with partners in the United Arab Emirates on the release of Addax and Scimitar-horned Oryx into Niger and Chad. This project has successfully released 90 Scimitar-horned Oryx, with the goal to establish a viable, free-ranging and self-sustaining population of at least 500 animals. Addax population numbers have crashed to less than 100 individuals and extensive surveys and monitoring activities are underway to guide the development of the recovery plan.

Taronga Western Plains Zoo holds large herds of both species and are members of the Conservation Centres for Species Survival, a collaboration of conservation institutions committed to securing populations of endangered species for insurance and reintroductions. Taronga has a very successful track record of breeding and managing large, multi-male and multi-female groups. Taronga is working with Conservation Centres for Species Survival and other Australian holders of these species to explore the potential for the Australasian population to play a significant role in the global recovery program.

Highlight Project with Habitat Focus

Conserving critical habitat in Vietnam: Fauna and Flora International

Pu Mat National Park is one of Vietnam’s largest protected areas and holds approximately 130 groups of gibbon, making it a global stronghold for the taxon as well as critical habitat for Asian Elephants and Pangolin. Taronga are supporting Fauna and Flora International to improve protected area

management, institutional collaboration, law enforcement and community engagement to preserve habitat and enhance the long-term survival prospects of these species. This project focuses on two high priority areas that cover approximately 20,000 hectares of the park’s most remote and mature forest. This includes assessing performance of enforcement activities, providing technical support to park rangers, undertaking habitat and biodiversity surveys, facilitating data sharing, on-going capacity building and consultation with park staff.

Commitment to Sumatran Legacy Species

Taronga’s commitment to Sumatra and the five Sumatran Legacy Species (Sumatran Tiger, Sumatran Rhino, Asian Elephant, Sun Bear and Sunda Pangolin) continued this year. Taronga worked with the International Rhino Foundation, Sumatran Rhino Sanctuary and the Wildlife Protection Units supporting the implementation of the Sumatran Rhino Survival Plan. Taronga provides financial support and technical expertise from veterinarians, reproductive biologists and conservation management staff.

In 2018 Taronga, working with local tourism operators and community, successfully ran a niche eco-tourism experience that directly supported local commerce and conservation activities.

Commitment to Australian Legacy Species

Significant progress continues to be made on Taronga’s five Australian Legacy Species conservation projects. In the past year over 1,200 Northern and Southern Corroboree Frogs, tadpoles and eggs have been released to the wild and research programs continue to deliver strategies to maximise breeding and release success. Construction has begun on purpose-built facilities at Taronga Western Plains Zoo to significantly expand the Regent Honeyeater breed for release program. Nine Greater Bilbies have been bred on site and 20 identified for release into the Taronga Sanctuary. This year 40 marine turtles came into Taronga’s care, eight Green Turtles were rehabilitated and released with tracking devices that provides key insights into marine turtle habitat use in NSW. The Platypus Futures partnership with the University of NSW continues to investigate the status of wild Platypus populations, distribution and key threatening processes.

Science Snapshot

CryoDiversity Bank Collection

400

sperm samples from
12 species of hard coral



5/12

species of hard coral have
never been collected before

Breed and Release



1,200+

Critically endangered
Northern and Southern Corroboree
Frogs, tadpoles and eggs released



9 Greater Bilbies
bred on site

WILDLIFE IN OUR CARE

Be a leader in the care and presentation of wildlife, providing positive welfare, dignity and respect for all

SUMATRAN TIGERS — RICK STEVENS

Key Achievements

Critically Endangered Cubs

There is estimated to be less than 350 Sumatran Tigers remaining in the wild and of these only 50 breeding pairs. This year Taronga Zoo successfully bred the critically endangered Sumatran Tiger and welcomed three healthy cubs to first time mother Kartika. The cubs have been exceptional ambassadors for their wild counterparts providing an invaluable opportunity to connect guests with Taronga's Legacy commitment, share information about the importance of sustainable palm oil production and use, and empowering guests with knowledge for action.

Animal Relocations

Three Giraffe along with a number of other species were temporarily relocated in order to facilitate the redevelopment of the Savannah project, part of the Centenary Capital Plan. Relocating the Giraffe herd was a complex operation; they were temporarily relocated to the heritage elephant temple exhibit. A detailed training and conditioning program was developed and carried out to ensure each Giraffe cooperatively walked into the transport crate. The move involved extensive logistical planning and took three days to transfer three Giraffe to their temporary exhibit. The herd will move back to the new Savannah exhibit once construction is completed.

Chimpanzee Introductions

Three female Chimpanzees were imported by Taronga Zoo from Europe in 2015 to join the regional conservation breeding program. The introduction of the new females to the Chimpanzee community was highly significant and the first time in over 20 years unrelated individuals were introduced. The process was long and challenging with strong bonds in the established communities making introductions difficult. The three Chimpanzees were successfully integrated to the regional conservation breeding program with two individuals joining Taronga Zoo's Chimpanzee community and one individual integrating into Monarto Zoo's community. The integration of the three new females is a very important achievement for the ongoing conservation efforts of Chimpanzees.

Breeding Success at Taronga

Taronga Western Plains Zoo experienced a baby boom this year with the birth of three Giraffe calves, three Black-handed Spider Monkey babies, four Oriental Small-clawed Otters, three Ring-tailed Lemurs, 13 Scimitar-horned Oryx, a Bongo calf and three Takhi foals. Significant breeding success was also achieved at Taronga Zoo this year with the birth of a critically endangered Australian Sea-Lion and Red Panda cub triplets. Two Short-beaked Echidna births were achieved, one in Sydney and one in Dubbo, demonstrating Taronga's consistent husbandry expertise in breeding this species that has been traditionally challenging to breed.

Gorilla Behavioural Husbandry Program

Taronga Zoo's Gorilla keepers established an intensive behavioural husbandry program in consultation with Behavioural Husbandry Expert, Tim Sullivan to address challenges in display and animal management. Young silverback male, Kibali, is continuing to mature and develop social strategies, this has provided challenges for keeping staff in managing daily husbandry and the guest experience. These challenges have been addressed through the new program that encompasses animal training sessions, conditioning, nutritional enrichment and exhibit modifications. To date the program has been successful in decreasing tension in the group, increasing cooperative husbandry behaviours and increasing visibility for guests.

Dignity and Respect for Wildlife

Taronga is committed to providing dignity, respect and the best care for its animals. To support this a new framework was developed for portraying wildlife with dignity and respect to provide guidance to staff, guests and the community. The framework was developed through extensive consultation with internal and external stakeholders over two years and applies to all aspects of animal care and animal-guest experiences. The framework is designed to position Taronga as a leading zoo and role model for the treatment of wildlife more broadly.

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For the first time in seven years, Taronga Zoo successfully bred the critically endangered Sumatran Tiger and welcomed three healthy cubs to first time mother Kartika.

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Accreditation and Tracking

Taronga successfully completed the Zoo and Aquarium Association (ZAA) Accreditation at both zoos, recognising Taronga as providing positive animal welfare for its animals. Taronga has also been a key player in the development of the ZIMS Animal Care and Welfare software. Both programs support Taronga to demonstrate that it provides positive animal welfare outcomes for its animals. The ZIMS Animal Care and Welfare software was launched in October 2018 and provides the capacity to record, monitor and track animals welfare parameters over time for any given animal or group of animals in a zoo population.

Exhibit Improvements

Major exhibit modifications were undertaken at Taronga Zoo to improve behaviour husbandry, animal welfare and guest experience for the Western Lowlands Gorilla, Sun Bear and Sumatran Tiger exhibits. A number of modifications were made to the exhibits to improve and increase species-specific behaviour with a focus on natural habitat landscaping and appropriate high vertical structures to provide animals with the opportunity to engage in behaviours typical in the wild. Behavioural data is continuously being collected to monitor the animals and how they are interacting with the new exhibit modifications.

PERFORMANCE INDICATORS	Target	Definition	2018/19
Wildlife at our Zoos are independently assessed as being in a positive welfare state	100%	Assessment is conducted of the wildlife on site. ZAA accreditation will be used until the Taronga tool is created and implemented	90%
Number of avoidable animal welfare incidents	5	Incident is assessed as avoidable by the Taronga Animal Welfare Committee	5
Animal welfare incidents are remediated within 24 hours	100%	Actions are implemented within 24 hours to begin to address a welfare incident or negative welfare assessment is addressed	100%
Number of wildlife rehabilitation cases	1,500	Number of cases treated at TZ and TWPZ	1,332

Taronga Zoo

The Wildlife team at Taronga Zoo continued to strive to be a leader in the care and presentation of wildlife. The focus remains on providing the highest level of care and welfare for the wildlife, while providing opportunities for guests to connect with and understand wildlife. Through this foundation of connection and understanding, Taronga aims to empower people to take actions to reduce threats to wildlife and ecosystems.

To continue to support and develop keepers’ knowledge and skills, Taronga engaged a global expert in behavioural husbandry. Behavioural husbandry focuses on how animals interact with their physical and social environments. Projects identified in this area included the Gorilla troop, Platypus care to improve outcomes in the breeding program and evidence-based enrichment for the Australian Sea-lions. The team met with the behavioural husbandry specialist every month to discuss opportunities, progress and challenges around implementation of the programs.

Maintaining Taronga Zoo’s exhibits to ensure they provide experiences that inspire guests to become custodians for the wild and the best environments for the animals is a priority for the team. This year four exhibit enhancement and modification were identified, these included Western Lowland Gorilla, Lemurs, Sun Bears and Sumatran Tigers exhibits. The exhibits were reviewed and modified to increase species-specific behaviour and add interest and engagement for guests. With a focus on natural habitat landscaping and the

addition of species appropriate high vertical structures, the exhibits provide the animals with the opportunity to engage further in behaviours typical of the wild.

The African Savannah redevelopment commenced construction in late 2018. A number of species had to be temporarily relocated in order to facilitate the redevelopment. The most complex of these relocations was the transfer of the Giraffe herd to a temporary facility at the heritage elephant temple exhibit. Planning for this procedure began 12 months prior focussing on animal training and logistics. A detailed training and conditioning program was developed with the goal of having each individual Giraffe cooperatively walk into a custom-built crate and be secured for the transport. Over a period of three days the three Giraffe were successfully transferred to the temporary exhibit. They settled well and training has commenced for the transfer back to the African Savannah once construction is complete.

Taronga Zoo achieved significant breeding results for the Regent Honeyeater and Plains-wanderer conservation breeding program. A total of 23 Regent Honeyeaters were hatched, providing the next generation for the Taronga-led breed for release program. Whilst eight Plains-wanderer chicks hatched, demonstrating growth in husbandry expertise for these birds that have been brought into the zoo as part of the species recovery effort.

Taronga Zoo’s Western Lowland Gorilla troop welcomed the birth of the first

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Taronga Zoo’s Western Lowland Gorilla troop welcomed the birth of the first female born at Taronga Zoo in eight years.
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female born at Taronga Zoo in eight years. This birth is significant for the Australasian regional program for this species.

Australian Sea-lions are endemic to Australian waters and their numbers in the wild are relatively low in comparison to other seal species in Australia. Responsible and holistic conservation and management of Australian Sea-lions requires zoos to develop strategies for the care of rescued animals, breeding and sustainable population management. Taronga Zoo has continued to focus its attention to breeding the Australian Sea-lion and this year Nala, a nine-year-old Australian Sea-lion gave birth to a healthy male pup. The pup is thriving and will be well placed to contribute to the regional breeding efforts for this species.

Other significant breeding successes at Taronga Zoo included Sumatran Tigers, Yellow-spotted Bell Frogs, Bellinger River Turtles, Meerkats, Southern Hairy-nosed Wombat, Koala, Red Panda, Short-beaked Echidna, Small-clawed Otter, Chimpanzee, Francois Langur and Cotton-Top Tamarin.



WESTERN LOWLAND GORILLAS — RICK STEVENS



Eastern Bongo calf – Rick Stevens

Taronga Western Plains Zoo

The Wildlife team at Taronga Western Plains Zoo is responsible for planning and managing up to 65 species, a number of these are listed as critically endangered. The past year saw a number of new additions to key species programs, some of these significant milestones.

Thirteen Scimitar-horned Oryx were born bringing the total number to 39, this is one of the few regional populations able to manage multiple male and female herds. Scimitar-horned Oryx are classified as extinct in the wild, making this growing herd essential for future conservation efforts to reintroduce this species to protected areas in Chad, North Africa.

The conservation breeding program for the critically endangered Addax has been a key focus with only 500 remaining in the wild. The Addax herd in Dubbo is currently at 21. Taronga has recently partnered with the Sahara Conservation Fund, which is leading the global recovery program back to range states for both the Addax and Scimitar-horned Oryx.

This year marked another successful year for Giraffe breeding with three calves born, two males and one female. A recently imported male and the three new calves bring the total number of Giraffe to 20.

Breeding success was also achieved for the Ring-tailed Lemurs with one male and two females born, bringing the group size to 13 animals. The Black-handed Spider Monkeys continued its breeding success with two males and one female born.

The Southern Black Rhinoceros program saw collaboration with the Charles Sturt University dental specialists, Taronga Western Plains Zoo veterinary team and keepers to formulate baseline markers for Black Rhino dental health. This is a ground-breaking program for the Black Rhino species worldwide.

The Lion Pride Lands precinct is currently home to two male and three female African Lions. Extensive management has occurred to facilitate multiple movements within the region over the past year. Taronga Western Plains Zoo has exported four males and received five females in total from two zoos in the region.

The Wild Herds exhibit has welcomed seven Takhi foals in the past year. The Wild Herds exhibit showcases this endangered species and tells the Takhi's conservation story of coming back from extinction in the wild.

The critically endangered Plains-wanderer conservation program at Taronga Western Plains Zoo has increased from six wild-caught birds to a total number of 13 birds. This includes seven wild-caught birds and six first generation zoo-born birds from Taronga

Zoo and Werribee Zoo. Their wild habitat in NSW unfortunately continues to suffer with one of the worst droughts on record.

The final stages of the pest eradication program are underway in the 110-hectare conservation Sanctuary. The Sanctuary is currently being prepared as a future release site for Greater Bilby. The current Greater Bilby population has increased from four to 18 individuals, with 10 individuals destined for release into the Sanctuary in the forthcoming year. The remaining Greater Bilbies will be retained as part of the conservation breeding population and supplement additional wild release areas.

The 14th of June 2019 marked the first birthday for Kanlaya the Asian Elephant calf. A traditional Thai blessing ceremony was held to celebrate the occasion, a custom that has been continued for all births in Asian Elephant herd. Kanlaya is a confident and gentle calf, she is learning the daily bath routine and in time will grow into an incredibly important member of the breeding herd. In February, the team sadly farewellled Asian Elephant Gigi, who was one of the zoo's most popular animals. At an estimated age of 58, Gigi succumbed to age-related symptoms and is missed by all.

The six Cheetah cubs born in June 2018 are currently being weaned. Males live together in lifelong coalitions whilst the females tend to be solitary. The three male cubs have

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One Eastern Bongo was born this year. There are less than 100 individuals left in the wild.

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recently been introduced to another young male of a similar age who arrived from Monarto Zoo, increasing the coalition to four and the total population of Cheetah to 18.

Two Oriental Small-clawed Otters were transferred to Rockhampton Zoo as part of the regional management strategy and a new breeding male was imported from Singapore. Otters are a social species and the new male quickly bonded with

Taronga Western Plains Zoo's female, which resulted in four pups born in May.

One Eastern Bongo was born this year, which is a highly significant breeding achievement for this subspecies with an estimated less than 100 individuals left in the wild. The birth supports the Australasian regional breeding program for this critically endangered subspecies.

The new Siamang Ape holding facility was completed earlier this year, which has been an exciting addition for the long-term resident pair. This multi-purpose facility enables winter housing and the ability for keepers to have close protected contact to enhance the husbandry and ongoing management of Siamang Ape on site.

Conservation Program and Population Management Program

Taronga Zoo and Taronga Western Plains Zoo participate in more than 60 breeding programs coordinated as part of regional or global species management programs, or directly contributing to wildlife agency endorsed species recovery actions. These programs are essential for maintaining the conservation value of zoo-based animal populations now and into the future.

In addition to participating in these programs, Taronga hosts 23 species management positions with Taronga staff coordinating these programs on behalf of the Australasian region. These staff receive training in small population management to guide animal transfer and breeding recommendations that consider genetic and demographic parameters and marry these against species biology and behaviour. With the Australasian Zoo and Aquarium Association overseeing just over 100 managed programs, Taronga's contribution of 23 coordinators is significant to the success of zoo-based conservation breeding programs.

Taronga's Commitment to Ethical Acquisition and Transfer of Animals

Taronga's Conservation and Population team is responsible for building sustainable animal populations that support Taronga's strategic objectives. The team coordinates the transfer of animals into or out of the two zoos. This year 62 animals were transferred

into Taronga across both sites and 80 animals transferred to other zoos and wildlife parks. A total of 2,735 frog eggs, juvenile frogs and turtles were released into the wild – these species included Northern and Southern Corroboree Frogs, Yellow-spotted Bell Frog and Bellinger River Turtles.

The Animal Transfer Policy was updated in 2018 and builds on existing commitments to include an ethical commitment to transfer animals to and from reputable organisations, to ensure Taronga maintains its position as an industry leader in ethical animal population stewardship.

Taronga Wildlife Hospitals

Taronga's veterinary teams are committed to providing the highest quality health care for the animals and wildlife admitted to Wildlife Hospitals in both Sydney and Dubbo. Delivery of the veterinary health program is a key component of Taronga's commitment to best practice animal welfare, biosecurity, conservation and science.

The Wildlife Hospitals at both Sydney and Dubbo operate under a veterinary calendar of preventative medicine, ensuring the health and well-being of animals is prioritised. Oversight of animal nutrition and housing is combined with the development of quarantine, vaccination and disease surveillance programs. Health assessment is scheduled for animals

Release Snapshot

Conservation and Population Management

2,735

frog eggs, juvenile frogs and turtles released into the wild



Breed Snapshot

Animal Births

36

births across both zoos

3	Tiger cubs	
3	Black handed Spider Monkey babies	
4	Oriental Small-clawed Otter pups	
3	Ring-tailed Lemurs babies	
13	Scimitar-horned Oryx calves	
1	Bongo calf	
7	Takhi foals	
1	Australian Sea-lion pup	
3	Red Panda cubs	
2	Short Beaked Echidna puggles	

throughout the various life stages, including at critical phases such as during growth and in old age. Additionally, Taronga provides consultancy services to other zoos and wildlife and welfare agencies.

Taronga Zoo

Significant achievements and collaboration with specialists this year include the treatment and care of Giraffe hooves and Asian Elephant feet, the diagnosis and successful management of heart disease in a Fennec Fox and the dental care for a Malayan Sun Bear. The team also were also involved in the management of osteoarthritis in aging Chimpanzees and the investigation and successful management of forelimb paresis in a Komodo Dragon.

The Taronga Wildlife Hospital contributes to and participates in a number of in-situ and ex-situ conservation programs. This year the team provided expertise in conservation medicine and wildlife healthcare for the Lord Howe Island rodent eradication program, monitoring the health and reproduction of Brush-tailed Rock-Wallabies in the Blue Mountains, tuberculosis management in Sun Bears and capacity building with Free the Bears in Cambodia. Other highlights include the application of a novel technique using elemental signatures stored in animal keratin to trace the provenance of wildlife to fight illegal wildlife trafficking in the Philippines and health assessments on Greater Bilbies translocated from Scotia Wildlife Sanctuary to the Pilliga region in NSW.

This year the Wildlife Hospital team participated in the NSW Koala Research Symposium. The team contributed to development of an online training course in wildlife treatment and rehabilitation for veterinarians in support of the NSW Koala Strategy.

Taronga Wildlife Hospital team members have contributed several academic journal papers and book chapters over the past year, including 11 chapters on medicine of Australian mammals. Taronga Wildlife Hospital also provides education and training opportunities for students and veterinarians from around the world.

Taronga Western Plains Zoo

Highlights from this year's preventative health activities included overseeing the provision of adequate colostrum to a newborn Asian Elephant calf, monitoring the growth and development of a Short-beaked Echidna puggle and immunisation of four Small-clawed Otter pups.

Accomplishments included early pregnancy detection via ultrasound in a White Rhinoceros and managing the pre-export quarantine period for five African Wild Dogs. A number of end-of-life care plans were developed for the zoo's oldest animals with professionalism, dignity and respect.

Prompt detection and appropriate treatment of medical problems is vital to ensure good welfare outcomes for both individual animals and conservation breeding populations. This year the team successfully performed an emergency caesarean on a Plains Zebra, treated a complicated foot problem in a Greater One-horned Rhinoceros, corrected a fertility related issue in an Eastern Bongo and expertly managed the delicate post-operative period in a young Cheetah following orthopaedic surgery. A collaboration was also established with specialists from Charles Sturt University to develop a technique for comprehensive examination of Black Rhinoceros teeth.

Education, research and mentorship are integral to the Wildlife Hospital's role. Veterinarians liaise with keepers on a daily basis and provide guidance and instruction in relation to animal health and welfare issues. This year the Taronga Western Plains Hospital team hosted veterinary science students for externships from James Cook, Murdoch and Copenhagen Universities and the Universities of Queensland and Sydney.

Wildlife Rehabilitation

The Taronga Wildlife Hospital rehabilitation programs provide a veterinary and rehabilitation facility for the assessment and treatment of sick, injured and orphaned free-ranging wild animals. Staff are highly experienced in the safe and humane handling and temporary housing of wildlife and in the diagnosis, management and treatment of illness. The interface with free-ranging animals and state-wide carer networks facilitates monitoring for significant emerging inland wildlife disease issues and trends. In partnership with Wildlife Health Australia, the Wildlife Hospital's work contributes to the National Zoo Biosecurity Surveillance database.

The Taronga Wildlife Hospital received 652 sick, injured and orphaned native animals for treatment and rehabilitation. These included 366 birds, 209 mammals, 72 reptiles, and five amphibians. These animals were brought to the Wildlife Hospital by government wildlife authorities, wildlife rescue groups, and local community members. Thirty-nine birds were banded at the time of release, with Australian Bird and Bat Banding Scheme metal bands, to enable post-release monitoring.

During the year 40 endangered marine turtles were admitted, including 24 Green Turtles, 15 Hawksbills and one Loggerhead Turtle. Ten turtles were released with satellite trackers, enabling Taronga to monitor their movements and survival after rehabilitation, and identify critical habitat for marine turtles within the Sydney basin.

The Taronga Western Plains Zoo Wildlife Hospital had over 680 admissions this year encompassing a wide variety of species. Mammalian and avian patients comprised 46% and 44% of admissions respectively, with native reptiles, amphibians and fish making up the remainder.

Patients originated from a large geographical area ranging from the Upper Hunter to far Western NSW, from sites affected by a range of threatening processes. These include residential and commercial development, habitat fragmentation, biological resource use, invasive species, direct human-wildlife conflict and climatic extremes including extended drought.

Situated at the forefront of advances in triage, emergency care and veterinary diagnostics, this year Taronga Western Plains Zoo's Wildlife Hospital trialled improved techniques for wild animal anaesthesia, pain relief and methods for minimising the stress of hospitalisation. Disease investigations included determining the cause of a fish mass mortality event.

Education of carers, trainee zoo keepers and veterinary students in wild animal welfare, zoonotic disease prevention and best practice wildlife management techniques is an important role for Wildlife Hospital staff. Outpatient clientele include wildlife rehabilitators from at least six different wildlife groups and staff respond regularly to wildlife-related enquiries from private practice veterinarians from around the country.

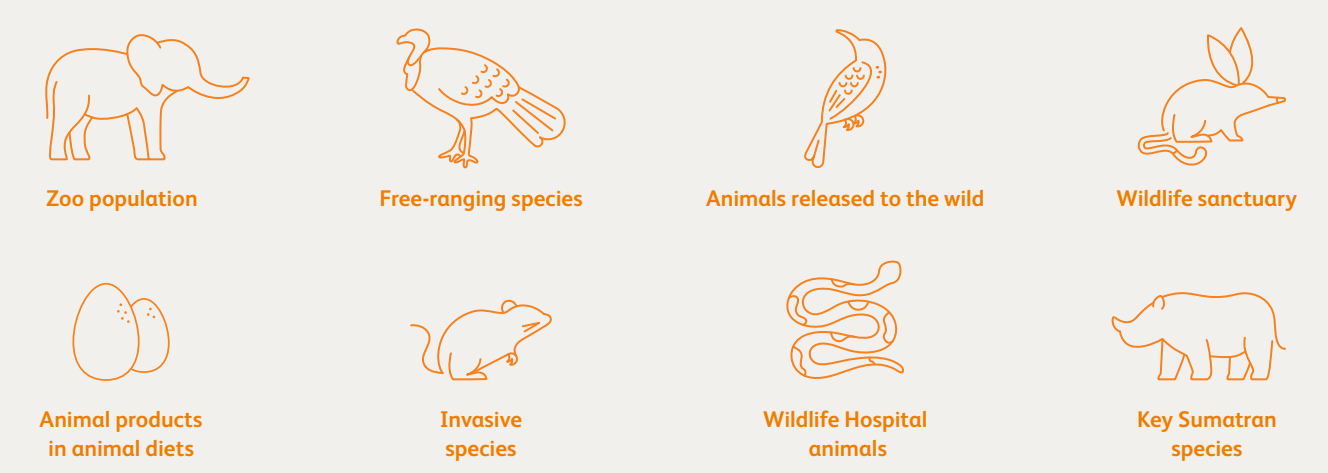




TURTLE RELEASE — TOBY ZERNA, THE DAILY TELEGRAPH

Taronga’s Welfare Responsibilites

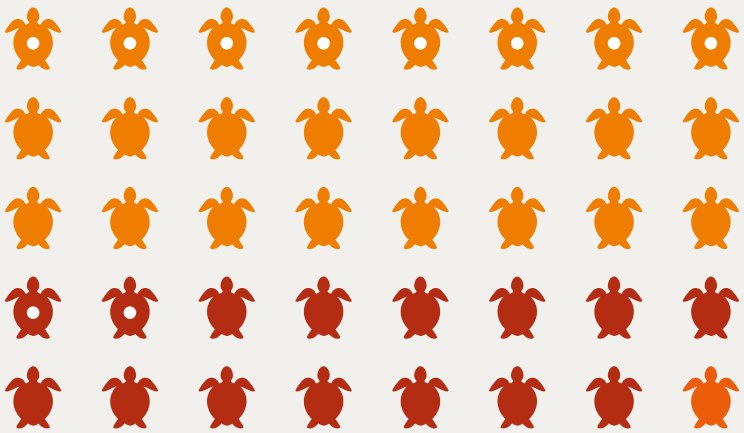
Taronga’s welfare responsibilites are varied and extend beyond just the zoo population.



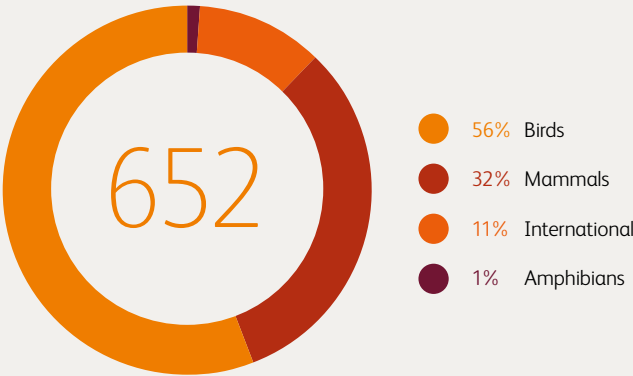
Marine Turtles Admitted to Taronga Wildlife Hospital

Green Sea Turtle	24
Hawksbill Sea Turtle	15
Loggerhead Sea Turtle	1
Turtles released with satellite trackers	10

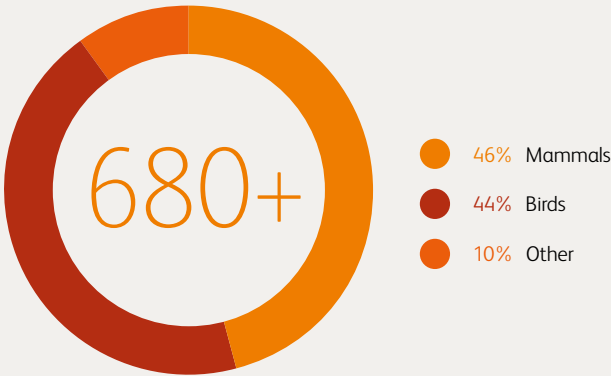
40 Total number of endangered Marine Turtles admitted



Total Animals Admitted to Taronga Wildlife Hospital



Total Animals Admitted to Taronga Western Plains Zoo Wildlife Hospital



EXCELLENCE *in* CONSERVATION EDUCATION

Increase participation and inspire action for the wild through innovative and authentic education programs

Key Achievements

New Ways of Learning

The opening of the Taronga Institute of Science & Learning has transformed education at Taronga Zoo. The new habitat classrooms, themed around a woodland, desert and rainforest environment combine cutting edge technology and animal exhibits. The immersive spaces provide a transformative experience by taking students to the animal's natural habitat providing a unique opportunity to interact with wildlife. In each room the animals move freely around the space and display natural behaviours which generates curiosity in the students.

The opening of the Taronga Institute of Science & Learning combined with a new marketing strategy saw the highest number of students on record attend Taronga Zoo for education programs. Since opening more than 30,000 students have attended education programs in the Institute and almost 20,000 students have taken part in workshops in the habitat classrooms.

Historic Alliance

History was created with the Taronga and University of Sydney alliance, the first of its kind in Australia. The alliance reflects the shared commitment to excellence in higher education, scientific discovery and practical wildlife conservation. Under the alliance, students can enrol in a Bachelor of Science / Bachelor of Advanced Studies (Taronga Conservation Science) or Master of Education (Taronga Conservation Education) completing a proportion of their studies at the Taronga Institute of Science & Learning. In the inaugural year, 44 students enrolled in the alliance courses with Taronga having contributed to the delivery of three units of study.

Helping At-Risk Youth

The Burbangana and Walanmarra programs provide strong cultural connections, ongoing engagement and career pathways for some of the state's most trauma effected and at-risk young people. The partnership between Taronga and Family and Community Intensive Support Services has continued to strengthen with one of the main objectives to increase training and employment opportunities for young people who have graduated the program. This year the first two participants were successful in gaining employment as Indigenous Guest Experience Officers at Taronga Zoo and Taronga Western Plains Zoo.

“

The opening of the Taronga Institute of Science & Learning combined with a new marketing strategy saw the highest number of students on record attend Taronga Zoo for education solutions.

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Commitment to Sustainable Seafood

The accolades continue to flow for Taronga's 'Seals for the Wild' presentation that was awarded the Marine Stewardship Council (MSC) Oceania 2019 Wave of Change – Public Engagement Award for the second year in a row. This award recognises the impact that Taronga Zoo has on engaging and inspiring guests about the importance of sustainability, the ocean and the wildlife it supports. Taronga Zoo also celebrated Sustainable Seafood Week (11–17 March) with daily giveaways during the week at the seal presentation, to bring further awareness to the public about changes they can make as individuals to help protect the ocean's wildlife.

10 years of Industry Leadership

The Taronga Training Institute celebrated 10 years of operation and was recognised for excellence in the delivery of accredited training in Animal Care and Management and Tourism. This included a Highly Commended in the Heidi Hellingman Award for Outstanding Service to Industry hosted by the Australia Society of Zoo Keeping. This award recognised the significant contribution the Taronga Training Institute has made through the delivery of training at both Dubbo and Sydney, and more recently its expansion to Perth Zoo and Zoos Victoria.

Teacher Professional Learning

Developing and delivering teacher professional learning has been a strategic objective for Taronga as a means of impacting a greater number of students in NSW. Last year Taronga delivered professional learning to over 1,500

teachers. The increased interest in onsite professional learning can be attributed to the opening of the Taronga Institute of Science & Learning, with an incredible 500% growth in course attendance this year.

Take a Google Expedition

Taronga through a collaborative partnership with the NSW Department of Education STEMshare Community and Google for Education, developed two virtual reality Google Expeditions to connect with a global education audience. Google Expeditions is a digital education platform and has had over one million downloads in the Google Play store alone. Teachers are now able to expertly guide students through captivating 360-degree panoramic scenes with embedded interactive points of interest all from their own classroom.

Challenging Students in Science Week

Status Critical: A Conservation Challenge at Taronga Zoo during National Science Week was created in collaboration with the University of Sydney and designed to highlight Taronga's Legacy Species. Over 450 students from Stage 2 to Stage 5 were engaged in a series of hands-on activities at stations around the zoo. The challenges were designed to help students understand the threats confronting animals and empowered students to identify conservation actions that positively impact threatened species.

Youth at the Zoo

The Youth at the Zoo (YATZ) program has increased membership numbers by 20% across Taronga Zoo and Taronga Western Plains Zoo. The program provides an opportunity for teenagers to become actively involved in Taronga's education, community and conservation projects. A particular area of focus for this program has been building capacity for special needs young people to participate in activities and more importantly be part of a positive and supportive youth network. In January 2019, a new youth program was trialled at Taronga Zoo for a young person with cerebral palsy. This specially designed program was created through strong stakeholder consultation with disability support services and psychologists to ensure inclusion, safety and ongoing delivery of this exciting new initiative.

Education

Taronga offers a range of education and learning programs for primary and secondary students through to tertiary, vocational and professional development. These programs are delivered on various platforms both onsite at Taronga’s two locations and as outreach programs within the community.

School Education Programs

All Taronga education programs are delivered by qualified teachers, including onsite staff provided by the NSW Department of Education, Catholic Education and Taronga Zoo. These leaders in environmental education work with various teams across Taronga to deliver cutting-edge programs in science, geography, sustainability as well as other key learning areas.

Taronga Institute of Science & Learning

With the opening of the Taronga Institute of Science & Learning, 2018/19 was a successful year for Taronga Zoo with school education visitation 11% above this previous year’s visitation.

Digital Engagement

Taronga’s education team has developed a range of digital initiatives to ensure all NSW students can access the wealth of knowledge, expertise and animals found at Taronga. The initiatives including Taronga’s LegacyLIVE series, Ask an Expert webform and Google Expeditions, allowing students to connect with Taronga from the comfort of their own classroom.

Teacher Engagement

To complement recent curriculum changes and the cross-curriculum priorities, a focus has been placed on developing and delivering teacher professional development courses both on and off site. Increased interest in onsite professional learning can be attributed to the opening of the Taronga Institute of Science & Learning with a 500% growth in course attendance this year.

Membership of the Taronga Teachers Association (TTA) increased by 10% in 2018/19. TTA is a membership group for teachers who want to become leaders in environmental education. Members have an opportunity to attend special events, including education preview days,

behind-the-scenes tours, video conferences and professional development courses.

ZooSnooz

ZooSnooz at Taronga Zoo had an exceptional year with a 38% increase in the number of stage 2–6 students taking part in the program. During the program, students enjoy exclusive night and morning walks, a behind-the-scenes experience and a workshop in one of the new immersive habitat classrooms. Students sleep at the concert lawn tent site or Backyard to Bush house accommodation. At Taronga Western Plains Zoo, ZooSnooz takes place in the immersive Billabong Camp, an authentic bush camp where students sleep in permanent tents and eat meals around a campfire.

Zoomobile

Zoomobile is an equity outreach program providing an educational animal experience to students who could not visit one of Taronga’s sites. This initiative supports the NSW Department of Education’s Regional and Remote strategy to ensure equity for all students. The Zoomobile services schools on day trips and spends three months delivering the successful Biological Diversity Study Days at the Royal Botanic Gardens in Sydney, Mount Tomah, Mount Annan, the North Coast Regional Botanical Gardens and Taronga Western Plains Zoo. The education team also deliver week-long country Zoomobile trips in partnership with regional environmental education centres to areas such as Thalgarrah and Warrambungles.

Project In-situ

In its 14th year, Taronga’s project-based learning conservation education program, Project In-situ, involved 2545 primary and high school students across 20 schools engaging their local community to help save locally threatened species. This year, students participated in projects targeting

“2018/19 was a successful year for Taronga Zoo with school education visitation 11% above this previous year’s visitation.”

the Little Penguin, Feathertail Glider, Regent Honeyeater and Plains-wanderer. Students were empowered to design STEM-based solutions for their locally endangered species. Working in-situ, students learnt about the species through hands-on activities such as bush regeneration and beach clean ups. Conservation experts provide valuable information with secondary school mentors guiding primary students. Since its inception, the program has positively impacted 15 threatened species and over 14,000 students and teachers.

Depth Studies

The introduction of Depth Studies into all HSC Science courses allows for students to delve deeper into a scientific concept of their choice and develop their working scientifically skills. Taronga has provided the opportunity for senior students to engage with educators, scientists and keepers to see science in action and learn about the work Taronga is doing to contribute to the recovery of many threatened species.

Work Experience

This popular vocational program continues to deliver strong learning outcomes for students at both our zoos, with 278 students undertaking work experience with Taronga this year. Students shadow and work with keepers across different divisions including native and exotic animals and the Wildlife Hospitals.

PERFORMANCE INDICATORS		2017/18	2018/19
People participating in Public / Outreach education programs	Taronga Zoo and Taronga Western Plains Zoo	48,041	52,882

Community and Cultural Programs

Community Zoomobile

In 2019, Taronga Zoo’s Community Zoomobile provided 41,000 preschool students, charities, community groups and aged facilities with a unique opportunity to connect to culture, wildlife and conservation. Delivered with Brewarrina elder, Colin Hardy OAM, Animals of the Dreaming was once again a highlight of this outreach program, bringing together music, song and storytelling to connect students and community to culture in a rich and meaningful way.

Youth at the Zoo

Taronga’s Youth at the Zoo (YATZ) program continues to provide more than 450 youth across both zoos with the opportunity to volunteer, mentor their peers and increase knowledge and skills around diversity, culture and conservation. This youth engagement program supports all areas throughout the organisation from community campaign activation, Vivid at Taronga, holiday programs and project in-situ. YATZ leaders and mentors were essential in designing and delivering education workshops throughout the school holidays, providing an increase in support and training for other members focusing on special needs, inclusion and cultural events such as Reconciliation Week.

Yarra’ Taylor Pathways Program

Through funding provided by Taylor Construction, the Community and Cultural programs team delivered an outreach program for young people to gain practical, career development skills in the area of horticulture and carpentry. This program brought together a number of different teams at the zoo as well as Taylor staff to develop and deliver a unique program. This helped young people in the program to build self-esteem, increase knowledge and strengthen cultural connection whilst upskilling young men with practical work experience.

Keeper for a Day

Taronga’s Keeper for a Day program provided many children, young people and adults the opportunity to work closely alongside keepers learning how to best care for Taronga’s animals and their habitats. This program also provided graduate Zoo Adventures children with the opportunity to continue their learning journey and experience with Taronga. In the last 12 months, Taronga’s Keeper for a Day has also increased in capacity, staff knowledge and skills to deliver day programs for young people with special needs.

Wildlife Workshops

This education program provided visiting international students a unique opportunity to learn about Australia’s amazing wildlife while focusing on English language skills and conservation outcomes. Through working closely with Taronga’s Wildlife Conservation and Research team, each program provided every group with a tailored, high-impact education experience. This year the program extended its reach to all stages and levels in student education and training.

Zoo Adventures ‘Wild Squad’

The Zoo Adventures holiday program continued to deliver a successful and engaging program for five to 12 year olds in the Taronga Institute of Science & Learning. The program has run every holiday period over the past 12 months at Taronga Zoo, with participants taking on daily missions, participating in craft activities and meeting keepers.

School Education Snapshot

Students at Taronga



118,000

students have attended **education programs** at Taronga Zoo Sydney and Taronga Western Plains Zoo Dubbo

20,000

students have taken part in workshops in the in the Taronga Institute of Science & Learning **habitat classrooms**

Teacher engagement

500%

growth in **Teacher Professional Learning** course attendance



18/19

17/18

10%

growth in **Taronga Teacher Association** membership



18/19

17/18

Taronga Training Institute

The Taronga Training Institute (TTI) is a Registered Training Organisation (RTO) and delivers certificate qualifications in Animal Care and Management and Tourism. Training is delivered at four sites nationally: Taronga Zoo, Taronga Western Plains Zoo, Perth Zoo and Zoos Victoria.

In 2018/19 over 850 people applied to study full qualifications with TTI. From this 300 students were enrolled with a completion rate of 80% for courses delivered in their entirety during the year. The completion rate for all students eligible to complete Taronga's flagship Certificate III Captive Animals course during the period was 77.6%. A further 125 students were enrolled in accredited Tourism part qualifications under the NSW Government's Targeted Priorities and Local Government Skills Strategy. Partner organisations included Dubbo Regional Council, Parramatta Council, Parramatta Library and the ANZAC Memorial.

“

300 students were enrolled with a completion rate of 80% for courses delivered in their entirety during the year.

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Key Achievements and Initiatives

- **Clear alignment between training and employment:** in a 2018/19 survey of TTI alumni, 78% identified that their studies with TTI contributed to their employment or appointment as a volunteer in their chosen industry.
- **Award recognition:** TTI was recognised for excellence in the delivery of accredited training in Animal Care and Management and Tourism within NSW and Australia through the following awards:
 - State Finalist in NSW Large Employer of the Year Award category hosted by NSW Training Awards
 - Shortlisted in NSW Trainer of the Year category (Elly Neumann) hosted by NSW Training Awards
 - Shortlisted in NSW Industry Collaboration category hosted by NSW Training Awards
- **Animal Care and Management training package upgrade:** TTI successfully transitioned its Certificate II Animal Studies and Certificate III Captive Animals courses to the new Animal Care and Management training package. This process has ensured that TTI courses continue to reflect best practice and the latest trends in animal husbandry, and provide the next generation of zoo keepers with the knowledge and skills required to be job ready.
- **Trainer and Assessor Professional Development:** TTI Trainers and Assessors completed an upgrade of their training qualifications in the past year as part of ongoing professional development. This ensures the continued delivery of exceptional, student-centred training.

Taronga – University of Sydney Education Alliance

Taronga commenced delivery of units of study in the Bachelor of Science / Bachelor of Advanced Studies (Taronga Conservation Science) and Master of Education (Taronga Conservation Education) courses in February 2019.

Students enrolled in the Bachelor of Science / Bachelor of Advanced Studies (Taronga Conservation Science) will graduate with expertise in wildlife conservation having completed studies in biodiversity and evolution, animal science, and animal behaviour and management. In the first semester of delivery under the Education Alliance, Taronga delivered 50% of the first year unit – Animals and Us. Within this unit, students attended six lectures and six practicals at Taronga Zoo making use of both the Taronga Institute of Science & Learning and wider zoo grounds. A further cohort of students attended a self-guided practical that was conducted over a one-week period as part of the first year unit – Life and Evolution.

The Masters specialisation has been designed to develop expertise in conservation science and contemporary environmental education theory, research and practice. Students will graduate

with the knowledge and skills to join the next generation of environmental influencers and educators. These students will lead the community to rethink the way we live and the impact we have on the environment. In the inaugural teaching semester, Taronga delivered the core unit – Understanding Conservation Science.

University Workshops

In 2018/19, students participating in university workshops at Taronga Zoo increased by 70% on the prior year demonstrating the unique contribution Taronga can make to student learning at the tertiary level. These workshops connect theory as it is studied in the classroom, with conservation science as it is practised at Taronga and out in the field.

Work Placements, Internships and Research Supervision

The Taronga team supervised more than 70 students to complete work placements, internships or research. This comprised of students from undergraduate right through to PhD and post-doctorate learning.

TRANSFORMATIONAL GUEST EXPERIENCES

Attract an increasing number of guests to our zoos and inspire action through experiences that increase knowledge and change people's attitudes and behaviours

Key Achievements

Leading the Transition to Sustainable Palm Oil

Taronga continues to lead the way to encourage companies to transition to sustainable palm oil. Taronga Zoo held a workshop for 25 participants from across the Australasian Zoo network to develop a road map for the next five years. The participants collaborated across key pillars of community, corporate, government, internal policy and labelling legislation. Taronga Zoo's Tiger Trek exhibit also celebrated reaching the milestone of 100,000 emails sent to Australian manufacturers and retailers, encouraging their transition to 100% Certified Sustainable Palm Oil (CSPO).

Access @ Taronga

Creating a special experience for guests with autism and their families at Taronga Zoo was at the core of the Access @ Taronga event. In conjunction with Autism Spectrum Australia, Taronga Zoo opened its gates early at 8am providing the opportunity for guests with autism to enjoy the peace and tranquillity of the zoo before gates open to the public. Additional experiences such as the bird and seal shows were arranged to accommodate the guests with special needs as well as round trips on the Sky Safari.

Reducing Queues

The introduction of a mobile ticket validation system has reduced the time spent queuing at validation points for guests' to gain entry to the Zoos. Staff are now able to validate tickets and allow entry via mobile devices. The initiative has significantly reduced queuing time in peak periods at Taronga Zoo by 18 minutes.

Going Digital

The Taronga Zoo and Taronga Western Plains Zoo apps both achieved high engagement, with downloads exceeding 10% of visitation respectively. Taronga also worked in partnership with Shazam to bring to life virtual keeper talks to improve the overall guest experience.

Project Cubs

The debut of the three new Sumatran Tiger cubs at Sydney created a high demand from guests eager to meet them. To provide transformational guest experiences, visitors were greeted with exclusive video content of the cubs, a special Taronga Talks podcast, extra presentations and Wild Squad activities to add value during peak periods and to further raise awareness for the Sumatran Tiger's plight in the wild.

“

Staff are now able to validate tickets and allow entry via mobile devices. The initiative has significantly reduced queuing time in peak periods at Taronga Zoo by 18 minutes.

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Centenary Theatre

Taronga's Centenary Theatre delivers conservation and wildlife messages in an exciting and engaging manner. Over 200,000 guests have visited the Centenary Theatre in the last year, with great feedback and over 90% satisfaction. The feature film, Wild Squad Adventures inspires 5–12 year olds to become future conservationists. The day-long program of shows includes animations, live keeper shows and short films, including the popular 'Super-smalls! Giant bug show'.

“

A continued focus on maintaining and increasing the Zoo Friends membership base saw member visits increase by an impressive 27% on the prior year with online ticket sales also continuing to show strong growth year-on-year.

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PERFORMANCE INDICATORS		2014/15	2015/16	2016/17	2017/18	2018/19
Satisfied guests as measured through satisfaction surveys	Taronga Zoo	92%	92%	91%	91%	91.2%
	Taronga Western Plains Zoo	79%	79%	82%	80%	89.31
Complaints per 1,000 guests (1)	Taronga Zoo	0.19	0.14	0.14	0.23	0.24
	Taronga Western Plains Zoo	0.49	0.62	0.62	0.38	0.42

1. Calculation excludes Twilight and Vivid attendees at Taronga Zoo and function guests at both Zoos.

*Total Visitation (Paid admissions and FOC) includes the following:

- 2. Includes Zoo Friends, paid education and overnight stays.
- 3. Includes function guests and Twilight Concert and Vivid attendees at Taronga Zoo.
- 4. Includes function guests at Taronga Western Plains Zoo.

Admissions

Taronga Zoo

Taronga Zoo once again recorded paid attendance in excess of 1.4 million guests* across the year, with total attendance in Sydney at almost 1.8 million**. Combined with attendance at Taronga Western Plains Zoo this saw Taronga exceed 2 million guests across its two locations for the second consecutive year. This is a remarkable achievement given the success of the previous year and can be attributed to the enduring appeal of Taronga Zoo and its market leading position.

The positive admission result was achieved through a well imbedded communications strategy, the continuing rise in international guest numbers, significant guest offerings including the hugely popular Dinosaurs exhibition over summer and solid overnight and event-based attendances. This result was achieved despite some very poor weather throughout the year, with the total weather-affected days nearly 50% up on the prior year.

*Includes All Paid Admissions and Zoo Friends, Paid Education and Overnight Stays.

**Paid and free-of-charge attendance including function guests, event attendees and Wild Ropes participants.

Taronga Western Plains Zoo

Taronga Western Plains Zoo had a successful year with paid visitation exceeding 230,000 and achieving growth on last year. Total visitation also exceeded prior year at almost 270,000, greatly assisted by strong local Zoo Friend members' visitation. The successful opening of the new Lion Pride Lands exhibit at the end of the prior year contributed to the overall positive attendance result.

The opening of the Wild Herds exhibit, a new experience featuring a deer walkthrough and replica Mongolian village setting overlooking Takhi continued to attract guests. A targeted marketing and promotional campaign in the lead up to the autumn school holiday period delivered record Easter long weekend and school holiday visitation. The June long weekend also saw strong visitation with guest numbers across the three days up 35% on the previous year.

A continued focus on maintaining and increasing the Zoo Friends membership base saw member visits increase by an impressive 27% on the prior year with online ticket sales also continuing to show strong growth year-on-year.



BIKE RIDING AT TARONGA WESTERN PLAINS ZOO — RICK STEVENS

Guest Experience

Taronga Zoo

The focus for this year has been on supporting the guest experience through improved way-finding, accessibility and improvements in the arrival experience through automating entry processes. Through the implementation of a number of improvements, Taronga Zoo aimed to ensure guests had the best possible experience.

During Taronga Zoo’s highest visitation summer period between Christmas and New Year, there was an emphasis to streamline the current guest ticket validation and lower entry ferry arrivals to expedite entry whilst decreasing queue delays at each entry point. As part of this process, the Guest Experience team implemented mobile ticket scanning using a pool of specially configured mobile phones capable of scanning and authorising entry for multiple ticket types. This process allowed staff to roam from the current fixed validation areas and process tickets in key areas, minimising queues.

The introduction of mobile ticket scanning has reduced ticket validation queues by 18 minutes, including the peak summer period. This is a substantial improvement to previous year’s results whereby 90% of the year saw delays in queue times.

The commitment to service delivery remains strong with an average guest survey result of 87% satisfaction for the helpfulness of staff. Taronga’s Guest Experience volunteers continue to exceed customer service expectations, playing a key role across the site contributing unique and immediate guest engagement opportunities through

Guest Learning and Interpretation

Taronga Zoo

Following the launch of the Taronga Institute of Science & Learning, a new specialised behind-the-scenes tour was created for National Science Week in conjunction with scientists and keepers to showcase the new Taronga Institute of Science & Learning. These tours continue to be delivered by Guest Experience volunteers.

The Centenary Theatre continues to be an engaging experience for guests with a refresh and new varied daily offerings. The program now includes the Wild Squad adventure film, Vivid Legacy Species animation, reptile keeper talk and Super Smalls Bug Show. This show streams live images from a microscope and webcam to feature three invertebrates, the Millipede, Phasmid and Huntsman Spider on the big screen.

Taronga Zoo’s peak summer period featured the *Rise of the Tarongasaurus*, an exhibition of large scale, animated dinosaurs. Guest learning opportunities were delivered through signage that interpreted each dinosaur and connected the prehistoric to present day.

To coincide with the arrival of three Sumatran Tiger cubs, Tiger Trek was updated with new interpretive signage, props and resources for staff and Youth at the Zoo volunteers for school holiday

special guided tours such as the Gold Tours and Aussie Walkabout Tours as well as Make-a-Wish experiences.

Taronga Zoo’s volunteers that support the guest experience also provided invaluable support and service across scheduled offerings delivering unique one-on-one experiences and openings for creating a conversation with guests about conservation.

Revised keeper talks and experiences, the launch of the new bug show in the Centenary Theatre and the introduction of free Institute of Science & Learning tour opportunities has also heightened the guest experience as well as contributing to meaningful conversations around behaviour change and conservation.

Taronga Western Plains Zoo

Taronga Western Plains Zoo’s guest services team have continued to enlist the assistance of volunteers to provide a meet and greet and information service to guests as they arrive at the zoo. These volunteers provide information on tours, encounters and keeper talks as well as general directions. The volunteers are friendly and welcoming, their presence has been a positive addition to the overall guest experience at the zoo.

In addition, the guest services team offered a number of additional encounters through peak periods to cater for the increased demand. These additional tours provide a greater opportunity to engage with guests during the peak periods.

periods. Tiger Trek was recognised by Interpretation Australia as the winner of the 2018 Awards of Excellence for Interpretation.

One of the key achievements was the increase of sustainability education across the site, including waste stream signage on bins, catering and packaging signage at the Forage and Graze cafés, as well as signage about the Litter Free Oceans campaign in the retail shops.

A range of updated and new interpretive signage and collateral was delivered throughout the year including an update for Platypus House, Koala Walkabout wayfinding and new entry experience, Squirrel Monkey, a major update for wayfinding, Floral Clock Native Bee, Ring-tailed Lemurs, Chinese New Year, Forest Adventure and Rainforest Trail, Koala Encounters, Capybara and They’re Calling on You at Gorilla exhibit. The digital experience on-site for guests has also been enhanced in partnership with Shazam, with virtual keeper talks now featured across the site.

This year Wild Squad continued to extend and build engaging experiences for children and families, to inspire and involve them in wildlife conservation both within the zoo and in their own lives. New Wild Squad missions were added to the Taronga App, supporting new interpretative signage and dynamic holiday activities facilitated by Youth at the Zoo volunteers.

“

Tiger Trek was recognised by Interpretation Australia as the winner of the 2018 Awards of Excellence for Interpretation.

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This year’s Vivid at Taronga focussed on human connections to the wild, from a single tree to our urban landscapes, the great outdoors to the outback, across the ocean to the exotic jungles afar and what guests could do to protect their wild backyard which was delivered through educational billboards and a projection show.

Other interpretive projects under the Centenary Plan include the development of guest learning and behaviour change narratives and resources for the Wildlife Retreat at Taronga, African Savannah and Upper Australia precincts.

Taronga Western Plains Zoo

The past year saw several key interpretation projects rolled out across the Taronga Western Plains Zoo including Ring-tailed Lemurs and Asian Elephants, as well as an update to the wayfinding and entry statement signage.

The Centenary Plan continues to progress at Taronga Western Plains Zoo with the Waterhole Cafe and water play area commencing construction. This project includes a number of interpretative elements to create a deeper connection with the animals and highlight a key community conservation program as well as provide improved way finding in the vicinity.

Zoo Friends

Following last year’s change to the Zoo Friends annual pass with two free child memberships included with every adult membership, Taronga maintained the substantial growth achieved in the prior year. This was achieved through a successful retention strategy combined with a fresh approach to acquiring new members.

As a result, Zoo Friends membership continued to remain strong with over 130,000 members recorded by the end of the year with growth particularly strong among members local to Taronga Western Plains Zoo.

In total, Zoo Friends made over 350,000 visits during the year, with many members attending exclusive events such as the Zoo Friends Christmas night and enjoyed VIP access and seating at the Bird and Seal Show. This was part of a new initiative to add even more benefits to the membership.

Dreamnight

On the first Thursday of December, Taronga Zoo and Taronga Western Plains Zoo provides thousands of special needs children, who are facing serious health issues or other challenges in their lives, a special Dreamnight experience at the zoo. In 2018, Taronga Zoo partnered with 16 charities, allocating 4,000 tickets to share with the children and families to have a once-in-a-life time experience exploring Taronga Zoo at night. Over 250 staff once again volunteered their time to provide an incredible night for these very special children and the families and carers who support them. Taronga Western Plains Zoo worked with local organisations providing over 200 special needs children and their families the opportunity to experience the zoo after hours. Staff and volunteers assisted to provide amazing and memorable experiences for all guests.

Visitation Snapshot

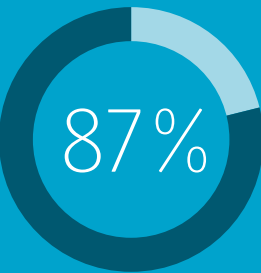
Admissions



2 million+

guests across the two locations for the **second consecutive year**

Guest satisfaction



guests surveyed were **satisfied with the helpfulness of staff**

Zoo Friends



130,000+

Zoo Friends members recorded by the end of the year

350,000

Zoo Friends visits during the year

ENGAGE *and* INFLUENCE

Engage, grow and mobilise our members, supporters and networks to achieve positive outcomes for wildlife

Key Achievements

Royal Official Opening

The world-class Taronga Institute of Science & Learning was officially opened on the 16th of October 2018, by Their Royal Highnesses the Duke and Duchess of Sussex. The official opening attracted widespread media coverage that sparked an international conversation about the incredible work Taronga is achieving in education and conservation both in Australia and globally.

The official opening event generated 2,284 total pieces of coverage across earned media and social, with a combined reach of one billion people. Taronga's own supplied imagery and footage along with Taronga Institute of Science & Learning messaging was used in 99% of the coverage.

Keeping Oceans and Rivers Litter Free

Plastic pollution is having a damaging impact on our marine and freshwater wildlife. Following on from the Litter Free Oceans program, the Litter Free Rivers program was launched with a focus on pollution in the river and freshwater systems. The targeted behaviour change and public education program encourages individuals, schools and businesses to reduce their plastic footprint through educational toolkits. Over 200 businesses and 1,000 schools have downloaded toolkits to date.

Taronga Foundation New Chairman

Following almost 19 years of support for the Taronga Foundation, during which time over \$100m was raised for conservation programs and the care of Taronga's animals, Maurice Newman AC stepped down from the role as Chairman of the Taronga Foundation. David Paradise AO has taken on the role of Chairman and

is a dedicated environmentalist and recent recipient of the Order of Australia (AO) for his service to the community for philanthropy, charity and business. David is committed to using his networks and influence to further the Taronga Foundation's endeavours to raise vital funds for conservation and lead future growth.

Wild about Wild Squad

Taronga's Wild Squad activation continues to grow from strength to strength, providing children with the tools and the skills to be advocates for the wild. This year, over 15,000 children have pledged to make positive changes for the environment, and have enjoyed a new Wild Squad Adventure Forest educational experience onsite.

Taronga Talks Podcast

Through sharing stories of wildlife and conservation, Taronga Talks podcast series aims to inspire change, by telling untold stories from behind-the-scenes at both zoos and the deep connections staff have with animals and the natural world. The Taronga Talks podcast has been listened to over 15,600 times across the 13 episodes that have been released to date.

Events and Fundraising

Engaging conservation advocates through events such as City to Surf, Zoofari Ball and CEO Challenge has been a key focus of the Taronga Foundation. Raising funds and allowing participants to learn first-hand about how their contribution enables Taronga to deliver vital conservation outcomes. The fundraising events raised funds for Taronga's vital conservation work in Australia and around the world.

“

Through sharing stories of wildlife and conservation, Taronga Talks podcast series aims to inspire change...

”

New Website Launched

Connecting guests with user-friendly information about visiting both zoos and the conservation outcomes being achieved, saw a new mobile-first designed website launched. The new website centred on providing an engaging and intuitive user experience with a strategic focus on a customer-centric and data-led approach to content and navigation, meeting the diverse and complex needs of the organisation.

Moment to Cherish

This year Taronga Zoo developed Project Engage, an initiative for all staff to support and interact with Taronga Zoo Friends and guests in meaningful and memorable ways. At the heart of the project was a concerted effort by staff to create pop-up guest interactions and spend time inspiring and assisting guests. Taronga staff approached guests to talk about various animals and projects, answer questions, take photos and inspire guests to become champions for the wild. This included encouraging specific choices that can make a world of difference to wildlife through Taronga's behaviour change campaigns.



PERFORMANCE INDICATORS		2016/17	2017/18	2018/19
Community Conservation	Number of Community campaign actions for the wild	31,884	81,408	137,191

Community Conservation Programs

Taronga’s community conservation programs aim to inspire and motivate individuals, schools and businesses to choose behaviours that support wildlife conservation and environmental sustainability.



Raise Your Palm

Driving the transition towards a responsible palm oil industry.

Taronga’s Tiger Trek aims to raise awareness about the benefits of sustainable palm oil and leverage action from guests to encourage companies to transition to 100% Certified Sustainable Palm Oil in their supply chains.

Through the Choice Mart supermarket experience at Tiger Trek, guests have sent 103,000 emails to retailers and manufacturers, raising their palm for critically endangered Sumatran Tigers.



Beads for Wildlife

Supporting people living side by side with wildlife in Northern Kenya through alternative and sustainable incomes.

The sale of beadwork through the zoos’ retail outlets provides communities in northern Kenya with a source of income, in turn reducing human-induced pressures on wildlife such as poaching and habitat destruction.

This year, Taronga sold almost 10,000 beaded products across both zoos with all profits returned to the crafts-women and their communities.



Wildlife Witness

Combating illegal wildlife trade for greater protection of wildlife around the world, including Sun Bears, Elephants and Rhinoceros.

The Wildlife Witness smartphone app has had over 18,000 downloads, resulting in the reporting and intervention of sales of species such as Pangolins, Hornbills and Slipper Orchids across Southeast Asia.

Taronga’s ongoing partnership with TRAFFIC Southeast Asia supports their enforcement program and Wildlife Crime Analyst.



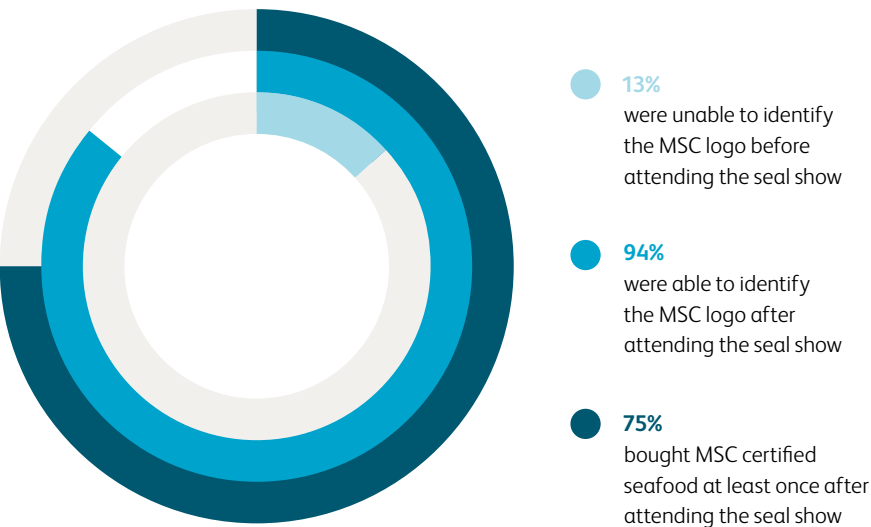
They’re Calling on You

Recycling mobile phones to reduce landfill and support primate conservation.

Taronga has partnered with a new mobile phone recycler, PhoneCycle. Since the commencement of this new partnership, more than 4,000 mobile phones have been diverted from landfill.

This is in addition to the 50,000 mobile phones that have been reused and recycled through the campaign, which has now generated over \$86,000 in support of the Jane Goodall Institute Australia’s primate conservation work in the Maiko-Tanya Kahuzi-Biega ecosystem in the Democratic Republic of Congo.

Impact of Taronga’s Seal Show



Fish for Good

Promoting a healthy future for marine life by encouraging sustainable seafood choices.

Taronga’s seal show continues to encourage guests to choose MSC-certified seafood, educating over one million guests each year. For the second year in a row, Taronga was awarded the Marine Stewardship Council’s Wave of Change award for Public Engagement.

Each year 750,000 guests attend the Seal Theatre, of this only 13% recognised the MSC logo prior to viewing the show. This compared to 94% who were able to identify the MSC fish tick as the logo representing sustainable seafood following attending the show.

In follow up research, 75% of seal show guests indicated they had bought MSC-certified seafood at least once and 90% believed they as individuals could do something for the conservation of wild seals.



Litter Free Oceans

Encouraging individuals to understand their environmental impact and empowering schools and businesses to reduce their plastic use for the benefit of marine life.

The Litter Free Oceans campaign allows individuals to calculate the number of avoidable single-use plastic items they use in a year. Over 1,000 people have calculated their impact and 830 schools and 230 businesses have signed up for Taronga’s free educational toolkits, providing practical tips and resources. This campaign was made possible thanks to grants from the NSW Environment Trust Education Program and Australian Ethical.

Community Conservation Programs Snapshot

Litter Free Oceans

830

schools signed up for educational toolkits

230

businesses signed up for educational toolkits

Wildlife Witness

18,000

people downloaded the Wildlife Witness app

They’re Calling on You

50,000

mobile phones have been reused and recycled through the campaign

Beads for Wildlife

10,000

beaded products sold with all profits going towards crafts-women and their communities in Northern Kenya



Taronga Institute of Science & Learning Launch – Rick Stevens

Communications and Media Relations

Taronga enjoyed support from the media throughout 2018/19 with traditional, digital and social media used to communicate Taronga's conservation messages and vision, and to highlight community education programs and events.

It was an incredibly successful year for Taronga in the media sphere, with major editorial placements in publications ranging from the Australian Financial Review, Good Morning America and National Geographic. The official opening of the Taronga Institute of Science & Learning by their Royal Highnesses the Duke and Duchess of Sussex, sparked an international conversation about Taronga. Following the opening over 2,500 pieces of media coverage was achieved domestically and internationally, reaching over one billion people across all media platforms.

Other highlights include the announcement of the historic alliance between the University of Sydney and Taronga. The story achieved national coverage in the Australian Financial Review and the Australian, and also appeared in the Sydney Morning Herald, Brisbane Times, the Age and Canberra Times.

During summer, Taronga Zoo's *Rise of the Tarongasaurus* exhibition achieved strong media coverage with front-page and double-page spread editorial across metropolitan publications in Sydney as well as online and television coverage.

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The issue was devoted to raising awareness of the Taronga Institute of Science & Learning and profiled several of female scientists at the forefront of Australia's conservation movement...

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In lifestyle media, Taronga Western Plains Zoo, featured on the cover of the luxury fashion magazine, Harper's Bazaar. Taronga Western Plains Zoo was showcased as the location of a six-page editorial spread, with Australian supermodel, Gemma Ward. The issue was devoted to raising awareness of the Taronga Institute of Science & Learning and profiled several of female scientists at the forefront of Australia's conservation movement in a thought-provoking editorial, Leaders of the Pack.

Taronga announced the birth of three critically endangered Sumatran Tiger cubs which sparked international and national acclaim from media outlets across news, environment, conservation, science and lifestyle media.



HARPER'S BAZAAR – GEMMA WARD

PEOPLE *and* ORGANISATIONAL STRENGTH

Support and enable our people to achieve Taronga's vision and strategic objectives

TARONGA FELLOWSHIP AT NORTHERN RANGELANDS TRUST IN NORTHERN KENYA — MIGWA NTHIGAH

Key Achievements

Utilising Mobile Technology

Taronga introduced 'StaX' – an experience mobile app for employees to focus on simplifying processes, enhancing the zoo end user experience and integration with back-end systems for straight forward processing via mobile technology. The trial version of the app was released to Taronga Zoo employees in March 2019 and included features such as safety messaging, digitised annual leave applications, procurement requisitions, employees directory and emergency code alerts.

Feedback from employees have been extremely positive and the app has been used to lodge over 1300 leave requests and purchase requisitions. It has provided essential information to employees with over 26,000 views in the first two months of operation.

Procurement Made Easy

A procurement intranet site was introduced to Taronga to facilitate all aspects of procurement. The microsite was designed to make the end user procurement journey hassle-free by having very clear sections, good search bar capabilities and the use of simple non-technical language. The procurement microsite is a single place where all policies, procedures, templates and important information can be found.

SAP Project Elevate

Taronga's growth and diversification requires excellent data analysis to support the broad range of commercial, education and conservation activities. Currently access to data and ease of analysis is limited and not available on timely basis. Taronga has a new partnership with its sponsor SAP to uplift core business systems to continuously updated cloud systems for finance, procurement, payroll and human resources. The project will provide current and continuously updated cloud systems for Taronga's new phase of commercial growth, as well as expanded education and conservation programs.

Birany and Malungan Programs

Through the successful recruitment and on boarding of six Indigenous Guest Experiences Officers at Taronga Western Plains Zoo, capacity was created to increase opportunities for Aboriginal students to participate in Community and Cultural programs. The Birany and Malungan Programs are funded by Taylor Construction and are culturally led programs that help re-engage students back to school through mentoring from zoo employees in a particular area if interest. Each young person was provided with an opportunity of ongoing support and training whilst building trust and re-connecting with their cultural identity.

System Upgrades

Taronga's core ticketing solution Centaman was upgraded this year alongside the implementation of newly developed online ticket and membership web stores. This upgrade provided the implementation of solutions for sales, tours and experiences, partner tour operator integrations and reporting enhancements. The new general admission web store has processed over 80,000 (\$8.88m) transactions to date and Zoo Friends Membership web store over 6,700 transactions since launched in February 2019.

TarongaRISE

A key strategic target for Taronga was to demonstrate visible work health and safety (WHS) leadership. The TarongaRISE WHS leadership training was developed to ensure the senior leadership team had the knowledge and skills to implement TarongaRISE, Taronga's safety management system. The training provided clear guidance on duties of officers and outlines the requirements of the safety management system to maintain a positive safety culture. A 100% satisfaction rate on the learning content was achieved from attendees.

Promoting Mental Health

A healthy work-life balance is critical to mental health and Taronga recognises the need to manage risks in the workplace that may lead to psychological injury. Since July 2018 Taronga has undertaken various initiatives to create a mentally healthy workplace. These include training 38

employees to apply mental health first aid and provided mental health masterclass training to 17 managers and supervisors. Seven lunch and learn workshops for employees and volunteers were also held on how to prevent and manage mental health.

Scholarships and Fellowships

Taronga's Len Bleasel AM Scholarship program is awarded to employees for the opportunity to complete additional studies or gain experience through formal education or field trips. Mr Len Bleasel AM was the Chairman of Taronga from 1996 to 2015 and has generously supported this program for the last three years. The 2019 recipients range across a variety of studies from project management, volunteer management, horticulture, tertiary education and support for a PhD in animal nutrition.

eLearning for Volunteers

Taronga has been rolling out a suite of eLearning modules for volunteers. All new volunteers are now required to complete a number of eLearning modules including work, health and safety, animal welfare, emergency awareness, bullying and harassment and code of conduct. The volunteer eLearning modules are now inline with training for employees and are being rolled out to existing volunteers as well. Through intensive support and communication Taronga Zoo volunteers currently have a completion rate of 94% for eLearning modules.

Getting Social with Workplace

Workplace by Facebook is Taronga's internal communication platform and has proven a successful tool that encourages organisational and divisional connections. In March 2019, Taronga marked one year with Workplace and it is evident teams are enjoying the sense of community it creates and the ability to share stories and achievements across both sites. Taronga teams have access to presentations and talks through live streaming and continuous updates on conservation projects in the field. Taronga was a finalist in the 2019 Workplace Transform Awards for Best Cross Function Collaboration. Highlighting the value of being able to share information on projects that contribute to Taronga's vision.

PERFORMANCE INDICATORS		2014/15	2015/16	2016/17	2017/18	2018/19
Severity Rate	Lost time injury frequency / workplace injuries for both zoos	7.04	5.99	3.88	3.97	3.73 (inc. contractors)
Employee Turnover	Taronga Zoo	7.99%	10.70%	9.03%	13.19%	20.34%
	Taronga Western Plains Zoo	3.49%	10.90%	3.26%	9.28%	19.75%

Volunteer Programs

Volunteer programs this year saw 650 volunteers assist with a variety of roles from guest experience through to administration and keeper volunteers across both sites at Taronga.

Across all roles, Taronga volunteers contributed over 134,000 hours of service.

Volunteer Recruitment, Induction and Support

Taronga’s volunteer program team continued to work closely with the over 50 employees members who coordinate volunteers in their teams. This involved supporting recruitment, recognition, induction, performance management and development.

Recruitment for a number of new volunteer roles was coordinated at Taronga Zoo following the opening of the Taronga Institute of Science & Learning. Additional volunteer positions were created in the Wildlife Hospital laboratory, Conservation Science division and the expansion of animal observation teams. A new supported role in the animal presentation precinct and 40 new Dinosaur event volunteers were also recruited.

Volunteers continued to demonstrate their engagement and commitment to Taronga, opting to attend additional training sessions, take part in wombat breeding monitoring, Regent Honeyeater habitat tree planting days, eucalypt plantation working bees and beach clean ups.

Public Engagement

Over 3,500 people have signed up to an online database to express their interest in volunteering with Taronga. In anticipation of the keeper volunteer recruitment, two information sessions were conducted with over 200 people in attendance.

Guest Experience Volunteers represented Taronga at the Mosman Council Retirement Expo as well as taking part in an informational video for retirees on how to get involved in your community through volunteering.

Volunteer Development

Taronga continued to integrate the National Standards for Volunteering to ensure best practice in volunteer management across Taronga. This involved undertaking a review and re-alignment of Taronga’s volunteer on-boarding, exiting and recognition processes. The team also attended the National Volunteering Conference 2018, standardised role descriptions, and continued involvement with the Sydney Cultural Institutions Volunteer Managers Network.

Volunteer Feedback

Volunteer communication and feedback continues to be a focus area. Through exit feedback, frequent divisional surveys and the annual People Matter volunteer survey in alignment with the NSW Government employee survey, allows volunteers to provide feedback, suggestions and ideas to help shape the volunteer experience.

The establishment of a Guest Experience Volunteer Engagement Committee has enabled direct communications between management and the Guest Experience volunteer cohort.

The results from the feedback opportunities highlight a continual improvement in volunteer engagement and satisfaction at both sites, and directly influenced Taronga’s objectives for the coming year.

DIVISIONAL VOLUNTEER NUMBERS	
People, Culture and Learning	7
Guest Experience, Education and Community Programs	222
Marketing, Fundraising and Commercial	9
Wildlife, Conservation and Science	281
Property, Infrastructure and Operations	8
Corporate Services and Governance	3
Taronga Western Plains Zoo	119
Total Volunteers	649



VOLUNTEER WITH BLUE TONGUE LIZARD



Phoebe Meagher, Pathology Assistant in the Conservation Science lab – Ogilvy

Human Resources

Over the past 12 months Taronga has reviewed its organisational and executive structure resulting in a significant restructure across all divisions. The Human Resources team strategically evaluated divisional operations and role descriptions to ensure the restructure aligned with Taronga's core vision.

During the course of the year Taronga recruited 101 new employees. This ensured employees received development throughout their careers enabling them to apply for open positions within the organisation. This year 46 employees were appointed into roles which were a higher grade to their original position. An additional 25 current casual and temporary employees were gainfully employed into ongoing employment. Taronga remains committed to developing and retaining its employees whilst also maintaining a rigorous, merit and capability based recruitment and selection process.

Taronga continued to review and develop internal processes throughout this year, including:

- Reviewing the internal employee awards process resulting in a number of changes, which has seen a positive increase in not only the quantity of nominations but also the quality.
- Taronga's annual employee recognition and awards evening was another great success in October 2018. The Human Resources team steered the Silver Shovels committee to assist in planning the event. This brought employees across multiple divisions together with different expertise to successfully deliver the event.
- Multiple workshops were also coordinated and delivered with external corporate partners that focus on employee remuneration and benefits. These included superannuation, private health cover and banking workshops to educate employees and volunteers on important aspects of their working and personal life.

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The 2018 focus areas were around strong leadership, the Taronga BASIC values, clear and consistent communication through continued use of our successful Workplace social media platform.

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People Matter

The NSW Public Sector engagement survey People Matter, allows employees to have a say about their experiences within their workplace as well as working within their team and manager in the organisation.

Taronga's 2018 survey achieved a 62% response rate and engagement of 78%. The survey defines engagement as employees having “a sense of personal attachment to their work and organisation; they are motivated and able to give their best to help the organisation to achieve”. The 2018 key focus areas include strong leadership, the Taronga BASIC values, clear and consistent communication through continued use of our successful Workplace social media platform. Strengths acknowledged in the survey included our steps in the diversity and inclusion space, as well as overall employee engagement with the organisation and their engagement with their work.

Learning and Development

The organisational development and learning team have designed and supported a number of programs over the last 12 months.

- The on-boarding program has seen almost 300 volunteers and 257 employees complete their eLearning package, and more than 50 employees participated in the meet and greet sessions.
- The team have facilitated 13 workshops, topics include time management, constructive conversations, DISC (communication style) team workshops, meet and greet and Leading For the Wild sessions.
- Taronga's eLearning modules have a new look that provides a better user experience giving the user the ability to move through the modules at a much quicker pace. This transition process has allowed the team to update many modules including the on-boarding packages for employees and volunteers.
- Workplace by Facebook continues to be an engaging communications tool across both of sites at Taronga. It provides the ability to live stream team updates, share behind-the-scenes action and opportunities to recognise team achievements. Part of this includes a weekly 'What's new on Workplace' email that highlights the trending posts of that week.
- Development and roll-out of a new look onboarding eLearning package – these six modules are sent out to all new starters, both employees and volunteers. This ensures a consistent understanding of the role of Taronga and the role of the new team member.

Employee Recognition

Taronga continues to recognise the efforts of people and teams through many formal and informal initiatives. In October 2018, 277 guests celebrated and recognised significant individual and team contribution at the 'Science' themed Silver Shovels Awards night held in the Taronga Institute of Science & Learning. The Directors Awards for Taronga Zoo were presented to Ted Kettle, Asset Operations Manager and the Taronga Institute of Science & Learning immersive classrooms team. For Taronga Western Plains Zoo, Jodie Kubski, Operations Manager was awarded for her individual effort, whilst the team award was presented to the Sanctuary and Plains-wanderer breeding team.

Equal Employment Opportunity

Taronga understands the importance of equal employment opportunity and anti-discrimination in the workplace. Taronga continues to develop and promote eLearning modules as part of on-boarding and ongoing programs, including an anti-bullying and harassment module.

Taronga is committed to training for teams in Aboriginal Culture Awareness and Supporting Aboriginal Staff, these will set the foundations as part of the Wildlife Retreat at Taronga, providing a safe cultural space for our Indigenous people. In addition, Taronga hosted a forum with Australian Human Resources Institute and Work Science on Effective Diversity Programs in the Taronga Institute of Science & Learning and was able to share some informative insights in this space.

Taronga supports the Women in Senior Leadership Mentoring Program with Cassandra Long and Bettina Sammut participating in this program. Additionally, four other Taronga employees are participating in the Lean In Circle groups where employees from the cluster get together to discuss professional development topics. This year Taronga also acknowledged International Women's Day with a team lunch and panel discussion with five women from various teams around Taronga.

Taronga is working towards implementing flexible working arrangements across the organisation and is focused on the approach of 'Works for me, Works for Taronga'. Flexible working supports diversity and inclusion, and feedback from the People Matter employee survey communicated that this working environment can also improve staff morale, motivation and productivity. Taronga has run workshops and are in the final stages of developing policies and guidelines for employees wishing to apply for a flexible work arrangement.

Taronga Disability Action Plan

Taronga actively participates on the Department of Planning Infrastructure and Environment Steering Committee that focuses on the cluster’s Disability Inclusion Action Plan 2015–19, ensuring we continue to progress with the commitments captured in it. Access Taronga is a successful event working with Autism Spectrum Australia where Taronga welcomes guests with autism and their family and friends to enjoy early entry to Taronga Zoo. Access Taronga is a great opportunity for guests to enjoy the peace and quiet of the Zoo before it opens to the general public.

Taronga is focused on the internal capacity of its Human Resources team and on increasing its ability to provide reasonable adjustments throughout the recruitment process and ensuring a safe environment for candidates and employees.

Taronga also ensures information about training and development opportunities is accessible and compliant with Web Content Accessibility Guidelines (WCAG 2.0 AA) standards.

Accessibility forms a part of any capital works project at Taronga. With many new developments underway, such as the Wildlife Retreat at Taronga, new animal exhibits and office upgrades, these always included:

- Disabled amenities
- Accessible walkways and lifts
- Modified equipment and work stations for students and employees

Taronga will continue to champion and develop processes to support and remove any barriers to inclusion and accessibility through various initiatives planned in the coming year.

Work Health and Safety (WHS)

Through visible work health and safety leadership and consultation with employees, Taronga continues to lower the risk of injuries and illness. Taronga’s risk management framework focuses on the higher levels of control, looking at innovative prevention rather than reactive action. As a result, Taronga’s hazard and near miss reporting has increased by 96% and incidents have reduced by 32% since 2017. The asset management team continue to focus on greater investment in implementing critical safety controls resulting in ongoing improvements of Taronga’s assets and safer work practices.

Key Initiatives

Taronga’s health and wellbeing program is built on the belief that physically and mentally healthy employees are more productive, engaged and exhibit lower absenteeism and presentism trends. To further embed this into Taronga’s culture, mental health masterclass training has been delivered to 17 supervisors and leaders at Taronga Zoo, focused on supporting and managing employees with mental health. A total of 38 employees across both sites have attended Mental Health First Aid Training and 67 employees attended the Healthy@Work program which is comprised of six ‘Lunch and Learn’ sessions addressing mental health and resilience, the

“Taronga supports the commitment to increase the proportion of women from culturally and linguistically diverse backgrounds in leadership positions.”

Other Multicultural Themes 2018/19

Improving Outcomes for Women in Leadership

Taronga supports the commitment to increase the proportion of women from culturally and linguistically diverse backgrounds in leadership positions. This forms part of Taronga’s Diversity and Inclusion strategy. Taronga has a range of identified and targeted roles through the Wildlife Retreat at Taronga that will support these initiatives.

Services for Humanitarian

Taronga has inclusive strategies that target all employees, volunteers and students. Taronga is proud to support refugee and not-for-profit organisations by providing access passes that can be used for humanitarian community groups to experience Taronga for free. Taronga held an Eid Festival to support culturally diverse and humanitarian causes at a significantly discounted rate.

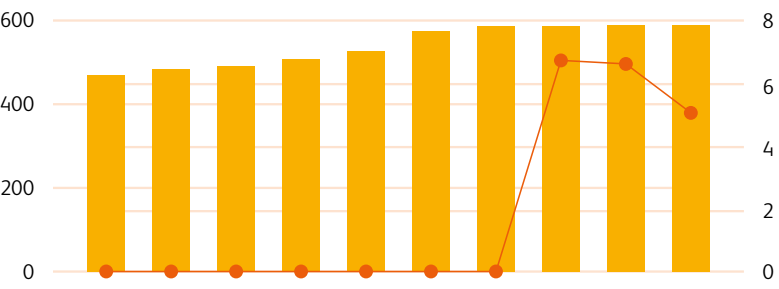
importance of exercise and work/life balance. Physical risks have been mitigated through ergonomic and workplace assessments for in excess of 80 employees. These assessments include manual handling training across both sites and the assessment and mitigation strategies to reduce the risk of hazardous manual tasks.

Prioritising health and wellbeing as a fundamental part of Taronga’s culture has seen monthly awareness campaigns and team events showcasing R U OK? Day, World Mental Health Day and supporting initiatives such as Move in May, Movember, Diabetes, Healthy Heart & Kidney weeks, Dry July and Quit Smoking. With strong support from our leadership teams, health and wellbeing initiatives have been well received and attended across both sites with positive feedback from employees.

Worker’s Compensation and Injury Management

There were 250 near-miss and incidents reported in 2018/19, of which 31 resulted in worker’s compensation claims. Three of these compensation claims were lost time injuries. Analysis of the compensation claims accepted in 2018/19 shows the majority of the injuries (23%) were falls, trips and slips followed by body stressing. These results were down from last year.

Claims per 100 FTE



Incidence rate per 100 staff – FY17/18: **6.60**
Incidence rate per 100 staff – FY18/19: **5.08**

Causation Factors

The causation factors from worker’s compensation claims

CAUSATION FACTOR	2016/17	2017/18	2018/19
Falls, trips and slips	29%	22%	23%
Body stressing	20%	26%	17%
Hitting objects with a part of the body	13%	12%	13%
Being hit by moving objects	13%	18%	33%
Vehicle incidents and other	10%	13%	10%
Chemicals and other substances	10%	0	4%
Heat, electrical and other environmental factors	3%	0	0
Mental stress	3%	0	0

Notifiable Incidents

Taronga Zoo notified Safe Work Australia of one incident relating to a laceration. The regulators did not investigate the incident but provided insightful advice to assist with implementing better work practices and controls.

Taronga Western Plains Zoo notified the regulators of a sub-contractor who fell from a height of greater than two metres. The incident was investigated and the sub-contractor was issued a prohibition notice.

Spotless notified Safe Work Australia of a dangerous occurrence relating to an object falling from a height. The regulator did not investigate but directed Spotless to undertake a risk assessment to implement better controls.

Improvement Notices

Taronga Western Plains Zoo were issued an improvement notice arising from the sub-contractor fall from height. The improvement notice was in relation to contractor induction, requiring Taronga Western Plains Zoo to update their procedure in line with their new software induction program.

Taronga’s People Snapshot

Volunteer Programs



650

Taronga **volunteers**



134,000

hours of service contributed by Taronga volunteers

Work Health Safety



96% ↑

increase in **hazard and near-miss reporting**

2018/19

2017

32% ↓

decrease in **incidents** since 2017

2018/19

2017

FINANCIAL *and* ENVIRONMENTAL SUSTAINABILITY

Continuous improvement and integration of financial and environmental sustainability

KOALA AT THE TARONGA INSTITUTE OF SCIENCE & LEARNING — OGILVY

Key Achievements

Taronga Now Carbon Neutral

To reduce Taronga's impact on climate change, a commitment was made to accelerate the carbon neutral certification. In December 2018, both Taronga Zoo and Taronga Western Plains Zoo were carbon neutral certified – six years ahead of the target. Taronga is actively reducing emissions year-on-year with a multi-stage plan to develop viable energy efficiencies and renewable energy opportunities across both sites. The remaining greenhouse gas emissions are offset towards habitat conservation and rehabilitation projects and offsite renewable energy generation. These projects provide broader benefits towards the conservation of Koalas and Regent Honeyeaters.

Record Breaking Major Events

This year Twilight at Taronga experienced its fastest selling season, a major achievement in the 24 year history of the event. An unprecedented 11 out of 15 shows at the annual event achieving sell-out status. The New Year's Eve festivities also attracted record support with the greatest number of people to date celebrating onsite at Taronga, contributing vital funds to the Taronga Foundation.

Regional Success

Taronga Western Plains Zoo enjoyed a strong year with general admission and overall visitation achieving growth on the prior year. The autumn school holiday period saw over 28,000 guests experience the zoo during the two week period, 43 per cent higher than the same school holiday period the previous year. The new exhibit developments of Lion Pride Lands and Wild Herds along with a large number of animal births continue to be a drawcard for visitors to Taronga Western Plains Zoo.

“

The Taronga Institute of Science & Learning has achieved the highest rating available under the Green Building Council of Australia – a six star GreenStar rating.

”

Expansion of Solar Energy

Electricity makes up approximately 70% of Taronga's carbon footprint. Taronga has implemented several new solar installations this financial year including roof mounted solar photovoltaic systems at the Taronga Institute of Science & Learning, the Wildlife Retreat at Taronga and the Hire Centre at Taronga Western Plains Zoo. Transitioning to cleaner sources of electricity will not only reduce the amount of greenhouse gas emitted into the atmosphere but reduce ongoing operational costs.

Highest GreenStar Rating

The Taronga Institute of Science & Learning has achieved the highest rating available under the Green Building Council of Australia – a six star GreenStar rating. The building is also the first GreenStar building in a zoo environment. Key features include a passive design of atrium and public spaces that takes advantage of cross-ventilation, the use of recycled water for toilet flushing and irrigation from the water treatment plant. Roof mounted solar photovoltaic and solar hot water installations along with water and energy efficient fittings and appliances, sustainable material choices have all contributed to achieving the six star rating.

Waste Management

This year Taronga Zoo implemented some new innovative waste streams to further help increase its diversion rate. Two public facing recycling streams were deployed – one for beverage containers and one for compostable packaging. All takeaway packaging served in food and beverage venues utilise packaging made from corn-starch. This can now be disposed through the new compostable packaging stream and goes to the composting facility together with the animal waste. Taronga Zoo has a current diversion rate of 88% and is expected to reach the 90% diversion target in the coming months.

Continued Sustainability Success

Taronga is dedicated to working with partners to introduce more sustainable measures across both zoos. This includes a new printer fleet roll out providing greater flexibility and control over print jobs, resulting in a reduction in paper and ink consumption. Taronga's cold beverage contract also featured sustainable considerations with all soft drinks to be transitioned to aluminium cans rather than plastic. The introduction of a milk bladder system at Taronga Zoo also removed over 25,000 single-use plastic milk containers from use each year. A plan to move towards reusable water bottle options rather than single-use plastic packaging is also underway to allow guests to refill at water stations throughout the site.

The creation of a dedicated retail space that focuses entirely on sustainable and environmentally friendly products has seen these product ranges increase to 15% of total sales.

New Purchase Cards Introduced

To streamline the high volume of low payment transactions, purchase cards or P-Cards were introduced as a payment mechanism providing significant benefits to employees, the organisation and suppliers of goods and services. The purchase card system creates a number of efficiencies including reduction in the need to request invoices or petty cash transactions, faster approvals, straightforward record reconciliation and reduces the use of paper in the workflow process.

“

In December 2018, both Taronga Zoo and Taronga Western Plains Zoo were National Carbon Offset Standard (NCOS) certified – six years ahead of target.

”

Environmental Sustainability

Taronga's sustainability goals are to embed environmental, social and financial sustainability into every aspect of the organisation.

Taronga strives to lead in the areas of resource efficiency, waste management, supply chain, care of the land, social responsibility, market transformation and behaviour change.

Climate Change

People and wildlife are already feeling the impacts of climate change. There is a strong link between loss of biodiversity and changes in the climate. Even small changes in average temperatures can have a significant effect upon eco-systems, flora and fauna.

To mitigate the organisation's impact on climate change, Taronga made a commitment in 2017 to accelerate its initial carbon neutral certification target. In December 2018, both Taronga Zoo and Taronga Western Plains Zoo were National Carbon Offset Standard (NCOS) certified – six years ahead of target.

Energy

Electricity makes up roughly 70% of Taronga's carbon footprint. Transitioning to cleaner sources of electricity not only drastically reduces the amount of greenhouse gasses Taronga emits into the atmosphere, but it also reduces ongoing operational costs and risk.

Taronga has implemented several new solar installations this financial year including:

- Roof mounted solar photovoltaic at Taronga's Institute of Science & Learning (68 kW)
- Roof mounted solar photovoltaic at Taronga Western Plains Zoo's Hire Centre (89 kW)
- Roof mounted solar photovoltaic at the Wildlife Retreat at Taronga (48 kW)
- Roof mounted solar thermal at Taronga's Institute of Science & Learning

Combined these new solar installations are estimated to generate 350 MWh/annum, resulting in combined savings of 85,000/annum with a 4–5 year payback period.

Sustainability Advantage Certification

In 2017, Taronga was awarded gold status under the NSW Government's Sustainability Advantage Program – the 11th organisation to achieve this leadership status. To maintain gold status, the certification needs to be re-lodged every two years to demonstrate that all requirements are still met. This process will be undertaken during the end of 2019.

Corporate Partnerships – Sustainability Scorecard

Aligned to Taronga's strategic objectives, managers from Corporate Partnership, Community Conservation and Sustainability have developed a framework and reference tool to assess corporate partners on their sustainability practices to ensure alignment with Taronga's mission and vision.

Sustainable Procurement

Taronga is working with purchasing teams across the organisation to improve social and environmental sustainability across the supply chain, looking at threats and opportunities across its major spend categories. The objective is to align Taronga's procurement processes and policies to ISO 20400 – Sustainable Procurement and meet the requirements of the Modern Slavery Act. Taronga's retail activities and corporate partnerships are focus areas.

The ethical toy program (ETP) has been identified as a robust certification program to join and gain assurance that products sold in the retail outlets have been produced under decent human rights, labour practices and do not lead to pollution.

Green Team

Through an online survey and a planning session in December 2018, the Taronga Green team developed a robust multi-faceted employee engagement plan for 2019. The plan incorporates a range of interactive learning activities for environmental days, hands-on sustainability workshops, site visits and campaigns. The program helps foster a positive environmentally conscious work culture.

Smart Resource Monitoring and Control Dashboard

Taronga is in the early stage of building an integrated resource monitoring and control platform. This will provide a micro and macro overview of the consumption of key resources such as electricity, gas, water, fuel, waste, renewable energy, flights, animal nutrition and visitation. This platform will allow for smart analytics by connecting it to a business intelligent software.

Litter Prevention

Since December 2017, Taronga has partnered with the Environmental Protection Authority to support the NSW Government's largest litter prevention program – Return & Earn. Taronga Zoo became one of the first collection points for the container deposit scheme, implementing a large reverse vending machine for the local community to recycle their containers and redeem the 10c deposit. Four additional smaller machines have been placed within the grounds of Taronga Zoo to service guests. Since the program's implementation, Taronga has diverted over 500,000 containers from landfill.

“
In September 2018, the new Taronga website launched with a mobile-first design centred around providing an engaging and intuitive user experience...
The Taronga website welcomed more than 4.2 million visits for the year.
”

Marketing and Promotional Activities

Taronga Zoo

Taronga Zoo enjoyed continued success with a performance marketing strategy throughout the year along with supplementary activities such as school holiday campaigns and promotions. During the summer period the always popular dinosaurs exhibition featured in grounds. Running from late October through to the end of January, the Tarongasaurus campaign drove uplift from the important domestic local audience, particularly young families, through effective communication across print, television, digital display, out-of-home and both paid and organic social media featuring the key dinosaur creative. A strong public relations campaign involving influencers and media partners amplified paid media to maximise reach and engagement across core audience segments.

Vivid Sydney at Taronga Zoo was held for the fourth time this year and was promoted in partnership with Destination NSW. The marketing campaign featured key Taronga imagery across paid social media campaigns and was supported by a public relations campaign with a focus on social media influencers.

International visitation enjoyed another strong year, increasing once again on the prior year. China continues to be the largest overseas visitor market for Taronga Zoo Sydney but growth was seen from almost every country market throughout the year.

Taronga Western Plains Zoo

Taronga Western Plains Zoo’s marketing and public relations activities assisted the zoo to achieve some great results across the year, including exceeding budgeted paid admissions and Zoo Friends admissions.

A highlight of the activity was the autumn holiday campaign, featuring a new key visual for Zoofari Lodge. This fresh image featured across press, digital display, social and outdoor, the latter made possible through a Taronga partnership, resulting in exposure to audiences in Sydney, as well as key regional locations such as Newcastle. Overall, the autumn campaign drove unprecedented levels of enquiry for the Zoo’s overnight experiences, with all three booking out for the holiday period well in advance. The campaign also contributed to record Easter long weekend admissions.

The opening of two significant facilities – Wild Herds and the Hire Centre – provided opportunities to showcase the changes taking place at the zoo. Wild Herds was particularly special, with Mongolian Ambassador Mr Chuluunhuu Batlai and retired zoo keeper John Davis officially opening the precinct.

In addition to these activities, the team generated significant media coverage for key animal births across the year, including three Giraffe calves, multiple Spider Monkey and Ring-tailed Lemur babies and a rare Bongo calf.

A major publicity highlight for the year was a Harper’s Bazaar fashion shoot secured via a partnership with Taronga, resulting in the front cover and a considerable spread inside the magazine featuring model Gemma Ward on location at the zoo. Another highlight was the announcement of the commencement of the conservation-breeding program for the critically endangered Plains-wanderer.

In the latter part of the year, a traditional Thai blessing for the two Asian Elephant calves occurred as well as the launch of the Litter Free Rivers community campaign.

Key events coordinated by the Marketing and Public Relations team included the Dubbo Stampede, which although weather affected for the first time in its six-year history was still a successful event conducted in great community spirit. Likewise, the zoo was a significant part of another great community event, the DREAM Festival lantern parade.

Digital Marketing

Taronga continued to strengthen and optimise its digital marketing this year, using digital strategies to further grow attendance numbers and engage more people with Taronga’s core conservation campaigns. This approach delivered significant growth for online ticket sales, with online redemptions representing a greater proportion of paid general admissions than ever before.

Taronga’s social media following also saw considerable growth this year with audiences growing by between 10% and 40% across all social channels.

In September 2018, the new Taronga website launched with a mobile-first design centred around providing an engaging and intuitive user experience. The focus of the new website was to be a customer-centric and data-lead approach to content and navigation. All website engagement metrics improved significantly by end of the financial year demonstrating users are engaged with the new site and are able to find the information they are seeking more easily. The Taronga website welcomed more than 4.2 million visits for the year.

All of these channels play a critical role in furthering Taronga’s objectives to network, influence and build an online advocacy community of more than one million supporters.



Wild Herds – Rick Stevens

Retail

Taronga Zoo

Taronga Zoo’s retail team worked in collaboration with the community conservation team to create a plastic-free campaign in the retail outlets to highlight the sustainability range available and help further educate the public on living sustainably. The new sustainability product range was well received by guests since its creation. This year the overall retail sales were slightly down on last year.

Taronga Western Plains Zoo

Taronga Western Plains Zoo’s retail team have had a continued focus on stock management control, and improved merchandising, particularly around new animal arrivals throughout the year and an environmentally friendly and sustainable product range.

Catering and Functions

Taronga Zoo

The year saw Epicure’s first full year of operation onsite with some significant enhancements to in-ground facilities as part of the capital works agreement with Taronga. Between October and December 2018 the Taronga Food Market and The View Restaurant and Takeaway both received comprehensive renovations. The Food Market public areas were redeveloped featuring a new modern interior that provides additional seating in a much quieter, lighter and bird-free environment, providing a greatly improved dining experience. The View Restaurant was completely refreshed and the Takeaway was upgraded with an innovative solution to prevent birds from pestering people whilst dining. Low voltage lighting throughout and the installation of a milk juggler system in the Taronga Food Market Coffee Shop were key environmental features achieved through the catering sustainability fund.

Taronga Western Plains Zoo

Taronga Western Plains Zoo welcomed a new Head Chef and has enjoyed the introduction of new menu items and regular promotions within Bakhita’s Café. There has been an expected downturn of revenue for the Midway Kiosk due to the construction of the new Waterhole Café. This has been minimised through the availability of mobile cart operations especially during peak periods.

Taronga Western Plains Zoo’s Functions achieved an outstanding result, 24% above last financial year. Special events including Mother’s Day Champagne Breakfast, Valentine’s Day and the Father’s Day lunch were highlights for the year. The Savannah Function Centre also launched new wedding and ceremony locations throughout the zoo at the annual Wedding Open Day showcase.



Events and Accommodation

Taronga Zoo

Roar and Snore

The Roar and Snore overnight experience in Sydney welcomed almost 12,000 guests in 2018/19. Roar and Snore operated throughout the year, contributing strongly to Taronga’s financial outcomes and delivering transformational guest experiences. Roar and Snore also rose to the number two ranking on TripAdvisor for specialty accommodation in Sydney.

Wild Ropes

Wild Ropes experienced a shift in visitation mix in 2018/19 with a higher proportion of three to eight year-olds climbing than the year before. Almost 15,000 children climbed on the two speciality courses, a growth of 33% over the previous year. With adult climbers and corporate groups making up the rest of the mix.

Twilight at Taronga 2019

The Twilight at Taronga concert series welcomed over 26,000 people in the summer of 2019. A range of artists featured in the series including Hoodoo Gurus, Xavier Rudd, Vera Blue, The Whitlams and first the first time a Comedy Gala. This was the fifth season Taronga has produced internally and it achieved a record 11 sold out shows. American Express came on board for the first time as naming partner. The series reached a varied audience once again and contributed to Taronga’s continued messaging in conservation and championing the Litter Free Oceans Campaign.

Vivid Sydney at Taronga Zoo

Vivid Sydney at Taronga Zoo attracted crowds of Sydneysiders and international guests over the 19 nights of the festival. American Express supported for the second year as presenting partner, supporting both the event and the Taronga Foundation.

Eid Festival

For the third time, Taronga Zoo presented the Eid Festival in partnership with Crescent Wealth. The event celebrated the end of the Ramadan fasting period over a two day event. Featuring international food offerings, information stalls, entertainment and presentations of Taronga’s community conservations programs with the main objective being to support and acknowledge the diverse community in NSW.

Taronga Western Plains Zoo

Overnight Programs

Taronga Western Plains Zoo’s range of overnight guest experiences all continue to receive amazing guest feedback. A new online booking system was implemented for accommodation that allows direct online booking capability from the zoo’s website and a refurbishment of four Bushland View Lodges commenced with more to follow next year.

Zoofari Lodge has once again had a fantastic year. Just under 12,000 guests stayed overnight, with occupancy exceeding 80% and revenue recording positive growth on the prior year. New accommodation marketing creative featuring Zoofari Lodge led the Zoo’s largest marketing campaign for the year and resulted in unprecedented levels of booking enquiries and a very successful period to follow for all three overnight experiences.

Savannah Cabins accommodated almost 14,000 guests, operating throughout the year. Savannah Cabins had new landscaping, walking paths and nature-based play spaces for children added to the surrounding space to increase appeal of the accommodation for families.

Billabong Camp guest numbers increased by 7% on the prior year with revenue also up on the previous year’s result. The proximity of Billabong Camp to the new Lion Pridelands experience has proven to be a major drawcard for guests over the last 12 months.

Events & Accommodation Snapshot

Wild Ropes



15,000

children climbed on Wild Ropes course

33% ↑

increase in number of children climbing

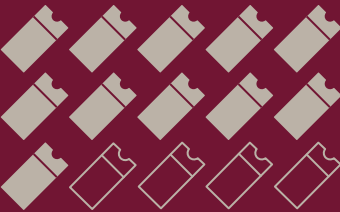


Twilight at Taronga 2019



26,000

people attended the summer concert series



11/15

sold out shows

Taronga Foundation

The Taronga Foundation enjoyed another year of significant support throughout 2018/19 with donations generating income of \$13.7m raised from trusts and foundations, individuals and corporate partners.

Taronga’s generous donors have supported its field conservation grants program, in-situ conservation partnerships, education and research projects. These gifts have also enabled major redevelopments at both zoos this year, ensuring high standards of animal care and improving guest experience. A number of donors contributed significant support throughout the year to finalisation of the Taronga Institute for Science & Learning.

Governors and Patrons

Taronga Foundation Executive Patrons

- Mr David Paradice (Chair)
- Mr Nigel Adams
- Mr Guy Cooper PSM
- Ms Lisa Ho
- Ms Terry Kaljo
- Mr Thomas O’Donnell
- Mr Harold Shapiro
- Ms Valentina Stojanovska
- Ms Deborah Thomas
- Mrs Nikki Warburton

Taronga Foundation Patrons

- Mr Maurice L Newman AC
- Mr Frank Brennan
- Mr John Cleese
- Ms Collette Dinnigan
- Mr Bradley Trevor Greive
- Mr Justin Hemmes
- Mr Graham Humphrey
- Mrs Sandra Humphrey
- Mrs Skye Leckie
- Mr Justin Miller
- Mr Richard Morecroft
- Ms Gretel Packer
- Mr PJ Shanmugan
- Mr Peter Young AM
- Mr George Wang

Philanthropy

Taronga Foundation Events and Community Fundraising

The Taronga Foundation’s fundraising events raised over \$1 million in 2018/19 with events ranging from mass participation running events such as City to Surf and Sydney Running Festival to New Year’s Eve at Taronga, where all tickets sold out well in advance.

Particular success was had in November when a group of nine supporters joined Cameron Kerr on the CEO Challenge to India. As well as raising much-needed funds, supporters came away with a deeper understanding of the challenges and opportunities our conservation partners face in India and greater understanding of Taronga’s vital conservation work.

The Taronga Foundation’s annual gala dinner Zoofari 2018 – Science and Survival, took place in newly opened Institute of Science & Learning in November. An inspirational evening where guests learnt first-hand from scientists about Taronga’s commitment to conservation. Zoofari 2018 was the most successful to the date, raising funds to enable Taronga scientists to help more species and habitats survive for future generations.

Major Gifts and Bequests

The Taronga Foundation is grateful to the generous supporters that have left gifts in their wills, with bequests raising \$1 million in support of Taronga’s conservation work.

Generous gifts were also received from a number of individuals, with \$4.1 million donated in total to support projects both in Australia and overseas, including support for the Taronga Institute for Science & Learning.

We would like to acknowledge the following generous supporters who donated \$10,000 or more this financial year.

- Mr John and Mrs Rosalinda Sample
- K & J Prendiville Foundation
- Mr Greg Minton
- The BridgeLane Foundation
- Ms Gretel Packer
- The Wiggs Foundation
- Penkun Holdings Pty Ltd
- Mr Jeff Conen and Ms Kerry Spence
- Ms Catherine Reed

- Mr Robert Albert AO RFD RD
- Young Presidents Organisation
- Girl Guides Australia NSW and ACT
- Skipper-Jacobs Charitable Trust
- Hill Family Conservation Foundation
- Caledonia Foundation
- The Ian Potter Foundation
- Kennard Family Foundation
- For Animals Foundation
- Dr Charles Barnes
- Mr Jerry Ellis AO and Mrs Ann Ellis
- Maple-Brown Family Foundation
- Turnbull Foundation
- The Denton Family
- Paradise Family Foundation
- The Ottomin Foundation
- Anthony Suters & Assoc Pty Limited
- Mr Len Bleasel AM
- Mr Steven Crane
- Vonwiller Foundation
- Bird Holcomb Pty Ltd
- Mr Alan and Mrs Lynne Rydge
- Mrs Ingrid Kaiser

Friends of the Future Income

(Funds received from estates 2018/19)

- The Estate of The Late Mrs Dolores O’Hara
- The Estate of The Late Ms Lynette Forbes
- The Estate of The Late Ms Lorraine McDermott
- The Estate of The Late Mr Chris Low
- The Estate of The Late Mr G G Drummond
- The Estate of The Late Mrs Kay Tompkins
- The Estate of The Late Ms Michele McCauley
- The Estate of The Late Ms Susan Biddle
- The Estate of The Late Mr Henry Beaver
- The Estate of The Late Mrs Dawne Hintze

Individual Giving

The Taronga Wildlife Defender regular giving program raised \$1.15 million, attracting new supporters through face-to-face, telemarketing and direct mail programs. Fundraising appeals aligned to Taronga’s conservation programs also made a significant contribution and raised much needed funds.



Zoofari 2018

“
Zoofari 2018 was the most successful to the date, raising funds to enable Taronga scientists to help more species and habitats survive for future generations.
”

Corporate Partnerships

The Taronga Foundation received significant financial support from corporate partners during the financial year. This included cash contributions and contra support providing significant cost savings in the operation of both zoos. The success of Taronga’s corporate partnerships program is attributed to over 60 long-term partners whose ongoing support is integral to the financial sustainability of the organisation. Additionally, Taronga engaged various new corporate partners throughout the year including American Express, joining ANZ, Peters Ice Cream, QBE and Coca Cola Amatil as a Principal Partner of Taronga’s conservation efforts.

The Taronga Foundation Chairman’s Report

I am delighted to have joined the Taronga Foundation as Chairman. I am passionate about conservation and committed to helping Taronga to achieve its vision. I am very grateful to all of Taronga’s committed supporters without which none of this work would be possible. I would also like to acknowledge and thank the previous Chairman Mr Maurice Newman AO for his hard work and dedication to the Taronga Foundation.

I have the pleasure to report that this financial year, the Taronga Foundation raised a net total of \$10.1 million*. These funds were raised in support of Taronga’s ambitious conservation programs, the 10 Legacy Species, science, breed and release and conservation projects across the globe.

I would like to thank our wonderful Zoofari committee who organise the annual Zoofari fundraising dinner, making it a huge success and the first to be held in the newly opened Institute of Science & Learning. We are fortunate to have the support of our Patrons who I thank for their commitment and advocacy. We are also deeply grateful to every one of our corporate partners and donors.

Finally, our thanks go to Taronga Chief Executive, Mr Cameron Kerr, the Chairman, Board members and the dedicated staff at Taronga Zoo and Taronga Western Plains Zoo for their leadership and tireless support. We greatly appreciate the outstanding work done by Cameron and his team, and take much pride in Taronga’s position as a world-leading zoo, dedicated to preservation, conservation and scientific research.

*before grant distributions

David Paradice AO
Chairman, Taronga Foundation

CENTENARY CAPITAL PLAN

Deliver the Centenary Capital Plan on time and on budget to secure Taronga's position as a leading conservation and nature tourism organisation

Key Achievements

Taronga Institute of Science & Learning

In 2018 the Taronga Institute of Science & Learning was completed and officially opened. This was a monumental moment that marked a major milestone for wildlife conservation and conservation education.

The project delivered a world leading environmentally sustainable six star GreenStar facility that enables Taronga to provide a cutting edge on-display science and research facilities as well as offering immersive education solutions.

The facility is a world-class science and research hub in an open and transparent environment to promote the cross pollination of ideas between departments. The building incorporates purpose-built laboratories, including multi-disciplinary research laboratory, teaching laboratory and cryoreserve.

The Taronga Institute of Science & Learning has received a number of accolades since opening, the most recent being a winner of the 2019 Australian Institute of Architects (NSW) Award in the category of Educational Architecture.

Hire Centre Opened

Taronga Western Plains Zoo's new hire centre was officially opened in December 2018 and now provides a smoother guest experience when hiring a bike or electric cart. The new hire centre has also created suitable storage and maintenance facilities for these assets. The hire centre features over 1,000m² of solar panels, an important step towards achieving a centre that uses renewable energy.

Waterhole Cafe Commences

Construction of the Waterhole Café and water play area commenced in March this year. The redevelopment will provide improved facilities and an immersive dining experience where guests can view animals whilst enjoying a meal at the new café. The project also features a children's water play area, picnic facilities and viewing of ungulates, meerkats and tortoise. The project is due to be completed in early 2020.

Wildlife Retreat at Taronga

Over the past 12 months, construction of the Wildlife Retreat at Taronga and Lower Australian Habitat precinct has advanced considerably. The project will deliver a highly immersive and engaging guest experience, enabling guests to view Australian wildlife in a natural and tranquil environment. The Wildlife Retreat at Taronga is on track to achieve a five star GreenStar rating in line with Taronga's sustainability endeavours.

The revitalised precinct will encourage people to spend time at Taronga Zoo learning about unique connections between Indigenous Australians and the environment. The experience will include tours and talks that encourage engaging interactions with native animals, that will increase awareness about the threats these species face in the wild.

Siamang Ape Holding Facility

Construction was completed of Taronga Western Plains Zoo's Siamang Ape holding facility this year. The new facility provides a first-class facility that enables improved husbandry care for the Siamang Apes and will allow this highly engaging exhibit to be effectively utilised into the future.

“

The Wildlife Retreat at Taronga is on track to achieve a five star GreenStar rating in line with Taronga's sustainability endeavours.

”

Improving Maintenance Programs

This year Taronga has been striving towards increasing the proportion of scheduled maintenance and reducing reactive maintenance across the two zoos. Significant savings in maintenance expenditure, safety and efficiency will be gained by shifting to a preventative maintenance focus. An extensive scheduled maintenance database of works has been created. The database details all scheduled maintenance across the zoos, recommended service intervals, approved contractors and works owner.

A proactive asset risk audit was also undertaken at Taronga Zoo to prioritise the highest asset risks and develop a work plan for asset maintenance moving forward. The extensive information gathered on the condition of the various aspects across the site will inform maintenance scheduling in the future.

“

The Taronga Institute of Science & Learning delivered a world leading environmentally sustainable six star GreenStar rated facility, the first building in a zoo-based environment to achieve this rating.

”

Capital Works and Project Planning

Taronga Zoo

Taronga Institute of Science & Learning

The Taronga Institute of Science & Learning delivered a world leading environmentally sustainable six star GreenStar rated facility, the first building in a zoo-based environment to achieve this rating.

Following completion of the project the Institute of Science & Learning has won a number of awards, including an Australian Institute of Architects award and also been nominated for a Master Builders Association award.

Wildlife Retreat at Taronga

Construction of the Wildlife Retreat at Taronga and Lower Australian Habitat precinct is nearing completion with construction works on track to be complete in August 2019. This highly complex and integrated project will deliver a 62 room eco-retreat that will wrap around a wildlife sanctuary, which will be the home to animals such as Wallabies, Echidnas, Bandicoots, Platypus, Koalas and Freshwater Eels.

The five accommodation lodges have been constructed from sustainably sourced timber, ranging between two and four storeys in height and connected by elevated walkways. The lodges have been nestled into the landscape, and accompanied by a new standalone guests lounge and bar with an external deck overlooking the wildlife sanctuary. A new kitchen and dining area adjacent to the existing Taronga Function Centre has also been constructed. These structures are completely surrounded by new native Australian wildlife exhibits as well as offering public circulation that elevates guest to key vantage viewing points.

African Savannah Project

Construction of the new African Savannah precinct commenced in late 2018. The redevelopment has rapidly progressed on multiple fronts with most of the substructures constructed and the superstructures being progressively completed across the site.

The over 8000m² precinct will offer guests a highly engaging and transformational experience with multiple viewing points of Giraffe, Lions, Zebra, Meerkats and Fennec Fox. In addition, the precinct will also provide world leading husbandry facilities and provide a solid platform for Taronga to engage and influence its guests to support its wildlife conservation programs. The project is on track to be completed by late 2019.

Taronga Western Plains Zoo

The Waterhole Café

The development of the Waterhole Café and water play area at Taronga Western Plains Zoo commenced in March 2019. The development will offer a vastly improved and engaging guest experience, by delivering a revitalised precinct that includes 150-seat café with panoramic views, integrated animal exhibits to the dining experience, picnic facilities and an African themed water play area for children to enjoy.

Hire Centre

The redevelopment of the bikes and electric carts hire facility commenced mid-2018 and was officially opened in December 2018. This project has substantially improved the entry experience for guests at Taronga Western Plains Zoo, with the new complex offering smooth hire experience, as well as providing additional storage to be able to expand the fleet of bikes, which has since increased by approximately 25%.

Siamang Ape Management Facility

This highly technical and complex project was completed in March 2019. The new facility provides keepers with enhanced opportunities to closely monitor as well as manage the health and welfare of the Siamang Apes that call Taronga Western Plains Zoo home.

Gateway to Africa redevelopment

This project will aim to substantially revitalise the dilapidated African Wild Dog exhibit that is now over 40 years old, by renewing the primary viewing opportunities, moat wall and enhancing the guest experience.

Solar Farms

Taronga is committed to the delivery of environmentally sustainable outcomes across both sites. In early 2019 planning was undertaken for two new solar farms to be constructed at Taronga Western Plains Zoo. The new solar farms are to be located at the Waterhole café area and the main administration precinct.

Facilities and Infrastructure Asset Maintenance

Asset Management

To support continuous improvement, Taronga has committed to undertaking an Asset Management Maturity Assessment in line with the new NSW Government Policy.

Taronga Zoo

The Asset Management team prioritised the completion of higher risk projects identified in the safe systems of work and risk identification project undertaken in 2018. Key projects identified included the ongoing improvements to the Great Southern Oceans filtration systems and associated operating procedures. The water treatment plant operations and reporting aligned with Environmental Protection Authority compliance and removal of the deteriorating timber ceiling around the suspended whales was also completed.

Works to install an additional pressure reduction valve and link line on the zoo's internal fire service main commenced. These works will resolve the ongoing pressure issues in the fire main and reduce water wastage through leaks.

Taronga Western Plains Zoo

Significant focus has been placed on ensuring the electric fences and containment fences exceed the required industry standard at Taronga Western Plains Zoo. This included ongoing upgrades completed specifically for the savannah exhibit and larger ungulate holding yards.

A new pumping system at the zoo's main reservoir has been completed with an ongoing focus on water conservation and management due to the prolonged drought, this continues to be a very high priority and impact on the site.

Visitor experience and site presentation have been a core focus for the team, with the aim to increase the immersive experience for guests both within the zoo grounds and accommodation compounds.

Heritage Asset Management

Taronga proactively worked to conserve, where feasible, items on the Heritage and Conservation Register. Archival records were kept of any items removed.

The Heritage database is currently being updated with the purpose to review the s170 *Heritage Register* and associated documents. This project was supported through an internship program with the University of Sydney's Heritage Conservation Masters program.

The African Savannah Project continued on with heritage upgrades to a number of aspects including the Giraffe house and Pygmy Hippo night house.

Horticulture

Taronga's Horticulture team focused on proactive tree risk management and aligning plantings with conservation objectives.

Taronga engaged ArborSafe to proactively manage tree health and risk at Taronga by annually assessing 500 trees against an established risk profile. These assessments will inform future tree maintenance priorities.

Plant conservation opportunities have been explored with the Department of Planning, Infrastructure and the Environment regarding several endangered NSW plant species. These species have been identified for iconic conservation planting opportunities throughout the zoo grounds and the Wildlife Retreat at Taronga site.

Capital Works and Project Planning Snapshot

Taronga Institute of Science & Learning



Six star GreenStar facility



Winner of the 2019 Australian Institute of Architects (NSW) Award for Educational Architecture

Taronga Western Plains Zoo Hire Centre



1,000m² of solar panels installed

Taronga Western Plains Zoo Solar Farms

2 new solar farms planned to be constructed



TARONGA ZOO *and* TARONGA WESTERN PLAINS ZOO'S PARTNERS IN CONSERVATION

Sponsorship supports the Taronga Foundation's contribution to conservation

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Supporters

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Aspen Pharmacare	Kelato Animal Health	SASH	Waterlogic Australia
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STATUTORY FINANCIAL STATEMENTS





INDEPENDENT AUDITOR’S REPORT
Taronga Conservation Society Australia

To Members of the New South Wales Parliament

Opinion

I have audited the accompanying financial statements of the Taronga Conservation Society Australia (Taronga), which comprise the Income Statement and Statement of Comprehensive Income for the year ended 30 June 2019, the Statement of Financial Position as at 30 June 2019, the Statement of Changes in Equity and the Statement of Cash Flows for the year then ended, notes comprising a Summary of Significant Accounting Policies and other explanatory information.

In my opinion, the financial statements:

- give a true and fair view of the financial position of Taronga as at 30 June 2019, and of its financial performance and its cash flows for the year then ended in accordance with Australian Accounting Standards
- are in accordance with section 41B of the *Public Finance and Audit Act 1983* (PF&A Act) and the Public Finance and Audit Regulation 2015.

My opinion should be read in conjunction with the rest of this report.

Basis for Opinion

I conducted my audit in accordance with Australian Auditing Standards. My responsibilities under the standards are described in the ‘Auditor’s Responsibilities for the Audit of the Financial Statements’ section of my report.

I am independent of Taronga in accordance with the requirements of the:

- Australian Auditing Standards
- Accounting Professional and Ethical Standards Board’s APES 110 ‘Code of Ethics for Professional Accountants’ (APES 110).

I have fulfilled my other ethical responsibilities in accordance with APES 110.

Parliament promotes independence by ensuring the Auditor-General and the Audit Office of New South Wales are not compromised in their roles by:

- providing that only Parliament, and not the executive government, can remove an Auditor-General
- mandating the Auditor-General as auditor of public sector agencies
- precluding the Auditor-General from providing non-audit services.

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

Other Information

Taronga’s annual report for the year ended 30 June 2019 includes other information in addition to the financial statements and my Independent Auditor’s Report thereon. The members of the Board of Taronga are responsible for the other information. At the date of this Independent Auditor’s Report, the other information I have received comprise the signed statement pursuant to section 41C of the PF&A Act.

My opinion on the financial statements does not cover the other information. Accordingly, I do not express any form of assurance conclusion on the other information.

In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work I have performed, I conclude there is a material misstatement of the other information, I must report that fact.

I have nothing to report in this regard.

The Board’s Responsibilities for the Financial Statements

The members of the Board are responsible for the preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards and the PF&A Act, and for such internal control as the members of the Board determine is necessary to enable the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the members of the Board are responsible for assessing Taronga’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 it is not appropriate to do so.

Auditor’s Responsibilities for the Audit of the Financial Statements

My objectives are to:

- obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error
- issue an Independent Auditor’s Report including my opinion.

Reasonable assurance is a high level of assurance, but does not guarantee an audit conducted in accordance with Australian Auditing Standards will always detect material misstatements. Misstatements can arise from fraud or error. Misstatements are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions users take based on the financial statements.

A description of my responsibilities for the audit of the financial statements is located at the Auditing and Assurance Standards Board website at: www.auasb.gov.au/auditors_responsibilities/ar4.pdf. The description forms part of my auditor’s report.

My opinion does *not* provide assurance:

- that Taronga carried out its activities effectively, efficiently and economically
- about the security and controls over the electronic publication of the audited financial statements on any website where they may be presented
- about any other information which may have been hyperlinked to/from the financial statements.



Reiky Jiang
Director, Financial Audit Services

Delegate of the Auditor-General for New South Wales

25 September 2019
SYDNEY

TARONGA CONSERVATION SOCIETY AUSTRALIA (TARONGA)
FINANCIAL STATEMENTS AND NOTES
FOR THE YEAR ENDED 30 JUNE 2019

Statement

Pursuant to section 41C of the *Public Finance and Audit Act 1983* and in accordance with a resolution of Taronga, we being members of the Board state that:

- in our opinion the financial statements and notes thereon exhibit a true and fair view of the financial position and transactions of Taronga for the year ended 30 June 2019;
- the financial statements have been prepared in accordance with authoritative pronouncements of the Australian Accounting Standards Board which includes the requirements of the *Public Finance and Audit Act 1983* and *Public Finance and Audit Regulation 2015*;
- we are not aware of any circumstances which would render any particulars included in the financial statements to be misleading or inaccurate; and
- we are of the opinion that there are reasonable grounds to believe that the organisation will be able to pay its debts as and when they fall due.



Chair of the Board



Member of the Board

Sydney
23 September 2019

**INCOME STATEMENT
FOR THE YEAR ENDED 30 JUNE 2019**

	Notes	2019 \$'000	2018 \$'000
Revenue			
Sale of Goods and Services	2	81,579	83,572
Government Grants	3	33,496	36,810
Investment Revenue	4	2,080	1,817
Other Income	5	12,375	14,105
Gain/(Loss) on Sale of Assets		(5)	-
Total Revenue		129,525	136,304
Expenses			
Personnel Services	6(a)	54,556	49,204
Depreciation and Amortisation	6(b)	24,921	23,964
Finance Costs	6(c)	1,455	764
Operating Expenses	7	41,562	43,870
Total Expenditure		122,494	117,802
NET RESULT		7,031	18,502

The accompanying notes form part of these Financial Statements.

**STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 30 JUNE 2019**

	Notes	2019 \$'000	2018 \$'000
NET RESULT		7,031	18,502
Other comprehensive income:			
<i>Items that will not be reclassified to net result in subsequent periods</i>			
Changes in revaluation surplus of property, plant and equipment	22	69,685	-
Other comprehensive income for the year		69,685	-
TOTAL COMPREHENSIVE INCOME	22	76,716	18,502

The accompanying notes form part of these Financial Statements.

STATEMENT OF FINANCIAL POSITION
 AS AT 30 JUNE 2019

	Notes	2019 \$'000	2018 \$'000
ASSETS			
Current Assets			
Cash and Cash Equivalents	21(a)	34,156	26,776
Receivables	8	4,841	3,704
Inventories	9	1,467	1,298
Other Financial Assets	10	55,000	55,000
Total Current Assets		95,464	86,778
Non-Current Assets			
Property, Plant and Equipment	11		
-Land and Buildings		421,083	353,705
-Plant and Equipment		8,636	5,359
-Infrastructure		84,634	67,820
-Work-in-Progress		85,285	65,549
Total Property, Plant and Equipment		599,638	492,433
Intangible Assets	12	1,175	1,538
Total Non-Current Assets		600,813	493,971
Total Assets		696,277	580,749
LIABILITIES			
Current Liabilities			
Trade and Other Payables	14	24,746	21,428
Other Current Liabilities	15	11,814	4,586
Borrowings	16	2,061	6,067
Total Current Liabilities		38,621	32,081
Non-Current Liabilities			
Borrowings	16	51,862	21,648
Trade and Other Payables	14	7,411	5,353
Total Non-Current Liabilities		59,273	27,001
Total Liabilities		97,894	59,082
Net Assets		598,383	521,667
Equity			
Reserves	22	350,943	281,258
Accumulated Funds	22	247,440	240,409
Total Equity		598,383	521,667

The accompanying notes form part of these Financial Statements.

STATEMENT OF CHANGES IN EQUITY
 FOR THE YEAR ENDED 30 JUNE 2019

	Accumulated Funds \$'000	Asset Revaluation Reserve \$'000	Total \$'000
Balance at 1 July 2018	240,409	281,258	521,667
Net result for the year	7,031	-	7,031
Other comprehensive income:			
Net change in revaluation surplus of property, plant and equipment	-	69,685	69,685
Total other comprehensive income	-	69,685	69,685
Total comprehensive income for the year	7,031	69,685	76,716
Balance at 30 June 2019	247,440	350,943	598,383

Balance at 1 July 2017	221,906	281,258	503,164
Net result for the year	18,502	-	18,502
Other comprehensive income:			
Net change in revaluation surplus of property, plant and equipment	-	-	-
Total other comprehensive income	-	-	-
Total comprehensive income for the year	18,502	-	18,502
Balance at 30 June 2018	240,409	281,258	521,667

The accompanying notes form part of these Financial Statements.

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 30 JUNE 2019

	Notes	2019 \$'000	2018 \$'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Receipts			
Sale of Goods and Services		110,122	107,520
Interest Received		2,097	2,261
Government Capital Grant		17,709	21,325
Government Recurrent Grant		15,787	15,485
Total Receipts		145,715	146,591
Payments			
Personnel Services		(51,958)	(49,010)
Suppliers for Goods and Services		(48,913)	(50,280)
Finance Costs		(1,501)	(911)
Total Payments		(102,372)	(100,202)
Net Cash inflow from Operating Activities	21(b)	43,343	46,390
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of Property, Plant and Equipment		(62,554)	(59,215)
Proceeds from Sale of Other Financial Assets		90	13,502
Net Cash outflow from Investing Activities		(62,464)	(45,713)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from Borrowings		26,500	12,000
Net Cash flow from Financing Activities		26,500	12,000
Net increase/(decrease) in cash and cash equivalents		7,380	12,677
Cash and cash equivalents at beginning of the year		26,776	14,099
Cash and cash equivalents at end of year	21(a)	34,156	26,776

The accompanying notes form part of these Financial Statements.

NOTES TO THE FINANCIAL STATEMENTS

Note	Contents
1	Summary of Significant Accounting Policies
2	Sale of Goods and Services
3	Government Grants
4	Investment Revenue
5	Other Income
6(a)	Personnel Services
6(b)	Depreciation and Amortisation Expenses
6(c)	Finance Costs
7	Other Operating Expenses
8	Trade and other receivables
9	Inventories
10	Other Financial Assets
11	Property, Plant and Equipment
12	Intangible Assets
13	Fair Value Measurement of Non-Financial Assets
14	Trade and Other Payables
14(a)	Personnel Services
15	Other Current Liabilities
16	Borrowings
17	Financial Instruments
18	Restriction on Revenue – The Taronga Foundation
19	Remuneration of Auditors
20	Related Party Disclosures
21	Notes to the Cash Flow Statement
22	Reserves and Retained Surplus
23	Commitments for Expenditure
24	Contingent Assets and Liabilities
25	Subsequent Events

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2019

1. Summary of Significant Accounting Policies

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

a) Reporting Entity

Taronga is a NSW Government Public Non-Financial Corporation constituted under the *Zoological Parks Board Act 1973*. Taronga is a not-for-profit entity as profit is not its principal objective. The reporting entity is consolidated as part of the NSW Total State Sector Accounts.

Taronga comprises the activities of Taronga Zoo, Taronga Western Plains Zoo and the Taronga Foundation. Taronga's commercial activities, namely retail, catering, experience activities and accommodation are also included.

These financial statements for the year ended 30 June 2019 have been authorised for issue by Taronga on 23 September 2019.

b) Basis of Preparation

The entity's financial statements are general purpose financial statements which have been prepared in accordance with:

- i. the Australian Accounting Standards including the Australian Accounting Interpretations;
- ii. the *Public Finance and Audit Act 1983* and *Public Finance and Audit Regulation 2015*;
- iii. Financial Reporting Directions mandated by the Treasurer.

Historical Cost Convention

The financial statements have been prepared under the historical cost convention, modified by the revaluation at fair value of land and buildings and infrastructure systems.

Critical Accounting Estimates

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying Taronga's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to financial statements are disclosed in the relevant notes to the financial statements.

Rounding

All amounts are rounded to the nearest one thousand dollars and are expressed in Australian currency.

c) Comparative Figures

Comparative information is presented for the preceding financial year that corresponds to the disclosures specified for the current financial year, except where an Australian Accounting Standard

permits or requires otherwise. Comparative information for financial instruments is not restated as per the NSW Treasury mandate, the accounting standard reference is AASB 139.

d) Statement of Compliance

Taronga's financial statements and notes comply with Australian Accounting Standards, which include Australian Accounting Interpretations.

e) Revenue Recognition

Revenue is measured at the fair value of the consideration received or receivable. Amounts disclosed as revenue are net of returns, trade allowances, and amounts collected by third parties.

Taronga recognises revenue when the amount of revenue can be reliably measured, it is probable that the future economic benefits will flow to the entity and specific criteria have been met for each of Taronga's activities.

f) Leased Assets

A distinction is made between finance leases which effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of the leased assets, and operating leases under which the lessor does not transfer substantially all the risks and rewards.

Operating lease payments are recognised as an expense on a straight-line basis over the lease term.

g) Animal Collection

The animal collection managed by Taronga is reflected in Taronga's accounting records at one dollar. This is consistent with worldwide industry practice. Taronga regards the animals as part of a regional and international collection and not the specific property of the institution.

h) Accounting for Goods and Services Tax

Revenues, expenses and assets are recognised net of the amount of GST, except where:

- The amount of GST incurred by Taronga as a purchaser that is not recoverable from the Australian Taxation Office is recognised as part of the cost of acquisition of an asset or as part of an item of expense.
- Receivables and payables are stated with the amount of GST included. The net amount of GST recoverable from, or payable to, the Australian Taxation Office is included with other receivables or payables in the Statement of Financial Position.

Cash flows are included in the Statement of Cash Flows on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to, the Australian Taxation Office are presented as operating cash flows.

i) Fair Value Hierarchy

A number of Taronga's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. When measuring fair value, the valuation technique used maximises the use of relevant observable inputs and minimises the use of unobservable inputs. Under AASB 13, Taronga categorises, for disclosure purposes, the valuation techniques based on the inputs used in the valuation techniques as follows:

- Level 1 – quoted prices in active markets for identical assets / liabilities that the entity can access at the measurement date.
- Level 2 – inputs other than quoted prices included within Level 1 that are observable, either directly or indirectly.
- Level 3 – inputs that are not based on observable market data (unobservable inputs).

Taronga recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Refer Note 17 and Note 13 for further disclosures regarding fair value measurements of financial and non-financial assets.

j) Changes in Accounting Policy, Including New or Revised Australian Accounting Standards

Australian Accounting Standards effective in 2018-19

The accounting policies applied in reporting period are consistent with those of the previous financial year except the below that have been applied for the first time in 2018-19 .

- AASB 9 Financial Instruments – Taronga has followed the classification and measurement requirements under AASB 9, this involved assessment and calculations to determine allowance for expected credit losses through receivables and other financial assets. Taronga has determined that application of AASB 9's impairment requirements at 1 July 2018 and 30 June 2019 results in nil allowance for expected credit losses.

All other new or revised Australian Accounting Standards mandatory for 2019 Financial Statements are either not relevant to the operations of Taronga or do not have any impact on Taronga's results or disclosures.

Australian Accounting Standards issued but not yet effective

NSW public sector entities are not permitted to early adopt new Australian Accounting Standards, unless NSW Treasury determines otherwise.

- AASB15, AASB 2014-5, AASB 2015-8 and AASB 2016-3 regarding Revenue from Contracts with Customers – mandatory for financial year 2019-2020. Taronga has made a detailed assessment of its revenue streams and concluded that its accounting policies already meet the requirements of revenue recognition as per AASB 15. Nil impact on application.
- AASB 16 regarding accounting of Leases – mandatory for financial year 2019-2020. Based on the impact assessments Taronga has undertaken on currently available information, Taronga estimates additional lease liabilities of \$280,000 and right-of-use assets of \$264,000 will be recognised as at 1 July 2019 for leases in which Taronga is a lessee. Operating lease expenses will be replaced by depreciation on the right of use assets and interest expense on the lease liability. The impact on the statement of comprehensive income is expected to be \$1,700.
- AASB 1058 Income of Not-for-Profit Entities – Provides a more comprehensive model for accounting for NFP entities – mandatory for financial year 2019-2020. Nil impact on application.
- AASB 2016-8 Amendments to Australian Accounting Standards– Australian Implementation Guidance for Not-for-Profit Entities ("AASB 2016-8") - Provides authoritative implementation guidance when applying AASB 15 to those arrangements of a NFP which are identified as contracts with customers – mandatory for financial year 2019-2020.

- AASB 2016-7 AASB 2016-7 Amendments to Australian Accounting Standards – Deferral of AASB 15 for Not-for-Profit Entities – mandatory for financial year 2019-2020.
- AASB 2014-5 Amendments to Australian Accounting Standards arising from AASB 15 – mandatory for financial year 2019-2020.

When the above Accounting Standards and amendments become mandatory, additional disclosures may be required.

2. Sale of Goods and Services

	2019 \$'000	2018 \$'000
Sale of goods	9,751	10,012
Rendering of services	71,828	73,560
Total Sale of Goods and Services	81,579	83,572

Recognition and Measurement

Sale of Goods

Revenue from sale of goods is recognised as revenue when Taronga transfers the significant risks and rewards of ownership of the goods, usually on delivery of the goods.

Rendering of Services

Revenue from rendering of services is recognised when the service is provided. This includes income from Gate Admissions, Catering Commission, Ropes Course, Accommodation, Car Park, Events and income from Zoo activities. In 2019 an adjustment was made to reflect revenue earned from Zoo Friends memberships on a monthly basis rather than annual basis.

3. Government Grants

	2019 \$'000	2018 \$'000
Capital grant	17,709	21,325
Recurrent grant	15,787	15,485
Total Government Grants	33,496	36,810

Recognition and Measurement

The grants received from the NSW Government are generally recognised as income when Taronga obtains control over the assets comprising the contributions. Control over grants is normally obtained upon the receipt of cash.

4. Investment Revenue

	2019 \$'000	2018 \$'000
Term Deposits and Bank Interest	2,080	1,817
Total Investment Revenue	2,080	1,817

Recognition and Measurement

Interest income is recognised using the effective interest method. The effective interest rate is the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset.

5. Other Income

	2019 \$'000	2018 \$'000
Sponsorship	4,127	4,523
Donations and Bequests	8,013	9,222
Insurance Premium Hindsight Adjustments	235	360
Total Other Income	12,375	14,105

Recognition and Measurement

Sponsorship

Sponsorship revenue is brought to account as it is earned and is recognised when services are provided per contractual arrangements. The value of goods and services received by way of sponsorship was included in revenue for the year as sponsorship income. The respective goods and services related to this income are reflected in the appropriate expense or asset accounts. The values of such sponsorships are brought to account on the proviso that a fair value for the sponsorship could be ascertained.

Donations and Bequests

The Taronga Foundation's pledged donations including bequests are not recognised as income until received.

6. Expenses

a) Personnel Services

	2019 \$'000	2018 \$'000
Salaries and Wages (including annual leave)	43,955	41,910
Superannuation - Defined Contribution Plans	4,186	3,953
Superannuation - Defined Benefit Plans*	2,326	(345)
Long Service Leave	613	586
Workers Compensation Insurance	788	497
Payroll Tax and Fringe Benefits Tax	2,688	2,603
Total Personnel Services	54,556	49,204

Recognition and Measurement

The personnel services is the expense incurred by Taronga on personnel services provided by The Office of Environment and Heritage (OEH) due to the Administrative Arrangements Order 2014. As per the Administrative Order 2019 Taronga's personnel services will be transferred from OEH to Department of Planning, Industries and Environment with effect from 1 July 2019.

*As the employment is undertaken by OEH, the defined benefit superannuation actuarial gain/loss is included in Personnel Service Expenses in the Income Statement rather than in the Statement of Comprehensive Income. In 2019 a defined benefit superannuation actuarial loss of \$2,010,501 is included in superannuation defined benefit expense (\$667,534 gain in 2017/2018).

Employee related costs amounting to \$1,825,180 have been capitalised during the year (\$1,535,871 in 2017/2018). These employee related costs are excluded from the above.

b) Depreciation and Amortisation Expenses

	2019 \$'000	2018 \$'000
Depreciation		
Land and Buildings	18,488	18,453
Plant and Equipment	1,506	1,086
Infrastructure	4,564	4,089
Amortisation		
Intangible Assets	363	336
Total Depreciation and Amortisation Expenses	24,921	23,964

Refer to Note 11, 12 and 13 for recognition and measurement policies on Depreciation and Amortisation.

c) Finance Costs

	2019 \$'000	2018 \$'000
Interest on Borrowings	1,745	944
Amortisation of premiums relating to borrowings	(290)	(180)
Total Finance Costs	1,455	764

Recognition and Measurement

Finance costs are recognised as expenses in the period in which they are incurred in accordance with Treasury's Mandate to not-for-profit entities.

7. Other Operating Expenses

	2019 \$'000	2018 \$'000
Advertising and Promotions	4,214	4,250
Animal Husbandry & Research Support	2,696	2,691
Assets Written off	1,854	2,785
Communications and Digital Technology	1,476	1,676
Contingent Labour	1,893	2,153
Contract Services	4,526	6,142
Cost of Goods Sold	3,851	3,880
Maintenance	7,266	6,938
Supply and Services	11,536	11,450
Utilities	2,250	1,841
Insurance Premium Hindsight Adjustment	-	64
Total Other Operating Expenses	41,562	43,870

Recognition and Measurement

Operating costs are recognised as an expense in the reporting period in which they are incurred. These expenses generally represent the day to day operating costs incurred in Taronga's normal operations.

Cost of Goods Sold

Cost of goods sold represents the amount of inventories sold during the year from retail activities and the cost of food and beverage for zoo activities.

Maintenance

The cost of day-to-day servicing or maintenance is charged to expenses as incurred, except where they related to the replacement of a part or component of an asset, in which case the costs are capitalised and depreciated.

Supply and Services

Supply and Services includes operating costs such as animal transport, audit fees, bank charges, conservation activities, catering, insurance, legal, postage, printing and stationery, professional services, staff development, travel and vehicle costs.

8. Trade and Other Receivables

	2019 \$'000	2018 \$'000
Sale of Goods and Services	3,858	2,932
Less: Allowance for expected credit losses (2018-19)	-	-
Less: Allowance for impairment (2017-18)	-	-
	3,858	2,932
Prepayments	983	772
Total Trade and Other Receivables	4,841	3,704

Recognition and Measurement**Receivables**

Trade receivables, which generally have 30 day terms, are recognised and carried at original invoice amount less an allowance for any uncollectible amounts. Short-term receivables with no stated interest rate are measured at the original invoice amount where the effect of discounting is immaterial.

Impairment under AASB 9 from 1 July 2018

Taronga applies a simplified approach in calculating Expected Credit Losses (ECLs). Taronga recognises a loss allowance based on lifetime ECLs at each reporting date. Taronga has established a provision matrix based on its historical credit loss experience for trade receivables, adjusted for forward-looking factors specific to the receivable.

Impairment under AASB 139 for the year ending 30 June 2018

An allowance for impairment is raised when there is objective evidence that Taronga will not be able to collect amounts due. The credit risk is the carrying amount of the financial assets (net of any allowance for impairment). Debts which are known to be uncollectible are written off. No interest is earned on trade debtors. The carrying amount approximates fair value.

9. Inventories

	2019 \$'000	2018 \$'000
<u>Held for Distribution</u>		
Food for Animals	240	237
Stores and Spare Parts	210	201
	450	438
<u>Held for Resale</u>		
Souvenirs and Catering	1,017	860
	1,017	860
Total Inventories	1,467	1,298

Recognition and Measurement

Inventories held for distribution are stated at the lower of cost and current replacement cost. Inventories (other than those held for distribution) are stated at the lower of cost and net realisable value. The cost is calculated using the weighted average cost method. Current replacement cost is the cost Taronga would incur to acquire the asset on the reporting date. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

10. Other Financial Assets

	2019 \$'000	2018 \$'000
Term deposits:		
91 - 180 Days	-	25,000
181 - 270 Days	41,000	11,000
Over 270 Days	14,000	19,000
Total Term Deposits	55,000	55,000
Less: Allowance for expected credit losses	-	-
Total Other Financial Assets	55,000	55,000

Recognition and Measurement

Other financial assets include short term deposits that are due to mature between 3 and 12 months from the acquisition date. Term deposits due to mature within 3 months from the acquisition date are classified as cash and cash equivalents. Refer to note 17 for further disclosure on Other Financial Assets.

11. Property, Plant and Equipment

	Work in Progress \$'000	Land and Buildings \$'000	Plant and Equipment \$'000	Infrastructure \$'000	Total \$'000
At 1 July 2018 - fair value					
Gross carrying amount	65,549	537,676	13,796	102,887	719,908
Accumulated Depreciation	-	(183,971)	(8,437)	(35,067)	(227,475)
Net carrying amount	65,549	353,705	5,359	67,820	492,433
At 30 June 2019 - fair value					
Gross carrying amount	85,285	583,894	17,712	117,607	804,498
Accumulated Depreciation	-	(162,811)	(9,076)	(32,973)	(204,860)
Net carrying amount	85,285	421,083	8,636	84,634	599,638

Reconciliation

Reconciliations of the carrying amount of each class of property, plant and equipment at the beginning and end of the current financial year is set out below:

	Work in Progress \$'000	Land and Buildings \$'000	Plant and Equipment \$'000	Infrastructure \$'000	Total \$'000
Year ended 30 June 2019					
Net carrying amount at beginning of year	65,549	353,705	5,359	67,820	492,433
Additions	63,322	-	704	-	64,027
Transfers	(42,411)	28,547	4,190	9,675	-
Disposals	-	(1,804)	(978)	(181)	(2,963)
Expensed	(1,175)	-	-	-	(1,175)
Revaluation increment	-	57,844	-	11,841	69,685
Depreciation expense	-	(18,488)	(1,506)	(4,564)	(24,558)
Depreciation on disposals	-	1,279	867	43	2,189
Net carrying amount at end of year	85,285	421,083	8,636	84,634	599,638

	Work in Progress \$'000	Land and Buildings \$'000	Plant and Equipment \$'000	Infrastructure \$'000	Total \$'000
At 1 July 2017 - fair value					
Gross carrying amount	43,720	522,803	12,466	92,804	671,793
Accumulated Depreciation	-	(169,711)	(7,688)	(31,102)	(208,501)
Net carrying amount	43,720	353,092	4,778	61,702	463,292
At 30 June 2018 - fair value					
Gross carrying amount	65,549	537,676	13,796	102,887	719,908
Accumulated Depreciation	-	(183,971)	(8,437)	(35,067)	(227,475)
Net carrying amount	65,549	353,705	5,359	67,820	492,433

Reconciliation

Reconciliations of the carrying amount of each class of property, plant and equipment at the beginning and end of the previous financial year is set out below:

	Work in Progress \$'000	Land and Buildings \$'000	Plant and Equipment \$'000	Infrastructure \$'000	Total \$'000
Year ended 30 June 2018					
Net carrying amount at beginning of year	43,720	353,092	4,778	61,702	463,292
Additions	55,058	-	1,202	-	56,260
Transfers	(31,894)	20,245	472	10,470	(707)
Disposals	-	(5,372)	(344)	(387)	(6,102)
Expensed	(1,336)	-	-	-	(1,336)
Depreciation expense	-	(18,453)	(1,086)	(4,089)	(23,628)
Depreciation on disposals	-	4,193	337	124	4,653
Net carrying amount at end of year	65,549	353,705	5,359	67,820	492,433

Recognition and Measurement

(a) Acquisition of Property, Plant and Equipment

The cost method of accounting is used for the initial recording of all acquisitions of assets controlled by Taronga. Cost is the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire the assets at the time of its acquisition plus the costs incidental to the acquisition.

Assets acquired at no cost or for nominal consideration are initially recognised at their fair value at the date of acquisition. Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at measurement date.

(b) Capitalisation Thresholds

Property, plant and equipment and intangible assets costing \$2,000 and above individually (or forming part of a network costing more than \$2,000) are capitalised.

(c) Revaluation of Property, Plant and Equipment

Physical non-current assets are valued in accordance with the 'Valuation of Physical Non-Current Assets at Fair Value' (TPP 14-01). This policy adopts fair value in accordance with AASB 13 *Fair Value Measurement* and AASB 116 *Property, Plant and Equipment*.

It further clarifies that fair value is determined by reference to its 'highest and best use' by market participants taking into account the existing physical, legal, financial and socio-political environment in which the entity operates and which results in the highest value.

Property, plant and equipment is measured on an existing use basis, where there are no feasible alternative uses in the existing natural, legal, financial and socio-political environment. However, in the limited circumstances where there are feasible alternative uses, assets are valued at their highest and best use.

Fair value of land, infrastructure, buildings and plant and equipment is based on market participants' perspective, using valuation techniques that maximise relevant observable inputs and minimise unobservable inputs.

Non-specialised assets with short useful lives are measured at depreciated historical cost as an approximation of fair value. Taronga has assessed that any difference between fair value and depreciated historical cost is unlikely to be material.

Taronga revalues each class of "property, plant and equipment" except plant and equipment in accordance with TPP14-01. This requires a comprehensive revaluation at least every three years for Land using the market approach as the most appropriate valuation technique for that asset under AASB 13. Buildings and Infrastructure assets are re-valued using the cost approach and under AASB 13 will be re-valued at least every five years.

(d) Interim Revaluations

At the reporting date, Taronga consults Valuation Services, Property NSW (PNSW) a cluster agency under The Department of Finance, Services and Innovation for an indexation advice to determine if the carrying value of its assets differs materially from the fair value. In the event the carrying value of assets differs materially from fair value, Taronga performs a revaluation based on the advice of PNSW and updates its asset values.

Details of the most recent comprehensive revaluation for all classes of assets are as follows:

Land

The value of the Taronga's land at the reporting date is based on a comprehensive revaluation conducted by FPV Consultants and Aspect Property in March 2017 for Taronga Zoo and Taronga Western Plains Zoo respectively. The land has been valued at fair value having regard to current use as indicated by the zoning, heritage restrictions and other controls over the property. Taronga has formed the opinion that there was no material change to the valuation for the period to 30 June 2019. The next comprehensive revaluation for land is due to be performed during the financial year 2019-2020.

Mosman – Taronga Zoo (28.1 hectares)

Zoning: Special Activities 1 – Zoological Gardens under Mosman Local Environment Plan 2012. As per FPV Consultants valuation in March 2017, based on comparable values for open recreation land, \$68,800,000.

Dubbo – Taronga Western Plains Zoo (758.3 hectares)

Zoning: SP3 Tourist under the Dubbo Local Environment Plan 2011. As per Aspect Property valuation in March 2017, based on comparable zoning values \$2,850,000.

Infrastructure

Valuation of the infrastructure includes all site works which are considered to add value to the site as used and not already valued as individual fixed assets (such as buildings). This includes all services, roads and landscaping, etc. The value for infrastructure was split between the major categories of roads, services and landscaping and its value to the site expressed at Depreciated Replacement Cost. The valuation was conducted by the Estate Property Consultants Pty Ltd in October 2018 and the value in the Taronga's accounts for this class of asset has been adjusted accordingly. Taronga has formed the opinion that there was no change to the valuation for the period to 30 June 2019.

Buildings, Enclosures and Improvements

The value of Taronga's buildings, enclosures and improvements is based on a revaluation conducted by the Estate Property Consultants Pty Ltd in October 2018. The carrying value of these assets has been adjusted accordingly to reflect these updated valuations. Taronga has formed the opinion that there was no change to the valuation for the period to 30 June 2019.

(e) Revaluation Increments/Decrements

Revaluation increments are recognised in other comprehensive income and credited directly to the asset revaluation reserve, except to the extent that an increment reverses a revaluation decrement in respect of that class of asset previously recognised as loss in net result, the increment is recognised immediately as revenue in the net result.

Revaluation decrements are recognised immediately as expenses in the net result, except that, to the extent that a credit balance exists in the asset revaluation reserve in respect of the same class of assets, they are debited directly to the asset revaluation reserve.

As a not-for-profit entity, revaluation increments and decrements are offset against one another within a class of non-current assets, but not otherwise. When revaluing non-current assets the gross amount and the related accumulated depreciation are separately restated.

Where an asset that has previously been re-valued is disposed of, any balance remaining in the asset revaluation reserve in respect of that asset is transferred to the accumulated funds.

(f) Impairment of Property, Plant and Equipment

As a not-for-profit entity with no cash generating units, impairment under AASB 136 Impairment of Assets is unlikely to arise. As property, plant and equipment is carried at fair value or an amount that approximates fair value, impairment can only arise in the rare circumstances such as where the costs of disposal are material.

(g) Depreciation and Amortisation

Taronga has adopted a policy whereby depreciation is calculated on a straight-line basis for all depreciable assets so as to write off the depreciable amount of each asset as it is consumed over its useful life. Details of depreciation rates and methods are as follows:

Category of Asset	Rate of Depreciation
Motor Vehicles	10.00%
Computer Equipment	33.30%
Other Items	20.0%
Infrastructure	The rate being determined by the estimated life of the asset (3 – 40 years as appropriate).
Buildings, Enclosures and Improvements	The rate being determined by the estimated life of the asset (1 – 50 years as appropriate).

Taronga's intangible assets are amortised using the straight line method. Details of amortisation rates are as follows:

Category of Asset	Rate of Amortisation
Financial Application and Other Software	10.0% - 33.3%

These rates are consistent with those used in the previous year.

12. Intangible Assets

	Software and other Intangibles \$'000
At 1 July 2018	
Cost (gross carrying amount)	2,472
Accumulated Amortisation and Impairment	(934)
Net carrying amount	1,538

At 30 June 2019	
Cost (gross carrying amount)	2,416
Accumulated Amortisation and Impairment	(1,241)
Net carrying amount	1,175

Year ended 30 June 2019	
Net carrying amount at beginning of year	1,538
Additions (acquisitions)	-
Transfers	-
Disposals	-
Amortisation	(363)
Amortisation on disposals	-
Net carrying amount at end of year	1,175

	Software and other Intangibles \$'000
At 1 July 2017	
Cost (gross carrying amount)	1,756
Accumulated Amortisation and Impairment	(598)
Net carrying amount	1,158

At 30 June 2018	
Cost (gross carrying amount)	2,472
Accumulated Amortisation and Impairment	(934)
Net carrying amount	1,538

Year ended 30 June 2018	
Net carrying amount at beginning of year	1,158
Additions (acquisitions)	9
Transfers	707
Disposals	-
Amortisation	(336)
Amortisation on disposals	-
Net carrying amount at end of year	1,538

Recognition and Measurement

Taronga recognises intangible assets only if it is probable that future economic benefits will flow to Taronga and the cost of the asset can be measured reliably. Intangible assets are measured initially at cost. Where an asset is acquired at no cost or nominal cost, the cost is its fair value as at the date of acquisition.

Intangible assets are subsequently measured at fair value only if there is an active market. As there is no active market for some of Taronga's software classified as intangible assets, these assets are carried at cost less any accumulated amortisation and impairment losses.

In general, intangible assets are tested for impairment where an indicator of impairment exists. If the recoverable amount is less than its carrying amount the carrying amount is reduced to the recoverable amount or the reduction is recognised as an impairment loss.

13. Fair Value Measurement of Non-Financial Assets

(a) Fair Value Hierarchy

2019	Level 1	Level 2	Level 3	Total Fair Value
	\$'000	\$'000	\$'000	\$'000
Property Plant and Equipment				
Land and Buildings	-	71,650	349,433	421,083
Infrastructure	-	-	84,634	84,634
	-	71,650	434,067	505,717
2018	Level 1	Level 2	Level 3	Total Fair Value
	\$'000	\$'000	\$'000	\$'000
Property Plant and Equipment				
Land and Buildings	-	71,650	282,055	353,705
Infrastructure	-	-	67,820	67,820
	-	71,650	349,875	421,525

There were no transfers between Level 1 or 2 during the year.

(b) Valuation Techniques, Inputs and Processes

The Fair value of land, buildings and infrastructure was determined by FPV Consultants, Aspect Property and PNSW. Taronga's land has been valued using the direct comparison approach and classified as level 2, under this valuation method transactions of land acquired for special uses and open space purposes are analysed and considered for comparison purposes.

Fair value of buildings and infrastructure is measured using the cost approach. This valuation technique reflects the amount that would be required currently to replace the service capacity of the asset. Buildings and infrastructure are categorised as level 3.

(c) Reconciliation of Recurring Level 3 Fair Value Measurements

	Buildings \$'000	Infrastructure \$'000	Total Recurring Level 3 Fair value \$'000
Fair Value as at 1 July 2018	282,055	67,820	349,875
Additions	28,547	9,675	38,222
Revaluation increments recognised in other comprehensive income	57,844	11,841	69,685
Disposals	(525)	(137)	(662)
Depreciation	(18,488)	(4,564)	(23,052)
Fair Value as at 30 June 2019	349,433	84,634	434,067

2018	Buildings \$'000	Infrastructure \$'000	Total Recurring Level 3 Fair value \$'000
Fair Value as at 1 July 2017	281,442	61,702	343,144
Additions	20,244	10,471	30,715
Revaluation increments recognised in other comprehensive income	-	-	-
Disposals	(1,179)	(263)	(1,442)
Depreciation	(18,453)	(4,089)	(22,542)
Fair Value as at 30 June 2018	282,055	67,820	349,875

14. Trade and Other Payables

	2019 \$'000	2018 \$'000
Current Liabilities		
Operating Expense Creditors	3,224	3,256
Capital Creditors	6,022	4,550
Accruals and Other Creditors	3,329	1,991
Personnel Services	12,171	11,631
Total Current Trade and Other Payables	24,746	21,428
Non-Current Liabilities		
Personnel Services	7,411	5,353
Total Non-Current Trade and Other Payables	7,411	5,353
Total Trade and Other Payables	32,157	26,781

Recognition and Measurement

Payables are initially recognised at fair value, usually based on the transaction cost. Trade accounts payable are generally settled within 30 days.

(a) Personnel Services

	2019 \$'000	2018 \$'000
Current Liabilities		
Salaries and Wages Payable	1,375	1,123
Annual Leave Provision	2,700	2,899
Long Service Leave Provision	7,160	6,828
Defined Benefit Superannuation	936	781
Total Current Payable	12,171	11,631
Non-Current Liabilities		
Defined Benefit Superannuation	7,411	5,353
Total Non-Current Payable	7,411	5,353
Total Personnel Services	19,582	16,984

Recognition and Measurement

Since the Administrative Arrangement Order 2014 all employees are under the employment of OEH, therefore salaries and wages, annual leave and on-costs are classified as personnel services expenses and provisions for annual leave, long service leave and defined benefit superannuation plans are recognised as payables. As per the Administrative order 2019 these arrangements will be transferred from OEH to Department of Planning, Industry and Environment on 1 July 2019.

(a) Salaries and Wages, Annual Leave, Sick Leave and On-Costs

Liabilities for salaries and wages that fall due wholly within 12 months of the reporting date are recognised and measured in respect of employees' services up to the reporting date at undiscounted amounts based on the amounts expected to be paid when the liabilities are settled.

Unused non-vesting sick leave does not give rise to a liability as it is not considered probable that sick leave taken in the future will be greater than the benefit accrued in the future.

All accrued annual leave is treated as a current liability with the expectation that annual leave will be taken when due. The on-costs i.e. payroll tax, worker's compensation insurance premiums and superannuation which are consequential to employment have been taken into account in calculating annual leave provisions.

(b) Long Service Leave and Superannuation

The liability for long service leave is recognised as payables under personnel services and measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date.

Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on Government bonds with terms to maturity that match as closely as possible the estimated future cash flows.

Superannuation expense is determined using the formulae specified in the Treasurer's Directions. All employees are entitled to superannuation benefits under one of the superannuation schemes, namely First State Superannuation Scheme (FSS), State Authorities Non-Contributory Superannuation Scheme (SANCS), State Authorities Superannuation Scheme (SASS), and State Superannuation Scheme (SSS). All funds are administered by the Superannuation Administration Corporation trading as Mercer Administration Services (Australia) Pty Ltd.

The superannuation schemes SSS, SASS and SANCS are all defined benefit schemes; at least a component of the final benefit is derived from a multiple of member salary and years of membership. All three schemes are closed to new members. Employees who are not members of an associated scheme and were covered by the State Authorities Non-Contributory Scheme (Basic Benefit) are automatically transferred into FSS. Employees also have the choice of using other superannuation schemes and some have opted to do so.

(c) Consequential on-costs

The outstanding amounts of payroll tax, workers' compensation insurance premiums, and fringe benefits tax, which are consequential to employment, are recognised as either liabilities or expenses depending on where the employee benefits to which they relate have been recognised.

15. Other Current Liabilities

	2019 \$'000	2018 \$'000
Unearned Income	11,814	4,586
Total Other Liabilities	11,814	4,586

Recognition and Measurement

Unearned income represents payments received in advance for Zoo Admission, Overnight accommodation and other Zoo activities. In FY 2019 Taronga received funding for new programs that will be delivered in FY 2020, in addition an increase of 2.3m in unearned income reflects the adjustment made to Zoo Friends Memberships revenue now being recognised on a monthly basis rather than annual basis.

16. Borrowings

	2019 \$'000	2018 \$'000
NSW Treasury Corporation (TCorp) Borrowings	53,924	27,714
These loans are due to mature as follows:		
Not later than one year	2,061	6,067
Later than one year but not later than two years	-	2,111
Later than two years but not later than five years	17,327	7,540
Later than five years	34,536	11,996
Total Borrowings	53,924	27,714

Recognition and Measurement

Borrowings classified as financial liabilities at amortised cost are initially measured at fair value, net of directly attributable transaction costs. These are subsequently measured at amortised cost using

the effective interest method. Gains and losses are recognised in net result when the liabilities are derecognised as well as through the amortisation process.

Face Value and Capital Value of Loans

	2019 \$'000	2018 \$'000
Face Value of Loans	51,807	27,008
Add Unamortised Premium	2,117	706
Capital Value of Loans	53,924	27,714

Reconciliation of Changes in Liabilities Arising from Financing Activities

2019

	1-Jul-18 \$'000	Cash flows \$'000	Amortisation \$'000	30-Jun-19 \$'000
TCorp Borrowings	27,714	26,500	(290)	53,924
Total Liabilities from Financing Activities	27,714	26,500	(290)	53,924

2018

	1-Jul-17 \$'000	Cash flows \$'000	Amortisation \$'000	30-Jun-18 \$'000
TCorp Borrowings	15,894	12,000	(180)	27,714
Total Liabilities from Financing Activities	15,894	12,000	(180)	27,714

17. Financial Instruments

Taronga has exposure to the following risks from its use of financial instruments:

- Credit risk
- Liquidity risk
- Market risk

The Board of Directors has overall responsibility for the establishment and oversight of the risk management framework.

Taronga's Corporate Services Audit and Risk Committee is responsible for monitoring risk management policies. The Committee reports regularly to the Board of Directors on its activities.

Risk management policies are established to identify and analyse the risks faced by Taronga, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and Taronga's activities. Taronga, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Corporate Services Audit and Risk Committee oversees how management monitors compliance with Taronga's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by Taronga.

Financial Instrument Categories

Financial Assets Class:	Note	Category	2019 \$'000	2018 \$'000
Cash and Cash Equivalents	21	N/A	34,156	26,776
Receivables (1)	8	Amortised cost	2,529	2,324
Other Financial Assets	10	Amortised cost	55,000	55,000
Financial Liabilities				
Class:				
Payables (2)	14	Financial liabilities measured at amortised cost	32,157	26,781
Borrowings	16	Financial liabilities measured at amortised cost	53,924	27,714

(1) Excludes statutory receivables and prepayments (i.e. not within scope of AASB 7).

(2) Excludes statutory payables and unearned revenue in (i.e. not within scope of AASB 7).

Financial Instruments give rise to positions that are a financial asset either of Taronga or its counterparty and a financial liability (or equity instrument) of the other party. For Taronga these include cash, receivables, cash deposited at the bank, TCorpIM Funds facility, payables and borrowings.

In accordance with AASB 7 *Financial Instruments: Disclosures*, information is disclosed below in respect of the market risk, credit risk and liquidity risk of financial instruments.

Financial instruments are carried at amortised cost, with the exception of cash, which is carried at fair value. However, the fair value of the other classes of financial instruments approximates their carrying value.

Taronga does not enter into or trade financial instruments for speculative purposes. Taronga does not use financial derivatives.

a) Credit Risk

Credit risk arises from the financial assets of Taronga which comprises trade and other receivables. The carrying amount of Taronga's financial assets represents the maximum credit exposure. Credit risk is the risk of financial loss to Taronga if a customer or counterparty to a financial instrument fails to meet its contractual obligations and arises principally from Taronga's receivables from customers. The maximum exposure to credit risk is represented by the carrying amount of the financial assets (net of any allowance for impairment).

Credit risk arises from the financial assets of Taronga, including cash, receivables and authority deposits. No collateral is held by Taronga. Taronga has not granted any financial guarantees.

Credit risk associated with Taronga's financial assets, other than receivables is managed through the selection of counterparties and the establishment of minimum credit rating standards. Authority deposits held with NSW Treasury Corporation (TCorp) IM Funds are guaranteed by the State.

Cash and Other Financial Assets

Cash and Other Financial Assets comprises cash on hand, Term Deposits with ANZ Banking Corporation, Westpac Banking Corporation, Bank of Queensland and TCorp which have been rated “A-1+”, “A-1+”, “A-2” and “AAA” by Standard and Poor’s respectively. Interest is earned on daily bank balances. At balance date the cash deposits were earning an average interest rate of 2.64% (2017/2018 2.60%), the weighted average interest rate for the period was 2.65% (2017/2018 2.60%). None of these balances are past due or impaired.

Receivables - Trade Debtors

Taronga applies the AASB 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for all trade debtors.

To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates are based on historical observed loss rates. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. Taronga has identified the GDP and the unemployment rate to be the most relevant factors, and accordingly adjusts the historical loss rates based on expected changes in these factors.

Trade debtors are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others a failure to make contractual payments for a period of greater than 91 days past due.

The loss allowance for trade debtors as at 30 June 2019 and 1 July 2018 (on adoption of AASB 9) was determined as follows:

30-Jun-19		\$'000				
	Current	<30 days	30–60 days	61–90 days	>91 days	Total
Expected credit loss rate	0.00%	0.00%	0.00%	0.00%	100.00%	
Gross carrying amount	2,450	24	55	-	-	2,529
Expected credit loss allowance	-	-	-	-	-	-

1-Jul-18		\$'000				
	Current	<30 days	30–60 days	61–90 days	>91 days	Total
Expected credit loss rate	0.00%	0.00%	0.00%	0.00%	100.00%	
Gross carrying amount	2,320	4	-	-	-	2,324
Expected credit loss allowance	-	-	-	-	-	-

Policy for impairment of trade debtors under AASB 139 (for financial year 2017-2018): An allowance for impairment is raised when there is objective evidence that Taronga will not be able to collect all amounts due. This evidence includes past experience, and current and expected changes in economic conditions and debtor credit ratings. No interest is earned on trade debtors. Sales are made on 30 day terms.

Taronga is not materially exposed to concentration of credit risk to a single trade debtor or group of debtors.

Taronga’s maximum exposure to credit risk at reporting date was \$2,529,000 (\$2,324,000 in 2018)

Taronga’s maximum exposure to credit risk for trade receivables at the reporting date by type of customer was:

	2019 \$'000	2018 \$'000
Trade Receivables Owing from NSW Government Entities	544	126
Trade Receivables Owing from Non-Government Educational	18	243
Trade Receivables Owing from Tourism Operators	834	866
Trade Receivables Owing from Other Entities	542	642
Trade Receivables Owing from Sponsors	384	338
Trade Receivables Owing from Catering Franchise Operator	207	109
Less: Allowance for Impairment	-	-
	2,529	2,324

Taronga does not hold any collateral as security over receivables.

Impairment as at 30 June 2019

	Gross 2019 \$'000	Impairment 2019 \$'000	Gross 2018 \$'000	Impairment 2018 \$'000
Not Past Due	2,450	-	2,320	-
Past due 0-30 Days	24	-	4	-
Past due 31-90 days	55	-	-	-
Past due > 90 Days	-	-	-	-
	2,529	-	2,324	-

b) Liquidity Risk

Liquidity risk is the risk that Taronga will not be able to meet its financial obligations as and when they fall due. Taronga’s approach to managing liquidity is to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when they fall due under both normal and stressed conditions.

Taronga continuously manages risk through monitoring future cash flows and maturities planning to ensure adequate holding of high quality liquid assets. During the current and prior years, there were no defaults or breaches in any loans payable. No assets have been pledged as collateral.

Liabilities are recognised for amounts due to be paid in the future for goods or services received, whether or not invoiced.

Taronga maintains a direct payments facility of \$1.4m. This was unused at 30 June 2019.

The following are the contractual maturities of financial liabilities, including estimated interest payments:

	Weighted Average Effective Int Rate %	Carrying Amount \$'000	Contractual Cash flows \$'000	Maturity Dates				
30-Jun-2019				< 6 mnths \$'000	6-12 mnths \$'000	>1yr <2 yrs \$'000	2-5 yrs \$'000	>5 yrs \$'000
Non-derivative Financial liabilities								
Trade and Other Payables		12,575	(12,575)	(12,575)	-	-	-	-
Borrowings -Fixed Interest Rate	2.82%	53,924	(64,503)	(1,030)	(3,049)	(1,939)	(20,789)	(37,696)
		Carrying Amount \$'000	Contractual Cash flows \$'000	< 6 mnths \$'000	6-12 mnths \$'000	>1yr <2 yrs \$'000	2-5 yrs \$'000	>5 yrs \$'000
30-Jun-2018								
Non-derivative Financial liabilities								
Trade and Other Payables		9,798	(9,798)	(9,798)	-	-	-	-
Borrowings -Fixed Interest Rate	3.95%	27,714	(32,861)	(625)	(6,747)	(2,901)	(8,806)	(13,781)

The Borrowings are shown as maturing in the future periods above, including interest payable thereon. The Board can recommend to either repay the loans on maturity or to extend these loans for a further period.

c) Market Risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices.

Taronga has no exposure to foreign currency risk and does not enter into commodity contracts.

Taronga's financial instruments comprise trade receivables and payables which do not earn/incur interest and fixed interest treasury loans which are not subject to interest rate fluctuations.

Cash deposited at the bank earns interest at a variable rate. A sensitivity analysis of the impact of an interest rate rise or fall of 100 basis points is included below.

Cash held in TCorpIM Funds facilities is exposed to other price risk, a possible impact on profit/loss due to changes in unit price is shown below.

Interest Rate Risk

Interest rate risk arises through Taronga's Interest bearing financial liabilities.

Financial Instruments

As at the reporting date the interest rate profile of Taronga's interest bearing financial instruments was:

Fixed Rate Instruments	Jun-19 \$'000	2018 \$'000
Financial Assets	-	-
Financial Liabilities	53,924	27,714
Variable Rate Instruments		
Financial Assets	34,156	26,776

Taronga manages its exposure to interest rate risk by financing borrowings through fixed rate borrowings.

Summarised Sensitivity Analysis

The below sensitivity analysis shows Taronga's exposure to interest rate risk in the event of +/-1% change in the interest rates.

	Carrying Amount	Interest Rate Risk			
		-1%	+1%	-1%	+1%
2019	\$'000	Net Result \$'000	Equity \$'000	Net Result \$'000	Equity \$'000
Financial assets					
Cash and cash equivalents	4,796	(48)	(48)	48	48
Receivables	2,529	-	-	-	-
Other Financial Assets	55,000	(550)	(550)	550	550
Financial liabilities					
Payables	32,157	-	-	-	-

	Carrying Amount	Interest Rate Risk			
		-1%	+1%	-1%	+1%
2018	\$'000	Net Result \$'000	Equity \$'000	Net Result \$'000	Equity \$'000
Financial assets					
Cash and cash equivalents	5,689	(57)	(57)	57	57
Receivables	2,324	-	-	-	-
Other Financial Assets	55,000	(550)	(550)	550	550
Financial liabilities					
Payables	26,782	-	-	-	-

In the above table the Cash and cash equivalents excludes funds held in TCorpIM Funds Facility as these funds are not exposed to interest rate risk.

There have been no changes in any of the assumptions used in preparing the above sensitivity analysis from the prior year.

Other Price Risk – TCorpIM Cash Fund

Exposure to 'other price risk' also arises through the investment in the TCorpIM Cash Fund, which are held for strategic rather than trading purposes. Taronga holds units in the following TCorpIM Funds trusts:

Facility	Investment Sectors	Investment Horizon	2019 \$'000	2018 \$'000
TcorpIM Funds – Cash Facility	Cash and money market instruments	Up to 1.5 years	29,360	21,087

The unit price of each facility is equal to the total fair value of the net assets held by the facility divided by the number of units on issue for that facility. Unit prices are calculated and published daily.

TCorp as trustee for each of the above facilities is required to act in the best interest of the unit holders and to administer the trusts in accordance with the trust deeds. As trustee, TCorp has appointed external managers to manage the performance and risks of each facility in accordance with a mandate agreed by the parties. TCorp has also leveraged off internal expertise to manage

certain fixed income assets for the TCorpIM Funds facilities. A significant portion of the administration of the facilities is outsourced to an external custodian.

Investment in the TCorpIM Funds facilities limits Taronga's exposure to risk, as it allows diversification across a pool of funds with different investment horizons and a mix of investments.

TCorp provides sensitivity analysis information for each of the Investment facilities, using historically based volatility information collected over a ten year period, quoted at two standard deviations (i.e. 95% probability). The TCorpIM Funds facilities are designated at fair value through profit or loss and therefore any change in unit price impacts directly on profit (rather than equity). A reasonably possible change is based on the percentage change in unit price (as advised by TCorp) multiplied by the redemption value as at 30 June each year for each facility (balance from TCorpIM Funds statement).

	Change in unit price	Impact on Net Result/Equity +/-	
		2019 \$'000	2018 \$'000
TCorpIM Funds – Cash Facility	+/-1%	294	211

Fair Value Measurement

Fair Value Compared to Carrying Amount

Financial instruments are generally recognised at amortised cost, with the exception of the TCorpIM Funds facilities, which are measured at fair value. The value of the TCorpIM Funds cash facility is based on Taronga's share of the value of the underlying assets of the facility, based on market value. All of the TCorpIM Funds facilities are valued using 'redemption' pricing.

The amortised cost of financial instruments recognised in the statement of financial position approximates the fair value because of the short-term nature of many of the financial instruments.

	Carrying Value		Fair Value	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
Financial Assets				
Cash and Cash Equivalents	34,156	26,776	34,156	26,776
Receivables	2,529	2,324	2,529	2,324
Other Financial Assets	55,000	55,000	55,000	55,000
	91,685	84,100	91,685	84,100
Financial Liabilities				
Payables	32,157	26,781	32,157	26,781
Borrowings	53,924	27,714	58,176	28,494
	86,081	54,495	90,334	55,275

Fair Value Recognised in the Statement of Financial Position

Level 1 - Derived from quoted prices in active markets for identical assets/liabilities.

Level 2 - Derived from inputs other than quoted prices that are observable directly or indirectly.

Level 3 - Derived from valuation techniques that include inputs for the asset/liability not based on observable market data.

2019

	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
Financial Assets at Fair Value				
Tcorp Hour-Glass Cash Facility	-	29,360	-	29,360
	-	29,360	-	29,360

2018

	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000	Total \$'000
Financial Assets at Fair Value				
Tcorp Hour-Glass Cash Facility	-	21,087	-	21,087
	-	21,087	-	21,087

18. Restriction on Revenue - Taronga Foundation

Taronga received certain amounts into the Taronga Foundation for specific purposes. As required by the Australian Accounting Standards, amounts have been recognised as revenues in the Income Statement which are yet to be spent in the manner specified. Unexpended amounts totalling \$15,382,000 (\$13,878,000 in 2017/2018) have been included in Accumulated Funds as at 30 June 2019. The unexpended restricted funds are held separately from Taronga's unrestricted funds.

	Unexpended Amount	
	2019 \$'000	2018 \$'000
Taronga Foundation Program		
Capital Redevelopment Fundraising	12,715	11,833
Taronga Foundation Recurrent Projects	2,667	2,045
Total	15,382	13,878

19. Remuneration of Auditors

The Audit Office fees for auditing Taronga's financial statements were \$105,500 (\$102,900 in 2017/2018). The auditors received no other benefits.

20. Related Party Disclosures

Taronga's Key Management Personnel includes the Executive Director and Chief Executive, the divisional Directors and Members of the Board as they are directly or indirectly authorised and responsible for planning, directing and controlling the activities of Taronga.

(a) Chief Executive and Divisional Directors

Mr Cameron Kerr – Executive Director and Chief Executive
 Mr Timothy Bain – Director (to 15 Mar 2019)
 Ms Narelle Beattie – Director
 Mr Nicholas Boyle – Director (from 1 Jan 2019)
 Mr Simon Duffy – Director

Mr Steven Hinks – Director
 Ms Elizabeth Hodgson – Director
 Mr Paul Maguire – Director
 Ms Bettina Sammut – Director

	2019	2018
Key Management Personnel Compensation	\$'000	\$'000
Short-term employee benefits	1,731	1,657
Other long-term employee benefits	95	73
Total	1,826	1,730

The above compensation forms part of the personnel services provided by OEH – refer note 6(a).

The Key Management Personnel compensation excludes The Minister for the Environment, Local Government and Heritage and The Minister of Energy and Environment. Ministerial compensation is paid by the NSW Legislature and not by Taronga.

(b) Members of the Board

Mr Steven Crane – Chair
 Ms Nancy Fox – Deputy Chair
 Mr Roy Bendall
 Ms Penelope Bingham-Hall
 Ms Rosalind Dubs (from 30 Aug 2018)
 Ms Robyn Parker
 Mr Ian Roth
 Mr Graham Wackett
 Mr John Walkom

Board remuneration (including superannuation and payroll tax) of \$185,205 (\$175,642 in 2017/2018) was paid. This amount included Honoraria of \$38,367 (\$38,367 in 2017/2018) paid to the Chair of the Board and \$146,838 (\$137,274 in 2017/2018) paid to the other members of the Board. The rates of remuneration were fixed and approved by the Department of Premier and Cabinet.

The Board honorarium remuneration brackets are displayed below together with the number of members in each bracket.

	2019	2018
\$10,000 - \$19,999	7	8
\$20,000 - \$29,999	1	-
\$30,000 - \$39,999	1	1
Board Members	9	9

During the year, Taronga did not enter into any transactions with key management personnel, their close family members and controlled or jointly controlled entities thereof.

(c) Government Related Entities

During the year, Taronga entered into transactions with other entities that are controlled/jointly controlled/significantly influenced by NSW Government. This includes grant funding from NSW

Treasury (Note 3), insurance arrangements obtained from NSW Self Insurance Corporation, personnel services arrangements with OEH (Note 6a), financing arrangements with TCorp (Note 6c), financial audit services from The Audit Office of NSW (Note 19), funding from NSW Family and Community Services for special indigenous programs, providing expertise to Lord Howe Island Board for its rodent eradication program, delivering accredited courses to students funded by NSW Department of Education and Communities and receiving asset valuation services from Department of Finance, Services and Innovation.

21. Notes to the Cash Flow Statement

(a) Reconciliation of Cash and Cash Equivalents

Cash at the end of the reporting period as shown in the statement of cash flows is reconciled to the related items in the statement of financial position as follows:

	2019	2018
	\$'000	\$'000
Cash at bank and on hand	4,796	5,689
TCorp Hour-Glass cash facility	29,360	21,087
Total	34,156	26,776

(b) Reconciliation of Net Result to Net Cash Provided from Operating Activities:

	2019	2018
	\$'000	\$'000
Net Result	7,031	18,502
Depreciation and Amortisation	24,921	23,964
(Gain)/Loss on Sale of Assets	5	-
Amounts capitalised in prior years transferred to profit and loss	1,854	2,785
Change in Assets and Liabilities:		
(Increase)/Decrease in GST Receivable	(709)	267
(Increase)/Decrease in Accounts Receivable	(217)	538
(Increase)/Decrease in Inventories	(169)	19
Increase/(Decrease) in Creditors and Accruals	1,305	(92)
(Increase)/Decrease in Prepayments	(211)	(170)
Increase/(Decrease) in Unearned Income	7,226	564
Increase/(Decrease) in Employee Entitlements	385	650
Increase/(Decrease) in Unfunded Superannuation	2,213	(457)
Movement in Unamortised (Premium)/Discount on Loans	(291)	(180)
Net Cash Provided From Operating Activities	43,343	46,390

Taronga has not entered into any non cash financing or investing activities.

(c) Financing Facilities

A Direct Payments facility of \$1.4m was available to Taronga and unused at 30 June 2019.

22. Reserves and Retained Surplus

	Accumulated Funds		Asset Revaluation Reserve		Total Equity	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
Balance at the beginning of the financial year	240,409	221,906	281,258	281,258	521,667	503,164
Net Result	7,031	18,502	-	-	7,031	18,502
Net increase in asset revaluation reserve for:						
• land and buildings	-	-	57,844	-	57,844	-
• infrastructure	-	-	11,841	-	11,841	-
Total	7,031	18,502	69,685	-	76,716	18,503
Balance at the end of the financial year	247,440	240,409	350,943	281,258	598,383	521,667

Reserve and Retained Surplus

i. Revaluation Surplus

The revaluation surplus is used to record increments and decrements on the revaluation of non-current assets. This accords with Taronga's policy on the revaluation of property, plant and equipment as discussed in note 11(e).

ii. Accumulated Funds

The category 'Accumulated Funds' includes all current and prior year retained funds.

23. Commitments for Expenditure

a) Capital Expenditure Commitments

Aggregate capital expenditure for the acquisition of property, plant and equipment contracted at balance date and not provided for:

	2019 \$'000	2018 \$'000
Not later than one year	34,459	51,443
Later than one year and not later than five years	488	290
Later than five years	-	-
Total including GST	34,947	51,733

b) Operating Lease Commitments

Future minimum rentals payable under non-cancellable operating lease as at 30 June are as follows:

	2019 \$'000	2018 \$'000
Not later than one year	62	135
Later than one year and not later than five years	192	107
Later than five years	37	61
Total including GST	291	303

The major operating leases relate to computer equipment and browse plantations.

GST Input Tax Credit Claimable on Commitments Amounts to \$3,206,173 (\$4,733,289 in 2017/2018).

24. Contingent Assets and Liabilities

Taronga is not aware of any contingent assets or liabilities at 30 June 2019 (nil in 2017/2018).

25. Subsequent Events

As per the Administrative Order 2019 with effect from 1 July 2019, Taronga's personnel services arrangement was transferred from OEH to Department of Planning, Industries and Environment.

There were no other subsequent events occurring after balance date that have materially affected or may materially affect the results reported.

End of Audited Financial Statements

APPENDICES

Contents

Appendix 1	Functions of the Taronga Conservation Society Australia	124
Appendix 2	Privacy Management	124
Appendix 3	Conservation Program and Population Management Program	125
Appendix 4	Animal Transactions Relating to Conservation and Population Management Programs	126
Appendix 5	Research Projects and Conservation Programs	129
Appendix 6	Post Mortem and Clinical Samples Supplied for Research and Teaching Purposes	138
Appendix 7	Scientific Associates	139
Appendix 8	Paid Consultancies Undertaken by the Taronga Conservation Society Australia	142
Appendix 9	Lectures and Presentations	149
Appendix 10	Publications	146
Appendix 11	Staff Representation on External Committees	149
Appendix 12	International Travel	152
Appendix 13	EEO target groups 2012–2015	153
Appendix 14	Senior Executive Service	154
Appendix 15	Senior Staff	154
Appendix 16	Employee by Category	155
Appendix 17	Government Information (Public Access) Act	156
Appendix 18	Public Interest Disclosures	159
Appendix 19	Consultants' Fees Incurred in 2018/19	159
Appendix 20	VIP Visits to Taronga and Taronga Western Plains Zoos in 2018/2019	159
Appendix 21	Multicultural Policies and Services Program	160
Appendix 22	Internal Audit and Risk Management Attestation for the 2018/19 financial year for Taronga Conservation Society Australia	164
Appendix 23	Credit Card Certification	164
Appendix 24	Risk Management and Insurance Report	165
Appendix 25	Investment and Liability Performance	165
Appendix 26	Annual Report External Production Costs	166
Appendix 27	Funds Granted to Non-Government Community Organisations	166
Appendix 28	Land Disposal	167
Appendix 29	Digital Information Security Annual Attestation Statement for the 2018/19 financial year for Taronga Conservation Society Australia	167

Appendix 1

Functions of the Taronga Conservation Society Australia

The main functions of the Board of the Taronga Conservation Society Australia are specified in Section 15 of the Zoological Parks Board Act 1973, which provides as follows:

15 (1) The Board may establish, maintain and control (Taronga) for the following purposes:

- a) carrying out research and breeding programs for the preservation of endangered species;
- b) carrying out research programs for the conservation and management of other species;
- c) conducting public education and awareness programs about species conservation and management; and
- d) displaying animals for educational, cultural and recreational purposes.

15 (2) The Board may also maintain and control:

- a) the zoological park established before the commencement of the Act on the land described in Schedules 3 and 4 under the name ‘Taronga Zoological Park’; and
- b) Other zoological parks on land or premises vested in or held by the Board, whether or not those parks were established by the Board, for the purposes referred to in this section.

15 (3) The Board:

- a) may cooperate with, and provide funds and other assistance to, such scientific and other institutions, governments and other bodies and individuals as the Board may determine

in connection with species conservation and management for other scientific and zoological purposes; and

b) may investigate and carry out research into:

- 1. the design of, and equipment and procedures in zoological parks; and
- 2. the care and well-being of animals kept in zoological parks are maintained and controlled by the Board; and

c) may provide educational services for the public (whether in the nature of lectures, broadcasts, films, publications or otherwise) about species conservation and management, zoological parks and the biology of animals and;

d) may provide and charge for such services in connection with zoological parks maintained and controlled by the Board as the Board may determine; and

e) may make recommendations or reports to the Minister with respect to matters connected with the Board’s power, authorities, duties, functions or the administration of this Act.

15 (4) The Minister may request the Board to make recommendations or reports to the Minister with respect to matters connected with the Board’s powers, authorities, duties and functions or the administration of this Act and the Board is to comply with any such request.

15 (5) The Board may exercise and perform such other powers, authorities, duties and functions as may be conferred or imposed on the Board or under this or any other Act.

Appendix 2

Privacy Management

In accordance with section 33 of the Privacy and Personal Information Act 1988, Taronga has a Privacy Management Plan and Internet Privacy Statement. Taronga’s Internet Privacy Statement can be viewed on our website, www.taronga.org.au/about-us/privacy-policy/privacy-policy

Taronga’s Privacy Management Plan identifies:

- The nature of personal information collected and held by Taronga;
- Obligations of employees in respect of personal information;
- The applicable principles for the collection, retention, storage, access and disclosure of personal information and how Taronga meets those principles; and
- Procedures for lodging complaints or internal reviews.

For a copy of Taronga’s Privacy Management Plan, please contact:

Manager Governance, Corporate Services
Taronga Conservation Society Australia
PO Box 20Mosman NSW 2088
T: 02 9978 4709 | F: 02 9969 7515

In the 2018–19 year, Taronga received nil complaints with respect to the disclosure of personal information.

Appendix 3

Conservation Program and Population Management Program

Species that are cared for as part of a coordinated zoo association species management program (ASMP, EEP, SSP, GSMP), as well as species that are part of a coordinated managed program with ex-situ recovery actions, managed in partnership with a range state wildlife agency (NSW Office of Environment and Heritage, International Rhino Foundation, Parks Australia)

Species	Held at TZ	Held at TWPZ	Coordinator	Program
Addax		X	L Elliott*	ASMP
African Lion		X	L Ginman*	ASMP
African Wild Dog		X	D Noble	ASMP
Asian Elephant	X	X	A Embury	ASMP
Australian Little Penguin	X		M Rios Meza*	ASMP
Bellinger River Turtle	X		A Skidmore*	OEH
Black and White Ruffed Lemur		X	L Grossfeldt	ASMP
Black-handed Spider Monkey		X	L Grossfeldt	ASMP
Black-winged Stilt	X		Vacant	ASMP
Blue-tailed Skink	X		L Cavanagh*	PA
Bongo	X	X	C Magner*	ASMP
Broad-headed Snake	X		D Gilbert	ASMP
Brolga	X		C Srb	ASMP
Brush-tailed Bettong	X		L Olds	ASMP
Brush-tailed Rock Wallaby	X		A Elphinstone*	OEH / ASMP
Cheetah		X	L Elliott*	ASMP
Chimpanzee	X		B Pohl	ASMP
Cook Strait Tuatara	X		S Eyre	ASMP
Cotton-Top Tamarin	X		A Embury	ASMP
Eastern Whipbird	X		K Horsburgh*	ASMP
Eland		X	C Ford*	ASMP
Fijian Crested Iguana	X		R Keenan	ASMP
Fishing Cat	X		T Rus	EEP
Francois Langur	X		A Hope	EEP
Ghost Bat	X		Vacant	ASMP
Giraffe	X	X	L Jolly	ASMP
Goodfellow’s Tree-kangaroo	X		M Richardson	GSMP / ASMP
Greater Bilby	X	X	J Buchecker	OEH / ASMP
Greater One-horned Rhinoceros		X	N Boyle*	SSP
Hippopotamus		X	Y Pauligk	ASMP
Lister’s Gecko	X		L Cavanagh*	PA
Meerkat	X	X	S Eyre	ASMP
Noisy Pitta	X		E Schmelitschek*	ASMP
Northern Corroboree Frog	X		M McFadden*	OEH / ASMP
Plains Zebra		X	S Dentrinos	ASMP
Plains-wanderer	X	X	M Sheils*	OEH
Przewalski’s Horse		X	F Cameron*	ASMP

Species	Held at TZ	Held at TWPZ	Coordinator	Program
Pygmy Hippopotamus	X		R Moss*	ASMP
Pygmy Marmoset	X		S Eyre and H Neale	ASMP
Quokka	X	X	S Catwell	ASMP
Red Panda	X		J Biggs	ASMP
Regent Bowerbird	X		M Shiels*	ASMP
Regent Honeyeater	X		M Van Sluys* / E Schmelitschek*	OEH / ASMP
Ring-tailed Lemur	X	X	D Noble	ASMP
Rose-crowned Fruit-dove	X		N Atchison	ASMP
Sacred Kingfisher	X		C Srb	ASMP
Scimitar-horned Oryx		X	D Burgoyne	ASMP
Siamang		X	L Grossfeldt	ASMP
Small-clawed Otter	X	X	Vacant	ASMP
Southern Black Rhinoceros		X	N Boyle*	IRF
Southern Cassowary	X		J Biggs	ASMP
Southern Corroboree Frog	X		M McFadden*	OEH / ASMP
Southern Hairy-nosed Wombat	X		G Skipper	ASMP
Squirrel Monkey	X	X	L Grossfeldt	ASMP
Sumatran Tiger	X	X	J Biggs	GSMP / ASMP
Tasmanian Devil	X	X	J Biggs	ASMP
Western Lowland Gorilla	X		A Everett*	ASMP
White Rhinoceros		X	N Boyle*	ASMP
White-browed Woodswallow	X		Vacant	ASMP
White-cheeked Gibbon	X		H Thompson	ASMP
Yellow-spotted Bell Frog	X		M McFadden*	OEH

*Staff member

Programs

ASMP – Australasian Species Management Program	OEH – NSW Office of Environment and Heritage
EEP – European Endangered Species Program	IRF – International Rhino Foundation
SSP – Species Survival Plan	PA – Parks Australia
GSMP – Global Species Management Plan	

Appendix 4

Animal Transactions Relating to Conservation and Population Management Programs:
Animals transferred from Taronga Conservation Society Australia

Gender Convention	Species Type	Name of Place Transferred to
0.1.0	Southern Hairy-nosed Wombat	Ballarat Wildlife Park, VIC
1.0.0	Black-winged Stilt	Darling Downs Zoo, QLD
1.0.0	Noisy Pitta	Featherdale Wildlife Park, NSW
2.0.0	Regent Honeyeater	Featherdale Wildlife Park, NSW
1.0.0	Noisy Pitta	Adelaide Zoo, SA
2.1.0	Regent Honeyeater	Adelaide Zoo, SA

Gender Convention	Species Type	Name of Place Transferred to
0.1.0	Noisy Pitta	Gorge Wildlife Park, SA
2.0.0	Australian Little Penguin	Featherdale Wildlife Park, NSW
1.0.0	Rose-crowned Fruit-dove	Wildlife Habitat, QLD
1.0.0	Regent Honeyeater	Australian Reptile Park, NSW
6.0.0	Squirrel Monkey	Taronga Western Plains Zoo, NSW
0.1.0	Red Panda	Perth Zoo, WA
0.2.0	Brush-tailed Rock-wallaby	Currumbin Sanctuary, QLD
1.0.0	Eastern Whipbird	Wildlife Habitat, QLD
3.0.0	Rose-crowned Fruit-dove	Australia Zoo, QLD
1.0.0	Sacred Kingfisher	Caversham Wildlife Park, WA
0.1.0	Regent Honeyeater	Symbio Wildlife Gardens, NSW
0.2.0	Eastern Whipbird	Symbio Wildlife Gardens, NSW
1.0.0	Regent Honeyeater	Australia Zoo, QLD
1.0.0	Eastern Whipbird	Australia Zoo, QLD
0.1.0	Rose-crowned Fruit-dove	Featherdale Wildlife Park, NSW
0.1.0	Pygmy Hippopotamus	Darling Downs Zoo, QLD
1.0.0	Eastern Whipbird	National Zoo and Aquarium, ACT
1.0.0	Tasmanian Devil	Tasmania Zoo, TAS
0.1.0	Goodfellow’s Tree-kangaroo	Australian Reptile Park, NSW
1.0.0	Regent Honeyeater	Currumbin Sanctuary, QLD
0.1.0	Regent Honeyeater	Featherdale Wildlife Park, NSW
1.1.0	Plains Zebra	Werribee Open Range Zoo, VIC
1.1.0	Tasmanian Devil	Halls Gap
0.2.0	African Lion	Perth Zoo, WA
2.0.0	Eland	Altina Wildlife Park, NSW
1.0.0	Tasmanian Devil	Ballarat Wildlife Park, VIC
5.0.0	African Wild Dog	Werribee Open Range Zoo, VIC
0.2.0	Tasmanian Devil	Hunter Valley Zoo, NSW
1.0.0	Tasmanian Devil	Altina Wildlife Park, NSW
3.0.0	Greater Bilby	Taronga, NSW
6.0.0	Squirrel Monkey	Melbourne Zoo, VIC
1.1.0	Small-clawed Otter	Rockhampton Zoo, QLD
4.0.0	African Lion	Sydney Zoo, NSW
0.0.119	Northern Corroboree Frog	Release to wild
83 eggs	Northern Corroboree Frog	Release to wild
0.1.0	Plains-wanderer	Werribee Open Range Zoo, VIC
1.0.0	Plains-wanderer	Featherdale Wildlife Park, NSW
4.2.0	Plains-wanderer	Taronga Western Plains Zoo, NSW
0.0.136	Southern Corroboree Frog	University of Wollongong, NSW
947 eggs	Southern Corroboree Frog	Release to wild
0.0.200	Yellow-spotted Bell Frog	Release to wild
0.0.376	Yellow-spotted Bell Frog	Release to wild
0.0.1000	Yellow-spotted Bell Frog	Release to wild
0.0.10	Bellinger River Turtle	Release to wild

Animals transferred to Taronga Conservation Society Australia

Gender Convention	Species Type	Name of Place Transferred to
0.4.0	Pygmy Marmoset	Symbio Wildlife Gardens, NSW
0.1.0	Eastern Whipbird	Symbio Wildlife Gardens, NSW
4.0.0	Regent Honeyeater	Moonlit Sanctuary, VIC
2.0.0	Regent Honeyeater	Moonlit Sanctuary, VIC
0.1.0	Eastern Whipbird	Moonlit Sanctuary, VIC
1.0.0	Fijian Crested Iguana	Melbourne Zoo, VIC
1.0.0	Australian Little Penguin	Rescue/Rehab
2.0.0	White-browed Woodswallow	Currumbin Sanctuary, QLD
1.0.0	White-browed Woodswallow	Moonlit Sanctuary, VIC
0.2.0	Brush-tailed Rock-wallaby	Waterfall Springs, NSW
1.0.0	Eastern Whipbird	Healesville Sanctuary, VIC
3.0.0	Greater Bilby	Taronga Western Plains Zoo, NSW
1.0.0	Sacred Kingfisher	Currumbin Sanctuary, QLD
2.1.0	Regent Honeyeater	Cleland Wildlife Park, SA
1.1.0	Regent Honeyeater	Australian Reptile Park, NSW
2.0.0	Greater Bilby	Alice Springs Desert Park, NT
6.0.0	Squirrel Monkey	Taronga, NSW
4.4.0	Greater Bilby	Charleville Bilby Experience, QLD
1.0.0	Tasmanian Devil	Trowunna Wildlife Sanctuary, TAS
1.0.0	Small-clawed Otter	Singapore Zoo, Singapore
1.0.0	Cheetah	Monarto Zoo, SA
1.0.0	Giraffe	Mogo Zoo, NSW
1.1.0	Plains-wanderer	Collected from wild
4.2.0	Plains-wanderer	Taronga, NSW
1.0.0	Plains-wanderer	Werribee Open Range Zoo, VIC

Appendix 5

Research Projects and Conservation Programs

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
	Reintroduction of small mammals into Booderee National Park	Mr N Dexter Dr K Rose Ms J Hall Dr N Robinson Dr C MacGregor	Booderee National Park (Parks Australia), Forestry Corporation of NSW, Australian National University	Threatened Species Commissioner, Parks Australia
	Christmas Island flying fox: Health, ecology and conservation	Prof J Welbergen Prof D Phalen Dr K Rose Dr H Bender Ms J Hall Mr S Surridge Ms S Flakus Dr D Spratt Dr D Westcott Dr J Martin Dr J West A/Prof E McDonald Madden	Christmas Island National Park (Parks Australia), University of Sydney, CSIRO, Western Sydney University, Royal Botanic Gardens Sydney	Christmas Island National Park (Parks Australia), Western Sydney University, Hawksbury Institute for the Environment
	Platypus population dynamics and a national risk assessment	Dr R Spindler Dr N Jordan Dr K Rose Dr L Vogelnest Dr J O'Brien Prof R Kingsford Prof W Sherwin Dr G Bino Dr T Grant Dr J Gongora Adj Prof D Lunney A/Prof B Wintle Dr M Fleming Dr M Ronan Dr S Munks Mr S Lang Dr J Koehn Mr J Griffiths Mr D Papps	University of NSW, University of Sydney, University of Melbourne, NSW Office of Environment and Heritage, QLD Department of Environment and Heritage Protection, Forest Practices Authority, Dept Environment, Arthur Rylah Institute for Environmental Research, Cesar Pty Ltd.	ARC Linkage
	Georges turtle (Bellinger River snapping turtle) virus: finding the source	Dr P Kirkland Dr K Rose Ms J Hall	NSW Office of Environment and Heritage, NSW Department of Primary Industries, NSW Health, Local Lands Services	NSW Office of Environment and Heritage
3b/12/18	Centre for pathogen discovery	Prof E Holmes Prof V Sintchenko Dr J-S Eden Dr K Rose Ms J Hall Dr H Bender Dr B Hudson	University of Sydney, The Marie Bashir Institute for Infectious Diseases and Biosecurity, NSW Health	University of Sydney

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
4b/12/17	Christmas Island reptile emergent enterococcus, and Christmas Island blue-tailed skink translocation to Cocos (Keeling) Island	A/Prof D Phalen Dr K Rose Dr H Bender Ms J Hall Dr J.S Eden Ms J Agius Mr JP Emery Dr N Mitchell Dr S Flakus Mr B Tiernan	University of Sydney, Parks Australia, Christmas Island National Park, University of Western Australia	Perpetual grant, Australia Pacific Science Fund, Holdsworth Wildlife Research Endowment, Parks Australia
	Yellow fungus disease in free-ranging water dragons in Qld	Dr C Frere Dr S Shaw Dr K Rose Ms J Hall	University of Sunshine Coast, RSPCA QLD	National Significant Disease Investigation Scheme
4a/04/18, 3a/12/18	Fire management implications for biodiversity in Kakadu National Park	Dr K Rose	Parks Australia	Parks Australia
	Invasive animals and confiscated wildlife: Pathogen Discovery and biosecurity	Prof E Holmes Dr J.S Eden Dr K Rose Dr H Bender Ms J Hall	University of Sydney	University of Sydney, ARC
	Uluru-Kata Tjuta NP Mala census	Dr K Rose	Parks Australia	Parks Australia
3a/04/16	Numeracy in amphibians: do frogs go for more?	Dr A Burns Dr J Meade	University of Western Sydney	
3d/12/15	Short-beaked echidna cognition	Dr A Burns Dr J Meade	University of Western Sydney	
4A0817	Assessing the ecological role of brush turkeys in urban Sydney	Dr A Burns Dr J Martin Dr D Hochuli	University of Sydney, Royal Botanic Gardens	
3b/08/16	Social foraging olfaction in marine predators	Dr B Pitcher Dr D Slip	Macquarie University	Macquarie University
	Flight initiation distance and urbanisation in birds	Dr B Pitcher Prof R Harcourt Prof D Blumstein	Macquarie University, University of California	
	Multimodal communication in marine mammals	Dr B Pitcher Prof R Harcourt Dr I Charrier	Macquarie University, CNRS France	CNRS France, Macquarie University
	Assessing social networks and fitness in the critically endangered, captive bred for release, regent honeyeater	Dr J Tripovich Dr B Pitcher Dr A Burns A Elphinstone Dr R Crates D Ingwersen	Australia National University, Birdlife Australia	Winifed Violet Scott Charitable Trust
	Behavioural ecology of the critically endangered plains-wanderer	Dr B Pitcher Dr A Burns Dr M Van Sluys		
3c/04/19	Understanding animals through their movement	Dr A Burns Dr A Ward Dr T Schaerf Dr J Krause Dr S Krause Dr M Wikelski	University of Sydney, University of New Englande, Max Planck Institue for Ornithology, IGB Berlin, Humboldt University, Lubeck University	ARC Discovery, University of Sydney

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
3d/04/19	Evaluating the effectiveness of enrichment for zoo-based seals and sea lions	Dr A Burns Dr D Hochuli	University of Sydney	
	Great Barrier Reef recovery initiative	Dr J O’Brien Dr M Hagedorn Dr A Heyward Dr D MacFarlane Dr M van Oppen Dr L Bay Dr R Hobbs Dr J Daly	Australian, Institute of Marine Science, Smithsonian Institution, Monash University, James Cook University	Great Barrier Reef Foundation, Smithsonian Institution, Roddenberry Foundation, Albert George and Nancy Caroline Youngman Trust
3a/08/16	Semen cryopreservation techniques in skinks	Dr R Hobbs Ms L Keogh Dr M Whiting Mr J Baxter-Gilbert	Macquarie University	Macquarie University
	Developing a scent-based management tool for dingoes and other wild dogs in Australia	Dr N Jordan Prof M Letnic C Price B Walker B Alting Dr H Bates Dr B Pitcher	University of NSW, Dingo Sanctuary, NSW National Parks and Wildlife Service, Bush Heritage	University of NSW, Hermon Slade Foundation, University of NSW Startup funds
	Conservation of lions and other large carnivores in Botswana	Dr N Jordan Dr J McNutt Dr K Golabek C Radford Prof T Rogers L Ransome Prof D Jones R Appleby Dr A King K Rafiq	University of NSW, Botswana Predator Conservation Trust, WildSpy, Griffith University, Swansea University, Liverpool John Moores University	Columbus Zoo, University of NSW, Griffith University, Philanthropic donors (to BPCT), Crowdfunding through Experiment.com
3d/08/16	Opportunistic collection of electro-ejaculated semen	Dr R Hobbs Mr B Bryant		
3a/08/16	Does mating system drive sperm morphology in a lizard complex?	Dr R Hobbs Ms K James Ms L Keogh Dr M Whiting Mr J Baxter-Gilbert	Macquarie University	Royal Zoological Society of New South Wales
	Platypus stress: evaluation of the effects of river flow regimes on platypus gluco-corticoids	Dr G Bino Dr N Jordan Dr R Hobbs	University of NSW	ARC Linkage
4b/06/17	Sanctuary flora and fauna surveys	Dr N Jordan Dr P Harlow Mr A Elphinstone Dr J Lawes Prof R Kingsford Ms C Benbow	University of NSW	University of NSW

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
4b/02/18	Bandicoots in our backyard	Dr J Lawes Dr P Harlow Dr N Jordan Mr R Stapley Ms T Garman Mr H Tsandis	University of NSW	
	African wild dog communication and cognition	Dr N Jordan Dr J McNutt Dr K Golabek L Ransome	Botswana Predator Conservation Trust, University of NSW, Griffith University	RTP, National Geographic
4a/06/18	Bilby survival and movement ecology	Mr A Elphinstone Dr N Jordan Prof R Kingsford K Cornelsen	University of NSW	
	Developing indicators of reptile population health by leveraging long-term data on a non-classical model species	Dr R Hobbs Dr L Schwanz	University of NSW	University of NSW Industry Network Seed Fund
UBR/RES/ACUC/010	Leopard movement ecology	Dr N Jordan Dr J McNutt B Walker Prof T Rogers R N Setlalekgomo	University of NSW, Botswana Predator Conservation Trust, University of Botswana, Natural Selection	Natural Selection Conservation Trust
4c/12/13, 3a/10/16	Southern Corroboree frog captive breeding and re-introduction	Mr M McFadden Dr P Harlow	NSW Office of Environment and Heritage	The Wilson HTM Foundation Suez
	Scoop a poop: Antibiotic resistance in native animals, through citizen science by DNA testing of possum scats	Dr M Power Dr M Gillings Dr C McArthur	Macquarie University, University of Sydney	Australian Federal Government Fund for Citizen Science
4a/12/17	Experimental re-introduction of Yellow-spotted bell frog to the Southern Tablelands, NSW	Mr M McFadden Dr D Hunter	NSW Office of Environment and Heritage	NSW Office of Environment and Heritage
	Experimental re-introduction of Northern Corroboree frogs to the Brindabella National Park, NSW	Mr M McFadden Dr D Hunter	NSW Office of Environment and Heritage	NSW Office of Environment and Heritage
140203/01	Experimental re-introduction of Southern Corroboree frogs to the field exclosures	Mr M McFadden Dr D Hunter	NSW Office of Environment and Heritage	NSW Office of Environment and Heritage
AE16/19	Silver Spoon start to life: Nutritional Requirements of the critically endangered Corroboree frog	Dr P Byrne Dr A Silla Prof S Robinson Dr P Harlow	University of Wollongong	ARC Linkage
	Wild shark migration, movements and social networks	Dr J Day A/Prof C Brown Dr N Knott Dr T Guttridge	Macquarie University, NSW DPI Fisheries, Sonotronics, Bimini Biological Field Station	SeaWorld Research and Rescue Foudation, ARC Linkage

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
3a/06/15	Social preferences, activity patterns and learning in Port Jackson sharks	Dr J Day A/Prof C Brown Ms J Kadar	Macquarie University	Woolworths, Macquarie University
	Resolving the warming East Australian Current’s impact on a marine food web	Dr D Slip Prof R Harcourt Dr I Jonsen Prof I Suthers A/Prof M Roughan A/Prof M Doblin Dr M Cox	Macquarie University, University of NSW, University of Technology, Australian Antarctic Division	ARC Linkage
4a/12/14	Bio-inspired camouflage to prevent shark attacks on surfers	Dr D Slip A/Prof N Hart Prof S Collin Dr C Huveneers Dr E Gennari Dr V Peddemors	Macquarie University, University of Western Australia, Flinders University, Oceans Research Shark Mitigation Systems, Pty Ltd, NSW DPI Fisheries	ARC Linkage, NSW Shark Management Competitive Annual Grants Program
3b/08/16	Social foraging olfaction in marine predators	Dr B Pitcher Dr D Slip	Macquarie University	
	Environmental predictive models for shark attacks in Australian waters : an analysis of the Australian Shark Attack File	Dr D Slip A/Prof N Hart Prof R Harcourt Dr L Ryan Dr J Everett Dr V Peddemors	Macquarie University, University of New South Wales, NSW DPI Fisheries	
	Trophic interactions between key marine apex predators off the Uruguayan coast	Dr D Slip Prof R Harcourt Dr Vincent Raoult	Macquarie University, University of Newcastle, DINARA (Dirección Nacional de Recursos Acuaticos – National Direction of Aquatic Resources)	PADI Foundation
	Using camera traps to survey African clawless otters	Dr D Slip Prof R Harcourt Dr T McIntyre	Macquarie University, University of Pretoria	
	Assessing the effectiveness of recovery plans for listed threatened marine species under the EPBC Act	Dr D Slip Prof R Harcourt	Macquarie University	
	Developing the next generation of animal telemetry tools	Dr D Slip Prof R Harcourt Dr I Jonsen	Macquarie University, Sydney Institute of Marine Science (SIMS), Bird Studies Canada and Arcadia University (MOTUS), Dalhousie University (on behalf of the Ocean Tracking Network), Vemco, US Office of Naval Research	Macquarie University, MOTUS, SIMS, Vemco, ONR/ATN
	Determining the sequence and age of ossification of the appendicular skeleton of the short-beaked echidna	Dr L Vogelnest		
3e/04/19	Computed tomography (CT) imaging of the wombat gastrointestinal system	Dr S Carver Dr L Vogelnest	University of Tasmania	

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
	Characterisation of the reproductive cycle of the Bellinger River turtle using ultrasonography, behavioural observations and oviposition	Dr L Vogelnest Mr A Skidmore G Liu		
	Haematologic and biochemical parameters of the critically endangered regent honeyeater (Anthochaera phrygia)	Mr P Thompson Dr L Vogelnest Dr P Meagher		
	Prevalence of koala retrovirus including KoRV B in Australian-based koalas	Dr K Vinette Herrin Dr L Vogelnest Mr P Thompson Dr D Higgins	University of Sydney	
	Dispersion of Aerosolized Bacteria from Asian elephants (Elephas Maximus)	Dr L Vogelnest Ms E Paul Mr P Thompson Dr P Meagher	Purdue University	
4b/04/17	Satellite tracking of marine turtles released from TWH	Dr K Vinette Herrin Ms L Hall		SUEZ
4c/04/17	Use of pedigree to analyse the mode of transmission of koala retrovirus variants in Taronga Zoo koalas	Dr K Vinette Herrin Mr P Thompson Dr L Vogelnest Dr D Higgins Dr K Chappell	University of Sydney University of Queensland	University of Queensland
	Characterisation of milk and spur secretion of the long-beaked echidna	Dr L Vogelnest Prof K Belov Dr E Undheim	University of Sydney, University of Queensland	
	Longitudinal interferon gamma responses in a captive Asian elephant population with a history of Tuberculosis	Dr K Plain Dr V Rutten Dr P van Kooten Mr P Thompson Dr L Vogelnest Dr D Begg	University of Sydney, Utrecht University, University of Pretoria	
	Annual variation in reproductive physiology including galactorrhoea in a zoo-based male long-beaked echidna, Zaglossus bartoni	Dr L Vogelnest Dr G Morrow Dr R Nicoll	Veterinary Imaging Associates, University of New England	
	Tetanus antibody detection in Asian elephants and rhinocerus	Dr L Vogelnest Dr B Bryant Dr D Higgins Mr P Thompson M Y Muir	University of Sydney	
	Monitoring of the Jenolan Caves captive and remnant population of the Brush-tailed rock-wallaby	Dr L Vogelnest Dr D Ashworth	NSW Office of Environment and Heritage	
3c/06/15	Investigation of protein binding and pharmacokinetics of cefovecin in marsupials	Dr M Govendir Dr L Vogelnest Mr P Thompson	University of Sydney	

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
2a/10/18	Investigation into tramadol as an analgesic for koalas	Dr M Govendir Dr L Vogelnest Mr P Thompson	University of Sydney	
4b/04/18	Investigation of pharmacokinetics of amoxicillin in Koalas	Dr M Govendir Dr L Vogelnest Mr P Thompson	University of Sydney	
3b/04/19	Investigation into the pharmacokinetics of injectable doxycycline in koalas as a potential treatment for chlamydiosis	Dr M Govendir Dr L Vogelnest Mr P Thompson	University of Sydney	
	Investigation of pharmacokinetics of ceftiofur crystalline free acid in macropods	Dr M Govendir Dr L Vogelnest Mr P Thompson	University of Sydney	
	Early diagnosis and clinical management of chronic degenerative musculoskeletal disorders in zoo felids	Dr C Barton Dr D Phalen Dr L Vogelnest	University of Sydney	Jenna Donley Fund
	Periodontal disease and hypercementosis in captive black rhino	Dr B Bryant Dr M Campbell-Ward Dr L Tong		
	A retrospective study of reported disorders of the oral cavity in large felids in Australian zoos	Dr C Whitten Dr L Vogelnest Dr D Phalen	University of Sydney	Jenna Donley Fund
	Vaccination practices and outcomes in zoo felids	Dr K Vinette Herrin	University of Sydney	Jenna Donley Fund
	Developmental anatomy of the transitioning puggle stomach using light and electron microscopy	Dr D Chong Dr L Tong	University of Sydney	
	Proventriculopathy in Little penguins at Taronga Zoo	Dr G Tobias Dr L Tong Dr K Vinette Herrin Dr L Vogelnest Dr F Hulst Dr T Allcock		
3b/11/16	Zoo management of Lord Howe Island woodhen and pied currawong associated with the Lord Howe Island rodent eradication project	Mr M Shiels Dr F Hulst Mr P Thompson	Lord Howe Island Board, NSW Office of Environment and Heritage	
	Haematologic and biochemical parameters of the Port Jackson shark (Heterodontus portusjacksoni)	Mr P Thompson Dr F Hulst Dr K Vinette Herrin Dr P Meagher Dr J Day	Macquarie University	

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
	Platypus population dynamics and a national risk assessment	Dr R Spindler Dr N Jordan Dr K Rose Dr L Vogelnest Prof R Kingsford Prof W Sherwin Dr G Bino Dr T Grant Dr J Gongora Adj Prof D Lunney A/Prof B Wintle w Dr M Fleming Dr M Ronan Dr S Munks Mr S Lang Dr J Koehn Mr J Griffiths Mr D Papps	University of NSW, University of Sydney, University of Melbourne, NSW Office of Environment and Heritage, QLD Deptartment of Environment and Heritage Protection, Forest Practices Authority, Dept Environment, Arthur Rylah Institute for Environmental Research, Cesar Pty Ltd.	
	Molecular investigation of fatal isosporosis in chestnut-breasted mannikins in a zoological collection	Dr L Tong Ms S Johnson	University of Sydney	
	Developing a brain imaging database of rare and endangered Australian mammals	Dr A Bongers Prof K Ashwell Dr L Tong Mr C Slatyer Mr H Holewa	University of NSW, National Imaging Facility Australia, Lowy Cancer Research Centre, Australian Museum, CSIRO	
	Investigating metabolic control in Australia’s iconic platypus and echidna for application in biotechnology, conservation and captive management	Dr F Grutzner Dr M Shaw Dr L Tong Dr G Tobias Dr B Forbes Dr P Sexton Dr C Deacon Dr W Warren	University of Adelaide, Flinders University, Monash University, Washington University	
	Developing a browse guide for species used in the feeding program at Taronga	Ms M Shaw Mr A Brass		
	Gastric emptying and postprandial hormone production in specialist insectivores	Ms M Shaw Dr F Grutzner Dr K Jones Dr G Tobias Dr L Vogelnest	University of Adelaide	
	Effect of diet change on behaviour and dental condition in sun bears	Ms M Shaw Dr B Pitcher Dr A Burns		
	Investigating browse alternatives: agricultural by-products and hydroponic solutions	Ms M Shaw Ms A Kehlhofer		
	Feeding and anticipatory behaviour in red pandas	Ms M Shaw Dr B Pitcher Dr A Burns		

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
	Investigation of risk factors contributing to proliferative spinal osteopathy in snakes	Dr L Tong Dr L Vogelnest Dr G Tobias Dr K Vinette Herrin Dr F Hulst Ms M Shaw Mr S Mansour	University of Sydney	
	Investigation of urolithiasis and fat necrosis in Quokkas	Ms M Shaw Dr L Tong Dr L Vogelnest Dr G Tobias Dr K Vinette Herrin Dr F Hulst Mr P Thompson		
	Nutrient composition of echidna and pangolin milk	Ms M Shaw Dr M Power	Smithsonian Institute Save Vietnam’s Wildlife Wombaroo	Zoo and Wildlife Foundation Nutrition Research Grant
	Pedicures for pachyderms: Biotin supplementation on nail growth in elephants	Ms M Shaw		
	Gastropathology in the short-beaked echidna	Dr L Tong Ms M Shaw Dr G Tobias	Macquarie University, Australian Geographic	
	Gastrophysiology in the short-beaked echidna	Ms M Shaw Dr L Tong Dr P Meagher Dr G Tobias Dr K Vinette Herrin Dr F Hulst Dr L Vogelnest Dr M Power		
	Investigating Vitamin A and E status in regent honeyeaters and plains-wanderers	Ms M Shaw Dr L Vogelnest Dr F Hulst Dr K Vinette-Herrin Dr G Tobias Dr L Tong Mr P Thompson		
	Will transfaunation from an overweight tree kangaroo improve condition in an underweight individual?	Ms M Shaw Mr S Bennett		
	Nutrition, behaviour and microbiome of squirrel gliders (Petaurus norfolcensis) provided with diets with differing levels of macronutrients	Ms M Shaw Dr H Stannard Ms I Lundback Dr M Power Dr S Tetuc Dr A Burns Dr D Raubenheimer Dr J Meade	Macquarie University, University of Sydney	
	Identifying optimal food plants for captive Lord Howe Island stick insects	Ms S Silcocks Dr M Lynch Ms M Shaw Mr M Magrath	Melbourne Zoo, Zoos Victoria	

AEC no. if Applicable	Project Title	Researchers	Partner Institution	Source of Extenal Funds
	Comparative digestive anatomy of native and exotic animals	Ms M Shaw Dr L Tong		
	Effect of diet change on blood and urine parameters in black-footed tree tats (Mesembriomys gouldi) and greater stick-nest rats (Leporillus conditor)	Ms M Shaw Mr P Thompson Dr K Vinette Herrin Dr F Hulst		
	Global challenge: The sustainability of zoo food	Ms M Shaw Ms A Kehlhofer Dr A Fidgett Ms A Crittenden Mr Z Murfet Ms F Torcasio	Monash University, San Diego Zoo Global	
	Isotopic and elemental analysis of echidna quills to combat illegal wildlife trade	Dr P Meagher Dr L Tong Ms M Shaw Dr K Brandis Dr D Ramp Dr D Mazumder	University of NSW, University of Technology, ANSTO	Australian Geographic
	Protein for pinnipeds: Identifying patterns of macronutrient intake by otariids in captivity as a model for dietary management	Ms M Shaw Dr D Raubenheimer Angela Jarman		

Appendix 6

Post Mortem and Clinical Samples Supplied for Research and Teaching Purposes

Receiving Organisation	Individual	Sample and Purpose
Australian Museum (Evolutionary Biology Unit)	R Johnson	Tissue samples from all species: preparing a genetic library
Australian Museum	S Ingleby	Australian and Pacific mammal carcasses: education, tissue banking and display
Griffith University, Queensland	E Stephenson	Blood from Australian mammals and birds: test for seroprevalance of potential animal reservoirs for Ross River Virus
Museums Victoria	S Balasubramaniam	Blood from Plains-wanderers: Genetic diversity and population structure of Plains-wanderers
University of Sydney and Taronga Zoo	“K Brandis L Tong P Meagher”	Keratin from all species – Identification of stable isotopes in keratin to prove animal’s wild or captive origins
University of Sydney	B Storey-Lewis	Blood and ticks from Australian wildlife: identification and characterisation of pathogens in ticks.
University of Sydney	J Slapeta	Blood and tissues from Echidnas: understanding coccidiosis in Short-beaked Echidnas
University of Sydney/Taronga	M Govendir	Blood from Australian mammals: Plasma protein binding capacity for cefovecin in marsupials

Receiving Organisation	Individual	Sample and Purpose
Taronga Zoo	P Meagher	Blood for genetic tracing of marine turtles presenting to TWH
University of Queensland	N Satake	Blood samples: ungulate proteomics biomarkers
University of Sydney	R Chong	Skin: Tasmanian Devil genetics
Australian Museum (Australian Centre for Wildlife Genomics)	R Johnson	Blood samples: Scimitar-horned Oryx genetics
Garvan Institute	J Blackburn	Blood samples: Chimpanzees, Gorillas, Orangutans, Tasmanian Devils, Platypus and Chickens for genomics study
Animetics	D Prada	Blood for Avian DNA sexing
University of Sydney	E Peel	Blood for Tasmanian Devil research

Appendix 7

Scientific Associates

Consultant	Institution	Consultancy
Dr Graeme Allan	Veterinary Imaging Associates	Diagnostic Imaging
Associate Professor Vanessa Barrs	Faculty of Veterinary Science, University of Sydney	Field Management and Disease
Dr Ros Bathgate	Faculty of Veterinary Science, University of Sydney	Animal Reproduction
Dr Niek Beijerink	Faculty of Veterinary Science, University of Sydney	Veterinary Cardiology
Professor Kathy Belov	Faculty of Veterinary Science, University of Sydney	Genetics
Dr Ian Beveridge	Faculty of Veterinary Science, University of Melbourne	Parasitology
Dr Kate Brandis	Centre for Ecosystem Science, University of New South Wales	Illegal Wildlife Trade
Professor Michael Bryden	University of Queensland	Marine Ecology
Dr Philip Byrne	Biological Science, University of Wollongong	Amphibian Reproductive Biology
Professor Paul Canfield	University of Sydney	Disease Research
Ms Gemma Carroll	Department of Biological Sciences, Macquarie University	Marine Ecology
Dr Kelly Caruso	Eye Clinic for Animals	Veterinary Ophthalmology
Dr David Clarke	K9 Gums	Veterinary Dentistry
Dr Bronwyn McCallan	Charles Perkins Centre, University of Sydney	Physiology
Dr Georgina Childs	Small Animal Specialist Hospital	Neurology
Associate Professor Culum Brown	Department of Biological Sciences, Macquarie University	Behavioural Ecology
Dr Rachel D’Arcy	Faculty of Veterinary Science, University of Sydney	Animal Health Management
Dr Jonathan Daly	Hawaii Institute of Marine Biology	Coral Biology
Dr Christina Dart	Faculty of Veterinary Science, University of Sydney	Veterinary Anaesthesiology
Dr Sarah Davies	Veterinary Imaging Associates	Diagnostic Imaging
Dr Claire Dennis	Charles Sturt University	Veterinary Dentist

Consultant	Institution	Consultancy
Mr Nick Dexter	Booderee National Park	National Park Manager
Associate Professor Martina Doblin	Faculty of Science, University of Technology Sydney	Climate Change Research
Dr John-Sebastian Eden	Westmead Institute for Medical	Pathogen Genetics
Dr Jason Everett	Research	Oceanography
Dr Nadine Fiani	Cornell University	Veterinary Dentist
Dr Paul Fowler	Royal North Shore Hospital	Obstetrics and Gynaecology
Professor Ian Fraser	University of Sydney	Obstetrics and Gynaecology
Mr Michael Fruin	Horseshoe Express	Farrier
Mr Andrew Gilbert	Biplatforms Australia, Macquarie University	Genomics
Professor Frank Grützner	School of Biological Sciences, University of Adelaide	Comparative Genome Biology
Dr David Gordon	Research School of Biology, Australian National University	Population Biology of Micro-organisms
Dr Frank Goeritz	Leibniz Institute for Zoo and Wildlife Research	Wildlife Reproduction
Dr Mary Hagedorn	Smithsonian Institution	Marine Physiology
Professor Robert Harcourt	Macquarie University	Marine Ecology
Associate Professor Nathan Hart	Department of Biological Sciences, Macquarie University	Comparative Neurobiology
Mrs Margaret Hawkins	Taronga Conservation Society Australia (Emeritus)	Behavioural Biology
Dr Robert Hermes	Leibniz Institute for Zoo and Wildlife Research	Wildlife Reproduction
Dr Brian Hilbert	School of Animal and Veterinary Science, Charles Sturt University	Equine Surgeon
Dr Thomas Hildebrandt	Leibniz Institute for Zoo and Wildlife Research	Wildlife Reproduction
Professor Edward Holmes	School of Life and Environmental Sciences, University of Sydney	Pathogen Genetics
Dr Bernard Hudson	Royal North Shore Hospital	Zoonotic Infectious Diseases
Dr Kristopher Hughes	School of Animal and Veterinary Science, Charles Sturt University	Equine Medicine
Professor Lesley Hughes	Department of Biological Sciences, Macquarie University	Climate Change Biology
Dr David Hunter	NSW Office of Environment and Heritage	Amphibian Conservation Biology
Professor Emma Johnston	School of BEES, University of New South Wales	Marine Ecology
Professor Karen Jones	Faculty of Health and Medical Sciences, University of Adelaide	Nutrition
Dr Ian Jonsen	Department of Biological Sciences, Macquarie University	Ecology
Professor Richard Kingsford	School of BEES, University of New South Wales	Ecology
Professor Martin Kluckow	Royal North Shore Hospital	Human Neonatology
Mr Jason Lohrey	Arcitecta	IT Services
Dr John Martin	Royal Botanic Gardens Sydney	Wildlife Ecologist
Dr Debashish Mazumber	Australian Nuclear Science and Technology Organisation	Illegal Wildlife Trade
Dr Jennie Mohler	Livestock Veterinary Teaching and Research Unit, University of Sydney	Ungulate Medicine
Dr Robert Nicoll	Veterinary Imaging Associates	Diagnostic Imaging

Consultant	Institution	Consultancy
Associate Professor Jacqueline Norris	Faculty of Veterinary Science, University of Sydney	Veterinary Microbiology
Dr David Phalen	Avian, Reptile and Exotic Pet Hospital, University of Sydney	Veterinary Science
Dr Michael Power	Smithsonian Conservation Biology Institute	Comparative Nutrition and Milk Composition
Associate Professor Michelle Power	Department of Biological Sciences, Macquarie University	Citizen Science, Nutrition, Microbiology
Professor Peter Ralph	Climate Change Cluster, University of Technology Sydney	Climate Change Research
Professor David Raubenheimer	Charles Perkins Centre, University of Sydney	Nutritional Ecology
Dr Phillippa Ravens	Small Animal Specialist Hospital	Dermatology
Dr Michael Rodriguez	St Vincents Hospital	Neuropathologist
Dr Tracey Rogers	School of BEES, University of New South Wales	Ecology
Associate Professor Moninya Roughan	School of Mathematics and Statistics, UNSW	Oceanography
Dr Laura Ryan	Department of Biological Sciences, Macquarie University	Marine Ecology and Comparative Neurophysiology
Dr Cheryl Sangster	Consultant	Veterinary Pathologist
Associate Professor Lisa Schwanz	School of BEES, University of New South Wales	Wildlife Reproduction
Professor William Sherwin	School of BEES, University of New South Wales	Conservation Genetics
Dr Aimee Silla	Biological Sciences, University of Wollongong	Amphibian Reproductive Biology
Dr David Simpson	Animal Referral Hospital	Veterinary Orthopaedics
Professor Steve Simpson	Charles Perkins Centre, University of Sydney	Nutritional Ecology
Dr Lee Skerratt	Tropical Infectious Diseases, James Cook University	Amphibian Disease Research
Associate Professor Jan Slapeta	Faculty of Veterinary Science, University of Sydney	Veterinary Parasitology
Dr Jeffrey Smith	Eye Clinic for Animals	Veterinary Ophthalmology
Dr Rebecca Spindler	Bush Heritage	Wildlife Reproduction
Dr David Spratt	CSIRO Sustainable Ecosystems	Veterinary Parasitology
Associate Professor Adam Stow	Department of Biological Sciences, Macquarie University	Conservation Genetics
Professor Iain Suthers	School of BEES, University of New South Wales	Oceanography
Dr Madeleine Van Oppen	Australian Institute of Marine Sciences	Coral Biology
Dr Linda Vogelnest	Small Animal Specialist Hospital	Veterinary Dermatology
Associate Professor Bill Walter	Mater Hospital	Orthopaedic Specialist
Dr Luke Wells-Smith	Motion Equine Podiatry Consulting	Veterinary Podiatry
Associate Professor Martin Whiting	Department of Biological Sciences, Macquarie University	Behavioural Biology
Dr Cameron Whittaker	Eye Clinic for Animals	Veterinary Ophthalmology
Dr Kate Wilson	NSW Office of Environment and Heritage	OEH Science Division

Appendix 8

Paid Consultancies Undertaken by the Taronga Conservation Society Australia

Report/Services	Receiving Organisation
Forensic Pathology Consultancy	RSPCA NSW (Consultancy Rate)
Forensic Pathology Consultancy	Greyhound Welfare Integrity Commission (Consultancy Rate)
Clinical Veterinary and Veterinary Pathology Consultancies	NSW Office of Environment and Heritage (via MOU agreement)
Clinical Veterinary and Veterinary Pathology Consultancies	Parks Australia
Veterinary Pathology Services	Kleinfelder
Clinical Veterinary Consultancies	Animals All Around (Bullens)
“Veterinary Service in Australia” Student Workshops	Loop Abroad
Endocrinology Service	Perth Zoo
Endocrinology Service	Zoos Victoria (Melbourne, Healesville, Werribee)
Endocrinology Service	Australia Zoo
Nutrition Consultancy	Zoos Victoria (Melbourne, Healesville, Werribee)
Nutrition Consultancy	Perth Zoo
Veterinary Advisory Consultancy	Okanagan Veterinary Hospital
Dugong Pathology and Nutrition Consultancy	SeaLife Aquarium

Appendix 9

Lectures and Presentations

Staff Member	Subject	Receiving Body
Cameron Kerr	<i>The Modern Zoo: Leaders in Conservation</i>	Treasury Corporation, Town Hall
Cameron Kerr	<i>The Modern Zoo: Leaders in Conservation</i>	OEH Science Connects 2019 Conference
Cameron Kerr	<i>The Modern Zoo: Leaders in Conservation</i>	BDO
Cameron Kerr	<i>Taronga Institute of Science and Learning – Success is Collaboration</i>	World Association of Zoos and Aquarium Conference
Rebecca Hobbs	The Science of A.R.T.s – Assisted Reproductive Technologies	University of Sydney, students enrolled in Masters of Wildlife Health and Population Management
Rebecca Hobbs	Hormones and Habitats	Wildlife at Risk’ Year 11 Biology Depth Studies program (TWPZ)
Steve Hinks	Product Development and the Importance of Collaboration in Regional Business	Riverina Murray, NSW Outback and Country Regional Toursim Safari
Steve Hinks	The Importance of Interpersonal, Intrapersonal and Cognitive Skills in Business	NSW Distance Education
David Slip	Australian Seabirds: Threats, Research and Conservation Action	University of Sydney
David Slip	The Role of Zoos in Conservation	University of NSW
David Slip	Using Technology in Conservation: Advances, Opportunities, Issues and Case Studies	University of Sydney
Ben Pitcher	Monitoring and Improving Animal Welfare	University of NSW

Staff Member	Subject	Receiving Body
Ben Pitcher	Behaviour and Welfare Considerations in Conservation	Translocation Health Symposium, Australian Registry of Wildlife Health Short Course, Taronga Institute of Science and Learning
Ben Pitcher	Is There a Role for Zoos in Conservation?	Macquarie University
Justine O’Brien	The Role of Zoos in Conservation	University of NSW
Justine O’Brien	University of Sydney Education Alliance Bachelor and Masters Student Welcome Event	University of Sydney, Taronga Institute of Science and Learning
Justine O’Brien/ Andrew Elphinstone	Taronga Wildlife Conservation	University of Sydney
Justine O’Brien/ Andrew Elphinstone/ Nick Boyle	Overview of Conservation and Science at Taronga	NSW OEH Policy Division Professional Development Day
Karrie Rose	Emerging Disease Investigation in Australian Wildlife	Chulalongkorn University, Bangkok, Thailand
Karrie Rose	Disease Investigation Case Presentations: Bellinger River Snapping Turtle Outbreak Investigation and Emergent Novel Bacterial Disease Threatening Christmas Island Reptiles	Chulalongkorn University, Bangkok, Thailand
Karrie Rose	<i>Franciscella tularensis holarctica</i> Discovered in Native Australian Wildlife	67th Annual International Conference of the Wildlife Disease Association Conference
Karrie Rose	Australian Registry of Wildlife Health – Marine Turtle Health	Sea Turtle Foundation Annual Conference
Karrie Rose/Jane Hall	Emergent Bacterial Infection Threatening Endangered Christmas Island Reptiles	67th Annual International Conference of the Wildlife Disease Association Conference
Karrie Rose/Jane Hall	Tracking an Extinction Level Disease Outbreak in Real-Time: the Bellinger River Snapping Turtle (<i>Myuchelys Georgesii</i>)	67th Annual International Conference of the Wildlife Disease Association Conference
Karrie Rose/Jane Hall	Novel Papillomavirus Discovered in an Asian House Gecko (<i>Hemidactylus Frenatus</i>)	Joint Asian Society of Conservation Medicine and Wildlife Disease Association Australasian Section Conference
Karrie Rose/ Hannah Bender	Dasyurid, Possum, Glider, Bandicoot and Bilby Diseases	Wildlife Health and Pathology Short Course, Taronga Institute of Science and Learning
Karrie Rose/ Lydia Tong	Identification of Pathogenic <i>Escherichia Albertii</i> in Australian Wild and Captive Birds	67th Annual International Conference of the Wildlife Disease Association Conference
Jane Hall	What Happened to the Bellinger River Turtle	Wildlife at Risk’ Year 11 Biology Depth Studies program, Taronga Institute of Science and Learning
Jane Hall	What Happened to the Bellinger River Turtle	University of Sydney
Jane Hall	Bellinger River Snapping Turtle Mortality Event	Wildlife at Risk’ Year 11 Biology Depth Studies program, Taronga Institute of Science and Learning
Hannah Bender	Histopathology Masterclass	Wildlife Health and Pathology Short Course ,Taronga Institute of Science and Learning
Hannah Bender	Macropod Diseases	Wildlife Health and Pathology Short Course, Taronga Institute of Science and Learning
Neil Jordan	Managing Human-Wildlife Interactions: Conflicts and Communication	International Society for Anthrozoology, University of Sydney
Neil Jordan	Human-Wildlife Conflict: Rebuilding Conscious Co-Existence	International Society for Anthrozoology, University of Sydney
Neil Jordan	Intolerance, Innovation and Inequity: Unpacking Key Barriers to Human-Wildlife Coexistence	International Society for Anthrozoology, University of Sydney
Neil Jordan	Inequity, Intolerance, and Insufficient Innovation: Overcoming Key Barriers to Human-Wildlife Coexistence	University of NSW
Neil Jordan	Sampling Design	University of NSW
Neil Jordan	Aspects of Biodiversity Conservation: Surrogate Species	University of NSW
Neil Jordan	Ex-situ Conservation	University of NSW

Staff Member	Subject	Receiving Body
Neil Jordan	Disease and Biodiversity	University of NSW
Neil Jordan	Conservation Conflicts	University of NSW
Neil Jordan	Carnivore Conservation and Communication: Wildlife at the Watering Hole	Royal Zoological Society
Monique Van Sluys	The Role of Zoos in Wildlife Conservation (in Portuguese, via Skype)	Universidade Federal de Sao Carlos (Brazil)
Monique Van Sluys	Wildlife Corridors. Wildlife at Risk Day	Wildlife at Risk' Year 11 Biology Depth Studies program, Taronga Institute of Science and Learning
Monique Van Sluys	The Role of Zoos in Wildlife Conservation	SP Jain School of Global Management
Michael McFadden	An Experimental Approach to Corroboree Frog Translocations	Australian Society of Herpetologists Conference
Michael McFadden	Conservation and Management of Amphibians	University of Technology, Sydney
Michael McFadden	Recovery Efforts for the Critically Endangered Southern Corroboree Frog (<i>Pseudophryne Corroboree</i>)	Joint Meeting of Ichthyologists and Herpetologists
Michael McFadden	Conservation and Management of Amphibians	University of Sydney
Michael McFadden	Yellow-spotted Bell Frog Conservation Program	Gunning Landcare Group
Michael McFadden	Ex-Situ Amphibian Conservation: A Case Study in Australian Amphibian Translocation	Wildlife Health Translocation Symposium
Lisa Cavanagh	Christmas Island Lizard Conservation Breeding Program	Australian Society of Zoo Keeping Conference
Nick Boyle / Justine O'Brien	Taronga's Priorities in Science	NSW OEH Cluster Science Committee
Joy Tripovich	Animal Welfare – What Matters to Animals?	Wildlife Tourism Australia Conference 2018
Claire Ford	Animal Welfare – What Matters to Animals?	Wildlife Tourism Conference Australia 2018
Alicia Burns	Welfare and Behaviour in a Zoo Context	University of NSW
Alicia Burns	Observation in a Zoo Context	Wildlife at Risk Year 11 Biology Depth Studies program, Taronga Institute of Science and Learning
Alicia Burns	Brush Turkeys in Suburbia	St Paul's Catholic College
Peter Harlow	Life History Attributes of Fijian Crested Iguanas and Their Food Tree Species in a Fijian Dry Forest	IUCN Iguana Specialist Group meeting, Texas USA
Debbie Pritchard	Medical Treatment of Malayan Tapir "Berani"	Veterinary Nurses' Council of Australia, Annual Conference
Elizabeth Hall	Rescue Animals and Provide Basic Animal Care	TTI Certificate II Animal Care (x 2 classes)
Elizabeth Hall	Provide Basic First Aid for Animals	TTI Certificate II Animal Care (x 2 classes)
Elizabeth Hall	Taronga Wildlife Hospital and Caring for Manly's Little Penguins	OEH (NSW NPWS) Science Connects 2019 Conference
Elizabeth Hall	Marine Turtle Husbandry and Satellite Tracking	Australian Wildlife Rehabilitation Conference
Paul Thompson/ Jane Hall	Laboratory Skills Workshop	Wildlife Health and Pathology Short Course,Taronga Institute of Science and Learning
Lydia Tong	Forensic Pathology	Australian Animal Pathology Standards Program
Lydia Tong	Pathology in the Short-beaked Echidna	Wildlife Pathology Short Course, Taronga Zoo
Lydia Tong	Domestic and Family Violence: A Veterinary Perspective	NSW Health and Education Centre Against Violence (ECAV) Roundtable
Larry Vogelnest	Panel Discussion "As a Vet" with 5 other wildlife veterinarians	Australian Wildlife Rehabilitation Conference
Larry Vogelnest	Quality of Life Assessment and End of Life Planning for Geriatric Zoo Animals	ZAA Aged Animal Assessment workshop
Larry Vogelnest	Capture and Restraint	TTI students
Phoebe Meagher	A Case Study in Research Partnership: Fighting Illegal Wildlife Trade in Palawan	TRAFFIC South-east Asia, Wild ENFORCE workshop

Staff Member	Subject	Receiving Body
Phoebe Meagher	Oceans of Waste	Catholic Schools (Redlands and Catherine McAuley) at Taronga
Phoebe Meagher	Australian Shark Attack File	University of Sydney
Phoebe Meagher	Taronga and Forensic Science: Combating Illegal Wildlife Trade	Palawan Council for Sustainable Development, Philippines
Michelle Shaw	Short-beaked Echidna: Insectivorous Herbivore?	University of Adelaide
Michelle Shaw	Nutrition and Rehabilitation of Rescued Wildlife	Sydney Wildlife
Michelle Shaw	Leadbeater Possum Nutrition	Healesville Sanctuary, Threatened Species Group
Michelle Shaw	Illegal Pangolin Trade x2	Save Vietnam's Wildlife Fundraising events
Anne Karin Kehlhofer	A Career in Sustainability – Master of Sustainability	University of Sydney
Anne Karin Kehlhofer	Solar Energy	Cluster of NSW Government Agencies
Anne Karin Kehlhofer	Waste Strategy and Initiatives	Quest Conference 2019
Benn Bryant	Australian Native Mammal Medicine	The Indonesian Association of Wildlife, Aquatic and Exotic Veterinarians
Benn Bryant	Zoo Animal Health Management	University of Sydney, students enrolled in Masters of Wildlife Health and Population Management
Benn Bryant	Zoo Animal Restraint	University of Sydney, students enrolled in Masters of Wildlife Health and Population Management
Benn Bryant	Lessons from Capture and Translocation of 'Pahu', a Sumatran Rhino Captured in Kalimantan	Sumatran Rhino Husbandry and Propagation Board meeting
Benn Bryant	The Sumatran Rhino Sanctuary	University of Sydney, students enrolled in Masters of Wildlife Health and Population Management
Suzy Scheiblin	Following the Green Sea Turtle with Taronga and SUEZ	Fundraising and Philanthropy Big 4 Conference
Courtney Frost	Sustainable STEM	CONASTA Conference 2018
Courtney Frost	Depth Studies	NSW Department of Education Distance Education Symposium 2018
Courtney Frost	Depth Studies	STANSW Conference 2019
Courtney Frost	Taronga's Google Expeditions	EduTECH 2019
Matthew Nelson	Taronga's Google Expeditions	EduTECH 2019
Belinda Fairbrother	"Engagement to Action: Choose, Champion and Change Everyday Behaviours to Support Wildlife"	Ferrero Social Workforce Day 2019
Belinda Fairbrother	"Litter Free Oceans: Reduce Your Plastic Footprint"	NSW Tresuary Lunch and Learn
Belinda Fairbrother	"Litter Free Oceans: Reduce Your Plastic Footprint"	Ooh! Media – Keep Australia Beautiful Lunch and Learn
Belinda Fairbrother and Sophie Daniels	Tiger Trek – From Engagment to Action	Interpretation Australia Conference 2018
Belinda Fairbrother	"Engagement to Action: Choose, Champion and Change Everyday Behaviours to Support Wildlife"	Launch of the Ferrero Group's 9th Corporate Social Responsibility Report
Belinda Fairbrother	"Litter Free Oceans: A Behaviour Change Campaign to Influence Zoo Guests and the Wider Community to Reduce their Reliance on Single Use Plastics"	NSW Litter Congress 2019
Belinda Fairbrother	Panel Discussion: It takes a Village – Building Community is Key to Creating an Innovation City that Plays on a Global Stage	Venture Café Sydney
Belinda Fairbrother	Working Together Towards a Responsible Palm Oil Future	ZAA Workshops 2019
Belinda Fairbrother	Social Science in Conservation	ZAA Workshops 2019
Paul Maguire	Working Together Towards a Responsible Palm Oil Future	ZAA Workshops 2019
Paul Maguire	Leadership in Conservation	Independent School Association Leadership Conference

Staff Member	Subject	Receiving Body
Paul Maguire	Taronga Science in Action	Bioscience Education Australian Network (BEAN) conference
Hayley Smithers-Kirk	Wild Squad: Recruiting a New Generation of Conservation Champions	Interpretation Australia Conference 2018
Jo Milgate	Investigation of White Line Disease in Captive Takhi (Equis Callabus Przewalskii) at Taronga Western Plains Zoo	Zoo, Exotic and Wildlife (ZEW) veterinary nurses conference
Michelle Campbell-Ward	Welfare of Captive Elephants	Australian and New Zealand College of Veterinary Scientists
Michelle Campbell-Ward	Dignity and Respect for Animals in a Zoo Setting: an Ethical Framework	Australian and New Zealand College of Veterinary Scientists
Jodie Milton	Challenges of Dealing with Wildlife in Central West NSW	Australian Wildlife Rehabilitation Conference
Sara Brice	Moving Zoo Animals – an Australian Perspective	International Air Transportation Associations’ – Live Animals 41st Board meeting
Glenn Sullivan	Asian Elephant Bull Management	2019 ASZK Conference – Australasian Society of Zoo Keeping

Appendix 10

Publications

Books

Vogelnest, L. and Portas, T. (editors) (2019) *Current Therapy in Medicine of Australian Mammals*. CSIRO Publishing, Melbourne.

Book Chapters

Campbell-Ward, M. (2019) *Paediatrics* In L. Vogelnest and T. Portas (Eds.), *Current Therapy in Medicine of Australian Mammals* (pp. 249–265). Melbourne: CSIRO Publishing.

Campbell-Ward, M. (2019) *Wombats* In L. Vogelnest and T. Portas (Eds.), *Current Therapy in Medicine of Australian Mammals* (pp. 515–523). Melbourne: CSIRO Publishing.

CD Buesching, **N Jordan**. (2019) *The Social Function of Latrines: A Hypothesis-Driven Research Approach Chemical Signals in Vertebrates 14*, 94–103.

Vogelnest, L. and Talbot, J.J. (2019). *Quality-of-life assessment and end-of-life planning for geriatric zoo animals*. Chapter 15, In: *Fowler’s Zoo and Wild Animal Medicine Current Therapy* Volume 9. Ed. RE Miller, N Lamberski and P Calle, Elsevier, Missouri, USA.

Hulst, F. (2019). Zoonoses. In: *Current Therapy in Medicine of Australian Mammals*. (Eds L. Vogelnest, R. Woods). CSIRO Publishing, Melbourne.

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Vogelnest L. (2019). Platypus. In: *Current Therapy in Medicine of Australian Mammals*. (Eds L. Vogelnest, R. Woods). CSIRO Publishing, Melbourne.

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Shaw, M. and Jarman, A. (2019). Nutrition. In: *Current Therapy in Medicine of Australian Mammals*, (Eds. Vogelnest, L.,Portas, T.) (pp. 225-248). Clayton, Vic: CSIRO Publishing.

Peer Reviewed Literature

Carroll, G., Harcourt, R., **Pitcher, B.J., Slip, D.**, and Jonsen, I. (2018) *Recent prey capture experience and dynamic habitat quality mediate short-term foraging site fidelity in a seabird*. Proc. R. Soc. B 285: 20180788. <http://dx.doi.org/10.1098/rspb.2018.0788>

Wierucka, K., Charrier, I., Harcourt, R., **Pitcher, B.J.** (2018) *Visual cues do not enhance sea lion pups’ response to multimodal maternal cues*. Scientific Reports 8 (1): 9845

McIntosh, R., Kirkman, S. Thalmann, S., Sutherland, D., Mitchell, A., Arnould, J.,Salton, M., **Slip D.**, Dann, P., and Kirkwood, R (2018) *Understanding meta population trends of the Australian fur seal, with insights for adaptive monitoring*. PLoS ONE 13(9): e0200253. <https://doi.org/10.1371/journal.pone.0200253>

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Ladds, M.A., Salton, M., Hocking, D.P., McIntosh, R., Thompson, A.P., **Slip, D.J.**, and Harcourt, R.G. (2018). *Using accelerometers to develop time-energy budgets of wild fur seals from captive surrogates*. PeerJ 6:e5814; DOI 10.7717/peerj.5814

Zhang J., Finlaison D., Frost M., Gestier S., Gu X., **Hall J.**, Jenkins C., Parrish K., Read A., Srivastava M., **Rose K.**, Kirkland P. (2018) *Identification of a novel nidovirus as a potential cause of large scale mortalities in the endangered Bellinger River snapping turtle (Myuchelys georgesii)* PLoS ONE. DOI: 10.1371/journal.pone.0205209

Ward, A., Schaerf, T., **Burns, A.**, Lizier, J., Crosato, E., Prokopenko, M. and Webster, M. (2018) *Cohesion, order and information flow in the collective motion of mixed-species shoals*. Royal Society open science: 5(12), 181132.

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Wierucka, K., **Pitcher, B.J.**, Harcourt, R. and Charrier, I., (2018) *Multimodal mother–offspring recognition: the relative importance of sensory cues in a colonial mammal*. Animal behaviour, 146, pp.135–142.

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Chisholm, S., Stein, A.B., **Jordan, N.R.**, Hubel, T.M., Shawe-Taylor, J., Fearn, T., McNutt, J.W., Wilson, A.M. and Hailes, S. (2019) *Parsimonious test of dynamic interaction*. Ecology and Evolution 9: 1654–1664.

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Chisholm, S., Stein, A B., **Jordan, N. R.**, Hubel, T M., Shawe-Taylor, J., Fearn, T., (2019) *Parsimonious test of dynamic interaction*. Ecology and Evolution 9 (4), 1654–1664

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Robey, R., Sangster, C., Gabor, M. and Lindsay, S.A. (2018) *Soft tissue sarcoma in a short-beaked Echidna (Tachyglossus aculeatus)*. Australian Veterinary Journal. 96(9):360–365.

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Whitten, C., **Vogelnest, L.**, D’Arcy, R., Thomson, P. and Phalen, D. (2019) *A retrospective study of reported disorders of the oral cavity in large felids in Australian Zoos*. Journal of Zoo and Wildlife Medicine. **50**(1):16–22.

Gharbiri S, **Vogelnest L** and Govendir M (2019). *In vitro binding of cefovecin to plasma proteins in Australian marsupials and plasma concentrations of cefovecin following single subcutaneous administration to koalas (Phascolarctos cinereus)*. Australian Veterinary Journal. 27(3):75–80.

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Tripovich, J.S., Ford, C. and Pitcher, B.J. (October 2018) “*Animal Welfare – What Matters to Animals?*”. Wildlife Tourism Australia Conference Proceedings.

Hall, J. (2019). *Wildlife Health and Pathology Short Course Proceedings*. Australian Registry of Wildlife Health, Taronga Conservation Society Australia, Sydney, pp 1–338

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Hobbs R., Keogh L., James K., Baxter-Gilbert J. and Whiting M. (2018) *109 Sperm cryopreservation in Eulamprus quoyii (Eastern water skink) poster*. Reproduction, Fertility and Development 31, 180–181.

Hall, E. (July 2018) *Marine Turtle Husbandry and Satellite Tracking, Australian Wildlife Rehabilitation Conference Annual Conference Proceedings*, Sydney.

Hulst, F., Thompson, P., Crouch, E.E., **Tong, L.**, Gordon, D.M., **Vogelnest, L., Vinette Herrin, K., Tobias, G.** and **Rose, K.** (2018) *Outbreak of disease caused by Escherichia albertii in birds at an Australian zoo*. Joint Annual Conference Proceedings of the Association of Zoo and Wildlife Veterinarians and the European Association of Zoo and Wildlife Health. 221

Tobias, G., Allcock, T., **Tong, L., Shaw, M., Hulst, F., Vinette Herrin, K.** and **Vogelnest, L.** (2018) *There’s something fishy about little penguin proventricular neoplasia: eight cases in a zoo population*. Annual Conference Proceedings of the Australian Society of Veterinary Pathology, Coogee. (14 September 2018)

Workshops Convened

Rose K., Bender, H., Hall, J. Wildlife Health and Pathology Short Course – Convened. Taronga Institute of Science and Learning, Sydney, 18–22 February 2019.

Rose, K., Bender, H., Hall, J. Wildlife Translocation Health Symposium – Convened. Taronga Institute of Science and Learning, Sydney, 23 February 2019.

Rose, K., Keel, K. Workshop convened. Small Wild Animal Necropsy Workshop. Taronga Institute of Science and Learning, Sydney, 18 February 2019.

Rose, K., Bender, H., Hall, J. Wildlife Translocation Health Symposium – Co-organised – Chulalongkorn University, Bangkok, Thailand, 27 February – 2 March 2019.

Rose, K., Bender, H., Hall, J. Veterinary Descriptive Pathology Course – Hosted. Taronga Institute of Science and Learning, Sydney, 18-22 March 2019.

Thompson, P., Hall, J. Workshop convened. Laboratory Skills Workshop. Taronga Institute of Science and Learning, Sydney, 18 February 2019.

Bender, H., Rideout, B., Garner, M. Workshop convened. Histopathology Master Class Workshop. Taronga Institute of Science and Learning, Sydney, 18 February 2019.

Appendix 11

Staff Representation on External Committees

Name	Committee
C. Kerr	President, Zoo and Aquarium Association
C. Kerr	Chair, Zoo and Aquarium Association Asian Elephant Steering Committee
C. Kerr	Chair, Finance, Audit and Risk Committee, Zoo and Aquarium Association
C. Kerr	Board Member, International Rhino Foundation
C. Kerr	Member, University of New South Wales Scientific Advisory Committee
C. Kerr	Member, TAFE NSW Sydney Institute Advisory Council
V. Moushigian	Member, Treasury Managed Fund, Mid Sized Agency Collaboration
V. Di Giglio	Member, Animal Record Keeping Specialist Advisory Group, ZAA
E. Hall	Member, NSW Office of Environment and Heritage
E. Hall	Member, Wildlife Rehabilitation Standards Advisory Group
E. Hall	Member, NSW Wildlife Council, NSW Office of Environment and Heritage
F. Hulst	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
F. Hulst	Primary Veterinary Advisor, Zoo and Aquarium Association Amphibian Taxon Advisory Group
F. Hulst	Member, Zoo and Aquarium Association Nutrition Group
P. Meagher	Member, American Elamsobbranch Society
P. Meagher	Member – Society for Conservation Biology
P. Meagher	Member – Society for Wildlife Forensic Science
G. Tobias	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
L. Tong	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
L. Tong	Member, Australian Society of Veterinary Pathology
K. Vinette Herrin	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
K. Vinette Herrin	Primary Veterinary Advisor, Zoo and Aquarium Association Carnivore and Small Exotic Mammals Taxon Advisory Group
L. Vogelnest	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
L. Vogelnest	Primary Veterinary Advisor, Zoo and Aquarium Association Australian Marine Mammals and Penguins Taxon Advisory Group
L. Vogelnest	Member, Zoo and Aquarium Association Elephant, Primate and Bird Veterinary Advisory Groups
L. Vogelnest	Member, Department of Agriculture and Water Resources, National Zoo Animal Health Reference Group
D. Slip	Member, International Union for the Conservation of Nature / Species Survival Commission Boa and Python Specialist Group
M. McFadden	Member, NSW Declining Frog Working Group
M. McFadden	Member, Corroboree Frog Recovery Team
M. McFadden	Co-convenor, Zoo and Aquarium Association (ZAA) Amphibian Taxon Advisory Group
M. McFadden	Member, International Union for Conservation of Nature (IUCN) Reintroduction Specialist Group
M. McFadden	Member, International Union for Conservation of Nature (IUCN) Amphibian Specialist Group
M. McFadden	Member, Bellinger River Turtle Working Group
M. McFadden	Member, Christmas Island Reptile Advisory Panel
M. Shaw	Member, Association of Zoos and Aquariums Nutrition Advisory Group (AZA-NAG)
M. Shaw	Nutrition advisor for Western Lowland Gorilla Species Survival Plan
M. Shaw	Member, Canadian Association of Zoos and Aquariums Nutrition Advisory and Research Group (CAZA-NARG)

Name	Committee
M. Shaw	Member, European Zoo Nutrition Research Group
M. Shaw	Member, Association of Zoos and Aquariums Nutrition Advisory Group (AZA-NAG)
M. Shaw	Member, Comparative Nutrition Society (CNS)
M. Shaw	Member, European Zoo Nutrition Research Group
M. Shaw	Nutrition advisor for EAZA Monotreme and Marsupial TAG
M. Shiels	Regent honeyeater recovery team
N. Jordan	Member, Research Committee, The Carnivore Conservancy, Tasmania
N. Jordan	Member, Botswana Carnivore Forum Advisory Committee
N. Jordan	Member, Human Wildlife Conflict Focus Group, Botswana
P. Harlow	Steering Committee and Member, International Union for Conservation of Nature SSC Iguana Specialist Group
P. Harlow	Member, Corroboree Frog Recovery Team
R. Hobbs	Steering committee member, FaunaBank
J. O'Brien	Member, NSW Office of Environment and Heritage Biodiversity Knowledge Strategy Committee
J. O'Brien	Co-chairperson, Regulatory Subcommittee of the International Embryo Technology Society's Parent Committee on Companion Animals, Non-Domestic and Endangered Species (CANDES)
J. O'Brien	Taxon Leader (Non-human Primates), Research Subcommittee of the International Embryo Technology Society's Parent Committee on CANDES
J. O'Brien	Reproduction Co-advisor, Association of Zoos and Aquariums (AZA) Rhino Advisory Group
J. O'Brien	Reproduction Advisor, AZA Penguin Taxon Advisory Group
H. Bender	Australian Society for Veterinary Pathology Conference Organising Committee
H. Bender	Australian Animal Pathology Standards Program
H. Bender	Editorial Panel – Veterinary Pathology
K. Rose	Norfolk Island Green Parrot Translocation Advisory Panel – Parks Australia
K. Rose	Christmas Island Reptile Advisory Panel – Parks Australia
K. Rose	Christmas Island Flying Fox Advisory Panel – Parks Australia
K. Rose	Wildlife Disease Association International – Grants Committee
K. Rose	Wildlife Health Australia – Universities Committee
K. Rose	Wildlife Health Australia – State Coordinators Committee
K. Rose, H. Bender, J. Hall	NSW Wildlife Biosecurity Committee
J. Hall	Member, Wildlife Disease Association Australasia Section
J. Hall	Member, Wildlife Health Australia
J. Hall	Member, Churchill Fellows' Association of NSW
J. Hall	Wildlife Disease Association International Student Awards Committee, Committee member
S. Duffy	NSW OEH Science Cluster Committee
S. Duffy	Chair, Jane Goodall Institute Australia Board
S.Duffy	Jane Goodall Institute Australia Fundraising Risk and Governance Committee Meember
S. Duffy	UNSW Wild Desert Advisory Committee
S. Duffy	ZAA Elephant Steering Committee and Taxonomic Advisory Group
A. Elphinstone	Council Member Royal Zoological Society NSW
A. Elphinstone	Chair, Plains-wanderer National Recovery Team
A. Elphinstone	Member Regent honeyeater National Recovery Team
M. Van Sluys	Member, International Union for Conservation of Nature (IUCN) Amphibian Specialist Group
N. Boyle	Committee Member ZAA Animal Management Committee (formerly ASMP)
N. Boyle	Advisory Board Member Conservation Centres for Species Survival

Name	Committee
N. Boyle	Committee Member NSW Schools and Animal Care Ethics Committee
N. Boyle	Executive Committee Member Southern Black Rhino Sustainability Program
K. James	Australian Society of Zoo Keepers (ASZK) Committee
M. Drinkwater	Secretary, International Congress of Zoo Keeepers (ICZ)
M. Drinkwater	Member, Australian Society of Zoo Keepers (ASZK) Committee
M. Drinkwater	Member, ZAA Horticulture SAG
C. Dryburgh	President, Australian Society of Zoo Keepers (ASZK) Committee
D. Fryday	Committee Member, The Australian Rhino Project, Young Australians for Rhinos
B. Bryant	Member, International Veterinary Advisory group consulting to the Sumatran Rhinoceros Rescue Team for the field capture and translocation of Sumatran Rhino in Kalimantan
B. Bryant	Veterinary Co-advisor AZA RhinocerosTAG Rhino Research Council
B. Bryant	Member, International Rhino Foundation Advisory Board
B. Bryant	Member, Sumatran Rhino Husbandry and Propagation Expert Advisory Board
B. Bryant	Primary Veterinary Advisor, ZAA ungulate Veterinary Advisory Group
M. Campbell	Secretary/Treasurer and Head Subject Examiner, Australian and New Zealand College of Veterinary Scientists Zoo and Wildlife Medicine Chapter
M. Campbell	Primary Veterinary Advisor, Zoo and Aquarium Association Nutrition Veterinary Advisory Group
M. Campbell	Member, Zoo and Aquarium Association Herpetofauna Veterinary Advisory Group
J. Milton	Treasurer, Australian Society of Zookeepers, Dubbo Branch
T. Russell	Exhibited Animals Advisory Committee, NSW Department of Primary Industries
B. Sammut	SAG Convenor Human Resources Advisory Group – ZAA
B. Sammut	Aborginal Workforce Development Community
S. Hinks	Board Committee Member, Regional Development Australia – Orana
C. Ford	Zoo and Aquarium Association Standards and Accreditation Committee

Appendix 12

International Travel

Staff Member Name	Destination	Date of Travel	Reason for Travel	Comments
Michelle Shaw*	Sydney – Hanoi– Cuc Phuong – Hanoi – Sydney	30/06/18 – 14/07/2019	Develop appropriate nutrition guidelines for rescued wildlife	Zoofriends Fellowship funded
Michael McFadden*	Sydney – New York – Atlanta – Dallas – Los Angeles – San Diego – Los Angeles – Sydney	11/07/18 – 24/07/18	Present at the Joint Meeting of Ichthyologists and Herpetologists	Mr Len Bleasel AM Scholarship funded
Karrie Rose	Sydney – Dallas – Tampa – Orlando – Dallas – Sydney	27/07/18 – 13/08/18	Participate in the Annual Conference of the Wildlife Disease Association (WDA).	
Dr Peter Harlow and Joshua Hatton	Sydney – Nadi – Monuriki Island – Malolo Island – Suva – Yadua Taba Island – Suva – Korotogo – Nadi – Sydney	08/08/18 – 02/09/18	Travel to Yadua Taba Island and Monuriki Island in Fiji to conduct Crested Iguana research and field surveys in partnership with the National Trust for Fiji	
Gary Fry	Sydney – Singapore – Jakarta – Bandar Lampung – Jakarta – Singapore – Sydney	25/08/18 – 05/09/18	Lead a pilot eco-tourism tour for nine participants to fundraise and support conservation of five legacy species in Sumatra	Costs recovered
Elly Neumann*	Sydney – Denver – Sydney	26/09/18 – 10/10/18	Attend animal training course	Mr Len Bleasel AM Scholarship funded
Timothy Bennett and Dr Michelle Campbell*	Dubbo – Sydney – Jakarta – Bandar Lampung – Jakarta – Sydney – Dubbo	07/10/18 –20/10/18	Disease surveillance program, veterinary and heath data base support and reasearch collaboration	Zoo Friends Fellowship funded
Cameron Kerr	Sydney – Bangkok – Sydney	21/10/18 – 26/10/18	Attend the World Association of Zoos and Aquariums (WAZA) Conference	
Monika Townsend	Sydney – Los Angeles – Las Vegas – New York – Chicago – Los Angeles – Brisbane – Sydney	05/11/18 – 18/11/18	DNSW USA Mission 2018	
Natasha Budinski*	Sydney – Dubai – Lusaka – Dubai – Sydney	05/11/18 – 21/11/18	Conservation marketing, social media development and advocacy for Conservation Louth Luangwa	Zoofriends Fellowship funded
Tarryn Williams*	Dubbo – Sydney – Cape Town – Sydney – Dubbo	20/11/18 – 09/12/18	Develop training program and enrichment programs for Cheetah Outreach	Zoofriends Fellowship funded
Cameron Kerr and Stephanie Hedt	Sydney – New Dehli – Agra – Ranthambore NP – Jaipur – Kazirangah NP – Guwhati – Kolkata – Sydney	25/11/18 – 06/12/18	To lead the 2018 Taronga CEO Challenge	
Kimberly Cullen and Janelle Blue*	Sydney – Nairobi – Isiolo – Nairobi – Sydney	12/01/19 – 25/1/19	Working with Northern Rangeland Trust to develop income generating activities and improve governance. Support development of Taronga's African Savannah and Congo precincts	Zoofriends Fellowship funded
Phoebe Meagher*	Sydney – Puerto Princesa – Roxas – Dumarao – El Nido – Narra – Puerto Princesa – Manila – Sydney	21/01/19 – 04/02/19	Combatting ilegal animal trafficking issues with Katala Foundation	Zoofriends Fellowship funded

Staff Member Name	Destination	Date of Travel	Reason for Travel	Comments
Rebecca Hobbs*	Dubbo – Sydney – New Orleans – San Diego – Los Angeles – Sydney – Dubbo	19/01/19 – 05/02/19	Present at two confereneces and visit institutions to learn about reptilian and amphibian genebanking technologies	Mr Len Bleasel AM Scholarship funded
Andrew Elphinstone	Sydney – Jakarta – Bandar Lampung – Jakarta – Sydney	17/02/19 – 23/02/19	Development and implementation of Taronga's legacy species strategy and Ecotourism tours	
Karrie Rose and Jane Hall**	Sydney – Bangkok – Chon Buri – Bangkok – Sydney	25/02/19 – 04/03/19	Deliver and intensive Pathology Short Course at Chulalongkorn University	Costs covered by grant from Cybec Foundation
Elly Neumann*	Sydney – Seattle – Seattle – San Fransisco – Sydney	03/05/19 – 12/05/19	Attend animal training course	Mr Len Bleasel Scholarship AM funded
Dr Benn Bryant**	Dubbo – Sydney – Jakarta – Bandar Lampung – Jakarta – Sydney – Dubbo	09/05/19 – 16/05/19	Travel to Indonesia to provide emergency vetinary assistance for a Sumatran Rhinoceros	Funded by the International Rhino Foundation
Dr Phoebe Meagher**	Sydney– Puerto Princesa – Rasa Island –Manilla– Sydney	27/05/19 – 03/04/2019	Joint project between Australia and the Katala Foundation aimed at combating illegal animal trafficking	Funded by an Australian Geographic grant

*costs fully funded by external party (incl Fellowship)
**costs partly funded by external party

Appendix 13

EEO Target Groups 2012–2015 (Permanent and Temporary Staff Only)

Trends in the Representation of EEO Groups

EEO Group	“Benchmark or Target”	2016	2017	2018	2019
Women	60.0%	57.5%	62.4%	63.7%	53.5%
Aboriginal People and Torres Strait Islanders	2.6%	1.7%	2.4%	2.5%	1.4%
People Whose Language First Spoken as a Child was not English	19.0%	3.4%	5.4%	6.3%	5.3%
People with a Disability	n/a	0.4%	1.8%	1.2%	0.8%
People with a Disability Requiring Work-related Adjustment	1.5%	0%	0%	0%	0%

Trends in the Distribution of EEO Groups

EEO Group	“Benchmark or Target”	2016	2017	2018	2019
Women	100	98	96	94	93
Aboriginal People and Torres Strait Islanders	100	71	80	76	87
People Whose Language First Spoken as a Child was not English	100	86	92	102	103
People with a Disability	100	96	85	89	88
People with a Disability Requiring Work-related Adjustment	100				

Appendix 14

Senior Executive Service

2018/19 – Senior Executive Bands

Band	Total Senior Executives	Average Remuneration (package) end current year
SE Band 1	14*	\$212,512
SE Band 2	1	\$337,121
Total	15	\$220,819

In 2018/19 5 positions in the Senior Executive Bands were filled by female employees.
7.24% of total employee-related expenditure in 2018/19 related to Senior Executives.

Appendix 15

Senior Staff

Executive

- Cameron Kerr, BSc (Hons), MCom – *Executive Director and Chief Executive*
- Stephanie Hedt BaS, Grad Cert Bus – *Executive Officer*

Taronga Zoo Operations

- Simon Duffy AM, BEd, BTeach GAICD – *Director, Taronga Zoo*
- Rodd Stapley, BSc – *Head of Asset Management*
- Anne Kehlhofer, BSc (Hons), MA, – *Manager, Environmental Sustainability*
- Emma Pollard, BAppFin BLLB (Hons) MIEL – *Manager, Tertiary Programs and Business Development*
- Courtney Frost (Employed by the Department of Education), BSc, BTeach – *School Education Manager*
- Lucinda Cveticanin, BAppA Bed – *Manager, Community and Cultural Programs*
- Elio Bombonato – *Manager, Wildlife Operations*
- Paul Maguire, PSM, BEd – *Director, Guest Experience and Community Conservation*

Taronga Western Plains Zoo

- Steve Hinks, DipMgt, DipBus, MMgt – *Director, Taronga Western Plains Zoo*
- Kathleen Oke, Cert IV T&A, Cert IV FM, Cert IV Hort, Dip Mgmt – *Facilities and Asset Operations Manager*
- Bruce Murdock, Ad. Dip Nutritional Med, Cert III Zoo Keeping – *Life Sciences Operational Manager*
- Jodie Kubski, Cert IV HRM, Certificate IV T&A, Certificate IV BusMgmt – *Operations Manager*

People Culture and Learning

- Bettina Sammut, BA, Cert (PR), Grad Cert (HRM) Grad Cert (Change Mgt) – *Director People Culture and Learning*
- Valerie Moushigian, Dip WHS, Dip Mgmt – WHS Manager
- Rebecca Edwards, BBA, BA Psych – Human Resources Manager
- Dani Jones, Dip HR, BA Hosp. Mgt – Organisational Development and Learning Manager

Welfare, Conservation and Science

- Nick Boyle, BSc (Comms)/LLB – *Director Welfare, Conservation and Science*
- Dr Justine O’Brien, BScAgr (Hons), PhD (Veterinary Science) – *Manager Conservation Science*
- Andrew Elphinstone, BSc (Env), MEnv – *Manager Conservation and Recovery Programs*
- Claire Ford, BSc – *Manager Population Development and Welfare*
- Dr Larry Vogelnest, PSM, BVSc (Hons), MVetStud (Wild Med Husb), MANZCVS (Zoo Medicine) – *Senior Veterinarian Taronga Zoo*
- Dr Benn Bryant, BVs, MZooMed, MANZCVS (Zoo Medicine) – *Senior Veterinarian Taronga Western Plains Zoo*
- Michelle Shaw, BSc, MSc, PhD candidate – *Zoo and Wildlife Nutritionist*

Corporate Services and Governance

- Narelle Beattie, BCom, MA, CA – *Director Corporate Services and Governance*
- Paul White – *Head of Information and Digital Technology*
- True Swain, JD, MBA, M. Pro Dev, B. CPM, GAICD – *Head of Capital Programs*
- Emma Roberts, BA FCCA – *Manager Finance*
- Leonard Lek, BCom, CPA – *Manager Finance (Projects)*
- Bruno Da Silva, B of Agr. Ec, MBA, Prince 2 Practitioner (Project Management) – *Manager Procurement*

Marketing, Commercial and Fundraising

- Libby Hodgson, BA (Hons) – *Director, Marketing, Commercial and Fundraising*
- Janelle Blue, BBiomedSc – *Head of Marketing, Communications and Digital*
- Alex Emson, HND BusMgmt – *Head of Commercial Operations*
- Leila Davis, – *Head of Taronga Foundation*
- Helen Wright, Dip IDM – *Fundraising and Memberships Manager*
- Suzy Scheiblin, BA – *Corporate Partnerships Manager*

Appendix 16

Employee by Category

Program Area	Permanent			Temporary			Casual			Total		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Executive	10	10	13	2	2	1	0	0	0	12	12	14
Clerical	113	120	109	48	61	72	94	54	52	255	235	233
General	24	26	25	1	1	0	2	1	1	27	28	26
Professional	19	14	14	5	1	1	7	3	4	31	18	19
Services	53	56	69	12	5	7	395	373	340	460	434	416
Technical	4	5	4	1	2	2	0	1	0	5	8	6
Trades	163	166	170	22	18	17	121	115	95	306	299	282
Total	386	397	404	91	90	100	619	547	492	1096	1034	996

Appendix 17

Government Information (Public Access) Act

Clause 8A: Details of the review carried out by the agency under section 7 (3) of the Act during the reporting year and the details of any information made publicly available by the agency as a result of the review

Reviews Carried Out by the Agency	Information Made Publicly Available by the Agency
Yes	Yes

Clause 8B: The total number of access applications received by the agency during the reporting year (including withdrawn applications but not including invalid applications)

Total Number of Applications Received
1

Clause 8C: The total number of access applications received by the agency during the reporting year that the agency refused either wholly or partly, because the application was for the disclosure of information referred to in Schedule 1 to the Act (information for which there is conclusive presumption of overriding public interest against disclosure)

	Wholly	Partly	Total
Number of Applications Refused	0	0	0
% of Total	0%	0%	

Schedule 2 Statistical Information About Access Applications to be Included in Annual Report

Table A: Number of Applications by Type of Applicant and Outcome*

	Access Granted in Full	Access Granted in Part	Access Refused in Full	Information Not Held	Information Already Available	Refuse to Deal with Application	Refuse to Confirm/ Deny whether information is held	Application Withdrawn	Total	% of Total
Media	0	0	0	0	0	0	0	0	0	0%
Members of Parliament	1	0	0	0	0	0	0	0	1	100%
Private sector business	0	0	0	0	0	0	0	0	0	0%
Not for profit organisations or community groups	0	0	0	0	0	0	0	0	0	0%
Members of the public (by legal representative)	0	0	0	0	0	0	0	0	0	0%
Members of the public (other)	0	0	0	0	0	0	0	0	0	0%
Total	1	0	0	0	0	0	0	0	1	
% of Total	100%	0%	0%	0%	0%	0%	0%	0%		

*More than one decision can be made in respect of a particular access application. If so, a recording must be made in relation to each such decision. This also applies to Table B.

Table B: Number of Applications by Type of Application and Outcome*

	Access Granted in Full	Access Granted in Part	Access Refused in Full	Information Not Held	Information Already Available	Refuse to Deal with Application	Refuse to Confirm/ Deny whether information is held	Application Withdrawn	Total	% of Total
Personal information applications*	0	0	0	0	0	0	0	0	0	0%
Access applications (other than personal information applications)	1	0	0	0	0	0	0	0	1	100%
Access applications that are partly personal information applications and partly other	0	0	0	0	0	0	0	0	0	0%
Total	1	0	0	0	0	0	0	0	1	
% of Total	100%	0%	0%	0%	0%	0%	0%	0%		

*A personal information application is an access application for personal information (as defined in clause 4 of Schedule 4 to the Act) about the applicant (the applicant being an individual).

Table C: Invalid Applications

Reason for Invalidity	No. of Applications	% of Total
Application does not comply with formal requirements (section 41 of the Act)	0	0%
Application is for excluded information of the agency (section 43 of the Act)	0	0%
Application contravenes restraint order (section 110 of the Act)	0	0%
Total number of invalid applications received	0	0%
Invalid applications that subsequently became valid applications	0	

Table D: Conclusive Presumption of Overriding Public Interest Against Disclosure: Matters Listed in Schedule 1 of Act

	Number of Times Consideration Used*	% of Total
Overriding secrecy laws	0	0%
Cabinet information	0	0%
Contempt	0	0%
Legal professional privilege	0	0%
Excluded information	0	0%
Documents affecting law enforcement and public safety	0	0%
Transport safety	0	0%
Adoption	0	0%
Care and protection of children	0	0%
Ministerial code of conduct	0	0%
Aboriginal and environmental heritage	0	0%
Privilege generally – Sch 1(5A)	0	0%
Information provided to High Risk Offenders Assessment Committee	0	0%
Total	0	

*More than one public interest consideration may apply in relation to a particular access application and if so, each such consideration is to be recorded (but only once per application). This also applies in relation to Table E

Table E: Other Public Interest Considerations Against Disclosure: Matters Listed in Table to Section 14 of Act

	Number of Times Consideration Used*	% of Total
Responsible and effective government	0	0%
Law enforcement and security	0	0%
Individual rights, judicial processes and natural justice	0	0%
Business interests of agencies and other persons	0	0%
Environment, culture, economy and general matters	0	0%
Secrecy provisions	0	0%
Exempt documents under interstate Freedom of Information legislation	0	0%
Total	0	

Table F: Timeliness

	Number of Applications*	% of Total
Decided within the statutory timeframe (20 days plus any extensions)	1	100%
Decided after 35 days (by agreement with applicant)	0	0%
Not decided within time (deemed refusal)	0	0%
Total	1	

Table G: Number of Applications Reviewed Under Part 5 of the Act (By Type of Review and Outcome)

	Decision Varied	Decision Upheld	Total	% of Total
Internal review	0	0	0	0%
Review by Information Commissioner*	0	0	0	0%
Internal review following recommendation under section 93 of Act	0	0	0	0%
Review by NCAT	0	0	0	0%
Total	0	0	0	0%
% of Total	0%	0%	0	

Table H: Applications for Review Under Part 5 of the Act (By Type of Applicant)

	Number of Applications for Review	% of Total
Applications by access applicants	0	0%
Applications by persons to whom information the subject of access application relates (see section 54 of the Act)	0	0%
Total	0	

Table I: Applications Transferred to Other Agencies

	Number of Applications Transferred	% of Total
Agency – Initiated Transfers	0	0%
Applicant – Initiated Transfers	0	0%
Total	0	

Appendix 18

Public Interest Disclosures

Taronga Conservation Society Australia had no public interest disclosures in the period 1 July 2018 to 30 June 2019. The following report has been provided to the NSW Ombudsman in accordance with the *Public Interest Disclosures Act 1994 (NSW)* and *Public Interest Disclosures Regulations 2011 (NSW)* for this reporting period.

Number of public officials who made public interest disclosures to your public authority	0
Number of public interest disclosures received by your public authority	0
Of public interest disclosures received, how many were primarily about:	
• Corrupt conduct	0
• Maladministration	0
• Serious and substantial waste	0
• Government information contravention	0
• Local government pecuniary interest contravention	0
Number of public interest disclosures (received since 1 July 2012) that have been finalised in this reporting period	0
Have you established an internal reporting policy?	Yes
Has the head of your public authority taken action to meet their staff awareness obligations?	Yes

Appendix 19

Consultants' Fees Incurred in 2018/19

Consultants Equal to or More Than \$50,000	Consultants Less Than \$50,000
Finance and accounting/tax Ernst & Young – \$97,087 GST specialist advice	During the year thirteen consultancies were engaged in the following area: Management Services – \$112,294 Conservation Services – \$8,280
Management Services MI Associates – \$99,000 Taronga Wildlife Hospital and Serpentina Business Case Development	Total Consultancies less than \$50,000 = \$120,574 Total Consultancies = \$313,661

Appendix 20

VIP Visits to Taronga and Taronga Western Plains Zoos in 2018/2019

Their Royal Highnesses, The Duke and Duchess of Sussex
Ms Kelly Rowland
Ms Sheryl Crow
Mr Pilou Asbaek
The Premier of NSW, The Hon. Gladys Berejiklian
US Charge' de'Affaires, Mr James Caruso
His Excellency, the Honorable David Hurley AC DSC (ret'd)
Swiss Consul General and Consulate Staff
Indonesian Consul General and Consulate Staff
Mongolian Ambassador Mr Chuluunhuu Batlai
Royal Thai Consul-General Mr Chakkrid Krachaiwong
Invictus Games Defence Personnel

Appendix 21

Multicultural Policies and Services Program

Objective	Strategies	Achievements – 2018/19	Program for 2019/20
Integrate ethnic affairs initiatives into all Taronga business and capital plan activities	Ensure all relationships with key country personnel are strong and supportive of long term outcomes	Liaised with the Kenyan High Commission to ensure authenticity of cultural elements in the African Savannah Precinct.	Ongoing process of consultation based on each project
		Provided opportunities and support for eight employees to work in-situ and support local communities’ projects and conservation programs internationally utilising the Zoo Friend Conservation Fellowships program.	Ongoing
		Participated in various Tourism Trade events including overseas Missions hosted by DNSW and Tourism Australia aimed at targeting overseas agents. Assisting to develop significant growth in this sector for Taronga. Countries visited included China, USA, UK and Europe.	Ongoing
		Overseas Tradeshows including the DNSW Missions to China, USA and UK and Europe. Taronga also attended domestic tradeshows such as ATEC meeting Place, Focus on India hosted by DNSW and Tourism Australia Tradeshows such as ATE and Corroboree East .	Ongoing
Increase the multi-cultural service capacity at both zoos	Continue to embed employees training and volunteer training in customer service with a particular focus on cultural appreciation and diversity.	‘Cultural Awareness at Taronga’ is a new eLearning Micro-Module which introduces new starters to Taronga’s Cultural Policies and provides an overview of our aboriginal history.	Working on the new Customer Service Strategy to meet the diverse needs of our guests.
		This ensures enhanced cultural support in communication throughout all roles in the organisation.	Reviewing the content of ‘The Taronga Experience’ module to ensure it reflects the new Customer Service Strategy.
		High Guests satisfaction surveys scores collected at both zoos.	Ongoing Program
	Develop events and celebrations in partnership with ethnic groups to increase inclusivity of Taronga	EID at Taronga ran for the third time in 2018 and was attended by over 6000 members of the Muslim community across a two-day festival. The incredibly successful event showcased relevant cultural food options and cultural celebration activities.	Ongoing
		The Lunar New Year brought people together to the zoo to celebrate. A special kids’ map was written in English, Mandarin and Korean. There was also a ‘peepo’ created for photo opportunities for our guests.	
	Continue to provide broad zoo based community education programs with special emphasis on the ethnic community	English language learning programs with a conservation and zoo focus have been developed by Department of Education and Zoo Education teaching staff targeting NESB students and overseas students.	Ongoing
		A new Taronga app developed incorporating NESB principles to allow guests a more relevant and engaging experience particularly an improved way finding experience.	

Objective	Strategies	Achievements – 2018/19	Program for 2019/20
		NESB and ESL schools targeted by the Taronga Department of Education Zoo mobile focusing on regional areas of NSW and inner city schools many of whom were students face challenges visiting the zoo.	Ongoing Program
		Community Zoomobile supporting disadvantaged community and regional organisations and special events such as NAIDOC.	Ongoing Program
		Expansion and increased funding for Burbangana and Walanmarra – Community and Cultural Programs at both Taronga and Taronga Western Plains Zoo in partnership with FACS. To support and mentor highly disadvantaged and at risk children.	Ongoing Program
		Additional funding received to develop another program in partnership with NSW Health and FACS for trauma effected young people in out of home care.	New program
		The delivery of “Animals of the Dreaming”, a cultural outreach program for schools in partnership with an Aboriginal Elder Colin Hardy OAM – many from regional and remote locations.	Ongoing Program
		Support programs and student services programs are available and accessible to ESL students of Taronga Training Institute.	Ongoing Program
	Provide overseas guests with translated material including maps to ensure a high value onsite experience	Availability of language translated maps of Taronga, distributed at the Zoo’s information desk – traditional Chinese. This includes specific promotional maps such as Lunar New Year which is provided in Mandarin, Korean and English.	Ongoing Program
		Taronga’s app offers a Mandarin-language option.	Ongoing Program
		The Taronga and TWPZ app use symbols and pictorials that have been designed and tested to function for use by non-English speaking guests.	Ongoing Program
	Provide interpretive and directional signs and educational graphics which are more pictorial in nature	Continue this principle to all the directional signage, and interpretive signage through the capital plan as it unfolds. E.g. Including the installation of visually communicative devices – less words more symbols/pictorials.	Ongoing Program
		Signage in the Australian Fauna Precinct – in Traditional Chinese.	Ongoing Program
Promotion of the zoos and the services of Taronga within ethnic communities	Eid festival at Taronga Zoo	EID at Taronga ran for the third time in 2018 and was attended by over 6000 members of the Muslim community across a two-day festival. The incredibly successful event showcased relevant cultural food options and cultural celebration activities.	Ongoing Program

Objective	Strategies	Achievements – 2018/19	Program for 2019/20
Promotion of the zoos and the services of Taronga within ethnic communities	Eid festival at Taronga Zoo	EID at Taronga ran for the third time in 2018 and was attended by over 6000 members of the Muslim community across a two-day festival. The incredibly successful event showcased relevant cultural food options and cultural celebration activities.	Ongoing Program
	Focus on and engage guests from overseas through foreign language publications and ethnic print/broadcast media	Taronga delivers on its commitment to expending 7.5% of its advertising budget on advertising Taronga's services throughout the ethnic community. Advertised in post arrival publication including Sydney Official guide in multiple languages – English and Chinese.	Ongoing Program
		Taronga Zoo Tourism engages with groups and independent travellers from all overseas countries via sales missions to in-market tour operators, advertising, and promotions.	Ongoing Program
		Taronga Education program Wildlife Workshops specifically developed and targeted to in bound students. Utilising travel organisations including JTB, Kintestu, Jalpak, and foreign language schools.	Ongoing Program
		Media mailout included ethnic/community press and broadcast media.	Ongoing program will continue in accordance with requests received.
		PR and media department at both zoos hosted various media teams and regional DNSW famil groups from foreign countries.	Ongoing Program
		Joint Partnership with Sydney Opera House to utilise the services of an in-market representation company in China, the service provider, act as an extension of the Sales Team at Taronga Zoo and updates the local Chinese Travel agents and Wholesalers about activities and promotions at Taronga Zoo.	Ongoing Program
Promote respect and accommodate cultural difference amongst Taronga staff	Provide and promote vocational educational opportunities at Taronga particularly for people from non-English speaking backgrounds	The Taronga school work experience program at both sites delivers VET opportunities to significant numbers of non-English speaking background students.	On-going Program
	Providing policies in accordance with the Multiculturalism Act 2000 e.g. Holy Days Religious Duty Policy	Updated Equal Employment Opportunity Forms, and Recruitment and Selection Procedure. Other Policies up-to-date.	Review of Taronga's Multicultural Policies and Service Program and assessment against NSW Government policies and requirements.
Continuing development of Taronga's Internal communications	To provide and disseminate information to all employees regardless of cultural and language background.	The implementation of Workplace by Facebook has been very successful over the past year. Content is fully accessible to all employees and volunteers. This includes recordings of major updates and presentations.	Ongoing Program to improve communication strategy.

Objective	Strategies	Achievements – 2018/19	Program for 2019/20
Ensure Taronga’s recruitment activities support the principles of EEO and the promotion of a culturally diverse workforce.	Ensure all Taronga employment practices and process are flexible and inclusive to help ensure a wide range of applications from diverse backgrounds	Recruitment practices refined and adapted – job advertisement template updated.	Review of mediums and practices to attract candidates to apply for vacant positions.
		Successfully recruited and appointed Indigenous Traineeship positions within the Australian Fauna Precinct.	Current traineeship positions being reviewed to ensure retention, employment level and further training opportunities are provided.
		Review of all Cultural content being developed for guest and student engagement to ensure Community consultation and Indigenous staff involvement throughout all stages.	All content being reviewed and supported by Community. Ongoing program.
	Ensure a range of vacant positions at both zoos are made known to a selection of organisations with multi-cultural community reach	A range of zoo vacancies directly advertised with several multi-cultural organisations and via DPE Committees.	Review of the multi-cultural organisation that should be utilised when recruiting for Taronga Retreat vacancies.
A selection of zoo vacancies created and appointed as Indigenous roles at both Taronga Zoo’s.		Increase in Indigenous positions available in the Taronga Retreat and across both zoos.	
Promote understanding of multi-cultural communities	Provide opportunities to increase understanding of and experience multi-cultural communities	Provide opportunity for staff and guests to reflect and help challenges faced by multi-cultural communities in the home countries of environmental and wildlife conservation issues (e.g. Illegal wildlife trade, Coltan mining in Great Ape habitat; sustainable seafood; use of habitat rainforest timber; Palm Oil production in South East Asian rainforests). Development of storyline and key stakeholder relationships for the detailed design and delivery phase of the Savannah precinct at Taronga Zoo Sydney, focussing on Beads for Wildlife and the Wildlife Retreat at Taronga focussing on indigenous culture.	Ongoing

Appendix 22

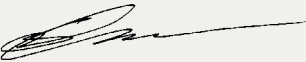
Internal Audit and Risk Management Attestation for the 2018/19 financial year for Taronga Conservation Society Australia

I, Steve Crane, am of the opinion that Taronga Conservation Society Australia (Taronga) has internal audit and risk management processes in operation that are compliant with the eight (8) core requirements set out in the Internal Audit and Risk Management Policy for the NSW Public Sector, specifically:

Core Requirements			
Risk Management Framework	1.1	The agency head is ultimately responsible and accountable for risk management in the agency	Compliant
	1.2	A risk management framework that is appropriate to the agency has been established and maintained and the framework is consistent with AS/NZS ISO 31000:2009	Compliant
Internal Audit Function	2.1	An internal audit function has been established and maintained	Compliant
	2.2	The operation of the internal audit function is consistent with the International Standards for the Professional Practice of Internal Auditing	Compliant
	2.3	The agency has an Internal Audit Charter that is consistent with the content of the ‘model charter’	Compliant
Audit and Risk Committee	3.1	An independent Audit and Risk Committee with appropriate expertise has been established	Compliant
	3.2	The Audit and Risk Committee is an advisory committee providing assistance to the agency head on the agency’s governance processes, risk management and control frameworks, and its external accountability obligations	Compliant
	3.3	The Audit and Risk Committee has a Charter that is consistent with the content of the ‘model charter’	Compliant

The Chair and Members of the Corporate Services, Audit and Risk Committee are:

- Chair – Ms Nancy Fox
- Member – Ms Penny Bingham-Hall
- Member – Mr Graham Wackett
- Member – Clr Roy Bendall



Steve Crane
Chairman
Taronga Conservation Society Australia

Appendix 23

Credit Card Certification

Taronga has approved credit cards for the payment of expenses. The use of credit cards during 2018/19 was in accordance with the Premier’s Memoranda and Treasurer’s direction.

Appendix 24

Risk Management and Insurance Report

Taronga’s Risk Management Framework enables Taronga to identify and treat risks arising from its unique operating environment which encompasses wildlife conservation, education, research, tourism, commercial operations, charitable fundraising and a large and complex capital works program across both sites.

Taronga’s overall Risk Management plan addresses the major areas of risk: health and safety, physical environment, operations, financial and reputational. The plan includes regular safety drills and inspections and prompt responses to adverse or potentially adverse events. It also includes extensive capital redevelopment and maintenance programs at both Zoos, diversified commercial operations and excellent financial controls. Individual project steering groups for each significant capital works project and new commercial activity maintain oversight of detailed risks assessments and consequent risk management and mitigation strategies for each project. Taronga is comprehensively insured against loss in all key areas of its operations and assets.

The Corporate Services, Audit and Risk Committee meets regularly to review changes to the risk register and internal and external audit reports which may identify weaknesses in existing risk management processes or emerging risks.

Taronga has a Disaster Recovery Plan in accordance with the NSW Treasurer’s direction. Taronga’s business continuity and disaster recovery plans are currently being refreshed in line with government policy.

Insurance

Taronga participates in two NSW Government self insurance funds; the Treasury Managed Fund (TMF) and the Construction Risks Insurance Fund (CRIF) which are managed by icare. The self insurance funds provide cover to Taronga for all its major assets and significant risks arising from its operations.

Contributions

Contributions (premiums) are calculated initially at a whole of government level to reflect the total cost of the fund. Contributions are then adjusted for a number of factors including an individual agency’s claims experience and risk profile.

Insurance Contributions (Excludes Workers Compensation)

Cover Type	Insurance Costs (Excl. GST) 2018/2019	Insurance Costs (Excl. GST) 2017/2018
Liability	81,680	78,960
Motor	60,620	47,660
Property	485,800	422,460
Miscellaneous	25,610	18,970
Total Contributions	653,710	568,050

Appendix 25

Investment and Liability Performance

Taronga has placed funds on deposit through NSW Treasury Corporation (TCorp). This deposit is similar to bank deposits ‘at call’ and return payable on these funds can vary. At 30 June 2019 Taronga had \$29 million invested as at-call deposits with TCorp’s Hourglass cash facilities. Performance on this investments is detailed below:

Performance of Investment Facility Against Benchmark*

Performance % pa	1 Year	3 Year	5 Year	7 Year
Actual	2.34	2.23	2.38	2.64
Benchmark	1.97	1.86	2.08	2.34
Variance	0.37	0.37	0.30	0.30

*Bloomberg AusBond Bank Bill Index.

Taronga had \$55 million invested in fixed term deposits with various banking institutions at 30 June 2019. The average interest rate earned on these deposits was 2.64% pa.

Liability Performance

At 30 June 2019, Taronga had total borrowings of \$53.9 million. These borrowings represent fifteen fixed interest rate loans with TCorp maturing at various dates out to 2030.

Liability Performance	Actual	Benchmark
Market value of borrowings at 30 June 2019*	\$58.2m	n/a
Cost of funds pa	2.82%	2.82%**

*Market value of borrowings represents the value if all debt had to be settled at 30 June 2019 and is different to the capital value based on maturity dates, which is the value used for borrowings reported in the Financial Statements.
**TCorp advises that the benchmark portfolio is identical to the debt portfolio and, as such, debt portfolio performance is equal to benchmark portfolio performance.

Appendix 26

Annual Report External Production Costs

No external production costs were incurred in the preparation of the Taronga Conservation Society 2018/19 Annual Report.

Appendix 27

Funds Granted to Non-Government Community Organisations

Name Of Recipient Organisation	Amount of Grant	Program Area
Jane Goodall Institute Australia	\$30,000	Conservation Partnership for Chimpanzees (Tchimpounga Sanctuary)
International Rhino Foundation	\$43,149	Conservation Partnership for African and Asian Rhinos
Northern Rangelands Trust	\$25,000	Conservation Partnership for Lion, Zebra, Giraffe, African Elephant in Kenya
Save Vietnam’s Wildlife	\$20,000	Conservation Partnership for Pangolin in Vietnam
Australia Wildlife Conservancy	\$15,000	Conservation Partnership for Great Desert Skink in Australia
Save the Bilby Fund	\$20,250	Conservation Partnership for Bilby in Australia
Jaliigirr Biodiversity Alliance	\$15,000	Conservation Partnership for Koala in Australia
Sahara Conservation Fund	\$15,000	Conservation partnership to support the monitoring of released Addax in Morocco
The Botswana Predator Conservation Trust	\$15,000	Conservation Partnership to support Large Carnivore conservation program (Large carnivore and human-wildlife conflict)
Free the Bears	\$15,000	Conservation Partnership for Sun Bear in Cambodia
Cheetah Conservation Botswana (Stewardship for Wildlife)	\$15,000	Conservation Partnership for Cheetah in Botswana

Name Of Recipient Organisation	Amount of Grant	Program Area
Flora and Fauna International	\$15,000	Conservation Partnership for White-cheeked Gibbon in Vietnam
Kaarakin Black Cockatoo Conservation Centre	\$3,000	Conservation Partnership for Black Cockatoos in Australia

Appendix 28

Land Disposal

Pursuant to clause 4(1) of the Annual Reports (Statutory Bodies) Regulation 1985, Taronga declares that no property was disposed of during the year ended 30 June 2019.

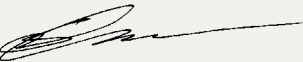
Appendix 29

Digital Information Security Annual Attestation Statement for the 2018/19 Financial Year for Taronga Conservation Society Australia

I, Steve Crane, am of the opinion that Taronga Conservation Society Australia had an Information Security Management System in place during the 2018/19 financial year that is consistent with the Core Requirements set out in the *NSW Government Digital Information Security Policy*.

The controls in place to mitigate identified risks to the digital information and digital information systems of Taronga Conservation Society Australia are adequate.

There is no agency under the control of Taronga Conservation Society Australia which is required to develop an independent ISMS in accordance with the NSW Government Digital Information Security Policy.



Steve Crane
Chairman
Taronga Conservation Society Australia

