

# INTO THE WILD

Annual Report 2017 – 2018



**TARONGA**   
CONSERVATION SOCIETY AUSTRALIA™

*For the Wild*



TARONGA

COLO RIVER, AUSTRALIA 33°18'53.5"S 150°40'30.4"E



PLATYPUS RELEASE - By Amy Russell

# A SHARED FUTURE *for* WILDLIFE *and* PEOPLE

At Taronga Conservation Society Australia, 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 resolving human-lion conflict in Botswana, to successfully breeding Yellow-spotted Bell Frogs, a species at imminent threat of extinction, and nurturing Australian school children to become conservation and wildlife champions.

Our conservation breeding programs for threatened and priority wildlife help a myriad of species, with our 10 Legacy Species 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 38 organisations working on the front line of conservation across 33 countries.

Taronga is a not-for-profit organisation. We pay no dividends, and any surplus is put straight 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

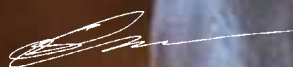
**The Hon. Gabrielle Upton MP**

Minister for the Environment and Heritage  
Parliament House  
6 Macquarie St  
SYDNEY NSW 2000

Dear Minister,

It is with great pleasure that we present the 45th 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 the Taronga Conservation Society Australia's activities for the year ended 30 June 2018 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**  
Executive Director & Chief Executive





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[taronga.org.au](http://taronga.org.au)



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 PO Box 831, Dubbo NSW 2830  
 Tel: 02 6881 1400 | Fax: 02 6884 1722  
 Open 9.00–4.00pm  
[taronga.org.au](http://taronga.org.au)

# 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  
(*Ornithorhynchus anatinus*)

**Opened** October 1916

**Site** 28 hectares

**Animals** Number of Animals: 4,480  
Species/sub-species: 307



**Symbol** Giraffe  
(*Giraffa camelopardalis*)

**Opened** February 1977

**Site** 319 hectares

**Animals** Number of Animals: 705  
Species/sub-species: 64





ASIAN ELEPHANT CALF BY Rick Stevens TARONGA WESTERN PLAINS ZOO, DUBBO, AUSTRALIA 32°16'55.2"S 148°34'38.9"E



# OUR ORGANISATION

TARONGA ZOO, SYDNEY, AUSTRALIA 33°50'18.3"S 151°14'21.1"E



LITTLE MADDEN AND YELLOW-TAILED BLACK-COCKATOO By Guy Dixon





**Minister for Environment and Heritage**

The Hon. Gabrielle Upton 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



# 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 (6)**

**BCom, 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). Term expires 30 June 2021.

### **Clr Roy Bendall (4)**

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 (6)**

**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 of BlueScope Steel Ltd, DEXUS Property Group, Fortescue Metals Group, Port Authority of NSW and Macquarie Specialised Asset. Ms Bingham Hall was a Director of SCEGGS Darlinghurst Limited Management and Australia Post. Term expires 31 December 2020.

### **Ms Jennifer Cowley (5)**

**BA, Dip.Soc.Sci; Dip Man**

Representing the local community in Dubbo. Member of the Marketing and Wildlife Committees. Ms Cowley is an active member of the Dubbo and regional communities, where she sits on a number of advisory boards. She runs her own media, community development and training consultancy and has worked extensively in regional media,

with remote indigenous communities in Australia and in humanitarian projects around the world. Ms Cowley is an editor, an award-winning journalist, a published children's and non-fiction author and a regular media and current affairs commentator on ABC Radio (Western Plains). Term expired 30 June 2018.

### **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, HCF Life and Lawcover. She is Chairman of the Perpetual Equity Investment Company. Term expires 30 June 2021.

### **Mr John Walkom (6)**

Representing Dubbo City. Member of the Marketing Committee. Mr Walkom is Chair of Regional Development Australia Orana, Independent Chair Dubbo Regional Council Audit Risk Management Committee 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 31 December 2018.

### **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 (6)**

**PSM, BVSc, MANZCVs, GAICD**

Ministerial Appointee. Chair of the Wildlife Committee. Director on the Board of RSPCA NSW, 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. Member 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. 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.



## Board Committees

### Corporate Services, Audit & Risk Committee

#### 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:

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

Meets seven times per year.

### Marketing Committee

#### 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
- Ms Jennifer Cowley

Meets 6 times per year.

### Wildlife Committee

#### 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:

- Ms Jennifer Cowley
- Prof Richard Kingsford, University of NSW
- Prof Chris Dickman, The University of Sydney *(until August 2017)*
- Ms Brooke Taylor
- Mr Paul Sinclair, Mirri Mirri
- Mr Steve Coleman, RSPCA NSW
- Dr Simon Longstaff AO, The Ethics Centre *(since October 2017)*

### Animal Ethics Committee

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, Chair
- Dr Monique Van Sluys (Researcher)
- Dr Jo Day (Wiszniewski) (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 15 new projects, 14 of which were approved. The Committee also approved 14 ongoing projects and 4 amendment applications.

# CHAIRMAN'S REPORT

Having marked our centenary last year, it was fitting that the commencement of our second century of operation focussed on the values and efforts that make Taronga an integral player in contemporary, global wildlife and habitat conservation. This year an unprecedented number of guests to both our Zoos not only shared in this 21st century conservation vision, but helped make it a reality.



More than 2 million people visited our Zoos over the past 12 months, representing the second year of record attendance, with both the proportion and total number of international guests coming through our gates also continuing to grow.

These attendance levels not only reflect Taronga's growing influence, popularity and reputation in Australia and across the globe – they have also enabled robust investment back into our Zoos, with more than \$60 million in capital expenditure over the past year adding to and improving our animals' environments and wellbeing, as well as the experiences available to our ever-growing number of guests.

Exciting new experiences launched this year included the new \$9 million Lion Pride Lands exhibit at Taronga Western Plains Zoo – resulting in the Zoo's largest media event of the calendar year, and contributing to its 10% growth in admissions in 2017/18. Meanwhile at Taronga Zoo Sydney, the launch of the highly choreographed Tiger Trek experience not only exposed guests to a unique and authentic Sumatran cultural and wildlife interpretation, but has so far empowered more than 60,000 guests to encourage consumer brands to transition to Certified Sustainable Palm Oil through the 'Raise Your Palm' campaign.


This successful community campaign was just one example of Taronga's influence extending beyond Zoo grounds, with our conservation and science programs continuing to achieve significant milestones for wildlife, habitats and communities in Australia and worldwide. In 2017/18, these programs ranged from students using science to protect locally endangered wildlife as part of Taronga's award-winning Project Insitu, through to successful breed-and-release programs which saw endangered species such as the Yellow-spotted Bell Frog – once thought to be extinct – successfully reintroduced into the wild.

These efforts were supported by our ongoing and new partnerships with Australian and global conservation organisations and corporations, as well as more than \$9 million in generous donations made to the Taronga Foundation.

Once again sustainability was at the forefront of our operations this year, with significant achievements including removing more than 1 million items of single-use plastic from Taronga's food outlets, investing \$750,000 in solar PV for clean electricity generation, and offsetting our carbon emissions whilst simultaneously helping to secure the habitats of our legacy species – all part of our commitment to becoming certified carbon neutral by 2019.

And of course, a highlight every year is celebrating the new lives that joined us at both Zoos and 2017/18 was no different. Births included six cheetah cubs, two Takhi (Przewalski's Horse) foals, two Giraffe calves, a female Asian Elephant calf, a Black Rhinoceros calf, a baby Western Lowland Gorilla, a Chimpanzee baby, an Australian Sea-lion pup, and a Goodfellow's Tree Kangaroo joey.

Finally, I recognise the contribution and support of the Hon. Gabrielle Upton, Minister for Environment and Heritage and would like to thank the members of the Taronga Board for their support and assistance throughout the year – and, of course, all our dedicated staff and volunteers who should be proud of their hard work and many accomplishments.



**Steve Crane**  
Chairman

TARONGA WESTERN PLAINS ZOO, DUBBO, AUSTRALIA 32°16'37.0"S 148°35'15.4"E



CHAIRMAN STEVE CRANE WITH BLACK RHINOCEROS By Mandy Turner



# EXECUTIVE DIRECTOR *and* CHIEF EXECUTIVE'S REPORT

Looking back on the achievements of the past 12 months, we can truly say that moving into its second century, Taronga has embraced its contemporary mandate as an advocate and representative for wildlife – not just within our Zoos but across Australia and the world.

In July 2017, I was honoured to join 10 Taronga supporters journeying into the heart of Sumatra, at Way Kambas National Park, as part of the 'CEO Challenge' to learn about and bolster support for endangered Sumatran wildlife. At the same time, back on home soil, guests at Taronga Zoo Sydney were given the opportunity to connect with Sumatran culture and one of our 10 Legacy Species, the Sumatran Tiger – whilst learning about Taronga's involvement in vital conservation programs – with the launch of our unique Tiger Trek experience.

We can be proud of the significant efforts and milestones already achieved in the inaugural year of our 10 Legacy Species program. Over the next decade, this program seeks to turn around the fate of five Australian and five Sumatran species that are at threat of extinction. While Tiger Trek raises awareness and elicited real conservation action on behalf of the Sumatran Tiger, over at Taronga Western Plains Zoo a 110ha predator-proof sanctuary was established for the endangered Greater Bilby, as part of the National Recovery Plan for the iconic Australian species.

Meanwhile, prospects for Sumatra's endangered pangolin – the world's most trafficked mammal – are a little brighter with Taronga-led forensic research offering valuable scientific insights for conservationists and law enforcement. At the same time, in a public awareness coup for the species, the pangolin featured on the cover of *Australian Geographic* in an article focussing on the work of Taronga scientists. In 2017/18 we also celebrated the birth of a female Asian Elephant, and successfully bred and released endangered Corroboree Frogs into the wild – and this is all just the beginning of what is shaping up to be a powerful new program to protect and raise awareness of endangered wildlife.

Of course, our conservation programs are wide and varied – and include Taronga's Great Barrier Reef coral preservation work, which continued to thrive this year. New coral cell types collected from Heron Island increased the genetic diversity of Taronga's Cryodiversity Bank to include species from the southern Reef. With 16 coral species, Taronga now houses the largest coral bank in the world.

Nurturing the next generation of scientists, conservationists and wildlife advocates remains central to our goals, and in 2017/18 more than 150,000 students participated in our formal and informal education programs. The long-awaited Institute of Science and Learning was also successfully completed this year, representing a hub of science and education initiatives that will increase Taronga's capacity to conduct essential research and cultivate future scientists.

Taronga's Burbangana program for at-risk young people, run in collaboration with Family and Community Services, saw its highest number of graduates since its launch 10 years ago with a record 24 young people engaging in valuable educational programs and activities at the Zoo.

Both of our Zoos were again the site of a number of successful community events over the past year, attended by a total of more than 150,000 people. These included yet another successful Vivid Sydney at Taronga Zoo, our third consecutive Eid, New Year's Eve and the 23rd Twilight Concert series. At Taronga Western Plains, highlights included the launch of Lion Pride Lands in March 2018 and the Zoo's 40th birthday celebrations in October 2017. More than 100 volunteers and employees participated in a lantern parade in celebration of the Zoo and its shared history with the Dubbo community.

Our achievements and accolades have been many and varied over the past year – as you'll see in the following review – and they couldn't have happened without involvement of the whole Taronga family, including our dedicated Board, valued partners, generous supporters and tireless employees and volunteers to whom I offer a heartfelt thanks. I hope you all have many memories of a successful year and look forward to another spectacular 12 months ahead.



**Cameron Kerr**  
Executive Director & Chief Executive





TARONGA ZOO, SYDNEY, AUSTRALIA 33°50'38.3"S 151°14'21.1"E



CAMERON KERR WITH CORROBOREE FROG By Guy Dixon



#### Christmas Island

Christmas Island reptile  
disease investigation

# CONSERVATION SCIENCE *in* AUSTRALIA

Over the last 12 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.



#### Brindabella Mountains

Northern Corroboree  
Frog release



**Heron Island**

Coral cryobanking bringing new genetic diversity from the southern region of the Great Barrier Reef

Photo: Gary Cranitch



**Dubbo Taronga Western Plains Zoo**

Plains-wanderer breeding program

Photo: Corrine Symons



**Sydney**

Improved diet for Echidnas

Photo: Short-beaked Echidna by Lorinda Taylor



**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



**Yass**

Yellow-spotted Bell Frog reintroduction

Photo: Amy Russell



**Montague Island**

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

Photo: Little Penguins by Anders Alexander



**Sydney Oceans**

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

Photo: Toby Zerna, Daily Telegraph





# YEAR *in* BRIEF: OUR GLOBAL REACH

Taronga's conservation programs support wildlife, habitats and communities in 33 countries around the world.

Taronga directly contributes over \$500,000 annually to conservation partnerships and field grants. Taronga also leads several threatened species recovery projects, conservation science projects and community campaigns. Our overall conservation commitment through employee time, facilities and project support totals over \$5.6 million directly invested in field conservation each year.

This work is vital to identify and reduce key threats to threatened and priority species, protect important habitat for wildlife, and support healthy communities. From Papua New Guinea to Vietnam, and from Zambia to Indonesia, Taronga works with global conservation experts in the field to secure a shared future for wildlife and people.



## Benin

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



## Republic of Congo

Partnership with Jane Goodall Institute Australia caring for Chimpanzees at Tchimpounga Sanctuary



## Northern Botswana

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



## Botswana

Reducing conflict between communities and lions with i-Cow



## 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

**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

**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

**Indonesia**

Stable isotope analysis of echidna quills to assess animal origin

Photo: Paul Fahy

**Australia**

Improving our understanding of environmental impacts on Platypus health and distribution

**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

**Kenya**

Partnering with Northern Rangelands Trust to protect African Lion, zebra, Giraffe and African Elephant

Photo: Kira Mileham

**Fiji**

Supporting the survival of the Fijian Crested Iguana

Photo: Lorinda Taylor

**Komodo, Indonesia**

Supporting community initiatives to preserve habitat for the Komodo Dragon

Photo: Gary Ramage

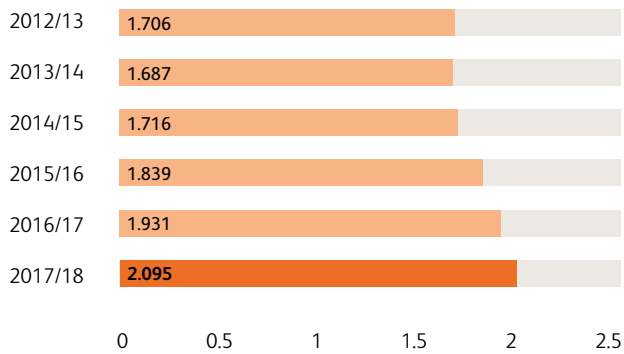




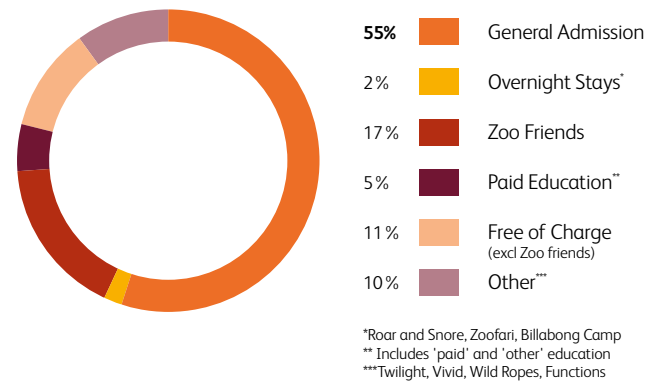


# VISITATION SNAPSHOT

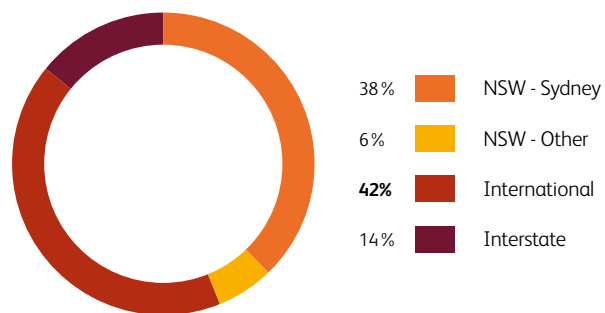
Total visitation (million people)



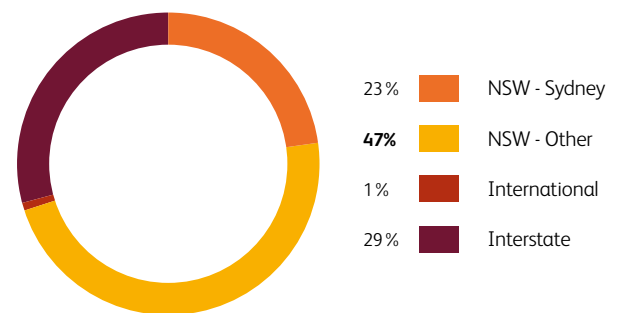
Guest Ticketing Mix



Origin of Guests - TZ



Origin of Guests - TWPZ



Guest Attendance KPIs

		2016/17	2017/18	Variance #	Variance %
Consolidated result	Paid attendance <sup>(1)</sup>	1,495,638	1,656,910	161,272	10.8%
	Paid and FOC* attendance <sup>(2) (3)</sup>	1,931,258	2,094,560	163,302	8.5%
Taronga Zoo	Paid attendance <sup>(1)</sup>	1,267,546	1,425,123	157,577	12.4%
	Paid and FOC* attendance <sup>(2)</sup>	1,667,891	1,830,795	162,904	9.8%
Taronga Western Plains Zoo	Paid attendance <sup>(1)</sup>	228,092	231,787	3,695	1.6%
	Paid and FOC* attendance <sup>(3)</sup>	263,367	263,765	398	0.2%

\* FOC - Free of charge

1. Includes Zoo Friends, paid education and overnight stays.

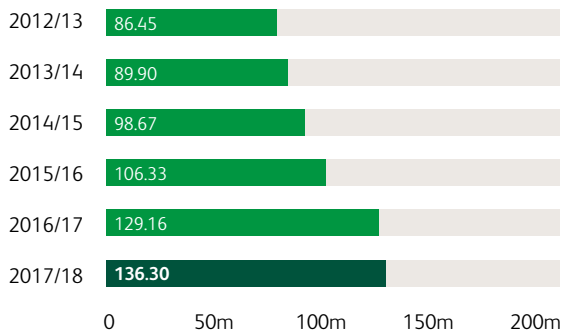
2. Includes function guests and Twilight Concert and Vivid attendees at Taronga Zoo.

3. Includes function guests at Taronga Western Plains Zoo.

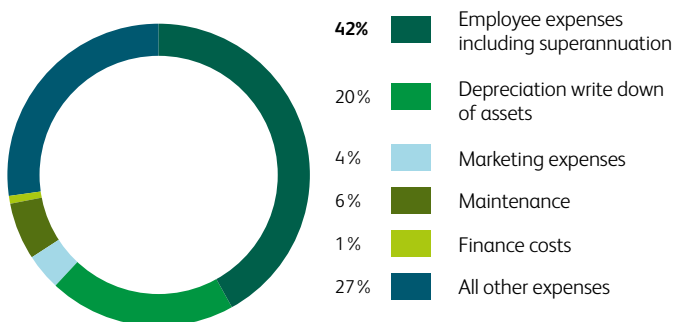


# FINANCIAL SNAPSHOT

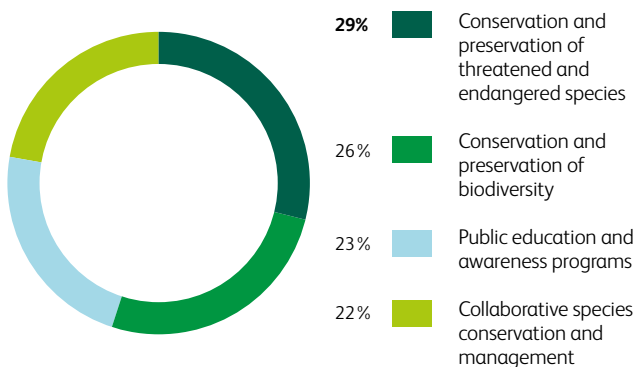
Total income (\$m)



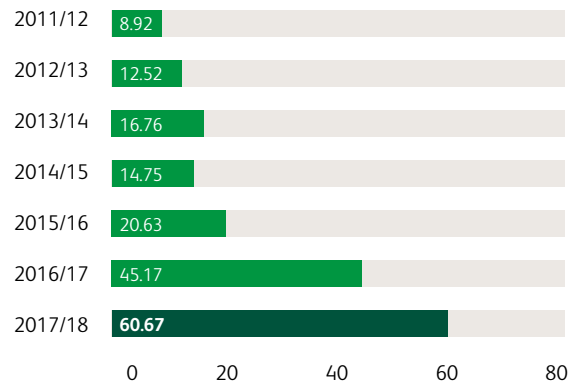
Allocation of recurrent resources to expense types



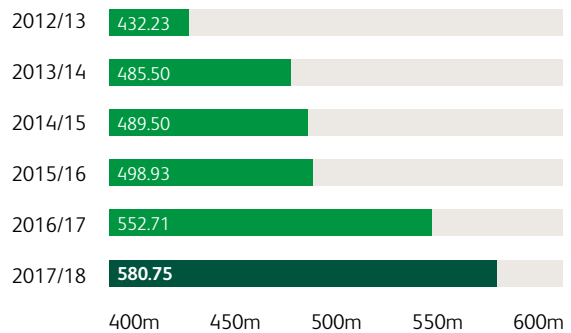
Total cost of Social Policy Program activities



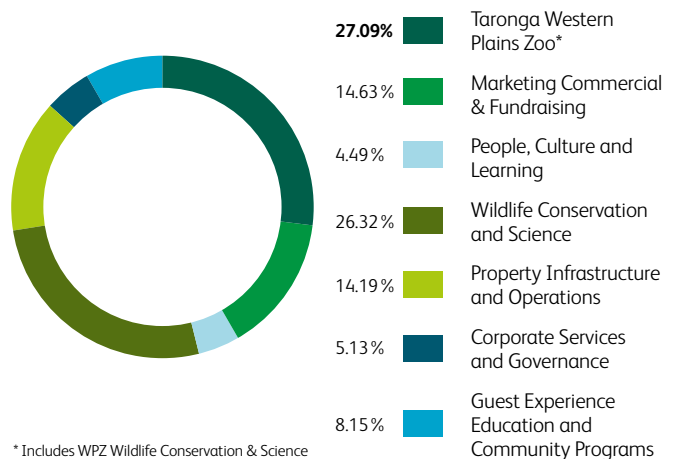
Expenditure on capital development and maintenance (\$m)



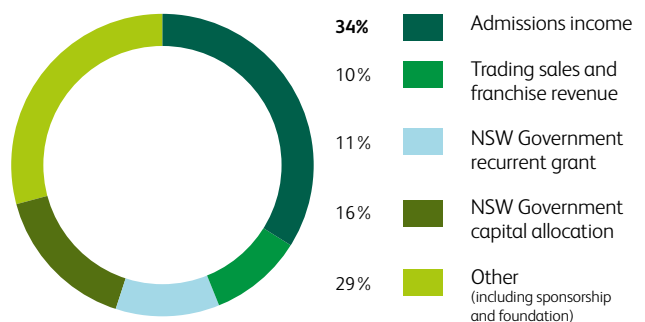
Total Assets (\$m)



Allocation of employees by Taronga division



Sources of income for Taronga Programs





WAY KAMBAS NATIONAL PARK, SUMATRA, INDONESIA 4°55'43.1"S 105°46'36.1"E



SUMATRAN RHINOCEROS By David Krishner



# CONSERVATION SCIENCE

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

## Key achievements

### Fight Against Wildlife Trafficking

Taronga continues to play a key role in the fight against illegal wildlife trafficking, which threatens conservation, welfare and biosecurity. Taronga has established a multinational research group and developed forensic methods to detect illegal trafficking in species including the Short-beaked Echidna and pangolin. The diet-induced differences between zoo-based and wild echidnas were investigated for use by regulatory officials to combat wildlife traders' claims that animals are captive-bred. The same techniques will be used on pangolin quills to determine trade routes for the world's most heavily trafficked mammal.

### Taronga Western Plains Sanctuary

Taronga has achieved a major milestone in its efforts to save threatened species in NSW and support both the National Bilby Recovery Program and the Office of Environment and Heritage's 'Re-wilding NSW' project. In February 2018, the National Parks and Wildlife Service granted Taronga the licence to operate its Western Plains Sanctuary as a free-range fauna park. Addressing the scientific, practical and ethical considerations of such a pioneering project was a rigorous undertaking. Taronga has already completed construction of a predator-proof fence and initial pest control to support the release of bilbies into the Sanctuary.

### Asian Elephant Conservation

Taronga Western Plains Zoo welcomed a female elephant calf in June, the second to be born there and the sixth born across both Zoos since the breeding program began 12 years ago. This successful program is just one aspect of Taronga's work in elephant conservation, which includes working with governments and conservation agencies in Asia to turn around the decline of Asian Elephants. Taronga also funds wildlife protection units and ranger stations in Thailand and Sumatra to help suppress elephant poaching, and the Taronga Western Plains Zoo Wildlife division initiated the ZAA Australasian Elephant Workshop 2018.

### Reintroducing Endangered Frogs

In late 2017, Taronga achieved the first successful reintroduction of the Yellow-spotted Bell Frog, once thought to have been extinct. In March 2018, the first 200 frogs were released into a new site, with 500 more to follow in spring. Taronga also released 114 juvenile Northern Corroboree Frogs in the Brindabella Mountains, following a successful monitoring season in which juvenile frogs released in 2014 were found to be establishing nests and laying eggs. In May, Taronga continued its participation in the reintroduction program for the Southern Corroboree Frog, releasing 505 eggs at several sites in Kosciuszko National Park.

### Marine Ecosystems and Climate Change

Taronga is investigating the impact of climate on marine ecosystems, focussing on the area around Montague Island off Australia's southeast coast, where the ocean is warming two- to three-times faster than the global average due to an intensification of the East Australian Current. By deploying innovative techniques developed in part through work with the Little Penguins at Taronga, this work has demonstrated the link between food availability and ocean processes. Tangible evidence like this helps policy makers better manage key marine ecosystems.

### Coral Cryobanking

Taronga is collaborating with partner organisations to establish Great Barrier Reef coral 'cryopreservation'. In November 2017, biologists collected and banked sperm and

other cell types from eight species of hard corals on Heron Island, bringing new genetic diversity to Taronga's Cryodiversity Bank – which now houses 16 coral species and represents the largest coral bank in the world.

### Marine Turtle Conservation

Taronga continues its commitment to the marine turtle rehabilitation tracking project. This year, the team identified a specific research question, appropriate technology and specified a target species for the project. A commitment of \$50,000 was secured through a partnership with SUEZ to improve holding facilities and fund satellite trackers. The award of the 2017 Taronga Green Grants to marine plastics-based initiatives and the Litter Free Oceans campaign further bolstered efforts towards protecting marine turtles.

### Marsupial Translocation

Taronga's Australian Registry of Wildlife Health has partnered with Parks Australia for the past four years to re-introduce small terrestrial mammals to Booderee National Park, which has been devoid of small terrestrial marsupials for more than 100 years. The Eastern Shield program brings together land managers to implement fox and cat control in coastal NSW and Victoria, providing an opportunity for pilot re-introduction research. This work began with the translocation of the Long-nosed Potoroo, then the Southern Brown Bandicoot and finally, in March 2018, the Eastern Quoll from Tasmania, which had been extinct on the mainland since the 1960s.

Performance Indicators	Target	Definition	2017/18
<b>Wildlife Conservation</b> Wildlife in Taronga's care has an identified and communicated role in conservation	100%	Percentage is assessed via the Animal Population Assessment tool	90%





TARONGA ZOO, SYDNEY, AUSTRALIA 33°50'38.3"S 151°14'21.7"E



SOUTHERN CORROBOREE FROG By Chris Wheeler



## Taronga's leading reintroduction projects

### March 2018 release

# 200

Yellow-spotted  
Bell Frogs  
**Status: critically  
endangered**



# 114

Northern  
Corroboree Frogs  
**Status: critically  
endangered**



### May 2018 release

# 500

Southern Corroboree  
Frog eggs  
**Status: critically  
endangered**



## Conservation Science

Taronga has a core science team, but our scientific expertise continues to grow across the organisation. This expertise, coupled with the new Taronga Institute of Science and Learning, launches the next era of conservation science at Taronga and further embeds our role as a conservation leader. The Institute, a long-awaited hub of our science and education initiatives, 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. Our expertise combined with the generous and critical support of our donors, help us deliver tangible conservation outcomes. Since 2011, Taronga has leveraged almost \$1.2 million in donor funds to garner over \$7 million in scientific grants, and peer-reviewed publications by Taronga scientists and partners continue to increase in number.

### In The Water

In September 2017, Taronga's marine biologist joined the ship RV Investigator along with collaborators from multiple organisations, including Macquarie University. This 19-day research voyage set the goal to convert the physical view of the Tasman Sea as observed via satellite – capturing sea temperature, sea level and chlorophyll – to an ecosystem one. This voyage also included the region around Montague Island, the focus of a multi-year Australian Research Council Linkage grant-funded program. Collective data are providing information on the upstream and downstream effects of the island on ocean productivity, and are helping to resolve specific impacts from the broader impacts of climate change.

In November 2017, Taronga and our partners at the Smithsonian Institution completed another successful biodiversity banking trip to the Great Barrier Reef, with support from the Great Barrier Reef Foundation. The team worked with scientists from Southern Cross University to cryopreserve species from this most recent spawning site on Heron Island.

The team cryobanked billions of sperm, including samples from five new species, bringing increased genetic diversity from the southern reaches of the Reef. The total number of species now housed in Taronga's Cryodiversity Bank based at Taronga Western Plains Zoo – and soon to be expanded to the Taronga Institute of Science and Learning in Sydney – is 16, representing the largest coral bank in the world. These new collaborations have increased the likelihood of these cells being used in a strategic approach to reef restoration in the near future.

In collaboration with Macquarie University, Taronga scientists continued acoustic telemetry work to examine movement and migration patterns of free-ranging Port Jackson Sharks (PJS) tracked from Sydney. PJS arrived in Sydney during the breeding season from June to August and departed in September to October. Almost half of the tagged animals showed preference to particular reefs around Sydney, and after the breeding season, around 70% migrated south past Narooma and were not detected again until the following breeding season. For sharks in another study population in Jervis Bay (JB), extremely high site fidelity (90%) was observed during the breeding season and around 50% of sharks were tracked passing through Narooma, and then further south to Bass Strait and Cape Barron Island. Similar to the Sydney study, many JB sharks were not detected by the acoustic receiver array outside the breeding season. Findings from this program are addressing our limited knowledge on benthic shark species in temperate waters around Australia and highlight the importance of considering individual and population-level variation in movement patterns.

### 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 i-Cow project tests whether painting eye patterns on cattle deters attacks by lions and leopards. The idea is to persuade these ambush predators that they have been seen by their prey, which in turn discourages them from pursuing said prey. In seven herds in Botswana, an equal number

of cattle are painted with eye patterns, crosses (as a control) or left unpainted altogether. So far, no 'i-Cows' have been killed, while eight of their herd mates have been taken by lions, suggesting this simple solution may be effective in deterring attacks. This low-cost potential solution is designed to benefit both farmers and predators by reducing livestock losses and retaliatory killing of predators, a key threatening process for many of the world's carnivores. Taronga's continued support will facilitate the next phase of the project – producing 'how-to' guides in three key languages to increase uptake in human-wildlife conflict hot-spots across Africa.

Back in Australia, Taronga's Australian Registry of Wildlife Health, Parks Australia and the Australian National University continued a collaborative project to repopulate Booderee National Park with a variety of terrestrial mammals that have been extirpated for more than 100 years. This project has assisted all involved to learn more about the factors driving species declines in and around the park. This work is funded by the Threatened Species Commission, with support from World Wildlife Fund, Wreck Bay Aboriginal Community Council, a community fundraising campaign and a Taronga Field Grant. To date, 20 Eastern Quolls, 54 Long-nosed Potoroos and 29 Southern Brown Bandicoots have been translocated to Booderee National Park. Post-release monitoring by Parks Australia and the Australian National University have 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 animals in our care. This focus extends to local species through the Strategic Plan project "Taronga is Habitat", which recognises our Zoo sites as important habitat and aims to better understand and support native wildlife, including the Long-nosed Bandicoot, the Brush Turkey and various species of microbats.

### Australian Shark Attack File

The Australian Shark Attack File (ASAF) has improved its profile through 2017/18 as Australia's source of shark attack data. The ASAF Team implemented a media profile-raising plan featuring Dr Phoebe Meagher, Taronga's Pathology Assistant, resident Shark Biologist and ASAF team member. Media coverage included a full-page article in the *Manly Daily* in March 2018 and an interview on *The Daily Edition* program.

The ASAF continues to compile unbiased shark attack statistics, and report this data to the International Shark Attack file. They also advise state and federal authorities and the general public about shark attack risk. In 2017/18, Western Australia was overrepresented in attacks, recording 10 unprovoked and two provoked attacks. There was a total of 19 unprovoked shark attack cases recorded across Australia for the year with no fatalities occurring. Summary information and educational material is accessible to the public online at: <https://www.taronga.org.au/conservation-and-science/australian-shark-attack-file>

### Field-Based Conservation

Collaboration is vital to the success of any conservation endeavour. In the last year alone Taronga partnered with 38 organisations working on the front line of conservation across 33 countries. When identifying partners or projects to support, Taronga seeks out those who share our holistic 360-degree approach to conservation, focusing on wildlife, habitat and communities. Lasting conservation outcomes can only be achieved when communities are respected and engaged, habitats are healthy, and wildlife is protected.

### Highlight Projects with Community Focus

#### Putting an End to Poaching: Conservation South Luangwa

Taronga is working closely with Conservation South Luangwa to increase vital anti-poaching patrols throughout the region. Throughout 2017, new strategies were implemented to increase aerial surveillance and support the field team's wildlife de-snaring activities.

This resulted in a 132% increase in the detection and reporting of poaching and snaring events. This is a fantastic

achievement; now, the challenge lies in maintaining an ongoing reduction in poaching across the park. Currently, reductions in poaching of certain areas have been tied with an increase of poaching in alternate areas. Intense aerial surveillance coupled with detection dog patrols have become key to the overall success of the anti-poaching units.

### Keeping the Komodo Alive: Komodo Survival Alliance

Taronga has supported the Komodo Survival Alliance for over five years. During this time the alliance has focused on monitoring extant populations, studying species range, prey densities and habitat viability. This work resulted in publications and the development of guidelines for national park management to secure remaining Komodo populations.

This year Taronga renewed its partnership with the Komodo Survival Alliance. The current project aims to develop and implement community-based conservation initiatives for the Komodo Dragon on Flores Island, Indonesia. These initiatives will work with local communities to bolster the relatively small-scale habitat protection of existing nature reserves, and better preserve key habitats in non-protected areas of dry monsoonal forest on the south-west coast of Flores Island.

### Highlight Projects with Species Focus

#### Securing a Future for Painted Terrapins: Satucita Foundation, Indonesia

This project aims to save Painted Terrapin eggs from poaching and natural predation. Field teams patrol beaches throughout nesting season to determine the location of new marine turtle nests. The eggs are recovered from the nests and reburied in the hatchery located at Pusung Kapal village. This prevents the eggs from being eaten or harvested. Once hatched, the offspring are marked for long-term monitoring, then released.

#### Tchimpounga Chimpanzee Rehabilitation Centre: Jane Goodall Institute Australia

Taronga has supported the Tchimpounga Chimpanzee Rehabilitation Centre for over a decade. Recently, Taronga has been involved in behavioural research to assist in the identification of individuals suitable to be released to the reserve's islands, and

offered building expertise to assist in the development of new Chimpanzee facilities on the islands. Veterinary and keeping staff have also undertaken fellowships to Tchimpounga to offer insight on Chimpanzee health, husbandry and transfers.

In 2017, Taronga worked closely with the Tchimpounga team to integrate 51 Chimpanzees on the Tchindzoulou Island, examining the social dynamics of the large group. The data collected and lessons learned from this translocation are invaluable in the continued expansion of the release program to surrounding national parks.

### Highlight Project with Habitat Focus

#### Jaliigirr Biodiversity Alliance restoring of fragmented and degraded habitat in northern NSW

In 2018 Taronga established a new partnership with the Jaliigirr Biodiversity Alliance. Taronga's funding will directly support the restoration of key wildlife corridors in northern NSW. Specifically, 2018 works will focus on the removal of *Lantana camara* throughout important Koala habitat in the Aboriginal-owned land of Mylestom, NSW. Bellingen Shire Coastal Comprehensive Koala Plan of Management has identified this site as preferred primary and secondary habitat for Koalas. The area is bounded by the Bongil Bongil National Park and Crown Land; the removal of *Lantana camara* and restoration of native species will therefore improve connectivity within the region for Koalas and other local native species.

### Commitment to Sumatran Legacy Species

Taronga's commitment to Sumatra and the five Sumatran Legacy Species centres on applying a 360-degree approach to conservation both in and around Way Kambas National Park. In 2017/18, Taronga continued working with the Sumatran Rhino Sanctuary and the Wildlife Protection Units throughout the Park. Taronga also ran the second CEO Challenge to Way Kambas, raising funds and awareness to support the conservation of Sumatran wildlife. Building on the success of Taronga's CEO Challenges, Taronga has been working directly with the Way Kambas community and local businesses to deliver a niche eco-tourism experience in late 2018 that will directly support local commerce and conservation.



MARINE TURTLE By Amy Russell



GREATER BILBY By Chris Wheeler



# WILDLIFE IN OUR CARE

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

## Key achievements

### Protecting Plains-wanderers

Taronga is establishing a zoo-based breeding population of the native Plains-wanderer as part of the NSW Government's Saving Our Species program. In April 2018 purpose-built facilities were completed at Taronga Western Plains Zoo, and in May the first three pairs of Plains-wanderers arrived. The birds are being monitored to identify baseline behaviour indicators, to assess and analyse possible changes over time from wild-caught birds and zoo-bred birds. The information will help ensure zoo-based insurance population individuals maintain natural behaviours and are suitable for future release.

### Improved echidna Diet

Taronga's Nutritionist, with manufacturing partner Vetafarm, has designed an improved diet for zoo-based echidnas, eliminating the pervasive problem of nutrition-related stomach lining inflammation and improving reproductive success. Further investigations uncovered that previous assumptions about the digestive capabilities and nutritional requirements of the echidna were wrong. Working with partners from the University of Adelaide, University of NSW, Australian Nuclear Science and Technology Organisation, Smithsonian Institution, Perth Zoo, Zoos Victoria and Save Vietnam's Wildlife, Taronga is now investigating other insectivores, including the pangolin and Numbat, to improve our understanding of their diet and its effect on health and reproduction.

### Moving Asian Elephant 'Gung'

In January 2018, Asian Elephant 'Gung' was transported from Taronga Zoo to Taronga

Western Plains Zoo. Training and conditioning sessions in the months leading up to the move ensured he was calm throughout the journey. Aided by familiar Keepers, his arrival was smooth and efficient. The move allowed 'Gung' to reconnect with his first calf 'Luk Chai', along with cows 'Porntip' and 'Thong Dee' with whom he spent many years at Taronga. 'Gung' now plays an important role as mentor to the three young bulls at Taronga Western Plains Zoo, ensuring they are raised with appropriate social and potential breeding skills.

### Lion Pride Lands Success

Taronga Western Plains Zoo's Lion Pride Lands opened in March 2018. The pride of eight Lions enjoyed a smooth move to their new home thanks to the preparation and dedication of the Keeping Team. The Lions are enjoying the new areas to explore and taking the patrol truck in their stride. The future for Lion Pride Lands includes the recent arrival of new Lions – two females and one male Lion – who will become the new breeding pride for Taronga Western Plains Zoo.

### Zoo Baby Boom

Significant animal births at both Taronga and Taronga Western Plains Zoos this year have included six Cheetah cubs, two Takhi foals, two Giraffe calves, a female Asian Elephant calf, a Black Rhinoceros calf, a baby Western Lowland Gorilla, a Chimpanzee baby, an Australian Sea-lion pup, and a Goodfellow's Tree Kangaroo joey.

### Wild Dogs Transferred to NZ

Eight African Wild Dogs were transferred from Taronga Western Plains Zoo to Orana Park New Zealand. This was a complex exercise

in zoo vet medicine and animal husbandry, managing a large cohort of socially complex and sensitive animals through a rigorous pre-export isolation process, which involved numerous anaesthetic events for veterinary examination and sampling to fulfil biosecurity requirements for import into New Zealand. The group arrived safely.

### Nutrition Consulting Services

Taronga's nutrition consulting services supported the care of wildlife in zoos across Australia, including Perth Zoo, Symbio Wildlife Park and Zoos Victoria. Consulting services included reviews of a range of in-situ and ex-situ programs, including critically endangered species such as Numbats, Western Swamp Tortoises, Geocrinia Frogs, Western Ground Parrots, Orange-bellied Parrots, Plains-wanderers, Leadbeater's Possums, Mountain Pygmy-possums and Helmeted Honeyeaters.

### Looking After Little Penguins

Taronga Wildlife Hospital treats and rehabilitates over 30 Little Penguins annually. The majority of these originate from the Manly Little Penguin colony, which is listed as an endangered population. Taronga works in close collaboration with the Office of Environment and Heritage to protect these penguins, which have become a Sydney icon and are the last remaining mainland colony. Employees at the hospital have continued involvement with the citizen science-based Project Penguin, threatened species fundraising events and beach clean ups in collaboration with the National Parks and Wildlife Service.

Performance Indicators	Target	Definition	2017/18
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	100%
Number of avoidable animal welfare incidents	5	Incident is assessed as avoidable by the Taronga Animal Welfare Committee	6
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	1500	Number of cases treated at TZ and TWPZ	1186



TARONGA WESTERN PLAINS ZOO, DUBBO, AUSTRALIA 32°16'55.2"S 148°34'38.9"E



PLAINS WANDERER By Mark O'Riordan



## Wildlife Conservation and Science

### Taronga Zoo

Taronga's Wildlife Conservation and Science Division continued to focus on providing inspiring and transformational experiences for Zoo guests, and on the breeding of recovery and ambassador species in line with Taronga's conservation goals.

A highly significant breeding success is that of the Yellow-spotted Bell Frog. Thought to be extinct from the wild for 30 years, a small population of the frog was discovered near the NSW town of Yass in 2009. The Zoo collected an insurance population from this group in consultation with NSW National Parks and Wildlife Service and the Office of Environment and Heritage. Attempts to breed the frogs over several years failed. With the frogs ageing, the Reptile Team used their experience and took a calculated risk to construct a purpose-built, outdoor breeding aviary for the seven individuals, resulting in spawn in November 2017. Since then, the tadpoles have metamorphosed into 250 healthy juvenile frogs. In March 2018, 200 frogs were released back into the area in which they were found, within Taronga's 360-degree approach, and with the support from local land holders and the community.

The Taronga Zoo Ungulate Team achieved a significant milestone with the successful move of three Giraffes in June 2018. The Giraffes have temporarily relocated from their well-known harbour-view paddock to the heritage elephant yard in preparation for the redevelopment of the African Savannah precinct. The move involved some challenging logistics and was a great example of team work and collaboration.

The Taronga Zoo Primate Team has continued to work through the project of introducing new individuals to the Taronga Chimpanzee Troop. As part of the adaptive plan, two individual Chimpanzees were successfully transferred to Monarto Zoo and integrated into their troop. Following this transfer, the introduction of two imported Chimpanzees resumed and has continued successfully; to a point where there are now more Chimpanzees in the newly developed group than remain in the un-introduced group. The goal continues to be one cohesive, healthy troop and the team is confident this will be achieved.

Beyond the operational achievements, the Wildlife leadership team implemented an efficiency and team culture project called Evolve. The goal is to identify and focus resources towards improvements in team culture and workplace efficiency. The key components of Evolve are an annual employees survey and a workplace efficiency and prioritisation structure. The project is designed to empower employees and volunteers to identify improvements in their work day and develop a structure to prioritise efficiency-based solutions.

An example of an effective Evolve project implemented to date is the free-flight bird aviaries. The Bird Show Team was spending over an hour a day hosing holding aviary floors. The team proposed an Evolve project to install dirt substrate and plants in the aviaries to reduce cleaning time and improve welfare through enclosure diversity. For a relatively small initial investment in time and resources, the team significantly reduced

their daily cleaning time and the birds benefit from a more stimulating enclosure. The team now reinvests the time in behavioural monitoring and conditioning, which improves the guest experience.

In May 2018, the Wildlife team engaged an international animal behavioural consultant to review current training and enrichment policies and practices across both sites and recommend improvements. The biggest value from this investment came from the world-class training solutions offered to some of the challenges keepers face, and the close consultation with the teams. This engagement was undertaken in response to feedback from Evolve employee surveys and feedback sessions.

In June 2018, the Horticulture team was transitioned under Wildlife Operational management. Both teams are excited about the operational improvements and opportunities that will come from shared management. The vision behind the move was to unite the living collections of plants and animals, and adapt the conservation and strategic Wildlife objectives to the Horticultural team.

Significant breeding success at Taronga Zoo included Yellow-spotted Bell Frogs, Bellinger River Turtles, five Meerkats, a Western Lowland Gorilla, a Chimpanzee, a Goodfellow's Tree-kangaroo, a Southern Hairy-nosed Wombat, an Australian Sea-lion, a Small-clawed Otter, and a Francois' Leaf-monkey.



TARONGA NUTRITIONIST MICHELLE SHAW WITH ECHIDNA  
By James Morgan / Australian Geographic



AFRICAN LION By Rick Stevens



## Animal Births Include: \_\_\_\_\_



6

Cheetah cubs



2

Takhi foals



1

Western Lowland Gorilla

Asian Elephant

Black Rhinoceros

Chimpanzee

Australian Sea-lion

Goodfellow's Tree Kangaroo

### Taronga Western Plains Zoo

The Wildlife Conservation and Science Team at Taronga Western Plains Zoo is responsible for planning and managing up to 63 species, including a number that are listed as critically endangered. The past year has been an exciting time for the team, welcoming a number of new additions to key species programs, some of these very significant milestones.

Six Scimitar Oryx were born, bringing our total numbers to 26. Scimitar Oryx are extinct in the wild, making this growing herd essential for potential future conservation efforts to reintroduce this species to protected areas in Chad, North Africa.

Nine Eland were born throughout the year, bringing the herd size to 43, as well as two female Addax born, bringing our herd numbers to 22. Addax are a critically endangered African species with only 500 left in the wild and this breeding is a key focus species for Taronga.

Taronga marked another successful year for Giraffe breeding with three births; two males and one female. The Zoo is currently home to 16 Giraffes including seven males and nine females.

Our primate species had some breeding success as well this year with two male Ringtail Lemurs born, bringing our group size to 10 for this endangered species. Two female South American Spider Monkeys were also born in late 2017, the first to be born

at Taronga Western Plains Zoo in 16 years, bringing the group total to 10.

October saw the birth of a male Black Rhinoceros calf called 'Pampoen', the second to be born in 2017. The breeding program has delivered great success for this critically endangered African species, bringing our current Black Rhinoceros population to nine animals; six males and three females.

In December 2017, two male White Rhinoceros moved onto the Savannah enclosure to share the space with Giraffes, Elands, Blackbucks and zebras. This is the first time Rhinoceros have been included in this mixed-species enclosure, visible to the overnight guests at Zoofari Lodge and from the Savannah Safari bus tour.

The early months of 2018 saw the team carry out extensive preparations for the launch of the Lion Pride Lands exhibit. Eight African Lions moved from their old exhibit into this \$9 million exhibit. Additional bloodlines have been introduced with two females from America and a male from South Australia to form the basis of a new pride.

The Lion Pride Lands exhibit is also home to 16 new Common Goats, now on exhibit to illustrate the conflict between villagers/income and large predators such as Lions.

Our Tasmanian Devil breeding program had another successful year with three joeys born, supporting the recovery and conservation of this iconic species.

Taronga Western Plains Zoo welcomed 25 Fallow Deer as part of the new 'Wild Herds' exhibit to open in July 2018. This exhibit will allow guests to connect with nature through the Fallow Deer walkthrough and learn about the last surviving wild horse, Takhi. Three Takhi foals have been born in 2018, taking our herd to 16. Once extinct in the wild, this endangered species is a key focus for the Zoo.

Team members along with employees from Office of Environment and Heritage have collected six Plains-wanderers, a critically endangered Australian bird species, to breed for reintroduction into safe natural habitat. These birds, collected from the NSW Riverina district, are housed in aviaries in our 110ha sanctuary.

The entire zoo community was very excited in June when our 25-year-old female Asian Elephant 'Porntip' gave birth to her second calf after a 643-day gestation period. Females form the basis of the elephant herd structure and Taronga is fortunate that its new calf is a female, increasing the herd size to four, including 18-month-old male 'Sabai'. 'Gung', an 18-year-old male bull elephant, arrived from Taronga Zoo Sydney in January as an internal animal transfer. This brings our herd at Taronga Western Plains Zoo to a total of nine elephants, four males and five females.

In June, six Cheetah cubs were born. This was the biggest litter born at the Zoo and brings our number to 17 for this vulnerable African cat species.



### 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 agencies (for example, NSW Office of Environment and Heritage, International Rhino Foundation, Parks Australia).

Species	Held at TZ	Held at TWPZ	Coordinator	Program
Addax		x	C Magner/L Elliot*	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		N Boyle*	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		V Wilson	ASMP
Blue-tailed Skink	x		M McFadden*	PA
Bongo	x		P Benoit*	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	S Eyre	ASMP
Chimpanzee	x		B Pohl	ASMP
Cook Strait Tuatara	x		S Eyre	ASMP
Cotton-Top Tamarin	x		A Embury	ASMP
Eastern Whipbird	x		M Tantini*	ASMP
Eland		x	C Ford*	ASMP
Fijian Crested Iguana	x		P Harlow*	ASMP
Fishing Cat	x		T Rus	EEP
Francois' Leaf-monkey	x		A Hope	EEP
Ghost Bat	x		J Hollamby	ASMP
Giraffe	x	x	L Jolly	ASMP
Goodfellow's Tree-kangaroo	x		M Richardson	GSMP / ASMP
Greater Bilby	x		J Buchecker	OEH / ASMP
Greater One-horned Rhinoceros		x	N Boyle*	EEP
Helmeted Honeyeater	x		K Cartwright	ASMP
Hippopotamus		x	Y Pauligk	ASMP
Lister's Gecko	x		M McFadden*	PA

Species	Held at TZ	Held at TWPZ	Coordinator	Program
Meerkat	x	x	S Eyre	ASMP
Noisy Pitta	x		E Schmelitschek*	ASMP
Northern Corroboree Frog	x		M McFadden*	OEH / ASMP
Plains Zebra	x	x	L Jolly	ASMP
Plains-wanderer	x		M Sheils*	OEH
Przewalski's Horse		x	F Cameron*	ASMP
Pygmy Hippopotamus	x		R Moss*	ASMP
Quokka	x	x	B Turner	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 Oryx		x	D Burgoyne	ASMP
Siamang		x	L Laurenson	ASMP
Small-clawed Otter	x	x	L Booth	ASMP
Southern Black Rhinoceros		x	N Boyle*	IRF
Southern Cassowary	x		Vacant	ASMP
Southern Corroboree Frog	x		M McFadden*	OEH / ASMP
Southern Hairy-nosed Wombat	x		G Skipper	ASMP
Squirrel Monkey	x		L Grossfeldt	ASMP
Sumatran Orang-utan	x		A Embury	ASMP
Sumatran Tiger	x	x	J Biggs	GSMP / ASMP
Tasmanian Devil	x	x	J Biggs	ASMP
Waterbuck		x	L van der Sande	ASMP
Western Lowland Gorilla	x		E Walraven*	ASMP
White Rhinoceros		x	N Boyle*	ASMP
White-browed Woodswallow	x		V Wilson	ASMP
White-cheeked Gibbon	x		H Thompson	ASMP
Yellow-spotted Bell Frog	x		M McFadden*	OEH

#### Programs:

ASMP Australasian Species Management Program, EEP European Endangered Species Program, SSP Species Survival Plan, GSMP Global Species Management Plan, OEH NSW Office of Environment and Heritage, IRF International Rhino Foundation, PA Parks Australia

## Taronga Wildlife Hospitals

### Taronga Zoo

Taronga Wildlife Hospital (TWH) Sydney prides itself in providing exceptional care to Taronga Zoo's animal population and wildlife. The acquisition of state-of-the-art equipment has further enhanced this capability. New endoscopy equipment has facilitated investigation and treatment of gastric disease in penguins, retrieval of foreign bodies in a Freshwater Crocodile, and the surgical sexing of birds. A Multi Radiance laser therapy unit offers an alternate treatment modality, which has already shown great promise in several cases.

Biosecurity is one of the cornerstones of preventative medicine in a zoo, and quarantine is an essential component of the management strategy. The substantial new developments at Taronga Zoo have resulted in multiple animal acquisitions and transfers over the past year. Taronga's veterinarians take a disease risk, evidence and welfare-based approach to developing biosecurity and quarantine protocols. The use of welfare-based criteria and disease risk analysis to guide decisions on quarantine has resulted in improved health and welfare outcomes, with less drain on resources.

Disease investigation and prevention are also important components of preventative medicine. Elephant endotheliotropic herpesviruses (EEHV) can cause fatal haemorrhagic disease in elephants, and is a significant threat to Asian Elephant calves in human care. Until now, a test for these viruses was not available in Australia. In collaboration with Zoos Victoria and The University of Sydney, Taronga has established EEHV testing capacity to screen Australia's Asian Elephant herds. The priority is to condition all elephants for the newly established testing in conjunction with an overall management and care plan.

Over the past 12 months, 220 confiscated reptiles have been admitted to Taronga Wildlife Hospital. The illegal wildlife trade represents a significant threat to conservation, welfare and biosecurity. Taronga Wildlife Hospital and Taronga keepers play a key role in assisting relevant agencies in the fight against this trade by holding animals, identifying species and provenance, assessing and documenting their health, and providing expert opinions to support prosecutions.

### Taronga Western Plains Zoo

The Wildlife Hospital Team had a busy year delivering the Veterinary Health Program to Taronga Western Plains Zoo's animal population. The team has had a considerable focus managing a diverse assemblage of mammals through the quarantine process, which is critical to a zoo's preventative health program. When transferring animals overseas, disease screening is an important component of meeting the recipient country's biosecurity requirements. This process can be challenging when the animals involved are part of a socially complex group. This year the hospital successfully managed a social group of African Wild Dogs and a small herd of Addax through pre-export quarantine prior to export to New Zealand.

Taronga Western Plains Wildlife Hospital (TWPWH) also plays an important role overseeing the Zoo's various breeding programs. The Zoo welcomed another Asian Elephant calf into the herd this year, requiring the team be on standby in the event of obstetrical complications. Curtailment of breeding is necessary for the welfare of some zoo populations. This year the vets were required to advise upon and implement strategic contraception for Lioness, African Wild Dog, Takhi and Giraffe.

Education and research are integral to the hospital's role. This year the team hosted veterinary science students for placements from Charles Sturt University and the Universities of Queensland and Sydney, as well as trainee zookeepers enrolled in courses with the Taronga Training Institute. These opportunities are highly valuable to students to see first-hand the work of a zoo vet team, and learn from experienced professionals in a specialised environment.

### Wildlife Rehabilitation

TWH Sydney received 597 sick, injured and orphaned native animals for treatment and rehabilitation. These included 329 birds, 197 mammals, 66 reptiles and five amphibians. These animals were brought to the hospital by government wildlife authorities, wildlife rescue groups and local community members. Fifty birds were banded with Australian Bird and Bat Banding Scheme metal bands to enable post-release monitoring.

The 24 endangered marine turtles admitted during the year included 20 Green Turtles, three Hawksbills and one Loggerhead Turtle. Four Green Turtles were released and three of those were satellite-tracked, enabling Taronga to monitor their movements and survival after rehabilitation, and work towards identifying critical habitat within the Sydney basin.

Two Powerful Owls and a Southern Boobook received the last phase of their rehabilitation at the large circular raptor aviary at Higher Grounds Raptor Centre at Fitzroy Falls. The specialist aviary enables birds to complete long and complex rehabilitation flight testing resulting in expert flying ability, improved fitness and prey manipulation. A collaborative relationship with this facility is complementing work done at TWH with the birds returning to Taronga for metal banding prior to release.

TWPWH Wildlife Service provides a fully funded veterinary and rehabilitation facility for the assessment, treatment and pre-release preparation of sick, injured and orphaned Australian native animals. Employees are highly experienced in the safe and humane handling and temporary housing of wildlife, as well as the diagnosis, management and treatment of illness.

The interface with free-ranging animals and state-wide carer networks facilitates monitoring of significant emerging inland wildlife disease issues and trends. In partnership with the Australian Registry of Wildlife Health, this work contributes wildlife health data via the national Zoo Biosecurity Surveillance database.

This year the Wildlife Service received over 580 admissions encompassing a variety of species. The team has developed a particular reputation for macropod, Koala, wombat and raptor medicine and surgery, and there has been an increase in case referrals for second opinion assessment and advanced treatment.

Situated at the forefront of advances in veterinary diagnostics and care, this year the Wildlife Service achieved the identification of new, emerging or unusual disease-causing organisms in wildlife and the development of new techniques for emergency treatment.



AFRICAN WILD DOG PUP HEALTH CHECK By Bobby Jo Clow



# EXCELLENCE *in* CONSERVATION EDUCATION

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

## Key achievements

### STEM Study at Taronga

Taronga's education team has developed a suite of best-practice programs for the new Taronga Institute of Science and Learning. The Taronga Education Taskforce met regularly to develop opportunities for collaborative program delivery across all education portfolios. STEM (Science, Technology Engineering and Maths) based programs were developed with the goal of increasing participation in STEM subjects and careers. Detailed operational planning was undertaken in preparation for the opening of the Institute in July 2018. The Institute includes a number of science laboratories including Taronga's first Teaching Lab, and world-first immersive classrooms that incorporate multi-species animal exhibits.

### Vivid Sydney

Vivid 2018 shone a light on young people and recognised them as key stakeholders in ensuring the future of wildlife. Students from across the state were invited to contribute to the event by drawing Taronga's Legacy Species and pledging their hopes for the earth and wildlife. Student work was used in the skinning of lanterns and in interpretation around the site, including a soundscape.

### Taronga Teachers Association Grows

Membership of the Taronga Teachers Association (TTA) has grown 10% since December 2017 thanks to a strong marketing campaign and a newly developed program

of special events for members, including education preview days, behind-the-scenes tours, video conferences, new resources and professional development courses. TTA is a membership group for teachers who want to become leaders in environmental education.

### Project Insitu

In its 13th year, Taronga's project-based learning conservation education program, Project Insitu, involved over 1500 primary and high school students across 18 schools engaging their local community to help save locally threatened species. The highly successful program applied best-practice STEM teaching methods to enable students to create STEM-based solutions to increase species' population numbers. Since its inception, the program has positively impacted 14 threatened species and over 12,000 students and teachers.

### Zoomobile Connecting Communities

In 2018, Taronga's Community Zoomobile provided 34,745 preschool students, charity and 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.

### Helping At-Risk Young People

Taronga's partnership program with Family and Community Services (FACS) continues to deliver for the state's most trauma-affected and at-risk young people. This year the Burbangana Program at Taronga Zoo had 24 graduates, its largest participation rate since it began over 10 years ago. The Walanmarra Program at Taronga Western Plains Zoo has also grown through the successful recruitment of the Walanmarra Support Officer role. One of the highlights for participants this year was being invited to the official opening of Lion Pride Lands in Dubbo.

### Tertiary Studies at Taronga

Over 200 students completed their Certificate II Animal Studies, Certificate III Captive Animals and Certificate II and III Tourism with the Taronga Training Institute (TTI). TTI also delivered Tourism Units of Competency to over 400 volunteers at Taronga and Taronga Western Plains Zoos, Sydney Living Museums, the Anzac Memorial, the Art Gallery of NSW, the Museums Discovery Centre and Transport Heritage. About 1,300 students participated in workshops at Taronga in 2017-18, while many university students completed work placements and a cohort of postgraduate students were co-supervised by Taronga employees to undertake on-site Honours, Masters and PhD research projects.



FIORDLAND PENGUIN By Chris Wheeler 45°37'22.9"S 167°20'03.2"E



Performance Indicators		
Total visitation	2016/17	2017/18
<b>Students visiting on a school excursion</b>		
Taronga Zoo	96,627	97,174
Taronga Western Plains Zoo	8,926	8,045
<b>People participating in Public Outreach education programs</b>		
Taronga Zoo & Taronga Western Plains Zoo	51,621	48,041

## Excellence in Conservation Education

### Project Penguin



1,000

Northern Beaches students

6

Primary schools

4

High schools

### Project Feathertail Glider



127

Primary school students

58

High school students

## Education and Community Programs

With the opening of the Taronga Institute of Science and Learning and a focus on STEM, 2017/18 was a vibrant and successful year for learning at Taronga – with some 147,734 students, teachers and carers participating in Taronga's formal or community (informal) education programs. These programs are delivered on various platforms both onsite at our two Zoos and as outreach programs within the community.

### Formal Learning Programs

All Taronga education programs are delivered by fully qualified teachers, including on-site employees 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, and other key learning areas.

The introduction of a new geography syllabus and the opening of Tiger Trek in 2017 provided an opportunity for the education team to expand its focus on Geography by comparing Australia and Sumatra in terms of environmental change and management. The new student workshops have been extremely popular and over 1300 students have completed the integrated Stage 3 'Schools for the Wild' unit of work.

The Education team has been preparing for the opening of the Taronga Institute of Science and Learning. Through consultation with stakeholder groups, STEM has been identified as a focus area for student programs and teacher professional learning. Providing inspiring animal connections is the key to the success of the new, state-of-the-art, themed habitat classrooms, beautiful outdoor classroom and Taronga's first teaching laboratory.

To compliment recent curriculum changes, a focus has been placed on developing and delivering NESA-registered teacher professional development with over 300 teachers undertaking our courses about STEM, Aboriginal Education, Stage 6 Science and K-10 Geography. Depth Studies in the new Stage 6 Science syllabus has allowed

senior students to engage with working scientists and keepers at the Zoo to see science in action.

Taronga Western Plains Zoo maintained its focus on community outreach through programs like GoMad (Go Make a Difference) for youth and the Regional Sustainability Outreach Program with 500 participants. This year, 8,045 students visited the Zoo, with 2,936 participating in curriculum-related workshops.

### ZooSnooz

In its new concert lawn tent site and Backyard to Bush house accommodation, the ZooSnooz program has had a successful year with 6,560 bookings. Students enjoy exclusive night and morning walks, behind-the-scenes experiences and an intimate animal workshop. Despite Taronga events reducing the number of available program delivery nights, student participation in the program has increased 13% from last year.

At Taronga Western Plains Zoo, ZooSnooz takes place in the immersive Billabong Camp, an authentic bush camp where students sleep and undertake an enriching program of educational activities. This year, 4,518 students participated in this popular program.

### Zoomobile

Zoomobile is an equity outreach program, which provided an educational animal experience to 14,021 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, Bournda and Warrambungles. This year, 3,543 students accessed the program through these regional trips.

### Project Insitu

This award-winning program is an example of the power of student-directed learning. This year, over 1,500 students participated in projects targeting the Little Penguin, Feathertail Glider, Regent Honeyeater and Platypus. Students were empowered to design STEM-based solutions for their locally endangered species and professional learning was provided to support their teachers in delivering STEM pedagogy. Working in-situ, students learn about the species through hands-on activities such as bush regeneration and beach clean ups. Conservation experts provide valuable information with school mentors guiding primary students.

### Work Experience and Meet a Keeper

These popular vocational programs continue to deliver strong learning outcomes for students at both our Zoos, with 287 students undertaking work experience with Taronga this year, shadowing and working with keepers across different divisions including native and exotic animals, TWH and shows. Meet a Keeper is a one-day program where students are exposed to a diversity of career opportunities at the Zoo, attending presentations and undertaking special tours. This year 480 students participated in the program across both sites.

### Community and Cultural Programs Burbangana and Walanmarra Programs

These high-impact programs, in partnership with Family and Community Services, continue to provide meaningful connections for some of the state's most trauma-affected, at-risk young people. In the last 12 months these programs have provided more than 30 young people with a safe environment to build self-esteem, develop communication and interpersonal skills as well as participating in specially designed training and career pathway programs. This year a new leadership program was launched engaging graduate participants as mentors for other young people, and professional development training was delivered to employees.

### **‘Yarra’ Taylor Pathways Program**

Through funding provided by Taylor Construction, the Community and Cultural programs team has developed a new outreach program for Indigenous youth to gain practical career-development skills in horticulture and carpentry. This new 10-week program will bring together Taronga’s Property Infrastructure and Operations team, Australian Fauna Keepers, Aboriginal Program coordinators and Taylor employees to develop and deliver a unique program that builds self-esteem, increases knowledge and strengthens cultural connection whilst upskilling young men with practical work experience.

### **Youth at the Zoo (YATZ)**

Taronga’s YATZ program continues to provide more than 500 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 Sydney events, holiday programs and Project Insitu. YATZ Leaders and Mentors were essential in designing and delivering education workshops throughout the school holidays, which provided an increase in support and training for other members focusing on special needs, inclusion and cultural events such as Reconciliation Week.

### **Keeper for a Day**

Participation in Taronga’s Keeper for a Day program increased this year with more than 1,400 children, youth and adults working 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, employees knowledge and skills to deliver bespoke day programs for young people with special needs.

### **Wildlife Workshops**

This education program provided 940 international students with 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’**

This exciting holiday program continued to deliver a successful and engaging program for five- to 12-year-olds, while navigating temporary construction of the Taronga Institute of Science and Learning. Over the past 12 months, 1,500 children attended this program at Taronga Zoo, taking on daily missions, participating in craft activities and meeting the Zoo Keepers.







TARONGA

TARONGA ZOO, SYDNEY, AUSTRALIA 33°50'38.3"S 151°14'21.1"E



TIGER TREK By Rick Stevens



# 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

### Events Bring New Audiences

Almost 150,000 guests attended events at Taronga in 2017/18, with Vivid Sydney, the 23rd Twilight concert series, Eid at the Zoo and New Years' Eve all attracting new audiences. Vivid showcased the work of NSW school children and their hopes and aspirations for wildlife, while Twilight at Taronga once again amplified awareness around wildlife trafficking and Taronga's Wildlife Witness app.

### Wild Ropes a Wild Success

In its fourth year of operations, Wild Ropes at Taronga Zoo recorded its highest ever participation rates, up over 50% on the prior year. The addition of a children's course was a particular success, with the experience now catering to the entire family, encouraging active participation in the outdoor environment.

### Tiger Trek Promotes Sustainable Palm Oil

Tiger Trek is a highly immersive experience that transports guests to Indonesia by plane, where they walk through a replica Sumatran village and enter the jungle of Way Kambas National Park for intimate encounters with Sumatran Tigers. At the end, a digital supermarket experience allows guests to actively encourage companies

to make more sustainable choices through the Raise Your Palm community campaign. Through Taronga's Tiger Trek exhibit, over 60,000 emails have been sent to Australian manufacturers and retailers encouraging their transition to 100% Certified Sustainable Palm Oil (CSPO).

### Authentic Animal and Cultural Connections

Two exciting new precincts at Taronga Western Plains Zoo, Lion Pride Lands and Wild Herds, incorporate walk-through enclosures, immersive cultural theming and rich storytelling across physical, graphic, text and audio media to create powerful guest experiences. In Wild Herds, 'gers' (dwelling tents) create the authentic sense of a Mongolian Village, providing context for the guests to engage with the Takhi herd and their powerful conservation story. Lion Pride Lands offers unique, up-close opportunities to connect with lions, African culture and a representative African village.

### Zoo App-reciation

The Taronga Western Plains Zoo app was developed to be launched in 2019, with a focus on guest wayfinding, day planning and creating positive connections. The app

helps increase dwell-time and engagement across precincts, drives guests to participate in conservation campaigns and helps grow Taronga's community of 1 Million Advocates. Some of the key features include: Choose your Adventure with half-day, one-day and two-day itineraries; Act for the Wild, which invites guests to take positive action; plus, new content highlighting Taronga's conservation partnerships, research and programs. Several updates were also made to the Taronga Zoo app including enhancing functionality to aid guest wayfinding and creating a Mandarin language option.

### Our Volunteers

Taronga's volunteers had a successful year, with a record 49 positions operating across all nine divisions. Their contributions – about 128,960 hours in total – were acknowledged by Volunteering Australia, with Taronga boasting 16 finalists in the NSW Volunteer of the Year Awards. Taronga also increased support of new volunteers by ensuring 100% are completing a comprehensive eLearning onboarding program.

## Taronga's volunteers

49

Positions operating across all 9 Divisions - more positions than ever before



16

Finalists in the 2017 NSW Volunteer of the Year Awards



2,060

Expressions of interest





## Performance indicators

Satisfied guests as measured through satisfaction surveys	2014/15	2015/16	2016/17	2017/18
Taronga Zoo	92 %	92 %	91 %	<b>91%</b>
Taronga Western Plains Zoo	79 %	79 %	82 %	<b>80%</b>
Complaints per 1,000 guests (1)	2014/15	2015/16	2016/17	2017/18
Taronga Zoo	0.19	0.14	0.14	<b>0.23</b>
Taronga Western Plains Zoo	0.49	0.62	0.62	<b>0.38</b>

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

## Admissions

## Taronga Zoo

Taronga Zoo received a record number of paying guests\* across the year and exceeded the record for its highest total attendance\*\* for the second consecutive year. The 1.83 million visitors to the Sydney site represented an increase of 10% on the previous year's record and helped Taronga exceed 2 million guests across the two sites. This is a major milestone in the organisation's 101-year history with 2.095 million guests recorded in total.

Measurable and effective marketing, the continuing rise in international guest numbers, significant guest offerings including the opening of Tiger Trek and the birth of the Asian Elephant calf 'Jai Dee' just prior to the reporting year, and solid overnight and event-based attendances all contributed to this outcome. Admission revenue was commensurately positive, in-line with the growth in paid admissions. A further factor in the positive attendance recorded was the fine weather enjoyed across Sydney throughout the year, with weather-affected days down 47% on prior year and 55% below the preceding five-year average.

\* 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

Paid visitation to Taronga Western Plains Zoo achieved a positive increase on the previous year and total visitation reached 263,765 people, with the growth attributable to strong local and regional attendances. The successful opening of the new Lion Pride Lands exhibit and tours contributed to the overall positive result with admission revenues up 10% on the prior year.

A targeted effort throughout the year ensured overnight experiences were prominent in the Zoo's marketing and promotions. This included off-peak promotions to increase visitation during quiet periods. For the fourth consecutive time, Taronga Western Plains Zoo was recognised as Best Unique Accommodation at the NSW Tourism Awards, with the total overnight guests once again exceeding 30,000 across the year.

A continued focus on maintaining and increasing the Zoo Friends membership base and promotion of the benefits of membership saw 34,500 Zoo Friends visits this year, a 28% increase on the prior year. This year again saw a substantial upswing in online ticket purchases.

## Taronga Guest Services

Taronga has continually committed to delivering a frictionless experience for guests. The team has focussed on ticketing and validation and has trialled different processes and technologies to speed up these processes. Queue times and wait periods were at record low – under three minutes for 90% of the year. The customer service ethos remains strong with an average guest survey score of 95% satisfaction for the helpfulness of Taronga volunteers and employees. Volunteers continue to play a central role in guest services, offering support and help across many precincts of the Zoo. Their engagement and knowledge is vital in delivering guests a high value experience.

The new app also plays a key role in not only assisting wayfinding for the guest, but also updating in real-time what's on at Taronga and any changes. This has also been effective in mitigating any impacts of construction along with enhanced experiences in other

areas. Additional Keeper talks, new primate walk-through experiences and unique animal encounters have all been developed to not only enhance the guest experience but play a role in behaviour change. Taronga received 404 complaints across the year (0.23 complaints per 1,000 guests), with visibility of animals and impact of construction being a recurrent theme, particularly during the hot summer when animals naturally choose to be less active.

## TWPZ Guest Services

Over the past year the Taronga Western Plains Zoo's Guest Services Team has been integral to the development of the guest experience offered via the Savannah Safari and in developing the visitor experience for Lion Pride Lands and Wild Herds.

Revenue from bikes and cart hire was on par with last year despite the use of a temporary hire centre due to the construction of an upgraded facility. A new fleet of bikes will further increase rental capacity in the coming year.

Animal Encounters have continued to be very popular, with growth of more than 30% on the prior year. The new Lion Pride Lands Patrol Tour and the ongoing popularity of the Savannah Truck Tour have been major contributors to this outcome with both experiences continuing to exceed expectations.

This year, Taronga Western Plains Zoo received 96 complaints (0.38 complaints per 1,000 guests), the majority of which related to the availability of encounters during peak periods, particularly the Lion Pride Lands Patrol experience over the Easter long weekend and holidays.

## Guest Learning and Interpretation

## Taronga Zoo

Moving into 2018, science became a high priority for the Interpretation Team, with strengthened narratives around Taronga's vital work in science, research and learning in the lead up to the 2018 opening of the Taronga Institute of Science and Learning. This was achieved through accessible, engaging and fun holiday activations, permanent interpretive installations and new science-focused talks and experiences.

An innovative new artist-in-residence program, called QBE MUSE @ Taronga, was launched in November 2018. The inaugural MUSE featured a curated selection of 10 photographs of Australian birds by world-renowned artist Leila Jeffreys. The large-scale images were installed throughout the Zoo grounds, each supported by a story.

Across the 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 – Movie Mission, Elephant Trail Mission and Tiger Trek Mission – supporting new interpretative signage and dynamic holiday activities facilitated by Youth At The Zoo (YATZ) volunteers.

The Centenary Capital Plan roll-out continued, with Tiger Trek launching in August 2017. This ground-breaking exhibit takes guests on a journey to Sumatra, where they are immersed in a culturally authentic Indonesian environment, engage positively with Sumatran Tigers and learn about Taronga's involvement in vital conservation programs. Within the exit zone, guests learn the influence of their own consumer decisions, and actively encourage companies to make more sustainable choices in food production through the Raise Your Palm email campaign.

Other current interpretive projects under the Centenary Capital Plan include the development of guest learning and behaviour change narratives and resources for the Wildlife Retreat and African Savannah precinct and planned guest activations within the Taronga Institute of Science and Learning.

A range of updated and new interpretive signage and collateral was delivered throughout the year, featuring Taronga's 10 Legacy Species, the Sukkot Festival, Chinese New Year, NAIDOC, the Port Jackson Shark Research Project, marine turtles, Backyard to Bush, Saltwater Crocodiles, Giraffe temporary enclosure, Asian Elephants, Lower GSO (Great Southern Oceans) and the Taronga as Habitat program.

Larger interpretation projects included Vivid Sydney, with the creation of emotive wildlife

stories for lantern signage, an immersive soundscape and a new animated film that screened in the Centenary Theatre. The Interpretation and Wayfinding Package for the new Taronga Institute of Science and Learning was also delivered to showcase the scope and detail of Taronga's work in science, research, conservation and learning.

#### Taronga Western Plains Zoo

The past year saw two major interpretation projects under the Centenary Capital Plan delivered at Taronga Western Plains Zoo: Lion Pride Lands and Wild Herds. Both exhibits offer guests unique walk-through experiences, immersive cultural theming and rich storytelling. Strong contextual elements create a deeper connection with the animals, raise awareness of the connectivity of wildlife, people and culture, and highlight Taronga's conservation partnerships and programs.

Wayfinding signage continues to be rolled out at Taronga Western Plains Zoo. A new Zoo app to be launched in September 2018 offers guests interactive way-finding tools, self-guided tours and extensive information about animals, activities and Zoo amenities. It also uses pop-ups to highlight the Zoo's best-practice sustainability and animal health and wellbeing initiatives.

#### Zoo Friends

This year saw a major change to the Zoo Friends annual pass with two free child

memberships included with every adult membership, providing even greater value for money for regular guests.

As a result, Zoo Friends membership base more than doubled, to more than 134,000 members over the year. Local membership at Taronga Western Plains Zoo remains strong, exceeding 11,000 active members for the first time.

In total, Zoo Friends made over 300,000 visits during the year, with many members attending exclusive events such as the Zoo Friends Christmas night and a special preview of Vivid Sydney at Taronga. Members also received three editions of our popular Wildlife magazine during the year.

#### Dreamnight

On the first Thursday of December each year, Taronga provides thousands of special needs children who are facing serious health issues or other challenges in their lives a special 'Dreamnight'. In 2017, 25 charities were allocated 4,000 tickets to share with the children and families they support and at Taronga Western Plains Zoo a further 20 charities provided 500 children with the opportunity to have a once-in-a-life time experience exploring the Zoo at night. Over 250 employees and volunteers at both Zoos once again provided a night these children and their families will never forget.



# ENGAGE AND INFLUENCE

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

## Key achievements

### Zoo Friends

Taronga has increased the number of Zoo Friends members by 55 % on the previous year, reflecting the strong community support in both Sydney and Dubbo. Member events, rewards and communications ensure Zoo Friends are up to date with the latest activities at Taronga and their frequent visits throughout the year have made a welcome contribution to Taronga's record attendance figures.

### Corporate Partnerships

Taronga's corporate partnerships programs continued to provide support via the Taronga Foundation. Principal Partner QBE helped celebrate the 20th anniversary of Taronga's Free Flight Birdshow by supporting additional fundraising during the Birdshow presentation. ANZ renewed a four-year partnership of Taronga's Asian Elephant Breeding and Conservation Program, while American Express was engaged as a new partner supporting Vivid Sydney at Taronga. The corporate partnerships programs also strengthened existing partnerships including additional support from SUEZ to provide turtle tracking devices for Taronga's Hospital to aid in the tracking and release of five rehabilitated turtles.

### Hot Off the Press

Taronga's engagement with and strategic use of the media to tell the story of conservation went from strength to strength across the year, with broad-based coverage in publications as diverse as the Australian Financial Review and *Australian Geographic*. In *Australian Geographic*, a feature on Taronga's ground-breaking scientific work on illegal wildlife tracking saw the first ever non-Australian species – the pangolin – feature on the cover in the history of that publication. Sydney Metro featured front page coverage of the opening of Taronga Zoo's Tiger Trek, and Taronga's second annual #vdaypunoff garnered international participation.

### Litter Free Oceans Campaign

This new campaign targets ocean litter and its impact on marine life through a digital experience that includes a website where individuals, communities, businesses and schools can register to make a difference. The website features the story of Andrew, a turtle successfully rehabilitated and released after ingesting litter, and allows users to calculate their use of disposable plastic, while

providing information to encourage switching to reusable items. Other toolkit elements include curriculum-related education resources and a strategic social media communication plan. Launched in early June, 1,000 individuals and 400 schools have already signed up. The anti-litter messaging reflects a key NSW Government priority for the environment.

### Tourism Hall of Fame

For the fourth year running, Taronga Western Plains Zoo was awarded Gold in the 'Unique Accommodation' category at this year's NSW Tourism Awards, earning a place in the esteemed Hall of Fame for this category.

### 2017 Fundraising Ball

Pride of the Plains was the theme for the Taronga Foundation's 2017 fundraising ball, which raised money for Taronga's conservation programs and the development of the new Savannah precinct at Taronga Zoo. More than 320 supporters attended the event at Taronga Zoo.

## 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.

### 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. Since its launch on World Oceans Day, 952 people have calculated their impact and 241 schools and 139 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.

### 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 15,000 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.

### Fish for Good

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

This year, in celebration of the Marine Stewardship Council 20th birthday, Taronga Zoo's Fish Stop cafe received its MSC Chain of Custody – the highest level of certification for a seafood retailer.

Taronga's seal show continues to encourage Australians to choose MSC-certified seafood. Of the 750,000 guests attending Seal Theatre this year, 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 post-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.

### 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 partnership, more than 2000 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, generating over \$80,000 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.

## Performance Indicators

Community Conservation	2016/17	2017/18
Number of community campaign actions for the wild	31,884	81,408



ATHOL BAY, SYDNEY, AUSTRALIA 33°50'44.1"S 151°14'30.4"E



BEACH CLEANUP By Amy Russell





### 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 12,973 bead products across both Zoos with all profits returned to the crafts-women and their communities.

### 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 Zoo guests to encourage companies to transition to

100% Certified Sustainable Palm Oil in their supply chains.

Since August 2017, guests at Choice Mart have sent 60,000 emails to retailers and manufacturers, raising their palm for critically endangered Sumatran Tigers.

### Communications and Media Relations

Taronga enjoyed support from the media throughout 2017/18 with traditional, digital and social media used to communicate Taronga's conservation messages and vision, and to highlight community education programs and events.

A *National Geographic* editorial piece on Taronga's 'Frozen Zoo' cryobank storage initiative was one of the biggest stories of

the reporting year – the in-depth feature was first published on *National Geographic.com*, which has a global audience of 27 million, before being shared on the brand's Facebook (46 million) and Twitter (22.4 million) channels. The official opening of the Tiger Trek at Taronga Zoo Sydney also had a strong presence worldwide online and across mainstream television and radio news outlets and syndicates, and featured heavily in metropolitan, regional and local print media. Additionally, images and footage of a Swamp Wallaby treated at Taronga Wildlife Hospital after bounding across the Sydney Harbour Bridge captured both domestic and international attention. Several births generated widespread coverage, including a baby Western Lowland Gorilla, a Chimpanzee baby, an Australian Sea-lion pup, and a Goodfellow's Tree Kangaroo joey. Enrichment

photo and video opportunities for Christmas and Easter also generated strong coverage ahead of holiday seasons, and consistent interest was shown throughout the year regarding the Australian Shark Attack File.

Telling the story of Taronga's role in conservation took on a new level of focus throughout the year with in-depth journalistic coverage in *Australian Geographic* and the *Australian Financial Review* and live broadcasts to Nat Geo's global social audiences covering topics as diverse as Taronga's efforts to help re-wild

the Bilby in NSW, fighting wildlife trafficking overseas and the creation of the Taronga Institute of Science and Learning.

The opening of Lion Pride Lands represented the largest media event for Taronga Western Plains Zoo over the reporting year, with significant coverage through regional and national news outlets and positive social coverage across a large number of influencers and bloggers. A visit earlier in the year from Kevin Pietersen prior to his retirement from cricket generated coverage of Taronga's vital work with rhinos and coincided with the

debut of male calf 'Pampoen', the fourteenth and most recent critically endangered Black Rhino to be born at the Zoo. The reporting year came to a positive conclusion with the opening of Wild Herds, the latest completion from the Centenary Capital Plan and the announcement of Taronga's sixth Asian Elephant Calf, and the second to be born at Taronga Western Plains Zoo – both events were greeted positively by social audiences and through news outlets.

Taranga Digital Snapshot	June 2017	YoY Growth	June 2018	YoY Growth
TZ Facebook	201,289	25 %	229,383	14%
TWPZ Facebook	63,734	24%	74,642	17%
TZ Instagram	118,000	16 %	125,249	6%
Twitter	19,100	13 %	20,123	5%
YouTube	4,159	17%	5,808	40%

## Litter Free Oceans



1,000

Involved individuals



400

Involved schools



**Strong Conservationist** Strong Florida Mayflies joined a working study with the state's local university, with a goal to help long-term riparian rights and put a stable habitat around streams in Florida. But it's not sufficient to have



**Thanks and gifts** are everywhere, and people will be everywhere, too. New ball rooms are enabling that traditional professional society presence at each of the Oscars, but even more for the Oscar® statuette, which

[illegible]

There are eight pangolin species, two of which—the Indian and Chinese pangolins—are on the International Union for Conservation of Nature's critically-endangered list, but all five illegal trafficking threats. "Because the Asian pangolin is very hard to find and the African pangolin is being rapidly exterminated, Asian pangolin trafficking has been the focus of our work," says Hoo. "When it comes to the scales, you can tell where they're from, which is why it's such a good indicator of poaching."

[illegible]

From such large-scale structures, challenges have begun to surface. An international series of assessments, for example, has

"Pargollies are sold by the kilo on traders pump their stomachs with a corn meal that's like cement."

to be able to find pretty much all these animals, and it can tell whether a pair just to have laid eggs has been or not. They will keep the animals alive, but doesn't connect with the theory that they have in the wild.

[illegible]

Yachis and Pancha have also spent time working with the indigenous people developing and building out a plan for Ecuador, Vietnam and Indonesia. Despite the illegal wildlife trade, Yachis, a veterinarian by training, developed an interest in community fisheries where diagnosing fish is essential for organizations such as the RUSICA, and Pancha became a plant scientist at the Illinois, in the conservation of *Asplenium*, a rare, critically endangered orchid.

"We're focused on the performance outcomes through a strong selling effort," I joke now. "We found taking samples from a study at key institutions and institutions grows. These will come in our model class facilities. The more we can build, speed, and considerably more efficient than using 195A. Effectively, we can use more 195A. They're looking for a solution that will have to be a much more cost-effective."

**T**HESE DAYS, WITH A CHARTERED AIRCRAFT ON THE way, the illegal trafficking of exotic birds, mammals and reptiles in a private jet is called *bird banding*. It takes their trading a couple years until the proper laws are altered, since modified customs laws have come first. Consequently, people find it easier to smuggle wildlife by air than by sea, which is how these efforts, which would have a global impact on the illegal trade, began. It took time for the most highly threatened animals from Australia and the New Pacific region. Finally, increased trade in sea birds and wild cats

The *minimiser* belief is a cornerstone of traditional Chinese medicine that gurgling water (below) cures various ailments and other ailments, also, although the danger of the animals passing material of their faeces, which are made of many insects, the water substance that comes out and from inside out.

they often perish before they even arrive at a breeding destination. Trafficking has been linked to disappearing demand for the pure diamonds the jewellers seek. "Several hundred a year disappear that are coming through the pipeline, the largest of which goes generally to India, which can then have illegally or morally dubious markets," Kelleher says. "It may be possible some places that happen out of the way in the background. The

Recently, biologists have begun studying how we view the illegal wildlife trade and what countries have implemented to protect it. In policy to directly prohibit animal trade and the sale of endangered animals, it has recently added a new common primary where most have a leading source with wildlife exploitation. This is important, but we have to allow a point to make in making the illegal wildlife trade.

Typically, animal the maximum conservation and welfare issues of the illegal wildlife trade is necessary to keep the way of thinking, the way. There is a growing need to go to the field, to work with the community and to be involved in the field. We need to talk about it in much more detail.





# PEOPLE AND ORGANISATIONAL STRENGTH

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

## Key achievements

### Winning at Work Safety

Safe Work Australia announced Taronga as the joint-runner up for the 2017 Workplace Reward. During the National Safe Work Month in October 2017, Taronga ran a safety initiative focused on sharing safety knowledge and engaging and encouraging workers to have their say. Activities included Safety Bingo at a employees lunch; 'Have your say' posters created by employees; 'Safety in Action' posters competition; a review of safety induction eLearning modules for continuous improvement and a WHS Committee meeting focused on innovation and leadership.

### Developing New People and Leaders

This year the Organisational Development and Learning team provided a holistic eLearning onboarding program to 152 new Taronga employees and 128 volunteers. The program focuses on safety, sustainability and animal welfare. Launched in July, Leading for the Wild (#LFW) is a leadership and management development program for current and aspiring leaders which has already seen over 40 participants across Sydney and Dubbo seeking to grow their leadership skills through a range of flexible learning programs.

### Supporting Mental Health

Mental health is a growing concern in our society, with an increasing number of people disclosing mental illness during the employment process. Taronga sees this as an opportunity to better support employees and provide managers with the tools to implement adjustments where necessary. Taronga has adopted the blended learning option provided by Mental Health First Aid Australia to deliver training to 45 employees across both Zoos. Select employees were identified to champion mental health first aid and are now trained in crisis response. This training complements existing resilience training and mental health skills training for managers and supervisors.

### Project Evolve

Taronga is committed to building and supporting capable, motivated, engaged and high performing teams. To support this goal, the Wildlife division launched Project Evolve in January 2018, which is focused on continuously improving engagement, efficiency and culture as well as empowering teams to identify inefficiencies in their current work practices and prioritise solutions.

### Digital Strategy Action Plan

A priority this year was to strengthen underlying IT infrastructure and maximise efficiency as part of Taronga's Digital Strategy Action Plan. A key update included a new email service that provides a highly available, standards-compliant, user-friendly solution for accessing email, to be expanded over the coming year. Another infrastructure uplift project included implementing a new telephone network and system, contact centre, security systems and an upgraded Wi-Fi solution. Industry-leading vendors were used to ensure ongoing stability and availability of networks and associated systems.

### Social Media at Work

In March 2018, Taronga implemented the new communication and engagement

platform 'Workplace by Facebook', which has become a space where divisions can share news, be informed and easily communicate with each other. Staff have quickly and enthusiastically embraced the platform, streaming Taronga events, presentations and activations to connect with employees and volunteers.

### Risk Management Review

This governance project involved the organisation-wide review of strategic and major operational risks, including identification of existing and potential controls to reduce the likelihood or impact of risks, and updating the online risk register. The Taronga Risk Management Policy and Procedures were also revised as part of the project.

## Volunteer Programs

Volunteer Programs had a successful year with a record 49 volunteer roles operating across all nine divisions of Taronga Zoo. Some of the new roles developed and recruited include Environmental Sustainability, Sky Safari, Human Resources, Animal Nutrition and Animal Visibility Study Volunteers.

Across all roles, Taronga volunteers contributed over 126,464 hours of service.

Performance indicators	2014/15	2015/16	2016/17	2017/18
<b>Severity Rate</b> Lost time injury frequency / workplace accidents for both Zoos	7.04	5.99	3.88	<b>4</b>
<b>Staff Turnover</b> Taronga Zoo Taronga Western Plains Zoo	7.99 % 3.49 %	10.70 % 10.90 %	9.03 % 3.26 %	<b>13.19 %</b> <b>9.28 %</b>

Divisional Volunteer numbers	
People, Culture & Learning	6
Guest Experience, Education and Community Programs	290
Marketing, Fundraising & Commercial	11
Wildlife, Conservation and Science	171
Property, Infrastructure & Operations	12
Corporate Services & Governance	1
Taronga Western Plains Zoo	117
Total TZ	491
<b>Total Volunteers</b>	<b>608</b>



### Volunteer Recruitment, Induction and Support

The Volunteer Support team is proud to have successfully aligned volunteer recruitment processes and induction with Taronga's employee processes to better support our incoming team members. This includes a merit-based application and interview process, best-practice record keeping and administration processes, a comprehensive on-boarding eLearning program and organisational and divisional inductions.

Ongoing support, feedback and communication methods have also been aligned with employees, giving equal access to all information and recognising our volunteers as integral team members.

### Best Practice for Volunteer Involvement

Taronga's volunteer programs continue to ensure alignment with the National Standards for Volunteer Involvement (Volunteering Australia, 2015). This, alongside our membership of The Centre for Volunteering and our participation in the Sydney Cultural Institutions Volunteer Managers Network, highlight Taronga's commitment to best-practice volunteer engagement.

### Finalists – NSW Volunteer of the Year Award

Last year, more than 300 volunteers were recognised for their outstanding contribution and commitment to Taronga via our internal BASIC Value awards. Of these award winners, Taronga is proud to have had 16 go on to become finalists in the NSW Volunteer of the Year awards.

### Training and Development of Volunteers

The Taronga Training Institute gave 100 new Keeper volunteers fully funded and accredited customer service training, contributing to their professional and skills development.

The Volunteer Programs Team ran two public information sessions engaging with community members on volunteer opportunities available at Taronga, and a workshop for members of Volunteering Australia – Australia's peak body for volunteer management professionals.

As part of the upskilling and development of our volunteers, a number of workshops, information sessions and training opportunities were facilitated such as interpreting Chimpanzee behaviour and conservation program-specific information.

## Human Resources

Once again Taronga was recognised by the Australian Human Resources Institute and named as a Finalist for the Talent Development Award for the continued growth and success of the Taronga Training institute as a mechanism to create and develop talent internally.

The Human Resources team was also tasked with the creation of the new Taronga Conservation Society Australia Retail and Restaurant Award, replacing two obsolete state awards – Shop and Restaurant.

Over the past 18 months, Taronga has consulted with the Office of Environment and Heritage, Public Sector Industrial Relations, Taronga executive managers, supervisors and employees who are affected by these awards to propose a new Taronga Retail and Restaurant Award, modelled on the Taronga Wages Award. Taronga engaged United Voice as the union party to the award and have been able to flow-on entitlements to employees under this award which they were previously unable to access under the NSW state-based provisions. Taronga was able to align employee conditions for employees members including sick leave, FACS, parental leave and redundancy conditions. This new award was approved in the IRC on 29 June 2018.

Over the last six months, Taronga has been working closely with the seven unions party to the Taronga Wages Award. The main focus of the Wages Award for the current round of negotiations was to review the classifications to ensure the requirements stated in the award are relevant and meaningful to existing and new Taronga employees and that the award is consistent with business requirements and aligns with employee role descriptions. After an approval process with regards to the significant changes in classification requirements (including licencing and qualifications now being formally named), this new award was approved in the IRC on 29 June 2018 for a two-year period.

HR Advisors have continued to support managers and employees with the implementation of the performance development framework via face-to-face training and eLearning modules.

All employees and volunteers at Taronga hold a validated 'working with children' check.

HR Advisors have continued to support management on various topics, holding masterclasses on GSE Act, IR, Workforce Change and Consultation Principles and Managing a Casual Workforce.

The NSW Public Sector engagement survey, 'People Matter', allows employees to have a say about their experiences with their work, working within a team, managers and organisation. Taronga's 2017 survey achieved a 71 % response rate and showed an overall positive level of engagement from respondents from both Zoos. 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". Taronga's engagement index this year was 73 % (76 % in 2016), with its collective results exceeding the sector's average engagement score by 9 %.

An organisational development action plan was created and initiatives implemented to focus on key areas such as communication, performance management and processes/systems/resources.

This included the introduction of an internal communications tool, Workplace by Facebook; learning programs to improve performance management within Taronga and upgrades to our IT infrastructure.

### Learning and Development

Continuous organisational capability development is a key focus for Taronga. In order to match the growing need for development and engagement opportunities, in April 2018 the Learning and Development team was transformed into the Organisational Development and Learning unit. This change enables Taronga to consistently facilitate development, provide people-focused experiences, and increase engagement across the board. The following initiatives and experiences were developed and delivered in the past year:

- Ongoing blended induction and on-boarding program composed of eLearning modules and a face-to-face meet and greet orientation session with the executive team. The program focuses on Taronga's culture, safety, sustainability and animal welfare. This year almost 300 volunteers and employees completed their eLearning package, and more than 80 employees participated in the meet and greet with our executive team.
- Leading for the Wild (#LFW) leadership and management development program assists our current and aspiring leaders. Over the past year, we worked with 41 participants on topics grouped into Leadership; People and Teams; and Driving the Business streams. #LFW participants took part in a variety of workshops and networking opportunities, and were asked to complete hands-on activities and review online materials.
- A series of mini-eLearning modules focusing on safety in the office, in the field, working with animals, working with equipment and safe use of vehicles was introduced as part of the on-boarding program.
- The development of organisational engagement materials, as part of the broader engagement and communication strategy. In October, we started publishing a monthly newsletter, Taronga Connect, along with monthly internal calendars. In March, Taronga rolled-out the new communication and engagement platform Workplace by Facebook, through which we started streaming all events, presentations and activations to connect with our employees and volunteers.

- Trialling team-building workshops using 'DISC' profiling, with a focus on employees' self-awareness and communication.
- Development of IT mini-information eLearning hubs as part of rolling out Workplace by Facebook, Office 2016 and BlueJeans.
- Development and roll-out of the Taronga Institute of Science and Learning Welcome eLearning module, which supported employees in transition into the new working location and contributes to achieving the Institute's vision.

### Volunteer and Employee Recognition

Taronga has continued to recognise the efforts of our people and teams through various initiatives. 'Green and Glam' was the theme for the 2017 Silver Shovels Award, at which 290 guests were hosted at the Taronga Centre for an evening of celebration and recognition of the significant contributions our teams have made to conservation, science, guest experience and operations. The Director's Awards were given to Nicole Whitfield and the Conservation and Welfare Team from Taronga Zoo and Michelle Campbell and the Irrigation Team from Taronga Western Plains Zoo.

Taronga's internal events calendar is always a hive of activity – other events included the 20 Year Club dinner that welcomed seven new members, Long Service Awards and the Family and Friends Festive Picnic on the concert lawns.

### Equal Employment Opportunity

Taronga recognises that its diverse teams are its most valuable asset and are critical to success. Investment in diversity and inclusion initiatives allows us to grow as an organisation and to provide quality experiences to guests and stakeholders.

In the 2017 People Matter Survey (PMES), Taronga achieved 68% on the Diversity and Inclusion index. Although there is still room for improvement, Taronga is proud that 80% of its employees agreed that "Personal background is not a barrier to success in my organisation" and 78% agreed that "My organisation respects individual differences (e.g. cultures, working styles, backgrounds, ideas)".

To increase the level of advancement for women we have promoted Taronga's leadership development program (Leading for the Wild), which currently has 66% female participants in the aspiring leaders and managers' groups. Taronga has also been liaising with more senior leaders to encourage participation in external government programs. This year, senior manager Kate McAlpine was accepted into the Department of Planning and Environment '2018 Women in Senior Leadership Mentoring' program. Taronga

has also started working on the Women's Plan and mapping strategies to enable an inclusive environment for all our talent.

The survey results also uncovered that 52% of employees are satisfied with their "ability to access and use flexible working arrangements". This was down 1% from 2016, 20% below the cluster average and 5% below the public sector average. In response to those findings, Taronga is reviewing its current Flexible Working Arrangements policy with a commitment to embed the culture of flexible work at Taronga by 2019.

In late 2017, construction of the Taronga Wildlife Retreat and Australia Habitat project commenced. This project enables the delivery of new guest experiences and provides a variety of targeted employment opportunities and career pathways to Indigenous communities. The People Management Reference group was created and the new role of the Diversity Manager – critical to achieving Indigenous employment in the Retreat and ongoing diversity requirements – was approved for the 2018/19 financial year. This is a major success for Taronga's people strategy and will also enable the prioritization of Multicultural NSW themes in the upcoming years.

### Taronga Disability Action Plan

Taronga is continuing to build on the Disability Action Plan requirements to promote and support a workplace free from all forms of discrimination and meet accessibility compliance throughout our practices, programs and standards such as inclusive recruitment, workplace adjustments and eLearning awareness training. Taronga's People, Culture and Learning team representatives are active members of the DPE Steering Committee focusing on the cluster's Disability Inclusion Action Plan 2015-19, ensuring we continue to progress with the commitments captured in it.

As an organisation, Taronga focused on the internal capacity of its HR team and on increasing its ability to provide reasonable adjustments throughout the recruitment process and ensuring a safe environment for candidates and employees. Taronga's HR team has also commenced a review of our Equal Employment Opportunity form, which will capture more relevant information and enable Taronga to target any further inclusion initiatives (including people with disability, support and settlement services and language services).

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 coming online, such as the Taronga Institute of Science and Learning, the following requirements are 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.

## Other Multicultural Themes 2017/18

### Settlement Services

For the past year, Taronga focused on implementing inclusive strategies that target all employees and volunteers. As an organisation Taronga is still learning about the needs of – and support it can provide to – newly settled Australians and refugees. This will become one of the major diversity focuses for the Diversity Manager and Organisational Development and Learning team.

### Language Services

Most foreign language tour groups that book experiences at Taronga provide their own translator as currently our interpretation services are limited. In the past year, Taronga's Tourism Team engaged a market representation company for the China market, who provide translations to use in our brochures, presentations and in-ground activations. We do provide presentations in Japanese and Korean. As standard, Taronga also hires translation services for trade shows such as those in Japan, Korea and China. Taronga collects information about languages spoken by its employees, however, is yet to develop a strategy on how to use that data in its guest experience activations.

## Work Health and Safety (WHS)

Health and safety is a key enabler in Taronga's strategic plan, with risk mitigation occurring at every level of the WHS framework. The ultimate responsibility for the management of safety issues rests with the Board and the Executive team who routinely monitor performance. The day-to-day health and safety objectives are delegated to management as well as directly to the workers who take personal responsibility for their safety. Taronga's documented safety management system details procedures and responsibilities, with the system continuously reviewed for improvement through consultation with workers.



### WHS Key Initiatives

To create a healthy environment, Taronga recognises that good mental health can assist with the changes and demands of the lives of workers and their families. Taronga's health and wellbeing program introduced mental health first aid training, creating a peer support network for our workers.

Our Executive team is committed to the safety of our workforce and regularly stays in touch with the safety risks and mitigating controls by undertaking safety observations and having proactive and positive safety interactions with staff. This visible leadership increases the reporting culture and positively changes human behaviours that could otherwise lead to incidents.

Causation Factor	2016/17	2017/18
Falls, Trips & Slips	29.00%	21.50%
Body Stressing	19.40%	26.40%
Hitting Objects with a part of the body	12.90%	12.20%
Being hit by moving objects	12.90%	17.60%
Vehicle Incidents and other	9.70%	12.90%
Chemicals and other substances	9.70%	5.30%
Heat, electrical and other environmental factors	3.20%	4.10%



### Worker's Compensation and Injury Management

There were 270 near-misses and incidents reported in 2017/18, of which 36 resulted in minor worker's compensation claims. Analysis of the compensation claims accepted in 2017/18 shows the majority of injuries (26%) were slips, trips and falls followed by body stressing.

#### Notifiable Incidents

There were no improvement notices or infringement penalties imposed on Taronga.

## Formal Learning – Vocational Education and Training

### 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. In its 10th year of operation, TTI continues to grow, delivering training at Taronga Zoo, Taronga Western Plains Zoo, Perth Zoo and Zoos Victoria.

In 2017/18, 471 students were enrolled in Certificate courses with TTI, including 239 commencing students. 173 students completed a Certificate course and a further 43 received Statements of Attainment for units of competency completed.

#### Key achievements and initiatives:

- Student conversion to staff: in 2018, more than half of successful applicants (54%) in casual keeping recruitment at Taronga and Taronga Western Plains zoos were TTI students, reflecting the strength of the program and the calibre of its graduates. Positive recruitment outcomes for TTI students are also being experienced at Peth Zoo and Zoos Victoria. A review of Wildlife Operations staff at Taronga and Taronga Western Plains Zoos in 2018 also identified that 122 current staff members have obtained their Certificate III Captive Animals through TTI, representing over a third of all Wildlife Operations staff.
- Volunteer Training: TTI was granted Smart and Skilled funding to deliver accredited tourism training under the 'Part Qualifications Program' to 230 volunteers at Taronga and Taronga Western Plains Zoos, Sydney Living Museums, the Anzac Memorial, the Art Gallery of NSW, the Museums Discovery Centre (MAAS) and Transport Heritage. Training focused on Work, Health and Safety, Tour Guiding and Customer Service, supporting industry development and providing valuable skills to help volunteers transition into paid employment or other community service roles.
- Award recognition: TTI was listed as one of three finalists for the 'Large Employer of the Year' Award at the NSW Training Awards. Selection was based on a written submission and subsequent interview with TTI Management that focused on evidence of genuine innovation in vocational education and training, the return on investment that training provides to Taronga and tangible evidence of benefits to individual students. The winner will be announced at an awards ceremony in September 2018. One of TTI's founding trainers and a Senior Keeper in the Marine Mammals Team, Elly Neumann, was also shortlisted for the VET Teacher/Trainer of the Year.
- Compliance: TTI's registration as an RTO was approved for a further five years by the Australian Skills Quality Authority, the national regulator for Australia's vocational education and training sector.

### Formal learning – University Programs

For the second year, Taronga delivered workshops to undergraduate university students who explore issues at the heart of Taronga's mission using problem-based learning methods. Participation in workshops increased exponentially (+445% year-on-year), with 1,228 students completing a workshop in 2017/18. This increase is evidence of Taronga's unique role in connecting classroom theory with conservation science as it is practiced at our Zoos and in the field.

A further 43 university students completed work placements at Taronga for which they received credit toward their degree, and 24 postgraduate students were co-supervised by Taronga staff to undertake Honours, Masters and PhD research projects on-site at Taronga and Taronga Western Plains zoos.

### Taronga Institute of Science & Learning

Construction and detailed operational planning for the opening of the Taronga Institute of Science & Learning was completed in 2017/18 with the new facility scheduled to open in August 2018.

The Taronga Institute will build on the framework and strength of Taronga's existing education programs and partnerships, providing learning pathways for students from pre-school to PhD and inspiring the next generation of conservation scientists. It will provide a truly unique learning environment and enable students of all ages to see conservation science in action. School students will experience Taronga's world-first immersive habitat classrooms, each of which includes a multi-species exhibit, while high school and university students study in Taronga's first teaching lab and 280-seat lecture theatre.

The Institute will also enable Taronga to expand its conservation science program. New laboratory facilities including a CryoReserve, Ecology Lab, Enrichment Lab and general-purpose Conservation Science Lab will provide opportunities for research collaborators and higher-degree research students to work on-site at Taronga Zoo. The Institute will also house the Australian Registry of Wildlife Health, a critical resource and diagnostic centre established in 1985 to better understand the health of Australian ecosystems.

### Legal Changes

During 2017/18, there were no changes to the Zoological Parks Board Act 1973 or the Zoological Parks Board Regulation 2009. There are no other acts or regulations administered by the Taronga Conservation Society Australia.

## People and Organisational Strength

### Collaborative eLearning

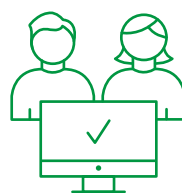
152

New Taronga employees  
Completed online  
eLearning



128

Taronga  
volunteers  
Completed online  
eLearning



### Leading for the Wild

40

Launched  
in July 2017  
40 employees  
on board





CHILTERN-MT PILOT NATIONAL PARK, VICTORIA, AUSTRALIA 36°15'06.5"S 146°40'14.6"E



REGENT HONEYEATER By Chris Wheeler



# FINANCIAL *and* ENVIRONMENTAL SUSTAINABILITY

Continuous improvement and integration of financial and environmental sustainability.

## Key achievements

### Record Attendance

Taronga once again saw record attendances at both Zoos this year with almost 2.1 million visitors in total. This record growth was achieved across all aspects of the visitation mix, from events through to accommodation and general admissions, and across both domestic and international markets, demonstrating Taronga's relevancy and engagement across all sectors of the community.

### Strong International Support

Taronga Sydney continued to enjoy the support of overseas guests across the year, with international visitors comprising 42% of total. This was assisted by growth in guest numbers from China after the most successful Chinese New Year celebrations and promotions at Taronga to date.

### Regional Success

Taronga Western Plains Zoo enjoyed a strong year with general admissions and overall visitation achieving growth on the prior year, with visitation from across regional NSW particularly positive. This demonstrates the appeal of new experiences on the Zoo circuit, such as Lion Pride Lands and new interactive experiences such as the Lion Pride Lands Tour and the Savannah Truck Tour.

### Dedicated to Sustainability

Sustainability played a major role in how Taronga selected many partners across the year. In particular, the five-year catering contract awarded to Epicure saw the creation of a dedicated sustainability fund, a joint focus on reducing the environmental impact of Taronga's onsite catering and, in just the first 12 months, the removal of more than 1 million items of single use plastic from Taronga's food outlets. Other initiatives have included the installation of e-water (electrolysed salt water) systems in all the main catering areas to produce 100% natural, safe and biodegradable cleaners and sanitisers, mitigating the use of an estimated 12,000L of conventional chemicals

per year. Plans are in place to implement e-water at Taronga Western Plains Zoo along with a larger reticulated system at Taronga Zoo, which is capable of producing enough e-water for the entire site and removing the need for any conventional chemicals to be used. It's also estimated that the installation of the milk juggler system, which stores milk in bulk bladders, will avoid about 16,000 milk bottles per annum.

### Fundraising Success

The Taronga Foundation once again enjoyed the support of donors from across Australia, achieving a net income of just over \$9 million. Individual philanthropy saw a number of generous gifts made to Taronga, particularly in support of the Taronga Institute of Science & Learning. Events, the support of Taronga's Wildlife Defenders and the generous support of Taronga's Friends of the Future also played a major role.

### Savings Emissions and Habitats

To reduce emissions year-on-year, a multi-stage project plan has been developed looking at viable energy efficiency and renewable energy opportunities at Taronga and Taronga Western Plains Zoos. Taronga has committed to offsetting all emissions resulting from 2017/18. Taronga's conservation and sustainability teams are liaising closely with Greenfleet to develop an emission offset partnership to allow organisations, including Taronga, to offset their emissions towards local carbon sequestering projects which provide broader ecosystem benefits and habitat to several of Taronga's Legacy Species. Taronga is striving to become NCOS carbon neutral-certified by early 2019.

### Clean Electricity Generation

Stage 1 of a multi-stage project plan to reduce Taronga's grid-based, carbon-intensive electricity consumption was approved in February 2018. This involves the implementation of several separate

mid- to large-scale solar PV installations at Taronga and Taronga Western Plains Zoos. This investment is in the range of \$750,000 and will drastically reduce the amount of grid-based electricity generated emissions and contribute to onsite renewable energy generation. It will also mitigate financial risk by reducing price volatility associated with the electricity market. Once Stage 1 has been fully implemented by the end of next financial year, it is expected Taronga's renewable energy generation will more than triple.

### Waste Management Wins

Taronga Western Plains Zoo's formal waste contract with Cleanaway came into effect in August 2017 and has included new waste streams; new back-of-house bins; new waste signage across the site; new office recycling stations; and an increased focus on education through a biannual workshop and information session. Through these initiatives – and the Green Team's ongoing contribution – Taronga Western Plains Zoo has increased its waste diversion from 20% in 2016/17 to 40% this financial year. For the first time, data was also captured on animal waste and kitchen food waste generation, which will help when undertaking a feasibility study of implementing an on-site or off-site composting system to improve current waste management practices.

### Container Deposit Scheme

Taronga Zoo became one of the first collection points for the NSW Government's Return and Earn container deposit scheme, NSW's largest litter-mitigation program. To support the program, Taronga implemented one large reverse-vending machine kiosk opposite the Zoo's main entrance for the local community to use and redeem their container deposit. Taronga also implemented four smaller reverse-vending machines inside the Zoo. Since the program's implementation in December 2017, 500,000 containers have been diverted from landfill.



Performance Indicators	2014/15	2015/16	2016/17	2017/18
<b>Direct Government support per visitor</b> (including contribution for capital development) (1)				
Taronga Zoo	\$8.92	\$10.31	\$14.62	\$17.18
Taronga Western Plains Zoo	\$9.43	\$18.59	\$33.40	\$34.73
<b>Operating expenses per visitor</b> (Excluding Taronga Foundation)				
Taronga Zoo	\$47.35	\$53.66	\$55.72	\$53.94
Taronga Western Plains Zoo	\$70.27	\$72.71	\$83.93	\$91.10
<b>Capital expenditure per visitor</b>				
Taronga Zoo	\$4.60	\$9.56	\$22.36	\$28.73
Taronga Western Plains Zoo	\$18.92	\$12.50	\$31.48	\$32.08
<b>Taronga Foundation fundraising revenue</b>	\$12.85m	\$12.96m	\$21.07m	\$17.74m

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

## Sustainable relationships


**1M**  
single-use plastic items  
removed



**12K**  
litres of chemicals per year  
avoided



**16K**  
milk bottles per annum  
eliminated



## Environmental Sustainability

### Carbon Neutral Certification

One of the highlights this year has been to accelerate the organisation's certified carbon-neutral target by six years from 2025 to 2019. Through this commitment Taronga has developed a plan that details initiatives around on-site renewable energy generation, energy efficiency and carbon offsetting. Taronga has partnered with carbon sequestering charity Greenfleet to offset emissions. This will include planting forests to restore and expand habitats for wildlife, including several of Taronga's Legacy Species.

### Waste Minimisation and Resource Recovery

Taronga has a 90% waste diversion from landfill target by 2020. During the last 12 months, there has been a strong focus on improving waste management practices and increasing resource recovery at both Zoos. Since the commencement of a formal waste contract at Taronga Western Plains Zoo this year, several initiatives and additional waste streams have been implemented, including a focus on improved waste segregation and behavioural change. These initiatives have increased the site's waste diversion from 20% to 40% over the past 12 months.

At Taronga Zoo several new waste streams have also been implemented, including food waste in commercial kitchens and animal food preparation areas. This initiative is

diverting approximately five tonnes of organic material from landfill each month. This material is being used to generate renewable energy from methane and produce a natural fertiliser.

### Litter Prevention

Since December 2017, Taronga has partnered with the EPA to support NSW'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 Taronga grounds to service guests. Since the program's implementation, Taronga has diverted over 500,000 containers from landfill.

### Sustainable Procurement and Contracts

A commitment to sustainable procurement and business practices is an integral part of the culture at Taronga. Taronga requires key partners and suppliers to support our sustainable commitment requirements and conform to stringent environmental criteria.

This has been evident through a number of key operational and supply contract tenders awarded this year including construction and catering. Sustainability measures are incorporated into operational requirements

for all of these contracts. Taronga's catering contract includes a sustainability fund, which is being used to carry out environmental initiatives. Key focus areas are waste minimisation, single-use plastic reduction, ethical sourcing and decreased use of chemical cleaning products.

## Marketing and Promotional Activities

### Taronga Zoo

In addition to the successful use of digital marketing throughout the year and supplementary activities via school holiday campaigns and promotions, Taronga Zoo enjoyed a successful launch for Tiger Trek in August 2018, where over 300 guests celebrated the return to Sydney of Taronga's Sumatran Tigers.

Following the launch event, a marketing campaign was deployed with communications across print, online, television, digital display, out-of-home and both paid and organic social media featuring the Tiger Trek creative.

The launch of the Tiger Trek was a huge success, resulting in a record first-quarter for attendances, with guests keen to explore the new exhibit.

Prior to the new experience opening, a short teaser campaign on social media drove brand engagement and awareness and built excitement with over 1.2 million people reached across a very brief timeframe.

Partnerships played a major role in further engaging Taronga's audiences with a number of Facebook Live productions recorded in conjunction with *Nat Geo*, a striking calendar distributed free-with-purchase to more than 100,000 *Daily Telegraph* readers and innovative partnerships with companies as diverse as GoPro through to QBE and Burt's Bees, helping to engage new audiences and amplify messages about Taronga's work.

Vivid Sydney at Taronga Zoo was held for the third time, attracting almost 100,000 people over the 23 nights of the festival. The event was promoted with the help of Destination NSW together with Taronga's own organic and paid social media. American Express also supported Taronga as presenting partner, supporting both the event and the Taronga Foundation.

International visitation enjoyed another strong year, increasing to 42% of all guest attendances over the 12 months. China continues to be the largest overseas market, but growth was seen from almost every country market.

#### Taronga Western Plains Zoo

Taronga Western Plains Zoo's marketing activities assisted in achieving annual admissions growth, with a joint focus on increasing guest visits and overnight bookings. Both an always-on digital campaign and increased activity in the lead up to and during key school holiday periods were key to activities across the year.

A major achievement this year was the launch of the Lion Pride Lands precinct. Compelling new creative, developed in house, appeared in digital searches and social advertising, as well as press and out-of-home (metro digital and regional billboards). The launch creative evolved over the course of the campaign to feature the Lion Pride Lands patrol truck experience immediately following the precinct opening in late March. The opening itself was very successful, with over 100 people in attendance including Minister for the Environment, the Hon. Gabrielle Upton MP. The event generated significant media coverage, particularly across social media with popular family travel bloggers and influencers. Regional media coverage of the opening event supported by the local marketing strategy generated strong admissions and membership growth from Dubbo and wider central and north-western NSW.

At the local level, the culmination of the Zoo's 40th birthday celebrations at the Dubbo DREAM Festival in October 2017

proved a highlight of the year, with over 100 volunteers and employees participating in a lantern parade, including lanterns created for the Taronga Zoo Centenary, in celebration of the Zoo's shared history with the Dubbo community. Marketing activity in Dubbo and the immediate surrounds centred on new arrivals and experiences, supported by competitive pricing for the local market. Local admissions grew strongly with the highest-ever local attendance recorded for the month of April following the opening of Lion Pride Lands.

In the latter part of 2017/18, the arrival of an Asian Elephant calf generated significant regional, metropolitan and national media coverage. Early preparation and promotion of the new Wild Herds precinct also occurred in this timeframe, rounding out a very busy year.

#### Digital marketing

Taronga continued to strengthen and optimise its digital marketing strategy this year, using digital strategies to further grow attendance numbers and engage more people with Taronga's community education 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. Facebook followers for both Zoos increased by 14% to 302,000, while both Instagram and Twitter experienced growth of approximately 7% to 127,000 and 20,400 respectively. Taronga's website remained an important communication platform, with more than 4.5 million visits.

Taronga's database experienced prolific growth, with email subscribers almost doubling to 527,000 as a result of engagement opportunities including Vivid, Twilight, \$1 On Your Birthday and Tiger Trek, as well as competitions and online ticket purchases.

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 1 million supporters.

#### Retail

##### Taronga Zoo

In 2017/18, record sales at Taronga's gift shops – in line with the unprecedented attendance numbers – saw revenue increase by more than 9%. A focus on staff development and cost control helped achieve an increased net return to Taronga.

A strategic focus on procuring environmental and sustainable products was implemented with a number of new ranges introduced into the shops to align with Taronga's values and behaviour change ambitions.

#### Taronga Western Plains Zoo

The gift shop at Taronga Western Plains Zoo enjoyed solid results throughout the year. Efforts to improve stock control were successfully deployed, with the annual stocktake indicating excellent stock management. Improvements to merchandising, particularly around the new animal arrivals throughout the year, as well as the introduction of new product lines, including a variety of environmentally friendly and sustainable products, assisted in achieving the year-end result.

Lion Pride Lands specific merchandise, including t-shirts and bags, proved very popular and will be an ongoing highlight of the stores in the 2018/19 year.

#### Catering and Functions

##### Taronga Zoo

In August 2017, 'Epicure' (part of the Spotless Group) was awarded Taronga Zoo's catering contract. 'Epicure' demonstrated a strong commitment to Taronga's sustainability ethos throughout the tender process. The new contract was carefully designed to realise the sustainability goals identified throughout the tender process, including the establishment of a dedicated sustainability fund. To date these initiatives have included the use of reusable baskets for hot food, removal of single-use plastic and the installation of e-water (electrolysed salt water) systems in all food and beverage areas. 'Epicure' operated for just under 11 months across the reporting period and the catering operations delivered a strong financial return despite construction impacts on the Taronga Function Centre operations. As part of the new agreement, a \$2m capital works plan is being developed, focusing on the refurbishment of TFM and Fish Stop/The View restaurant areas.

##### Taronga Western Plains Zoo

Catering revenue at Taronga Western Plains Zoo grew by 15% compared to last year. Regular promotions of daily specials and seasonal events including Mother's Day Breakfast and Lunch, Valentine's Day Dinner, Father's Day lunch and Dubbo Stampede all contributed to the positive outcome.

A review of the cafe menu has seen the introduction of higher-yielding gourmet ranges and the Midway cafe was operational throughout the majority of the year including non-peak periods.

Taronga Western Plains Zoo hosted numerous weddings and conferences across the year. The Savannah Functions Centre remains the primary venue for these events and a photographer was engaged in the second half of the year to complete a professional wedding photo shoot to be used as further marketing.



## Events and Accommodation

### Taronga Zoo Roar and Snore

The Roar and Snore overnight experience in Sydney welcomed over 12,000 guests in 2017/2018. Roar and Snore operated 335 nights of the year, and the business again grew its financial contribution to the organisation.

### Wild Ropes

Wild Ropes opened new children's courses in July 2017 with nearly 11,000 three- to eight-year-olds climbing on two bespoke courses throughout the year. With over 36,550 climbers in total, Wild Ropes enjoyed its most successful year to date and is proving to be increasingly popular with school groups and Zoo Friends.

### Twilight at Taronga 2018

The Twilight at Taronga concert series welcomed over 28,000 people, the high calibre of shows contributing significantly to this record ticket yield. A range of artists featured in the 2018 series, including Neil & Liam Finn, James Reyne, The Jezabels, The Lemon Heads and for the first time Rockwiz Live. This was the fourth series Taronga produced internally and it achieved seven sold-out shows out and reached an audience of over 28,000 who were exposed not just to a wonderful event but to Taronga's conservation messages by championing the Wildlife Witness App.

### Vivid Sydney at Taronga Zoo

Taronga's third year of participation in Vivid Sydney saw a host of new sculptures and lighting creations installed at the Zoo, welcoming almost 100,000 people throughout the event.

### Eid Festival

Taronga Zoo joined once again with community partner Crescent Wealth to host its second Eid Festival in 2017, celebrating the end of the Ramadan fasting period. The two-day event featured international food offerings, information stalls, entertainment and presentations of Taronga's community conservation programs with the main objective being to acknowledge and give back to its diverse community supporters in NSW.

### Taronga Western Plains Zoo Overnight Programs

Taronga Western Plains Zoo's range of overnight guest experiences all continue to receive excellent feedback, including current inclusion in the NSW Tourism Awards Hall of Fame. This accolade is testament to the dedication and commitment of the team in delivering a truly world-class range of products.

Almost 12,000 guests experienced Zoofari Lodge this year, with occupancy exceeding 83%. Zoofari Commercial Trading Revenue was up 3% on the previous year. Savannah Cabins accommodated over 15,000 guests, consistent with the prior year. A number of packaged rates were introduced in an effort

to increase guests' options and yield from the cabins.

Billabong Camp continues to provide a unique experience for families and school groups. More than 7,000 guests experienced this program during 2017/18. During the coming year a focus on re-invigorating this product will include leveraging its proximity to the Zoo's two new major exhibit developments, Lion Pride Lands and Wild Herds.

## Taronga Foundation

The Taronga Foundation enjoyed another year of significant support throughout 2017/18 with donations received 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 visitor experience and enjoyment. A number of donors contributed significant support throughout the year to the realisation and completion of the Taronga Institute for Science and Learning.

### Governors and Patrons

#### Taronga Foundation Executive Patrons

Mr Maurice L Newman AC (Chairman)  
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 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

## Retail

### Taronga Foundation Events and Community Fundraising

The Foundation's fundraising events raised over \$770,000 in 2017/18. In July 2017, a group of nine supporters joined Cameron Kerr on the CEO Challenge. They journeyed

into the heart of Sumatra, learning about Taronga's work with endangered Sumatran wildlife and raising money for projects to help Taronga's commitment to its 10 Legacy Species.

The Foundation's annual gala dinner, Pride of the Plains, brought 330 people together to celebrate Taronga Zoo's work in conservation and particularly with African Lions and the animals of the African Savannah, with funds raised for Lion conservation.

Participation fundraising raised donations via events such as the City to Surf and Cole Classic. New Year's Eve at Taronga was another resounding success, with more than 2,000 guests enjoying the entertainment and harbour views. Tickets for the event sold out well in advance.

### Major Gifts and Bequests

The Taronga Foundation is grateful to the generous supporters that have left gifts in their Wills, with bequests raising \$1.4 million in support of Taronga's conservation work.

Generous gifts were also received from a number of individuals, with donations supporting projects both in Australia and overseas, including support for the new Taronga Institute for Science and Learning.

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

Paradise Family Foundation  
Mr and Mrs John and Rosalinda Sample  
Caledonia Foundation  
James N. Kirby Foundation  
The Ian Potter Foundation  
Tibra Capital Foundation  
Mr George Wang  
Girl Guides Association (NSW)  
Mr Richard Elmslie  
The Kate & John Prendiville Foundation  
Ms Gretel Packer  
Mrs Camilla Boyd  
Kennards Hire Foundation  
Mrs Janet Cooke  
Mr Robert Albert AO and Mrs Libby Albert  
Dr Charles Barnes  
Mr Jeff Conen and  
Ms Kerry Spence  
The Denton Family  
Ms Koko Dowe  
Mr Jerry Ellis AO and Mrs Ann Ellis  
Ms Nancy Fox and Mr Bruce Arnold  
The Hill Family Conservation Foundation  
Professor Fred Hilmer AO  
and Mrs Claire Hilmer  
Dr Sandra Humphrey and  
Mr Graham Humphrey  
Mrs Ingrid Kaiser  
The Maple-Brown Family Foundation  
The Ottomin Foundation  
Ms Catherine Reed

Mr and Mrs Alan and Lynne Rydge  
Skipper-Jacobs Charitable Trust  
Anthony Suters and Associates Pty Ltd  
The Dick and Pip Smith Foundation  
Vonwiller Foundation  
Ms Sarah Whyte

#### Friends of the Future Income

(Funds received from estates 2017/18)

Estate of the late John David Adams  
Estate of the late Douglas Smith  
Estate of the late Peter Griffin  
Estate of the late Lynette Forbes  
Estate of the late Richard Roberts  
Estate of the late Barry Moore  
Estate of the late Marlene Verbeek  
Estate of the late Dolores O'Hara  
Estate of the late Alexandra van Raalte  
Estate of the late Jacqueline Crookston  
Estate of the late Victor Ewald Menson  
Estate of the late Margaret McGrow  
Estate of the late Douglas Beath  
Estate of the late Beth Grainger  
Estate of the late Douglas Webb  
Estate of the late Tess Franklin

#### Individual Giving

The Taronga Wildlife Defender regular

giving program attracted new supporters through face-to-face, telemarketing and direct mail programs. Fundraising appeals aligned to Taronga's 10 Legacy Species.

#### Corporate Partnerships

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 Peters Ice Cream, joining ANZ, The Star, QBE and Coca Cola Amatil as a Principal Partner of Taronga's conservation efforts.

### The Taronga Foundation Chairman's Report

This financial year, the Foundation raised a net total of just over \$9 million. Our 2017/18 fundraising program was geared towards raising funds for both the 10 Legacy Species and for Taronga's ambitious conservation programs.

These programs include the establishment of the Taronga Institute of Science and Learning, which received significant support via generous donations and pledges from individuals, trusts and foundations during the year.

I would like to thank all our Patrons for their continued support and advocacy and also our wonderful Zoofari committee,

without which our annual gala dinner would not be the success it is. We are fortunate to have such a dedicated group of supporters. We are also deeply grateful to our corporate partners and donors.

Finally, our thanks go to Taronga Executive Director and 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.

**Maurice Newman AC**  
Chairman Taronga Foundation



ZOOFARI LODGE at Taronga Western Plains Zoo, Dubbo



# 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

### Five Star Green-star building

The construction of the Taronga Institute of Science and Learning further demonstrated Taronga's commitment to sustainability. The Institute has been designed as a Five Star Green-star building representing 'Australian Excellence' in sustainable building design – and is fast approaching six Star with the addition of rooftop solar panels this year.

The design team has worked hard to reflect the inherent personality of Taronga in the building form, projected through the physical connection between internal and external spaces and design elements, including the nature-inspired facade screen and colour palette.

### Taronga Wildlife Retreat

The Lower Australia and Wildlife Retreat project commenced construction this financial year, after an extensive design development phase and procurement exercise.

The revitalisation of the Australia Habitat will be delivered in two phases, with the first phase completed in 2019 and the second in 2021. Immersed within the Australia Habitat, the Taronga Wildlife Retreat will wrap around a wildlife sanctuary housing animals such as wallabies, echidnas, bandicoots, Platypus, Koalas and freshwater eels. Central to the Taronga Wildlife Retreat concept is the opportunity for people to learn more about wildlife, and to inspire conservation champions.

### Plains-wanderers Aviaries and Sanctuary

Construction of a 110ha predator-proof sanctuary was completed at Taronga Western Plains Zoo this year, providing the perfect location for seeding mammal re-wilding efforts in NSW and supporting efforts such as the National Bilby Recovery Plan. In addition, the Taronga Property Team managed the construction and completion of a bank of 30 Plains-wanderer aviaries in support of the recovery plan for this species.

### Lord Howe Island

Taronga completed the construction of 70 pens and 10 aviaries on Lord Howe Island (LHI) as part of a captive management project to preserve two of the island's endangered bird species. This construction

forms part of the Lord Howe Rodent Eradication Project, which is aiming to eradicate black rats and house mice. Taronga will be responsible for the husbandry and care of two endangered bird species, the LHI Woodhen and LHI Pied Currawong, both of which have been identified as vulnerable to the baiting process.

### Savannah Project Gets Underway

A development application has been approved for the Taronga Zoo Savannah project, with detailed design and tender documents finalised and the construction tender phase having commenced. The African Savannah will be a multi-species habitat that includes a lion-breeding facility, expanded savannah for giraffes, zebras and Fennec Foxes, as well as a specialised Meerkat encounter space.

### Centenary Capital Projects

Construction of Centenary Capital Projects at Taronga Western Plains Zoo continues as planned with both Wild Herds and Lion Pride Lands successfully completed and opened this year. Work is also underway on a new hire facility for bikes and carts and planning has commenced for a revitalised education facility and wildlife hospital.

## Capital Works and Project Planning

### Taronga Zoo

#### Tiger Trek

The Tiger Trek precinct was successfully opened in August 2017. This exhibit provides Taronga's guests with an immersive and engaging experience that conveys the action its visitors can take to aid in conserving the endangered Sumatran Tiger population. The experience incorporates three separate tiger exhibits, state-of-the-art accommodation and breeding dens, an immersive Sumatran village and interactive guest facilities.

### Taronga Institute of Science & Learning

Completed in June 2018, the Institute provides Taronga with a world-class facility to pursue its vision of creating a global centre of excellence in conservation science and learning. Furthermore, the Institute will significantly increase Taronga's capacity to

undertake leading research, as well as inspire individuals and communities to achieve positive conservation and wildlife outcomes.

### Taronga Wildlife Retreat and Australia Habitat

Construction of the Taronga Wildlife Retreat and Australia Habitat project commenced in late 2017. This project will revitalise the existing Australia Habitat precinct and give visitors a new immersive experience. The Taronga Wildlife Retreat incorporates 62 guest rooms providing an engaging, overnight wildlife experience. The Retreat will wrap around a native wildlife sanctuary and nestle into the new Australia Habitat, home to iconic species such as Koalas, kangaroos and other native animals.

### African Savannah and Congo

The design of the African Savannah was completed in early 2018 and procurement of a main construction contractor is underway. Once complete, the African Savannah project will deliver revitalised exhibit spaces in the heart of the Zoo. The main construction works are scheduled to commence in late 2018. A second phase of this project is scheduled to commence in 2021 and will involve the construction of a lush forest exhibit for our growing gorilla family.

### Taronga Western Plains Zoo Lion Pride Lands

Taronga's exciting new Lion Pride Lands exhibit was successfully opened in March 2018. The precinct includes an immersive Maasai Village, a 3.5ha African Lion exhibit, as well as an exciting ranger-led tour in a purpose-built safari vehicle. As the largest project in the current master plan of works, this exhibit brings to life an African safari adventure experience.

### Wild Herds

Construction works were completed in June 2018 for this exciting new project showcasing the Przewalski's Horse and Taronga's conservation successes with this wild horse. Scheduled deer feeding within this walk-through exhibit will provide an up-close and personal guest experience inspired by Mongolian nomadic life.



TARONGA WESTERN PLAINS ZOO, DUBBO, AUSTRALIA 32°16'55.2"S 148°34'38.9"E



LION PRIDE LANDS By Rick Stevens



**The African Waterhole and Overlook Cafe**  
A development application for the Overlook Cafe design has been submitted and is under assessment by Dubbo Regional Council. The development will offer an improved guest experience, by creating a new cafe environment including a Meerkat exhibit, picnic facilities, children's water play, landscaping, car parking and restrooms. Construction is scheduled to commence in early 2019.

#### Hire Facility Upgrade

The redevelopment of the bikes and electric carts hire facility commenced mid-2018. This project will provide an improved entry experience for Taronga's guests in addition to creating a suitable storage and maintenance facility for these assets.

### Facilities and Infrastructure Asset Maintenance

#### Asset Management

To support its continuous improvement journey, Taronga is implementing best-practice asset management systems in line with new international standards.

#### Taronga Zoo

New electrical infrastructure was installed this year, with high-voltage substation and power factor correction renewals, together with new power cabling for Sky Safari and marine mammal life support systems. Investment in hydraulic infrastructure is continuing.

Routine maintenance and preventative compliance inspections of facilities, exhibits and heritage structures continued throughout the year, in conjunction with corrective and enhancement works. A new heritage restoration program for Taronga Zoo's sandstone perimeter wall commenced, while proactive life cycle renewal works were also completed for the Wild Asia elephant precinct structures and shade sails for the Seal Theatre.

#### Taronga Western Plains Zoo

Taronga Western Plains Zoo saw the continued completion of infrastructure projects during the year, including the new pumping system, river rising main and backup generator for the site's main reservoir water supply, dangerous animal containment fencing upgrades, carpark and road

development, resealing and improvements, and critical infrastructure. There have also been ongoing upgrades to exhibits, back-of-house areas and landscaping to improve both visitor experience, animal enrichment and sustainability outcomes.

### 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 Wildlife Retreat development has enabled Taronga to achieve positive heritage outcomes such as:

- preserving heritage items including a rustic stair and seat;
- documenting and dismantling the circular shelter for re-erection within Taronga;
- integrating the former fountain into the new entry; and
- reusing some elements of removed garden beds, trees and Australian Section landscaping.



The African Savannah Project was redesigned to reduce heritage impacts and to conserve significant items such as the Giraffe house. The archival recording of Turner House is complete.

The Taronga Institute of Science and Learning preserved a section of stone fence and has re-erected the original bell.

Stonemasons repaired three sections of boundary fence. The condition of the Elephant Temple and rock shelves near the Aboriginal site was monitored. The 1916

Python Enclosure was conserved in part, but has not yet been repurposed. Samples of the unusual original glass were added to our movable heritage collection.

A historian was engaged and undertook historical investigations, necessary to update Taronga's primary conservation documents. This, and other activities, were supported by three interns from the University of Sydney's Heritage Conservation Masters program.

**Horticulture**

Taronga celebrated World Wetlands Day with a redevelopment of the wetlands area incorporating specially selected planting from NSW native wetlands.

Floral displays were a highlight throughout the site, including the historic Floral Clock. Also, bush regeneration along the Sydney Harbour foreshore and other Zoo areas continued with help from corporate volunteers, Bushcare groups and horticulture staff.

Taronga has built

110<sub>ha</sub> 3.5<sub>ha</sub> 3 70 10 5

Predator-proof  
Sanctuary

Lion Pride Lands  
precinct

Sumatran Tiger  
Exhibits

Pens on  
Lord Howe Island

Aviaries on  
Lord Howe Island

Star Green-star building  
Taronga Institute of  
Science & Learning







# TARONGA ZOO AND TARONGA WESTERN PLAINS ZOOS' PARTNERS IN CONSERVATION

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Virbac  
Waterlogic Australia  
Wet & Forget  
Zoetis



TARONGA

# STATUTORY FINANCIAL STATEMENTS

SUMATRA, INDONESIA 4°55'34.5"S 105°46'34.1"E



SUMATRAN TIGER By Chris Wheeler









## 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 Statement of Comprehensive Income for the year ended 30 June 2018, the Statement of Financial Position as at 30 June 2018, 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 2018, 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

Other information comprises the information included in Taronga's annual report for the year ended 30 June 2018, other than 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 except where Taronga will be dissolved by an Act of Parliament or otherwise cease operations.

## 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.

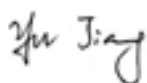
Reasonable assurance is a high level of assurance, but does not guarantee an audit conducted in accordance with Australian Auditing Standards will always detect material misstatements. Misstatements can arise from fraud or error. Misstatements are considered material if, individually or in aggregate, 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](http://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


25 September 2018  
SYDNEY

**TARONGA CONSERVATION SOCIETY AUSTRALIA (TARONGA)**  
**FINANCIAL STATEMENTS AND NOTES**  
 FOR THE YEAR ENDED 30 JUNE 2018

**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:

- a) 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 2018;
- b) 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*;
- c) we are not aware of any circumstances which would render any particulars included in the financial statements to be misleading or inaccurate; and
- d) 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  
 24 September 2018



**INCOME STATEMENT  
FOR THE YEAR ENDED 30 JUNE 2018**

	Notes	2018 \$'000	2017 \$'000
<b>Revenue</b>			
Sale of Goods and Services	2	83,572	78,884
Government Grants	3	36,810	29,823
Investment Revenue	4	1,817	2,090
Other Income	5	14,105	18,340
Gain/(Loss) on Sale of Assets	6	-	21
<b>Total Revenue</b>		<b>136,304</b>	<b>129,158</b>
<b>Expenses</b>			
Personnel Services	7(a)	49,204	46,112
Depreciation and Amortisation	7(b)	23,964	21,152
Finance Costs	7(c)	764	860
Operating Expenses	8	43,870	42,138
<b>Total Expenditure</b>		<b>117,802</b>	<b>110,262</b>
<b>NET RESULT</b>		<b>18,502</b>	<b>18,896</b>

The accompanying notes form part of these Financial Statements.

**STATEMENT OF COMPREHENSIVE INCOME**  
**FOR THE YEAR ENDED 30 JUNE 2018**

	<b>Notes</b>	<b>2018 \$'000</b>	<b>2017 \$'000</b>
<b>NET RESULT</b>		<b>18,502</b>	<b>18,896</b>
<b>Other comprehensive income:</b>			
Net increase/(decrease) in property, plant and equipment revaluation surplus	23	-	32,115
<b>Other comprehensive income for the year</b>		<b>-</b>	<b>32,115</b>
<b>Total comprehensive income for the year</b>	<b>23</b>	<b>18,502</b>	<b>51,011</b>

The accompanying notes form part of these Financial Statements.



**STATEMENT OF FINANCIAL POSITION**  
AS AT 30 JUNE 2018

	Notes	2018 \$'000	2017 \$'000
<b>ASSETS</b>			
<b>Current Assets</b>			
Cash and Cash Equivalents	22(a)	26,776	14,099
Receivables	9	3,704	4,338
Inventories	10	1,298	1,318
Other Financial Assets	11	55,000	68,502
<b>Total Current Assets</b>		<b>86,778</b>	<b>88,257</b>
<b>Non-Current Assets</b>			
Property, Plant and Equipment	12		
-Land and Buildings		353,705	353,092
-Plant and Equipment		5,359	4,778
-Infrastructure		67,820	61,702
-Work-in-Progress		65,549	43,720
Total Property, Plant and Equipment		492,433	463,292
Intangible Assets	13	1,538	1,158
<b>Total Non-Current Assets</b>		<b>493,971</b>	<b>464,450</b>
<b>Total Assets</b>		<b>580,749</b>	<b>552,707</b>
<b>LIABILITIES</b>			
<b>Current Liabilities</b>			
Trade and Other Payables	15	21,428	23,828
Other Current Liabilities	16	4,586	4,023
Borrowings	17	6,067	1,854
<b>Total Current Liabilities</b>		<b>32,081</b>	<b>29,705</b>
<b>Non-Current Liabilities</b>			
Borrowings	17	21,648	14,040
Trade and Other Payables	15	5,353	5,798
<b>Total Non-Current Liabilities</b>		<b>27,001</b>	<b>19,838</b>
<b>Total Liabilities</b>		<b>59,082</b>	<b>49,543</b>
<b>Net Assets</b>		<b>521,667</b>	<b>503,164</b>
<b>Equity</b>			
Reserves	23	281,258	281,258
Accumulated Funds	23	240,409	221,906
<b>Total Equity</b>		<b>521,667</b>	<b>503,164</b>

The accompanying notes form part of these Financial Statements.

**STATEMENT OF CHANGES IN EQUITY**  
FOR THE YEAR ENDED 30 JUNE 2018

	Accumulated Funds	Asset Revaluation Reserve	Total
	\$'000	\$'000	\$'000
<b>Balance at 1 July 2017</b>	221,906	281,258	503,164
<b>Net result for the year</b>	18,502	-	18,502
<b>Other comprehensive income:</b>			
Net change in revaluation surplus of property, plant and equipment	-	-	-
<b>Total other comprehensive income</b>	-	-	-
<b>Total comprehensive income for the year</b>	18,502	-	18,502
<b>Balance at 30 June 2018</b>	<b>240,409</b>	<b>281,258</b>	<b>521,667</b>

<b>Balance at 1 July 2016</b>	203,011	249,143	452,154
<b>Net result for the year</b>	18,896	-	18,896
<b>Other comprehensive income:</b>			
Net change in revaluation surplus of property, plant and equipment	-	32,115	32,115
<b>Total other comprehensive income</b>	-	32,115	32,115
<b>Total comprehensive income for the year</b>	18,896	32,115	51,011
<b>Balance at 30 June 2017</b>	<b>221,906</b>	<b>281,258</b>	<b>503,164</b>

The accompanying notes form part of these Financial Statements.



**STATEMENT OF CASH FLOWS**  
**FOR THE YEAR ENDED 30 JUNE 2018**

	Notes	2018 \$'000	2017 \$'000
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
<b><u>Receipts</u></b>			
Sale of Goods and Services		107,520	104,994
Interest Received		2,261	1,889
Dividends Received		-	1
Government Capital Grant		21,325	15,053
Government Recurrent Grant		15,485	14,770
<b>Total Receipts</b>		<b>146,591</b>	<b>136,707</b>
<b><u>Payments</u></b>			
Personnel Services		(49,010)	(48,161)
Suppliers for Goods and Services		(50,280)	(47,257)
Finance Costs		(911)	(924)
<b>Total Payments</b>		<b>(100,202)</b>	<b>(96,342)</b>
<b>Net Cash inflow from Operating Activities</b>	22(b)	<b>46,390</b>	<b>40,365</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Purchases of Property, Plant and Equipment		(59,215)	(37,114)
Purchases of Other Financial Assets		-	(1,000)
Proceeds from Sale of Other Financial Assets		13,502	-
Proceeds from Sale of Property, Plant and Equipment		-	55
<b>Net Cash outflow from Investing Activities</b>		<b>(45,713)</b>	<b>(38,059)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Proceeds from Borrowings		12,000	-
<b>Net Cash flow from Financing Activities</b>		<b>12,000</b>	<b>-</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>12,677</b>	<b>2,306</b>
<b>Cash and cash equivalents at beginning of the year</b>		<b>14,099</b>	<b>11,793</b>
<b>Cash and cash equivalents at end of year</b>	22(a)	<b>26,776</b>	<b>14,099</b>

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	Gain/(Loss) on Sale of Assets
7(a)	Personnel Services
7(b)	Depreciation and Amortisation Expenses
7(c)	Finance Costs
8	Other Operating Expenses
9	Trade and other receivables
10	Inventories
11	Other Financial Assets
12	Property, Plant and Equipment
13	Intangible Assets
14	Fair Value Measurement of Non-Financial Assets
15	Trade and Other Payables
15(a)	Personnel Services
16	Other Liabilities
17	Borrowings
18	Financial Instruments
19	Restriction on Revenue – The Taronga Foundation
20	Remuneration of Auditors
21	Related Party Disclosures
22	Notes to the Cash Flow Statement
23	Reserves and Retained Surplus
24	Commitments for Expenditure
25	Contingent Assets and Liabilities
26	Subsequent Events



## NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2018

### 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 2018 have been authorised for issue by Taronga on 24 September 2018.

#### 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

The comparative figures in Note 7(a) Personnel Services have been amended to include wages expenses incurred on asset maintenance programs, the amount \$151,839 for 2017 is excluded from Maintenance under Note 8 Other Operating Expenses. The Maintenance expense line excludes

Software Licence Fees, this expense is included under the heading Information and Digital Technology. To enhance comparability a few items of the Income Statement and the corresponding notes are consolidated and amended in respect of the changes in current year. Capital commitments are disclosed for the period beyond 12 months. All other 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.

#### **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 18 and Note 14 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 2017-18**

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 2017-18.

- AASB 2016-4 Amendments to AASB 136 *Impairment of Assets*- refer Note 1
- AASB 2016-2 Amendments to AASB 107 *Statement of Cash Flows*- refer Note 17

All other new or revised Australian Accounting Standards mandatory for 2018 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 2020 Financial Statements
- AASB 16 regarding accounting of Leases – mandatory for 2020 Financial Statements
- AASB 9 Financial Instruments, AASB 2014-7 and AASB 2014-8 Amendments to Australian Accounting Standards arising from AASB 9 – mandatory for 2019 Financial Statements
- AASB 2017-1 Amendments to Australian Accounting Standards – Transfers of Investment Property, Annual Improvements 2014–2016 Cycle and Other Amendments – mandatory for 2020 Financial Statements
- AASB 1058 Income of Not-for-Profit Entities – Provides a more comprehensive model for accounting for NFP entities – mandatory for 2020 Financial Statements
- 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 2020 Financial Statements

- AASB 2016-7 AASB 2016-7 Amendments to Australian Accounting Standards – Deferral of AASB 15 for Not-for-Profit Entities – mandatory for 2020 Financial Statements
- AASB 2014-5 Amendments to Australian Accounting Standards arising from AASB 15 – mandatory for 2020 Financial Statements

When the above Accounting Standards and amendments become mandatory, additional disclosures and minor changes to revenue recognition policies may be required.



## 2. Sale of Goods and Services

	2018 \$'000	2017 \$'000
Sale of goods	10,012	9,569
Rendering of services	73,560	69,315
Total Sale of Goods and Services	83,572	78,884

### 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.

## 3. Government Grants

	2018 \$'000	2017 \$'000
Capital grant	21,325	15,053
Recurrent grant	15,485	14,770
Total Government Grants	36,810	29,823

### 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

	2018 \$'000	2017 \$'000
Term Deposits and Bank Interest	1,817	2,090
Total Investment Revenue	1,817	2,090

### 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

	2018 \$'000	2017 \$'000
Sponsorship	4,523	4,676
Donations and Bequests	9,222	12,692
Insurance Premium Hindsight Adjustments	360	972
<b>Total Other Income</b>	<b>14,105</b>	<b>18,340</b>

### Recognition and Measurement

#### Sponsorship

All sponsorships and non-reciprocal contributions from the public are included in Taronga's revenue on receipt. The value of goods and services received by way of sponsorship was included in Taronga's 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. Gain/(Loss) on Sale of Assets

	2018 \$'000	2017 \$'000
Gain/(Loss) on Sale of Plant & Equipment	-	21
<b>Total Gain/(Loss) on Sales of Assets</b>	<b>-</b>	<b>21</b>

## 7. Expenses

### a) Personnel Services

	2018 \$'000	2017 \$'000
Salaries and Wages (including annual leave)	41,910	40,785
Superannuation - Defined Contribution Plans	3,953	3,836
Superannuation - Defined Benefit Plans*	(345)	(2,147)
Long Service Leave	586	627
Workers Compensation Insurance	497	498
Payroll Tax and Fringe Benefits Tax	2,603	2,513
<b>Total Personnel Services</b>	<b>49,204</b>	<b>46,112</b>



### 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 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 2018 a defined benefit superannuation actuarial gain of \$667,534 is included in superannuation defined benefit expense (\$2,504,157 gain in 2016/2017).

Employee related costs amounting to \$1,535,871 have been capitalised during the year (\$1,237,947 in 2016/2017). These employee related costs are excluded from the above.

### b) Depreciation and Amortisation Expenses

	2018 \$'000	2017 \$'000
<b>Depreciation</b>		
Land and Buildings	18,453	16,683
Plant and Equipment	1,086	946
Infrastructure	4,089	3,451
<b>Amortisation</b>		
Intangible Assets	336	72
<b>Total Depreciation and Amortisation Expenses</b>	<b>23,964</b>	<b>21,152</b>

Refer to Note 12, 13 and 14 for recognition and measurement policies on Depreciation and Amortisation.

### c) Finance Costs

	2018 \$'000	2017 \$'000
Interest on Borrowings	944	917
Amortisation of premiums relating to borrowings	(180)	(57)
<b>Total Finance Costs</b>	<b>764</b>	<b>860</b>

### 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.

## 8. Other Operating Expenses

	2018 \$'000	2017 \$'000
Accommodation Expenses	1,808	1,865
Advertising and Promotions	4,250	4,023
Animal Husbandry & Research Support	2,691	2,428
Assets Written off	2,785	1,896
Communication and Digital Technology	1,676	1,664
Contingent Labour	2,153	1,441
Contract Services	6,142	7,042
Cost of Goods Sold	3,880	3,765
Maintenance	6,938	6,746
Supply and Services	9,642	9,684
Utilities	1,841	1,584
Insurance Premium Hindsight Adjustment	64	-
<b>Total Other Operating Expenses</b>	<b>43,870</b>	<b>42,138</b>

### 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.

## 9. Trade and Other Receivables

	2018 \$'000	2017 \$'000
Sale of Goods and Services	2,932	3,737
Less: Allowance for impairment	-	-
	2,932	3,737
Prepayments	772	601
<b>Total Trade and Other Receivables</b>	<b>3,704</b>	<b>4,338</b>

## 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

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.

## 10. Inventories

	2018 \$'000	2017 \$'000
<b><u>Held for Distribution</u></b>		
Food for Animals	237	214
Stores and Spare Parts	201	203
	438	417
<b><u>Held for Resale</u></b>		
Catering	70	67
Souvenirs	790	834
	860	901
Total Inventories	1,298	1,318

## 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.

## 11. Other Financial Assets

	2018 \$'000	2017 \$'000
<b>Term deposits:</b>		
91 - 180 Days	25,000	-
181 - 270 Days	11,000	31,000
Over 270 Days	19,000	37,502
Total Other Financial Assets	55,000	68,502



## 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 18 for further disclosure on Other Financial Assets.

## 12. Property, Plant and Equipment

	Work in Progress	Land and Buildings	Plant and Equipment	Infrastructure	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2017 - fair value</b>					
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
<b>At 30 June 2018 - fair value</b>					
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 current financial year is set out below:

	Work in Progress	Land and Buildings	Plant and Equipment	Infrastructure	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Year ended 30 June 2018</b>					
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

	Work in Progress	Land and Buildings	Plant and Equipment	Infrastructure	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
<b>At 1 July 2016 - fair value</b>					
Gross carrying amount	19,011	481,230	10,663	83,200	594,103
Accumulated Depreciation	-	(146,461)	(7,252)	(25,807)	(179,520)
Net carrying amount	19,011	334,769	3,411	57,393	414,583
<b>At 30 June 2017 - fair value</b>					
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

## 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
<b>Year ended 30 June 2017</b>					
Net carrying amount at beginning of year	19,011	334,769	3,411	57,393	414,583
Additions	38,892	7	1,703	26	40,629
Transfers	(14,183)	9,037	664	3,447	(1,034)
Disposals	-	(7,558)	(564)	(580)	(8,702)
Revaluation increment	-	27,687	-	4,428	32,115
Depreciation expense	-	(16,683)	(946)	(3,451)	(21,080)
Depreciation on disposals	-	5,833	510	440	6,783
Net carrying amount at end of year	43,720	353,092	4,778	61,702	463,292

## 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 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 2018. The next comprehensive revaluation for land is due to be performed during FY 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 Written-Down Replacement Cost. The last comprehensive revaluation was conducted by PNSW in March 2014. In the interim period up to June 2018 management has annually assessed the indexation rates in consultation with PNSW and in March 2017 Taronga has adjusted these assets to reflect indexation increments. Taronga has formed the opinion that there was no material change to the valuation for the period to 30 June 2018. The next comprehensive revaluation for infrastructure is due to be performed during FY 2018-2019.

#### **Buildings, Enclosures and Improvements**

The last comprehensive revaluation of Taronga's buildings, enclosures and improvements was conducted by the PNSW in March 2014. In the interim period up to June 2018 management has annually assessed the indexation rates in consultation with PNSW and in March 2017 Taronga has



adjusted these assets to reflect indexation increments. Taronga has formed the opinion that there was no material change to the valuation for the period to 30 June 2018. The next comprehensive revaluation for buildings, enclosures and improvements is due to be performed during FY 2018-2019.

#### **(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:

<b>Category of Asset</b>	<b>Rate of Depreciation</b>
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:

<b>Category of Asset</b>	<b>Rate of Amortisation</b>
Financial Application and Other Software	10.0% - 33.3%

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

### 13. Intangible Assets

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

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

<b>Year ended 30 June 2018</b>	
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

	<b>Software and other Intangibles \$'000</b>
<b>At 1 July 2016</b>	
Cost (gross carrying amount)	761
Accumulated Amortisation and Impairment	(556)
Net carrying amount	205

<b>At 30 June 2017</b>	
Cost (gross carrying amount)	1,756
Accumulated Amortisation and Impairment	(598)
Net carrying amount	1,158

<b>Year ended 30 June 2017</b>	
Net carrying amount at beginning of year	205
Additions (acquisitions)	-
Transfers	1,034
Disposals	(39)
Amortisation	(72)
Amortisation on disposals	30
Net carrying amount at end of year	1,158

## 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.

## 14. Fair Value Measurement of Non-Financial Assets

### (a) Fair Value Hierarchy

2018	Level 1	Level 2	Level 3	Total Fair Value
	\$'000	\$'000	\$'000	\$'000
<b>Property Plant and Equipment</b>				
Land and Buildings	-	71,650	282,055	353,705
Infrastructure	-	-	67,820	67,820
	-	71,650	349,875	421,525
<b>2017</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total Fair Value</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
<b>Property Plant and Equipment</b>				
Land and Buildings	-	71,650	281,442	353,092
Infrastructure	-	-	61,702	61,702
	-	71,650	343,144	414,794

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 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 are categorised as level 3.



**(c) Reconciliation of Recurring Level 3 Fair Value Measurements****2018**

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

**2017**

	<b>Buildings \$'000</b>	<b>Infrastructure \$'000</b>	<b>Total Recurring Level 3 Fair value \$'000</b>
<b>Fair Value as at 1 July 2016</b>	270,018	57,393	327,411
Additions	9,045	3,473	12,518
Revaluation increments recognised in other comprehensive income	20,787	4,428	25,215
Disposals	(1,725)	(140)	(1,865)
Depreciation	(16,683)	(3,451)	(20,134)
<b>Fair Value as at 30 June 2017</b>	<b>281,442</b>	<b>61,702</b>	<b>343,144</b>

**15. Trade and Other Payables**

	<b>2018 \$'000</b>	<b>2017 \$'000</b>
<b>Current Liabilities</b>		
Operating Expense Creditors	3,256	3,335
Capital Creditors	4,550	7,495
Accruals and Other Creditors	1,991	2,005
Personnel Services	11,631	10,992
<b>Total Current Trade and Other Payables</b>	<b>21,428</b>	<b>23,828</b>
<b>Non-Current Liabilities</b>		
Personnel Services	5,353	5,798
<b>Total Non-Current Trade and Other Payables</b>	<b>5,353</b>	<b>5,798</b>
<b>Total Trade and Other Payables</b>	<b>26,781</b>	<b>29,626</b>

**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**

	2018 \$'000	2017 \$'000
<b>Current Liabilities</b>		
Salaries and Wages Payable	1,123	941
Annual Leave Provision	2,899	2,791
Long Service Leave Provision	6,828	6,468
Defined Benefit Superannuation	781	793
<b>Total Current Payable</b>	<b>11,631</b>	<b>10,992</b>
<b>Non-Current Liabilities</b>		
Defined Benefit Superannuation	5,353	5,798
<b>Total Non-Current Payable</b>	<b>5,353</b>	<b>5,798</b>
<b>Total Personnel Services</b>	<b>16,984</b>	<b>16,791</b>

**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.

**(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.

## 16. Other Liabilities

	2018 \$'000	2017 \$'000
Unearned Income	4,586	4,023
Total Other Liabilities	4,586	4,023

### Recognition and Measurement

Unearned income represents payments received in advance for Zoo Admission, Overnight accommodation and other Zoo activities.

## 17. Borrowings

	2018 \$'000	2017 \$'000
NSW Treasury Corporation (TCorp) Borrowings	27,714	15,894
These loans are due to mature as follows:		
Not later than one year	6,067	1,854
Later than one year but not later than two years	2,111	5,998
Later than two years but not later than five years	7,540	8,042
Later than five years	11,996	-
	27,714	15,894

### Recognition and Measurement

Loans are not held for trading or designated at fair value through the profit or loss but are recognised at amortised cost using the effective interest rate method. Gains or losses are recognised in the income statement on de-recognition.

### Face Value and Capital Value of Loans

	2018 \$'000	2017 \$'000
Face Value of Loans	27,008	15,075
Add Unamortised Premium	706	819
Capital Value of Loans	27,714	15,894



**Reconciliation of Changes in Liabilities Arising from Financing Activities**

	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

**18. 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	Category	2018 \$'000	2017 \$'000
<b>Class:</b>			
Cash and Cash Equivalents	N/A	26,776	14,099
Receivables (1)	Loans and receivables at amortised cost	2,324	2,730
Other Financial Assets	Term deposits held in banks	55,000	68,502
<b>Financial Liabilities</b>			
<b>Class:</b>			
Payables (2)	Financial liabilities measured at amortised cost	26,781	29,626
Borrowings	Financial liabilities measured at amortised cost	27,714	15,894

(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, TCorp Hour-Glass 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 standards. Authority deposits held with NSW Treasury Corporation (TCorp) Hour-Glass are guaranteed by the State.

#### **Cash and Other Financial Assets**

Cash and Other Financial Assets comprises cash on hand, bank balances at call and Term Deposits with ANZ Banking Corporation, Westpac Banking Corporation, National Australia Bank and TCorp which have been rated "AA-", "AA-", "AA-" 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 2.60% (2016/2017 2.75%), the weighted average interest rate for the period was 2.60% (2016/2017 2.58%). None of these balances are past due or impaired.

#### **Receivables - Trade Debtors**

All trade debtors are recognised as amounts receivable at balance date. Collectability of trade debtors is reviewed on an ongoing basis.

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 \$2,324,000 (\$2,730,000 in 2017)

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

	2018	2017
	\$'000	\$'000
Trade Receivables Owing from NSW Government Entities	126	322
Trade Receivables Owing from Non-Government Educational	243	1
Trade Receivables Owing from Tourism Operators	866	896
Trade Receivables Owing from Other Entities	642	1,089
Trade Receivables Owing from Sponsors	338	87
Trade Receivables Owing from Catering Franchise Operator	109	335
Less: Allowance for Impairment	-	-
	<u>2,324</u>	<u>2,730</u>

Taronga does not hold any collateral as security over receivables.

#### **Impairment as at 30 June 2018**

	Gross Impairment		Gross Impairment	
	2018	2018	2017	2017
	\$'000	\$'000	\$'000	\$'000
Not Past Due	2,320	-	2,713	-
Past due 0-30 Days	4	-	17	-
Past due 31-90 days	-	-	-	-
Past due > 90 Days	-	-	-	-
	<u>2,324</u>	<u>-</u>	<u>2,730</u>	<u>-</u>

Receivables are not considered to be impaired at 30 June 2018 (nil at 30 June 2017)

#### **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 2018.

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



	Carrying Amount	Contractual Cash flows	Maturity Dates				
			< 6 mnths	6-12 mnths	>1yr <2 yrs	2-5 yrs	>5 yrs
30-Jun-2018	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Non-derivative Financial liabilities							
Trade and Other Payables	9,798	(9,798)	(9,798)	-	-	-	-
Borrowings -Fixed Interest Rate	27,714	(32,861)	(625)	(6,747)	(2,901)	(8,806)	(13,781)
30-Jun-2017							
Non-derivative Financial liabilities							
Trade and Other Payables	12,835	(12,835)	(12,835)	-	-	-	-
Borrowings -Fixed Interest Rate	15,894	(17,817)	(452)	(2,275)	(6,917)	(8,172)	-

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 TCorp Hour-Glass 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	2018 \$'000	2017 \$'000
Financial Assets	-	-
Financial Liabilities	27,714	15,894
Variable Rate Instruments		
Financial Assets	26,776	14,099

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%	
		Profit	Equity	Profit	Equity
2018	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Financial assets</b>					
Cash and cash equivalents	5,689	(57)	(57)	57	57
Receivables	2,324	-	-	-	-
Other Financial Assets	55,000	(550)	(550)	550	550
<b>Financial liabilities</b>					
Payables	26,782	-	-	-	-

	Carrying Amount	Interest Rate Risk			
		-1%		+1%	
		Profit	Equity	Profit	Equity
2017	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Financial assets</b>					
Cash and cash equivalents	4,378	(44)	(44)	44	44
Receivables	2,730	-	-	-	-
Other Financial Assets	68,502	(685)	(685)	685	685
<b>Financial liabilities</b>					
Payables	29,626	-	-	-	-

In the above table the Cash and cash equivalents excludes funds held in TCorp Hour-Glass 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.

#### **i. Other Price Risk – TCorp Hour-Glass Facilities**

Exposure to 'other price risk' also arises through the investment in the TCorp Hour-Glass Investment Facilities, which are held for strategic rather than trading purposes. Taronga holds units in the following Hour-Glass investment trusts:

Facility	Investment Sectors	Investment Horizon	Carrying Amount	
			2018 \$'000	2017 \$'000
Hour-Glass Investment – Cash Facility	Cash and money market instruments	Up to 1.5 years	21,087	9,721

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.

NSW 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 Hour-Glass facilities. A significant portion of the administration of the facilities is outsourced to an external custodian.

Investment in the Hour-Glass 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.

NSW 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 TCorp Hour-Glass Investment 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 Hour-Glass statement).

	Change in unit price	Impact on profit/loss	
		\$'000 2018	\$'000 2017
Hour-Glass Investment – Cash facility	+/-1%	211	97

### **Fair Value Measurement**

#### **Fair Value Compared to Carrying Amount**

Financial instruments are generally recognised at amortised cost, with the exception of the TCorp Hour-Glass facilities, which are measured at fair value. The value of the TCorp Hour-Glass investments is based on Taronga's share of the value of the underlying assets of the facility, based on market value. All of the TCorp Hour-Glass 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	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
<b>Financial Assets</b>				
Cash and Cash Equivalents	26,776	14,099	26,776	14,099
Receivables	2,324	2,730	2,324	2,730
Other Financial Assets	55,000	68,502	55,000	68,502
	84,100	85,331	84,100	85,331
<b>Financial Liabilities</b>				
Payables	26,781	29,626	26,781	29,626
Borrowings	27,714	15,894	28,494	16,821
	54,495	45,520	55,275	46,448



**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.

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

**19. 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 \$13,878,000 (\$12,165,000 in 2016/2017) have been included in Accumulated Funds as at 30 June 2018. The unexpended restricted funds are held separately from Taronga's unrestricted funds.

	<b>Unexpended Amount</b>	
	<b>2018</b>	<b>2017</b>
<b>Taronga Foundation Program</b>	<b>\$'000</b>	<b>\$'000</b>
Capital Redevelopment Fundraising	11,833	10,669
Taronga Foundation Recurrent Projects	2,045	1,496
<b>Total</b>	<b>13,878</b>	<b>12,165</b>

**20. Remuneration of Auditors**

The Audit Office fees for auditing Taronga's financial statements were \$102,900 (\$100,400 in 2016/2017). The auditors received no other benefits.

**21. 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  
 Ms Narelle Beattie – Director  
 Mr Simon Duffy – Director  
 Mr Matthew Fuller – Director (to 14 Jul 2017)  
 Mr Steven Hinks – Director (from 9 Oct 2017)  
 Ms Elizabeth Hodgson – Director

Mr Paul Maguire – Director  
Ms Bettina Sammut – Director

	2018	2017
<b>Key Management Personnel Compensation</b>	<b>\$'000</b>	<b>\$'000</b>
Short-term employee benefits	1,657	1,668
Other long-term employee benefits	73	81
<b>Total</b>	<b>1,730</b>	<b>1,749</b>

The above compensation forms part of the personnel services provided by OEH – refer note 7(a).

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

#### **(b) Members of the Board**

Mr Steven Crane – Chair  
Mr Roy Bendall  
Ms Penelope Bingham-Hall  
Ms Jennifer Cowley  
Ms Nancy Fox  
Ms Robyn Parker  
Mr Ian Roth  
Mr Graham Wackett  
Mr John Walkom

Board remuneration (including superannuation and payroll tax) of \$175,642 (\$198,424 in 2016/2017) was paid. This amount included Honoraria of \$38,367 (\$33,228 in 2016/2017) paid to the Chair of the Board and \$137,274 (\$138,541 in 2016/2017) paid to the other members of the Board. The rates of remuneration were fixed and approved by the Department of Premier and Cabinet.

	2018	2017
\$10,000 - \$19,999	8	8
\$20,000 - \$29,999	-	1
\$30,000 - \$39,999	1	1
<b>Board Members</b>	<b>9</b>	<b>10</b>

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 7a), financing arrangements with T-Corp (Note 7c), financial audit services from The Audit Office of NSW (Note 20), funding from NSW Family and Community Services for special indigenous programs, providing expertise to Lord Howe Island Board for its rodent eradication program and delivering accredited courses to students funded by NSW Department of Education and Communities.

## 22. 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:

	2018 \$'000	2017 \$'000
Cash at bank and on hand	5,689	4,378
TCorp Hour-Glass cash facility	21,087	9,721
Total	26,776	14,099

Short-term deposits are considered as cash and cash equivalents if they are due to mature in less than 90 days from the date of acquisition.

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

	2018 \$'000	2017 \$'000
Net Result	18,502	18,896
Depreciation and Amortisation	23,964	21,152
(Gain)/Loss on Sale of Assets	-	(21)
Amounts capitalised in prior years transferred to profit and loss	2,785	1,896
<b>Change in Assets and Liabilities:</b>		
(Increase)/Decrease in GST Receivable	267	(265)
(Increase)/Decrease in Accounts Receivable	538	(624)
(Increase)/Decrease in Inventories	19	(45)
Increase/(Decrease) in Creditors and Accruals	(92)	403
(Increase)/Decrease in Prepayments	(170)	127
Increase/(Decrease) in Unearned Income	564	1,104
Increase/(Decrease) in Employee Entitlements	650	65
Increase/(Decrease) in Unfunded Superannuation	(457)	(2,266)
Movement in Unamortised (Premium)/Discount on Loans	(180)	(57)
Net Cash Provided From Operating Activities	46,390	40,365

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 2018.



## 23. Reserves and Retained Surplus

	Accumulated Funds		Asset Revaluation Reserve		Total Equity	
	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000	2018 \$'000	2017 \$'000
Balance at the beginning of the financial year	221,906	203,011	281,258	249,143	503,164	452,154
Net Result	18,502	18,896	-	-	18,502	18,896
Net increase in asset revaluation reserve for:						
• land and buildings	-	-	-	27,687	-	27,687
• infrastructure	-	-	-	4,428	-	4,428
Total	18,502	18,896		32,115	18,502	51,011
Balance at the end of the financial year	240,409	221,906	281,258	281,258	521,667	503,164

### 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 12(e).

#### ii. Accumulated Funds

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

## 24. 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:

	2018 \$'000	2017 \$'000
Not later than one year	51,443	25,390
Later than one year and not later than five years	290	13,276
Later than five years	-	-
Total including GST	51,733	38,666

### b) Operating Lease Commitments

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

	2018 \$'000	2017 \$'000
Not later than one year	126	157
Later than one year and not later than five years	19	45
Later than five years	-	-
Total including GST	145	202

The major operating leases relate to warehouse, computer equipments and motor vehicles.

GST Input Tax Credit Claimable on Commitments Amounts to \$4,716,150 (\$3,533,466 in 2016/2017).

## **25. Contingent Assets and Liabilities**

Taronga is not aware of any contingent assets or liabilities at 30 June 2018 (nil in 2016/2017).

## **26. Subsequent Events**

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

## **End of Audited Financial Statements**



YELLOW-SPOTTED BELL FROG By Amy Russell  YASS, AUSTRALIA 34°49'34.2"S 148°54'57.3"E



TARONGA

# APPENDICES

TASMANIA, AUSTRALIA 41.4545° S, 145.9707° E



TASMANIAN DEVIL By Chris Wheeler



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## 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](http://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 20  
Mosman NSW 2088  
T: 02 9978 4709  
F: 02 9969 7515**

In the 2017-2018 year, Taronga received two informal complaints with respect to the disclosure of personal information. The complaints were resolved to the satisfaction of the complainants.



## 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	C Magner/L Elliot*	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		N Boyle*	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		V Wilson	ASMP
Blue-tailed Skink	X		M McFadden*	PA
Bongo	X	X	P Benoit*	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	S Eyre	ASMP
Chimpanzee	X		B Pohl	ASMP
Cook Strait Tuatara	X		S Eyre	ASMP
Cotton-Top Tamarin	X		A Embury	ASMP
Eastern Whipbird	X		M Tantini*	ASMP
Eland		X	C Ford*	ASMP
Fijian Crested Iguana	X		P Harlow*	ASMP
Fishing Cat	X		T Rus	EEP
Francois' Leaf-monkey	X		A Hope	EEP
Ghost Bat	X		J Hollamby	ASMP
Giraffe	X	X	L Jolly	ASMP
Goodfellow's Tree-kangaroo	X		M Richardson	GSMP / ASMP
Greater Bilby	X		J Buchecker	OEH / ASMP
Greater One-horned Rhinoceros		X	N Boyle*	EEP
Helmeted Honeyeater	X		K Cartwright	ASMP
Hippopotamus		X	Y Pauligk	ASMP
Lister's Gecko	X		M McFadden*	PA
Meerkat	X	X	S Eyre	ASMP
Noisy Pitta	X		E Schmelitschek*	ASMP
Northern Corroboree Frog	X		M McFadden*	OEH / ASMP
Plains Zebra	X	X	L Jolly	ASMP
Plains-wanderer	X		M Sheils*	OEH
Przewalski's Horse		X	F Cameron*	ASMP
Pygmy Hippopotamus	X		R Moss*	ASMP
Quokka	X	X	B Turner	ASMP
Red Panda	X		J Biggs	ASMP

Species	Held at TZ	Held at TWPZ	Coordinator	Program
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 Oryx		X	D Burgoyne	ASMP
Siamang		X	L Laurenson	ASMP
Small-clawed Otter	X	X	L Booth	ASMP
Southern Black Rhinoceros		X	N Boyle*	IRF
Southern Cassowary	X		Vacant	ASMP
Southern Corroboree Frog	X		M McFadden*	OEH / ASMP
Southern Hairy-nosed Wombat	X		G Skipper	ASMP
Squirrel Monkey	X		L Grossfeldt	ASMP
Sumatran Orang-utan	X		A Embury	ASMP
Sumatran Tiger	X	X	J Biggs	GSMP / ASMP
Tasmanian Devil	X	X	J Biggs	ASMP
Waterbuck		X	L van der Sande	ASMP
Western Lowland Gorilla	X		E Walraven*	ASMP
White Rhinoceros		X	N Boyle*	ASMP
White-browed Woodswallow	X		V Wilson	ASMP
White-cheeked Gibbon	X		H Thompson	ASMP
Yellow-spotted Bell Frog	X		M McFadden*	OEH

\*Staff member

#### Programs:

ASMP – Australasian Species Management Program

EEP – European Endangered Species Program

SSP – Species Survival Plan

GSMP – Global Species Management Plan

OEH – NSW Office of Environment and Heritage

IRF – International Rhino Foundation

PA – Parks Australia

## 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
1.0.0	Noisy Pitta	Featherdale Wildlife Park
1.1.0	Regent Honeyeater	Featherdale Wildlife Park
1.1.0	Rose-crowned Fruit-dove	Darling Downs Zoo
1.0.0	White-browed Woodswallow	Darling Downs Zoo
0.1.0	Rose-crowned Fruit-dove	Halls Gap Zoo
0.1.0	Southern Hairy-nosed Wombat	Adelaide Zoo
0.1.0	Noisy Pitta	Ballarat Wildlife Park
0.1.0	Regent Honeyeater	Adelaide Zoo
0.1.0	Regent Honeyeater	Melbourne Zoo
1.2.0	Rose-crowned Fruit-dove	Caversham Wildlife Park
2.0.0	Plains Zebra	TWPZ
1.0.0	Plains-wanderer	Werribee Open Plains Zoo
1.1.0	Tasmanian Devil	San Diego Zoo
0.1.0	Yellow-bellied Glider	Wildlife Sydney Zoo
1.0.0	Tasmanian Devil	TWPZ

Gender Convention	Species Type	Name of Place Transferred to
1.0.0	Regent Bowerbird	Darling Downs Zoo
1.0.0	Asian Elephant	TWPZ
0.2.0	Chimpanzee	Monarto Zoo
1.0.0	Eastern Whipbird	Hunter Valley Zoo
1.1.0	Greater Bilby	TWPZ
1.2.0	Sumatran Tiger	Taronga
0.1.0	Cheetah	Darling Downs Zoo
1.0.0	Giraffe	Darling Downs Zoo
1.0.0	African Lion	Mogo
1.0.0	Quokka	Taronga
1.0.0	Tasmanian Devil	Taronga
0.1.0	Eland	National Zoo & Aquarium
1.1.0	Tasmanian Devil	Melbourne Zoo
0.3.0	Addax	Orana Wildlife Park
0.2.0	Addax	Darling Downs Zoo
2.0.0	Ring-tailed Lemur	Currumbin Sanctuary
1.0.0	Cheetah	Monarto Zoo
0.1.0	Plains Zebra	National Zoo & Aquarium
0.8.0	African Wild Dog	Orana Wildlife Park
0.0.114	Northern Corroboree Frog	Released to wild
0.0.200	Yellow-spotted Bell Frog	Released to wild
0.0.505 (eggs)	Southern Corroboree Frog	Released to wild

#### *Animals transferred to Taronga Conservation Society Australia*

Gender convention	Species type	Name of place transferred From
1.1.0	Plains-wanderer	Acquired from the wild
2.2.0	Plains-wanderer	Acquired from the wild
1.2.0	Sumatran Tiger	TWPZ
5.0.0	White-browed Woodswallow	Healesville Sanctuary
0.1.0	Regent Honeyeater	Featherdale Wildlife Park
2.0.0	White-browed Woodswallow	Symbio Wildlife Park
0.1.0	Rose-crowned Fruit-dove	Featherdale Wildlife Park
0.1.0	Tasmanian Devil	Monarto Zoo
1.0.0	Quokka	TWPZ
1.0.0	Tasmanian Devil	TWPZ
1.0.0	Yellow-bellied Glider	Wildlife Sydney Zoo
0.1.0	Australian Little Penguin	Rehabilitation from the wild
0.2.0	Brush-tailed Bettong	Monarto Zoo
0.1.0	Royal Spoonbill	Healesville Sanctuary
1.1.0	Brolga	Tidbinbilla Nature Reserve
1.1.0	Black-winged Stilt	Darling Downs Zoo
1.1.0	Greater Bilby	Darling Downs Zoo
1.0.0	Brush-tailed Rock-wallaby	Calmsley Hill City Farm
1.0.0	Rose-crowned Fruit-dove	Rehabilitation from the wild
0.1.0	Cheetah	Darling Downs Zoo
1.0.0	White Rhinoceros	Australia Zoo
2.0.0	Plains Zebra	Taronga
1.0.0	Tasmanian Devil	Taronga
1.0.0	Tasmanian Devil	Devils@Cradle
1.0.0	Asian Elephant	Taronga
0.2.0	African Lion	San Diego Wildlife Park



## APPENDIX 5

### Research Projects and Conservation Programs

AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
4d/12/12 & 3b/12/15	Creating virtual elephant herds	Dr K Smith <b>Dr J Day</b> Mr R Brogran Dr R Spindler	Macquarie University, Perth Zoo	Macquarie University
	Evaluating the impact of Chimpanzee introductions	<b>Dr A Burns</b> Dr J Meade	University of Western Sydney	
3a/04/16	Numeracy in amphibians: do frogs go for more?	<b>Dr A Burns</b> Dr J Meade	University of Western Sydney	
3d/12/15	Short beaked-echidna cognition	<b>Dr A Burns</b> Dr J Meade	University of Western Sydney	
	Effect of changes to nutrition balance on glider behaviour	<b>M Shaw</b> <b>Dr A Burns</b> Dr C Kemp		
	Effect of visitor numbers of animal deaths and injuries	<b>Dr A Burns</b> Assoc Prof W Shaw	University of New South Wales	ARC Linkage
3b/02/17	Human-animal relationships in zoos: Optimising animal and visitor experiences	Dr C Kemp <b>Dr A Burns</b> Dr J Meade Dr V Melfi Assoc Prof W Shaw Prof Grahame Coleman Prof Paul Hemsworth Dr Mike Magrath Dr Sally Shewen	University of Melbourne, Zoos Victoria, Deakin University, University of Sydney, University of New South Wales, University of Western Sydney	ARC Linkage
	Assessment of potentially aversive behaviour by visitors towards animals at the zoo	Dr C Kemp <b>Dr A Burns</b> Dr J Meade Dr V Melfi Assoc Prof W Shaw	University of New South Wales, University of Sydney, University of Western Sydney	ARC Linkage
3b/02/17	Elephant sleep behaviour	Dr C Kemp Dr V Melfi Assoc Prof W Shaw	University of New South Wales, University of Sydney	ARC Linkage
	Affecting change: The effect of a human-animal interaction on donation giving	Dr C Kemp Dr Vicky Melfi Assoc Prof W Shaw	University of New South Wales, University of Sydney	ARC Linkage
	Making a splash: the effectiveness of a seal show to educate zoo visitors	Dr C Kemp <b>Dr A Burns</b> Dr V Melfi Assoc Prof W Shaw	University of New South Wales, University of Sydney	ARC Linkage
	The effect of HAIs at the zoo on visitor attitudes and behaviour	Dr C Kemp <b>Dr A Burns</b> Dr V Melfi Assoc Prof W Shaw Prof G Coleman	University of New South Wales, University of Sydney, University of Melbourne	ARC Linkage
	Behaviour and welfare of little penguins	<b>Dr A Burns</b> Dr V Melfi	University of Sydney	ARC Linkage
4a/08/17	Assessing the ecological role of brush turkeys in urban Sydney	<b>Dr A Burns</b> Dr J Martin Dr D Hochuli	University of Sydney, Royal Botanic Gardens	
	Flight initiation distance and urbanisation in birds	<b>Dr B Pitcher</b> Prof R Harcourt Prof D Blumstein	Macquarie University, University of California Los Angeles	
	Multimodal communication in marine mammals	<b>Dr B Pitcher</b> Prof R Harcourt Dr I Charrier	Macquarie University, CNRS France	

**Bolded names** indicate a Taronga staff member

AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
	Wild shark migration, movements and social networks	<b>Dr J Day</b> A/Prof C Brown Dr N Knott Dr T Guttridge	Macquarie University, NSW Fisheries, Sonotronics, Bimini Biological Field Station	SeaWorld Research & Rescue Foundation, ARC Linkage
3a/06/15	Social preferences, activity patterns and learning in Port Jackson Sharks	<b>Dr J Day</b> A/Prof C Brown Ms J Kadar	Macquarie University	Woolworths, Taronga, Macquarie University
	Resolving the warming East Australian Current's impact on a marine food web	<b>Dr D Slip</b> Prof R Harcourt Dr I Jonsen Dr I Suthers A/Prof M Roughan A/Prof M Doblin Dr M Cox	Macquarie University, University of New South Wales, University of Technology Sydney, Australian Antarctic Division	ARC Linkage
4a/12/14	Bio-inspired camouflage to prevent shark attacks on surfers	<b>Dr D Slip</b> 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	NSW Shark Management Competitive Annual Grants Program
3b/08/16	Social foraging olfaction in marine predators	<b>Dr B Pitcher</b> <b>Dr D Slip</b>	Macquarie University	
	Environmental predictive models for shark attacks in Australian waters : an analysis of the Australian Shark Attack File	<b>Dr D Slip</b> 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	
4a/04/14	Asian Elephant semen cryopreservation	<b>Dr R Hobbs</b> Mr C Negus Dr R Bathgate	University of Sydney, Melbourne Zoo, Perth Zoo	University of Sydney, Zoos Victoria and Perth Zoo
	Great Barrier Reef Recovery Initiative	<b>Dr J O'Brien</b> Dr M Hagedorn Dr A Heyward Dr D MacFarlane Dr M van Oppen Dr L Bay <b>Dr R Hobbs</b> Dr J Daly	Australian Institute of Marine Science, Smithsonian Institution, Monash University, James Cook University, Great Barrier Reef Foundation	Great Barrier Reef Foundation, Smithsonian Institution, Roddenberry Foundation, Albert George and Nancy Caroline Youngman Trust, managed by Equity Trustees.
	Developing a scent-based management tool for Dingoes and other wild dogs in Australia	<b>Dr N Jordan</b> A/Prof M Letnic Dr P Meek Mr B Walker	University of NSW, NSW Department of Primary Industries, Dingo Sanctuary	University of NSW Faculty Research Grant
4a0417	Better the devil you know? Tasmanian Devil Anal Gland Scent Secretion Analysis and Familiarization study	Dr E Reid-Wainscoat <b>Dr N Jordan</b>	University of NSW, University of California Los Angeles (UCLA), Save the Tasmanian Devil Program, San Diego Zoo	San Diego Zoo, UCLA
	Platypus stress: evaluation of the effects of river flow regimes on Platypus gluco-corticoids	Dr G Bino <b>Dr N Jordan</b> <b>Dr R Hobbs</b>	University of NSW	Taronga
3a/02/16	Tails of elephant stress – Using tail hair to measure long-term stress levels in wild and captive elephants	<b>Dr N Jordan</b> <b>Dr R Hobbs</b>	EcoExist Project Botswana	

AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
3a/08/16	Semen cryopreservation techniques in skinks	<b>Dr R Hobbs</b> Ms K James <b>Ms L Keogh</b> Dr M Whiting Mr J Baxter-Gilbert	Macquarie University	Taronga, Macquarie University
3d/08/16	Opportunistic collection of electro-ejaculated semen	<b>Dr R Hobbs</b> <b>Mr B Bryant</b>		
3a/08/16	Does mating system drive sperm morphology in a lizard complex?	<b>Dr R Hobbs</b> <b>Ms K James</b> <b>Ms L Keogh</b> Dr M Whiting Mr J Baxter-Gilbert	Macquarie University	Taronga, Royal Zoological Society of New South Wales
4b/06/17	Sanctuary fauna surveys	<b>Dr N Jordan</b> <b>Dr P Harlow</b> <b>Mr A Elphinstone</b> Dr J Lawes Prof R Kingsford Ms C Benbow	University of NSW	University of NSW
	Carnivore conflict and conservation	<b>Dr N Jordan</b> Dr J McNutt Dr K Golabek Mr C Radford Prof T Rogers	University of NSW, Botswana Predator Conservation Trust, WildSpy	Columbus Zoo, University of NSW, RTP
	African wild dog communication and cognition	<b>Dr N Jordan</b> Dr J McNutt Dr K Golabek L Ransome	Botswana Predator Conservation Trust, University of NSW, Griffith University	RTP
	I-Cow	<b>Dr N Jordan</b> Mr C Radford Dr J McNutt Dr K Golabek Prof T Rogers	Botswana Predator Conservation Trust, University of NSW	Philanthropic donations, BPCT, Taronga Conservation Grant
4c/12/13, 3a/10/16	Southern Corroboree Frog Captive Breeding and re-introduction	<b>Mr M McFadden</b> <b>Dr P Harlow</b>	NSW Dept of Environment and Heritage	The Wilson HTM Foundation Suez
3b/08/14, 3a/08/15, 3a/11/16	Artificial Reproductive Technology for captive breeding of frogs	Dr P Byrne <b>Dr P Harlow</b> <b>Mr M McFadden</b>	University of Wollongong, Australian National University	ARC Linkage
	Population Assessments and Conservation Genetics of Fijian Iguanas.	Dr R Fisher <b>Dr P Harlow</b>	United States Geographical Survey	International Iguana Foundation, Taronga Conservation Science Initiative
	Effect of dietary carotenoids on cutaneous bacterial in the Corroboree Frog	Dr P Byrne <b>Dr P Harlow</b>	University of Wollongong	ARC Linkage
	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 (2017)
4a/12/17	Experimental re-introduction of Yellow-spotted bell frog to the Southern Tablelands, NSW	<b>Mr M McFadden</b> Dr D Hunter	NSW Office of Environment and Heritage	
	Experimental re-introduction of Northern Corroboree Frogs to the Brindabella National Park, NSW	<b>Mr M McFadden</b> Dr D Hunter	NSW Office of Environment and Heritage	
	Experimental re-introduction of Southern Corroboree Frogs to the field enclosures	<b>Mr M McFadden</b> Dr D Hunter	NSW Office of Environment and Heritage	
	Nutritional Requirements of the critically endangered Corroboree Frog	Dr P Byrne Dr A Silla Prof S Robinson <b>Dr P Harlow</b>	University of Wollongong	
4b/02/18	Bandicoots in our Backyard	<b>Dr P Harlow</b> <b>Dr N Jordan</b> Dr J Laws	University of New South Wales	



AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
	Monitoring of the Jenolan Caves captive and remnant population of the Brush-tailed Rock-wallaby.	<b>Dr L Vogelnest</b>	Office of Environment and Heritage (NSW OEH)	
	Characterisation of renal disease in captive non-domestic felids in Australian zoos.	<b>Dr K Vinette Herrin</b>	University of Sydney	Jenna Donley Fund
	Development and understanding of the Interferon gamma release assay for the diagnosis of Tuberculosis in Elephants	<b>Dr L Vogelnest</b> <b>Mr P Thompson</b>	University of Sydney	
4b/04/17	Satellite tracking of marine turtles released from TWH	<b>Dr K Vinette Herrin</b> <b>Ms L Hall</b>		Taronga Foundation
	Prevalence of koala retrovirus including koRVB in Australian-based koalas	<b>Dr K Vinette Herrin</b> <b>Dr L Vogelnest</b> <b>Mr P Thompson</b>	University of Sydney	
4c/04/17	Use of pedigree to analyse the mode of transmission of koala retrovirus variants in Taronga Zoo koalas	<b>Dr K Vinette Herrin</b> Dr D Higgins <b>Mr P Thompson</b>	University of Sydney	
	Characterisation of milk and spur secretion of the Long-beaked Echidna	<b>Dr L Vogelnest</b>	University of Sydney, University of Queensland	
	Reproductive parameters of the Long-beaked Echidna	<b>Dr L Vogelnest</b> <b>Ms V Stebbings</b>	Veterinary Imaging Associates	
4b/04/18	Investigation of pharmacokinetics of Amoxicillin in Koalas	<b>Dr L Vogelnest</b>	University of Sydney	
	Early diagnosis and clinical management of chronic degenerative musculoskeletal disorders in zoo felids	<b>Dr L Vogelnest</b>	University of Sydney	
	Dining with dasyurids: Using nutritional geometry to improve diets for captive breeding program	<b>Ms M Shaw</b> <b>Dr S Wilder</b> <b>Dr D Raubenheimer</b> <b>Dr B McAllan</b>	University of Sydney	ARC Linkage
	Comparative digestive anatomy	<b>Ms M Shaw</b> <b>Dr L Tong</b>		
3e/06/16	Preventing health issues in captive bears using nutritional management	Dr F Cabana <b>Ms M Shaw</b>	Wildlife Reserves Singapore, Free the Bears, Taipei Zoo, Four Paws, Taman Safari Indonesia	
	Vitamin A & E status in Plains Wanderers	<b>Ms M Shaw</b> <b>Dr L Vogelnest</b> <b>Dr F Hulst</b> <b>Dr K Vinette-Herrin</b> <b>Dr G Tobias</b> <b>Dr L Tong</b> <b>Mr P Thompson</b>		
	Investigating Evolution and Function of Metabolic Control in Egg-laying Mammals	Dr Frank Grutzner <b>Ms M Shaw</b> <b>Dr L Tong</b> Dr B Forbes Dr P Sexton Dr C Deacon Dr W Warren	University of Adelaide, Flinders University, Monash University, Washington University	
	The quill that tipped the scale: a comparative study of echidna and pangolin nutrition	<b>Ms M Shaw</b> <b>Dr L Tong</b> <b>Dr P Meagher</b> <b>Dr G Tobias</b> Dr F Grutzner Ms T Perry Dr M Power Dr K Brandis Mr T Nguyen	University of Adelaide, Smithsonian Institute, University of New South Wales, Save Vietnam's Wildlife	Zoo & Wildlife Foundation Nutrition Research Grant

AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
	Investigation of the mechanism of dispersal of aerosolized droplet nuclei from Asian elephants ( <i>Elephas maximus</i> ) with specific reference to transmission of <i>Mycobacterium tuberculosis</i>	<b>Dr L Vogelnest</b> <b>Mr P Thompson</b>	Purdue University	
	Investigation of <i>E. Albertii</i> in collection birds	<b>Dr F Hulst</b> <b>Mr P Thompson</b>	Australian National University	
	The seal of approval: investigating the diets of managed otariids utilising the nutritional geometry framework	<b>Ms M Shaw</b> Ms A Jarman Mr D Raubenheimer	University of Sydney	
	Feeding and anticipatory behaviour in Red Pandas	<b>Ms M Shaw</b> <b>Dr B Pitcher</b> <b>Dr A Burns</b>	University of Sydney, Toulouse Vet School	
	Effect of diet change on behaviour in Sun Bears	<b>Ms M Shaw</b> <b>Dr B Pitcher</b> <b>Dr A Burns</b>	University of Sydney, Toulouse Vet School	
	Will transfaunation from an overweight Tree Kangaroo improve condition in an underweight individual?	<b>Ms M Shaw</b> <b>Mr S Bennett</b>		
	Global Challenge: The sustainability of zoo food	<b>Ms M Shaw</b> <b>Ms A Kehlhofer</b>	Monash University	
	Effect of carotenoid supplementation on Regent Honeyeaters for release	<b>Ms M Shaw</b> Mr R Matkovics Mr D Wilkin		
	Isotopic and elemental analysis of echidna quills to combat illegal wildlife trade	<b>Dr P Meagher</b> <b>Dr L Tong</b> <b>Ms M Shaw</b> Dr K Brandis Dr D Ramp Dr D Mazumder	University of New South Wales, ANSTO	Australian Geographic
	Gastrophysiology in the short-beaked echidna	<b>Ms M Shaw</b> <b>Dr L Tong</b> <b>Dr P Meagher</b> <b>Dr G Tobias</b> <b>Dr K Vinette Herrin</b> <b>Dr F Hulst</b> <b>Dr L Vogelnest</b> Dr M Power	Macquarie University	Australian Geographic
	Haematologic and biochemical parameters of the critically endangered Regent Honeyeater ( <i>Anthochaera phrygia</i> )	<b>Mr P Thompson</b> <b>Dr L Vogelnest</b> <b>Mr M Shields</b> <b>Dr P Meagher</b>		
	Proventriculopathy in little Penguins at Taronga Zoo	<b>Dr K Vinette Herrin</b> <b>Dr L Tong</b> <b>Dr G Tobias</b> <b>Dr L Vogelnest</b> <b>Dr F Hulst</b> Dr T Allcock		
	Degenerative spinal disease in collection snakes – risk factors and prevention	Mr S Mansour <b>Dr L Tong</b>	University of Sydney	
	Visceral lepidopterism in captive pinnipeds	<b>Dr L Tong</b> <b>Dr P Meagher</b>	Taronga	
	Protein for pinnipeds: Determining if pinnipeds regulate intake based on macronutrient levels in diet	<b>Ms M Shaw</b> Dr D Raubenheimer	University of Sydney	
3b/11/16	Zoo Management of Lord Howe Island Woodhen and Pied Currawong associated with the Lord Howe Island Rodent Eradication project	<b>Mr M Shields</b> <b>Dr F Hulst</b>	Taronga, Lord Howe Island Board, NSW Office of Environment and Heritage	

AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
	Diagnostic Placement in conjunction with the Wildlife Health and Conservation Masters Unit	<b>Drs K Rose</b> <b>Dr H Bender</b>	Murdoch University	Murdoch University
	Georges Turtles epidemiology and disease investigation	<b>Dr K Rose</b> <b>Ms J Hall</b>	NSW DPI	NSW OEH
	Georges Turtle (Bellinger River Snapping Turtle) virus: finding the source	Dr P Kirkland <b>Dr K Rose</b> <b>Ms J Hall</b>	NSW OEH, NSW DPI, NSW Health, Local Lands Services	NSW OEH
	Reintroduction of small mammals into Booderee National Park	Mr N Dexter <b>Dr K Rose</b> <b>Ms J Hall</b>	Booderee National Park (Parks Australia); Forestry Corporation of NSW; Australian National University)	Threatened Species Commissioner, Parks Australia
	Tick-borne Disease	Prof Eddie Holmes Dr John-Sebastian Eden <b>Dr K Rose</b> <b>Dr H Bender</b> <b>Ms J Hall</b>	University of Sydney, Medical School	
	Christmas Island Flying Fox Health, Ecology and Conservation	Prof J Welbergen Prof D Phalen <b>Dr K Rose</b> <b>Dr H Bender</b> <b>Ms J Hall</b> 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	Taronga, Christmas Island National Park (Parks Australia), Western Sydney University, Hawkesbury Institute for the Environment, various small grants
	Christmas Island Reptile Emergent Enterococcus	A/Prof D Phalen <b>Dr Karrie Rose</b> <b>Dr Hannah Bender</b> <b>Ms Jane Hall</b> Dr John-Sebastian Eden	University of Sydney, Parks Australia, Christmas Island National Park	Perpetual grant, Australia Pacific Science Fund, Holsworth Wildlife Research Endowment
	Pathogen Discovery in Confiscated Wildlife – targetting biosecurity and illegal wildlife trade	Prof Eddie Holmes, Dr John-Sebastian Eden <b>Dr K Rose</b> <b>Dr H Bender</b> <b>Ms Jane Hall</b>	University of Sydney Medical School	Centre for Pathogen Discovery – University of Sydney, ARC scholarship funding for PhD candidate
	Platypus population dynamics and a national risk assessment	<b>Dr R Spindler</b> <b>Dr N Jordan</b> <b>Dr K Rose</b> <b>Dr L Vogelnest</b> 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, OEH NSW, Qld Dept Environment and Heritage Protection, Forest Practices Authority, Dept Environment, Arthur Rylah Institute for Environmental Research, Cesar Pty Ltd	ARC Linkage



AEC no. if applicable	Project title	Researchers	Partner Institution	Source of funds
	Origins and potential impacts of a multisystemic bacterial infection emergent in Christmas Island geckos	<b>Dr K Rose</b> <b>Ms J Hall</b> <b>Dr H Bender</b>	University of Sydney, University of Queensland, Christmas Island National Parks, Parks Australia, National Environmental Sciences Program	Taronga (TCSI), Christmas Island National Park, National Environmental Science Program (Threatened Species Recovery Program), Perpetual Philanthropic Grant, Holsworth Wildlife Research Endowment, Australia Pacific Science Fund
	Developing non-lethal methods for investigating heavy metal analysis in the Grey-headed flying-fox	<b>Dr K Rose</b> <b>Ms J Hall</b> A/Prof D Phalen	University of Sydney, WIRES, ANSTO	Australasian Bat Society
3a/02/17	Norfolk Island Green Parrot Translocation Project	<b>Dr K Rose</b> <b>Ms J Hall</b> <b>Dr H Bender</b>	Parks Australia, Norfolk Island Green Parrot Advisory Panel	Director of National Parks
	Parasite diversity and disease risk in the Little Penguin	Prof M Power A/Prof R Gray <b>Dr K Rose</b> <b>Ms J Hall</b>	Macquarie University, University of Sydney	Sea World Grant
	Centre for Pathogen Discovery	Prof E Holmes Prof V Sintchenko Dr J-S Eden <b>Dr K Rose</b> <b>Ms J Hall</b> <b>Dr H Bender</b> Dr B Hudson	University of Sydney, The Marie Bashir Institute for Infectious Diseases and Biosecurity, NSW Health	Taronga ( TCSI), University of Sydney
	ADAPT NSW – Investigating links between wildlife disease and climate	<b>Dr H Bender</b> <b>Dr K Rose</b> <b>Ms J Hall</b> Ms V Graham	NSW OEH, Macquarie University, Bureau of Meteorology	ADAPT NSW (OEH/Macquarie University)
	Rainbow Lorikeet Paralysis Syndrome/Clench Claw Syndrome Investigation	A/Prof D Phalen <b>Dr K Rose</b> <b>Ms J Hall</b> <b>Dr H Bender</b>	University of Sydney, RSPCA QLD	National Significant Disease Investigation Scheme
	Morriset macropod mortality description	A/Prof D Phalen <b>Dr K Rose</b> <b>Ms J Hall</b> <b>Dr H Bender</b>	University of Sydney	NSW OEH

## APPENDIX 6

### Post Mortem and Clinical Samples Supplied for Research and Teaching Purposes

Receiving Organisation	Individual	Sample and Purpose
Australian Museum (Australian Centre for Wildlife Genomics)	G Frankham	Blood and ear biopsies: Bilby molecular genetics project
Australian Museum (Evolutionary Biology Unit)	R Johnson	Tissue samples from all species: preparing a genetic library
Australian Museum	A Summerell	Blood from Short-beaked Echidnas: Development of DNA markers for pedigree testing and application in wildlife trade
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 seroprevalence 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	J Talbot	Fungal cultures from animals with localised mycoses: Prevalence of <i>Aspergillus fumigatus</i> in Australia.
University of Sydney/Taronga	M Govendir	Blood from Australian mammals: Plasma protein binding capacity for cefovecin in marsupials
Australian National University	D Gordon	Faeces for surveillance of <i>E. Albertii</i> in avian species
Taronga Zoo	D Slip	Blood and feathers for Fiordland Crested penguin study
Taronga Zoo	P Meagher	Blood for genetic tracing of marine turtles presenting to TWH
University of Queensland	P Blackwell	Gingival swabs to describe the gingival flora of Australian mammals
University of Queensland	N Satake	Blood samples: ungulate proteomics biomarkers
Museums Victoria	S Balasubramaniam	Blood samples: plains-wanderer genotyping
Australian Museum (Australian Centre for Wildlife Genomics)	R Johnson	Muscle and skin samples: koala genotyping
University of Sydney	J Norris	Blood samples: felid viral testing

## 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 Lee Berger	Tropical Infectious Diseases, James Cook University	Amphibian Disease Research
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	Amphibian 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 Christina Dart	Faculty of Veterinary Science, University of Sydney	Veterinary Anaesthesiology
Dr Sarah Davies	Veterinary Imaging Associates	Diagnostic Imaging
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		Veterinary Dentist
Dr Paul Fowler		Obstetrics and Gynaecology
Professor Ian Fraser	University of Sydney	Obstetrics and Gynaecology
Mr Michael Fruin	Horseshoe Express	Farrier
Dr Frank Grutzner	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
Professor Mariella Herberstein	Department of Biological Sciences, Macquarie University	Behavioural Ecology
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, Sydney University	Pathogen genetics
Mr Gary Howling	NSW Office of Environment and Heritage	Great Eastern Ranges Initiative
Dr Bernard Hudson	Royal North Shore Hospital	Human 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



Consultant	Institution	Consultancy
Professor Emma Johnston	School of BEES, University of New South Wales	Marine Ecology
Dr Ian Jonsen	Department of Biological Sciences, Macquarie University	Marine 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		IT services
Dr John Martin	Royal Botanic Gardens Sydney	Wildlife Ecologist
Dr Debashish Mazumber	Australian Nuclear Science and Technology Organisation	Illegal Wildlife Trade
Dr Vicky Melfi	University of Sydney	Animal Welfare
Mr Larry Melican	Gosford City Council	Natural Resource Management
Dr Jennie Mohler	Livestock Veterinary Teaching & Research Unit, University of Sydney	Ungulate Medicine
Dr Robert Nicoll	Veterinary Imaging Associates	Diagnostic Imaging
Associate Professor Jacqueline Norris	Faculty of Veterinary Science, University of Sydney	Veterinary Microbiology
Associate Professor Christopher Peacock	School of Pathology and Laboratory Medicine, University of Western Australia	Pathology
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
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
Dr Wendy Shaw	School of BEES, University of New South Wales	Human Geography
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 K-lynn Smith	Department of Biological Sciences, Macquarie University	Behavioural biology
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
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	OEHS 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	NSW Police (Consultancy Rate)
Forensic Pathology Consultancy	Greyhound Racing New South Wales (Consultancy Rate)
Diagnostic Pathology Consultancy	Mogo Zoo
Clinical Veterinary and Veterinary Pathology Consultancies	NSW Office of Environment and Heritage (via MOU agreement)
Clinical Veterinary and Veterinary Pathology Consultancies	SEA LIFE Sydney Aquarium
Clinical Veterinary Consultancies	Animals All Around (Bullens)
"Veterinary Service in Australia" Student Workshops	Loop Abroad
Forensic Pathology Consultancy	Private label liquor (Consultancy rate)
Clinical Veterinary and Veterinary Pathology Consultancies	Australian Walkabout Wildlife Park
Clinical Veterinary and Veterinary Pathology Consultancies	Coffs Harbour Animal Rescue Trust
Endocrinology Service	Perth Zoo
Endocrinology Service	Zoos Victoria (Melbourne, Healesville, Werribee)
Endocrinology Service	Australia Zoo
Endocrinology Service	University of Melbourne
Assisted Reproductive Technology consultancies	Auckland Zoo
Nutrition Consultancy	Zoos Victoria (Melbourne, Healesville, Werribee)
Nutrition Consultancy	Perth Zoo
Nutrition Consultancy	Healesville Sanctuary
Nutrition Consultancy	Werribee Open Range Zoo
Nutrition Consultancy	Symbio Wildlife Park

## APPENDIX 9

### Lectures and Presentations

Staff member	Subject	Receiving body
Cameron Kerr	The Sustainability Tipping Point	Australian Institute for Company Directors
Cameron Kerr	Professional Success in the Zoo Industry	UNSW Graduate School Association
Cameron Kerr	Beyond Animal Welfare: Ethical Decision Making in a Modern Zoo	International Compassionate Conservation Conference
Cameron Kerr	The Modern Zoo: Leaders in Conservation	The Queens Club
Cameron Kerr	CMO to CEO: Route to the Top Job	Mumbrella 360 Conference
Simon Duffy	Taronga Institute of Science and Learning – Success is Collaboration	ZAA Conference
Simon Duffy	What we were, and what we have become – The evolution of Taronga	SMSA
Rebecca Hobbs	The Science of A.R.T.s	University of Sydney
Rebecca Hobbs	Cryopreservation and prioritization	University of NSW
Steve Hinks	Strategic Direction of Taronga Western Plains Zoo and Impact on the Local Economy	Dubbo Probus Group
Steve Hinks	Strategic Direction of Taronga Western Plains Zoo and Impact on the Local Economy	Wellington Probus Group
Steve Hinks	Strategic Direction of Taronga Western Plains Zoo and Impact on the Local Economy	Australians in Retirement Group Dubbo

Staff member	Subject	Receiving body
Steve Hinks	Strategic Direction of Taronga Western Plains Zoo and Impact on the Local Economy	Dubbo National Party Group
Steve Hinks	Strategic Direction of Taronga Western Plains Zoo and Impact on the Local Economy	Macquarie Library Public Presentation
Steve Hinks	Conservation at Taronga Western Plains Zoo – Financial Groundings as a Catalyst for Conservation	ZAA Conference
David Slip	Challenge of re-introductions for marine predators: using captive animals as a window into the wild	University of NSW
David Slip	The role of zoos in conservation	University of NSW University of Sydney
David Slip	Marine mammals, marine policy and conservation planning	Macquarie University
Jo Day	Port Jackson sharks: Migration, genetic population structure and captive management	University of NSW
Jo Day	Wildlife Corridors. Wildlife at Risk Day	Taronga Zoo
Ben Pitcher	Monitoring and Improving animal welfare	University of NSW
Ben Pitcher	Smelling the seascape: Olfactory foraging cues for marine predators	Macquarie University
Ben Pitcher	Observation in a zoo context.	Taronga Zoo
Justine O'Brien	The role of zoos in conservation.	University of NSW
Peter Harlow	Case studies in reintroduction	University of NSW
Jane Hall	Ultimo TAFE Graduation – Keynote Address	Ultimo TAFE
Jane Hall	Bellinger River Turtles, Wildlife at Risk Day	Taronga Zoo
Jane Hall	Registry Walkabout: A Review of Marine Species and Investigations	SeaWorld San Diego Veterinary and Research Group, California, USA
Jane Hall	Bellinger River Snapping Turtle Disease Investigation	Symbio Wildlife Park, Helensburgh NSW
Jane Hall	2016 Churchill Fellow Experience	The Winston Churchill Memorial Trust Roadshow of Information Sessions in New South Wales, Sydney
Monique Van Sluys	Wildlife Corridors. Wildlife at Risk Day	Taronga Zoo
Nick Boyle	Taronga's framework for displaying animals with dignity and respect	ZAA Conference
Nick Boyle	Animal welfare, conservation and the law	ZAA Animal Welfare Workshops
Nick Boyle	The role of modern zoos in Koala conservation	Caring for Koalas Conference
Claire Ford	Taronga's framework for displaying animals with dignity and respect	Zoos Victoria Future of Zoo Animal Welfare Workshop
Alicia Burns	Observation in a zoo context	Taronga Zoo
Alicia Burns	Behavioural biology and conservation	University of Sydney
Felicity Evans	Sun Bear Dental Procedure	Veterinary Nurses' Council of Australia, Annual Conference
Elizabeth Hall	Little Penguin treatment and rehabilitation at Taronga Wildlife Hospital	Project Penguin – High school mentors and primary students (x3)
Elizabeth Hall	Rescue Animals and Provide Basic Animal Care	TTI Certificate II Animal Care (x 3 classes)
Elizabeth Hall	Provide Basic First Aid for Animals	TTI Certificate II Animal Care (x 3 classes)
Elizabeth Hall	Little Penguin treatment and rehabilitation at Taronga Wildlife Hospital	OEH (NSW NPWS) Manly Little Penguin Colony fundraiser
Elizabeth Hall	Marine turtle rehabilitation and satellite tracking	Taronga Foundation Bequest presentation
Elizabeth Hall	Taronga Wildlife Hospital Marine Turtle Satellite tracking project	Taronga Board members and Suez representatives
Elizabeth Hall	Taronga Wildlife Hospital Wildlife Rehabilitation Program	TCSA Wildlife Committee members
Elizabeth Hall	Marine Debris – wildlife treated at Taronga Wildlife Hospital	Science Week – Foundation members and other guests



Staff member	Subject	Receiving body
Elizabeth Hall	Wildlife treated at Taronga Wildlife Hospital affected by marine debris	A Plastic Ocean screening – special guests Foundation
Elizabeth Hall	Identification of Seabirds	NPWS Tasmania Devonport and Tasmanian wildlife groups
Elizabeth Hall	Rescue and Transport of Seabirds	NPWS Tasmania Devonport and Tasmanian wildlife groups
Elizabeth Hall	Intensive Care Housing and Nutrition of Seabirds	NPWS Tasmania Devonport and Tasmanian wildlife groups
Elizabeth Hall	Seabird Restraint and Treatment Regimes	NPWS Tasmania Devonport and Tasmanian wildlife groups
Elizabeth Hall	Seabird Rehabilitation techniques and housing for rehabilitation	NPWS Tasmania Devonport and Tasmanian wildlife groups
Elizabeth Hall	Seabird release criteria	NPWS Tasmania Devonport and Tasmanian wildlife groups
Paul Thompson	Parasitism in Australian Wildlife and Zoo Collection animals	NSW Health Pathology Parasitology Masterclass
Lydia Tong	Visceral leishmaniasis in captive otariids due to migration of Caterpillar setae associated with systemic vasculopathy and death	AAZV and AZA NAG Joint Annual Conference
Lydia Tong	Gastritis in the short-beaked echidna ( <i>Tachyglossus aculeatus</i> ): parallels with ruminal acidosis in herbivores and implications for the understanding of echidna digestive physiology	AAZV and AZA NAG Joint Annual Conference
Kimberly Vinette Herrin	Life as a Zoo Veterinarian	Drummoyne Probus Club
Kimberly Vinette Herrin	Use of portable anaesthetic machine to anaesthetise native and introduced mammals in the field, to collect blood via venipuncture and collect skin biopsies	University of Sydney researchers
Larry Vogelnest	Zoo Animal health Career Opportunities	TTI students
Larry Vogelnest	Welfare and conservation at Taronga	RSPCA staff (x 2 lectures)
Larry Vogelnest	Capture and Restraint	TTI students
Phoebe Meagher	Oceans of Waste	Local and International Students
Phoebe Meagher	Small population Management	Macquarie University
Phoebe Meagher	Evolution of Australasian mammals	Macquarie University
Phoebe Meagher	Captive-bred or Wild-caught: Solving a critical issue in illegal wildlife trade	Australasian Wildlife Management Society Conference
Phoebe Meagher	A collaborative approach to wildlife health	University of New South Wales students
Michelle Shaw	Taronga Nutrition Research Update	AAZV and AZA NAG Joint Annual Conference
Michelle Shaw	Short-beaked echidna: Insectivorous Herbivore?	AAZV and AZA NAG Joint Annual Conference
Michelle Shaw	Wildlife Nutrition Research	ZAA Vet SAG
Michelle Shaw	Wildlife Nutrition Research	Symbio Wildlife Park, Helensburgh NSW
Michelle Shaw	Wildlife Nutrition	Perth Zoo
Michelle Shaw	Wildlife Nutrition	Healesville Sanctuary
Michelle Shaw	Wildlife Nutrition	Werribee Open Range Zoo
Michelle Shaw	Monitoring and assessing nutrition status, practical body condition scoring	Perth Zoo
Michelle Shaw	Monitoring and assessing nutrition status, practical body condition scoring	Healesville Sanctuary
Michelle Shaw	Monitoring and assessing nutrition status, practical body condition scoring	Werribee Open Range Zoo
Michelle Shaw	Wildlife Nutrition philosophy and practice	Save Vietnam's Wildlife, Endangered Primate Research Center, Four Paws, Turtle Conservation Center
Michelle Shaw	Taronga Zoo's Nutrition Research: Philosophy and Practice	Korean Association of Zoos and Aquariums (KAZA) Animal Nutrition Symposium in Seoul Zoo
Michelle Shaw	Assessing Zoo Diets	Korean Association of Zoos and Aquariums (KAZA) Animal Nutrition Symposium in Seoul Zoo
Michelle Shaw	Pangolin Nutrition Research	Taronga Foundation Bequest presentation
TWPZ Elephant team	The 1st Australasian Elephant Workshop April 9-12 2018	ZAA participating institutions at TWPZ

Staff member	Subject	Receiving body
Karen James	What's new in the Zoo – Taronga Western Plains Zoo Update	South Dubbo Rotary
Karen James / Louise Ginman	Walking with Meerkats	ASZK Annual Conference
Anne Karin Kehlhofer	Energy Management at Taronga	NSW Gov – Energy Management in the Tourism Sector
Anne Karin Kehlhofer	Sustainable Energy Strategies at Taronga	NSW Gov – Sustainability Advantage
Anne Karin Kehlhofer	Innovative Waste Strategy & Initiatives through a 'glocal' perspective	Waste Strategy Summit 2018
Carolene Magner	Training by Operant Conditioning	ASZK Annual Conference
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	Endotheliotropic elephant herpesvirus	Australasian Elephant Workshop
Benn Bryant	Tuberculosis in elephants	Australasian Elephant Workshop
Benn Bryant	The Sumatran Rhino Sanctuary	University of Sydney, students enrolled in Masters of Wildlife Health and Population Management
Michelle Campbell	Journeys of the Past, Present and Future of a Zoo Vet	Rotary Club, Dubbo South
Michelle Campbell	Zoo Animal Nutrition	University of Sydney, students enrolled in Masters of Wildlife Health and Population Management
Michelle Campbell	Elephant Geriatric Care	Australasian Elephant Workshop
Libby Hodgson	Marketing on the Move	Mumbrella Travel Marketing Summit
Bettina Sammut	Managing Worklife Balance	Women in Travel and Tourism
Janelle Blue	How a Digital Marketing Transformation is Saving Species from Extinction	MarketingTech Symposium 2017
Amy Russell	Communicating Conservation: Building Partnerships with Millennials	ZAA Conference

## APPENDIX 10

### Publications

#### Book Chapters

**McFadden, M.**, Monks, D., Doneley, B. and Johnson, R. (2018). Enclosure Design. In B. Doneley, D. Monks, R. Johnson, & B. Carmel (Eds.), *Reptile Medicine and Surgery in Clinical Practice* (pp. 61-74). Brisbane, Qld: Wiley Blackwell.

Harley, D., Mawson, P.R., Olds, L., **McFadden, M.**, and Hogg, C. (2018). The contribution of captive-breeding in zoos to the conservation of Australia's threatened fauna. In S. Garnett, P. Latch, D. Lindenmayer & J. Woinarski (Eds.), *Recovering Australia's Threatened Species: A Book of Hope* (pp. 281-294). Clayton, Vic: CSIRO Publishing.

**McFadden, M.S.**, Gilbert, D., Bradfield, K., Evans, M., Marantelli, G., and Byrne, P. (2018). The role of ex situ amphibian conservation in Australia. In H. Heatwole & J.J.L. Rowley (Eds.), *Status of Conservation and Decline of Amphibians: Australia, New Zealand and Pacific Islands* (pp. 125-140). Clayton, Vic: CSIRO Publishing.

Schmidt, D. and **Shaw, M.** (2018). Great Ape Nutrition In E. Miller, P. Calle, N. Lamberski (Eds), *Fowler's Zoo and Wild Animal Medicine Current Therapy, Volume 9* (pp. 588-595) Elsevier, St. Louis, MO.

Schmidt, D. and **Shaw M.** (2017). Orangutan Nutrition Chapter In *Orangutan (Pongo) Care Manual*. Silver Spring, MD: Association of Zoos and Aquariums.

Schmidt, D.A. and **Shaw, M.** (2017) Orang-utan Nutrition in China. In G.L. Banes, M. Fox, J. Li, B. Yali, B., eds. *Chinese-language Orang-utan Husbandry Manual*. Chinese Association of Zoological Gardens and Nanjing Hongshan Forest Zoo, Beijing and Nanjing, People's Republic of China.

**Campbell-Ward, M.L.** (2018) Macropod Paediatric Medicine. In: *Fowler's Zoo and Wild Animal Medicine, Current Therapy, Vol 9* (Eds. Miller R.E., Lamberski N., Calle P.) pp. 500-506.

#### Peer Reviewed Literature

**Hobbs, R.J.** & Hinds, L.A. (2018) Could current fertility control methods be effective for landscape-scale management of populations of wild horses (*Equus caballus*) in Australia? *Wildlife Research* 45, 195-207.

Hagedorn, M., Carter, V.L., Henley, E.M., van Oppen M.J.H., **Hobbs, R.J.**, Spindler, R.E. (2017) Producing Coral Offspring with Cryopreserved Sperm: A Tool for Coral Reef Restoration. *Scientific Reports* (7) 14432.

**Rose K.**, Agius J., **Hall J.**, Thompson P., Srivastava M., Tiernan B., Jenkins C., Phalen D. Emergent Multisystemic Enterococcus Infection Threatens Endangered Christmas Island Reptile Populations. *PloS one* 12.7 (2017).

Slapeta J, Saverimuttua S, Vogelnest L, Sangster C, Hulst F, **Rose, K.**, Thompson P, Whittington R. (2017) Deep-sequencing to resolve complex diversity of apicomplexan parasites in platypuses and echidnas: Proof of principle for wildlife disease investigation. *Infection, Genetics and Evolution* Volume 55, 218-227.

Ladds, M.A., Rosen, D.A., **Slip, D.J.**, and Harcourt, R.G. (2017) The utility of accelerometers to predict stroke rate in captive fur seals and sea lions. *Biology Open* 6: 1396-1400.

Ladds, M.A., Rosen, D.A.S., **Slip, D.J.**, and Harcourt, R.G. (2017) Proxies of energy expenditure for marine mammals: an experimental test of “the time trap”. *Scientific Reports* 7: 11815.

Grogan, L.F., S.D. Cashins, S.D. Skerratt, L.F. Berger, **M. McFadden, P.S. Harlow**, D.A. Hunter, B.C. Scheele and J. Mulvenna (2017) Evolution of resistance to chytridiomycosis is associated with a robust early immune response. *Molecular Ecology* vol 27 (4), 919-934.

Walker, R.H., King, A.J., McNutt, J.W., **Jordan, N.R.** (2017) Sneeze to leave: African wild dogs (*Lycaon pictus*) use variable quorum thresholds facilitated by sneezes in collective decisions. *Proceedings of the Royal Society B* 284 - 20170347.

**Jordan, N.R.**, Buse, C., Wilson, A.M., Golabek, K.A., Apps, P.J., Lowe, J.C., Van der Weyde, L.K. & McNutt, J.W. (2017). Dynamics of direct inter-pack encounters in endangered African wild dogs. *Behavioral Ecology and Sociobiology*, 71(8), 115.

Torrents Ticó, M., Rich, L., McNutt, J.W., Nnithomiwa, M., Mothala, M., Motsamai, G. & **Jordan, N.R.** (2017). On the right track? Comparing concurrent spoor and camera-traps surveys in Botswana. *African Journal of Wildlife Research* 47(2):128-137; DOI: <https://doi.org/10.3957/056.047.0128>

McNutt, J.W., Stein, A.B., Boggs-McNutt, L. & **Jordan, N.R.** Living on the edge: Characteristics of human-wildlife conflict in a traditional livestock community in Botswana. *Wildlife Research* 44(6-7):546-557. 2017.

Wierucka, K., **Pitcher, B.**, Harcourt R., Charrier I., (2017). The role of visual cues in mother–pup reunions in a colonially breeding mammal. *Biology Letters* 13: 20170444 (2017).

Grogan, L.F., Cashins, S.D., Skerratt, L.F., Berger, L., **McFadden, M.S., Harlow, P., Hunter, D.A.**, Scheele, B.C. and Mulvenna, J., 2018. Evolution of resistance to chytridiomycosis is associated with a robust early immune response. *Molecular ecology* 27(4):919-934. doi: 10.1111/mec.14493.

Andrew, P., Cogger, H., Driscoll, D., Flakus, S., **Harlow, P.**, Maple, D., Misso M., Pink C., Retallick K., **Rose, K.**, Tiernan B., West J., Woinarski, J. (2018). Somewhat saved: A captive breeding programme for two endemic Christmas Island lizard species, now extinct in the wild. *Oryx*, 52: 171-174.

**Burns, A.L.**, Schaerf, T.M, Ward., A.J.W (2018) Behavioural consistency and group conformity in humbug damselfish. *Behaviour*, 154: 1343-1359.

Hall, B., Melfi, V.A., **Burns, A.L.**, Doyle, R.E. (2018). Curious creatures: A multi-taxa investigation of individual responses to novelty in a zoo environment. *PeerJ*, 6: e4454.

Grogan, L.F., Mulvenna, J., Gummer, J.P.A., Scheele, B.C., Berger, L., Cashins, S.D., **McFadden, M.S., Harlow, P.**, Hunter, D.A., Trengove, R.D., and Skerratt, L.F. (2018). Survival, gene and metabolite responses of *Litoria verreauxii* alpine frogs to fungal disease chytridiomycosis. *Scientific Data*, 5:180033.

Martin, M.C., Batty, E.M., Hussin, J., Westall, P., Daish, T., Kolomyjec, S., Piazza, P., Bowden, R., **Hawkins, M.**, Grant, T., Moritz, C., Grutzner, F., Gongora, J., Donnelly, P. (2018). Insights into Platypus Population Structure and History from Whole-Genome Sequencing. *Molecular Biology and Evolution*, Volume 35, Issue 5, 1 May 2018, Pages 1238–1252, <https://doi.org/10.1093/molbev/msy041>.

Roberts, A., Berger, L., Robertson, S., Webb, R., Kosch, T., McFadden, M., Skerratt, L., Glass, B., Motti, C., and Brannelly, L. (2018). The efficacy and pharmacokinetics of terbinafine against the frog-killing fungus (*Batrachochytrium dendrobatidis*). *Medical Mycology*. doi: [10.1093/mmy/myy010](https://doi.org/10.1093/mmy/myy010).

Silla, A. J., **McFadden, M.** and Byrne, P. (2018). Hormone-induced spawning of the critically endangered northern corroboree frog *Pseudophryne pengilleyi*. *Reproduction, Fertility and Development*, DOI 10.1071/RD18011.

Walraven, E., Andrew, P., Boyle, N and Duffy, S (2018). Ethics, euthanasia and small-population management: development of transparent processes, good governance and a practical application. *International Zoo Yearbook* (2018) 52: 1-9.

Burke, S.M., **Vogelnest, L., Thompson, P.**, Tovey, E.R. and Williamson, P. (2017) Detection of aerosolized bacteria in expired air samples from Asian elephants (*Elephas maximus*) *Journal of Zoo and Wildlife Medicine* Volume 48, Number 2, pp 431-437.

Gharibi, S., Kimble, B., **Vogelnest, L.**, Barnes, J., Stadler, C.K. and Govendir, M. (2017) Pharmacokinetics of posaconazole in koalas (*Phascogaleos cinereus*) after intravenous and oral administration. *Veterinary Pharmacology and Therapeutics* Volume 40, pp 675-681.

**Tong, L.J.**, Ong, W., **Hulst F., Vinette Herrin K., Tobias G.**, and **Vogelnest L.** (IN PRESS) Clinical, Diagnostic, and Pathological Features of Two Cases of Metastatic Iridophoroma in a Veiled Chameleon (*Chamaeleo calyptratus*) and a Red-Barred Dragon (*Ctenophorus vahnappa*), *Journal of Exotic Pet Medicine*, accepted November 2017.

Talbot, J.J., **Thompson, P., Vogelnest, L.** and Barrs, V.R. (2017) Identification of pathogenic *Aspergillus* isolates from captive birds in Australia. *Medical Mycology*, <https://doi.org/10.1093/mmy/myx137>.

March, D.T., **Vinette Herrin, K.**, Peters, A., Ariel, E., Blyde, D., Hayward, D., Christidis, L and Kelaher, B.P. (2018) Hematologic and biochemical characteristics of stranded green turtles (*Chelonia mydas*) *Journal of Veterinary Diagnostic Investigation* Volume 30, Number 3, pp 423-429.

Bino, G., Kingsford, R.T., Grant, T., Taylor, M.D. and **Vogelnest, L.** (2018) Use of implanted acoustic tags to assess platypus movement behaviour across spatial and temporal scales. *Nature: Scientific Reports*, Volume 8, Article number 5117.

Stannard, H.J., Bekkers, J.M., Old, J., McAllan, B.M. and **Shaw, M.** 2017. Digestibility of a new diet for captive short-beaked echidnas (*Tachyglossus aculeatus*). *Zoo Biology* 36(1): 36-51.

Yuan L, Wilder S, Raubenheimer D, Simpson SJ, **Shaw M** and McAllan BM. (2018). Dietary protein supplementation and its consequences for intake, digestion and physical activity of a carnivorous marsupial, *Sminthopsis crassicaudata*. *Ecology and Evolution*. 8(7): 3636-3647.

Yam J., Gestier S., **Bryant, B., Campbell-Ward, M.** Bogema D., Jenkins, C. (2018) The identification of *Theileria bicornis* in captive rhinoceros in Australia. *International Journal for Parasitology: Parasites and Wildlife*. 7(1): 85-59.



### Conference and Workshop Proceedings

Eden, J-S., **Rose, K.**, Shi, M, Ng, J., Wang, Q., Sintchenko, V., Holmes, E., (July 2017) “The Meta-Transcriptome Discovery of Pathogens of Neglected and Undiagnosed Disease Syndromes of Native Australian Wildlife” International Union of Microbiological Societies, Singapore.

**Rose, K.** (July 2017) “Tularaemia in Australian Wildlife”, Wildlife Health Australia State Coordinator Face-to-Face Workshop, Institute of Marine Science, Sydney.

**Rose, K.** (August 2017) “Christmas Island Reptile and Flying fox Health”, Christmas Island National Parks and Parks Australia,

**Rose, K.** (September 2017) “Diagnostic Pathways to Investigate Mass Mortality Events and Neglected Diseases of Australian Wildlife”, Australian Society for Veterinary Pathology Annual Conference, Sydney.

**Bender, H.** (November 2017) “Wildlife Disease Surveillance”, NSW OEH/Macquarie University – AdaptNSW Annual Forum, Sydney.

**O’Brien, J. K.** (December 2017) Panel Member at the “NSW Australian Marine Sciences Association Event – All Things Marine”, University of NSW, Sydney.

**Rose K.A.** (January 2018) “The Evolution of Wildlife Disease Investigations in Australia”, Coffs Harbour Animal Rescue Trust. Coffs Harbour.

**J Day** (February 2018) “Differences in movement and migration patterns of Port Jackson sharks between breeding aggregations in New South Wales, Australia”, Oceania Chondrichthyan Society Conference, North Stradbroke Island, QLD.

Carroll, G., Harcourt, R., **Pitcher B.J.**, Slip, D., Jonsen, I. (February 2018) ‘Flexible foraging strategies by little penguins in response to a dynamic environment’ Pacific Seabird Group, La Paz Mexico.

**Pitcher, B.J.**, Carroll, G. (February 2018) ‘Olfactory foraging in a changing environment’ Pacific Seabird Group, La Paz Mexico.

**Rose, K.**, (April 2018) “Pathogen Discovery in Confiscated Wildlife”, Joint Operations Meeting of NSW DPI and Department of Agriculture and Water Resources,, Botany, NSW.

**McFadden, M.** (May 2018) “Creating Taronga’s Herpetological ARK: A Decade of Reptile and Amphibian Conservation Recovery and Research Programs”, Zoo and Aquarium Association Conference. Wellington, New Zealand.

**Rose, K.** (May 2018) “Secrets of Wildlife Sample Collection”, Wildlife Health Australia State Coordinator and Sentinel Clinic Face to Face Meeting,

**Tong, L.J., Hulst, F., Tobias, G., Vinette Herrin, K., Meagher, P. and Vogelnest, L.** (September, 2017) “Visceral lepidodermism in captive otariids due to migration of Caterpillar setae associated with systemic vasculopathy and death”. American Association of Zoo Veterinarians Annual Conference Proceedings.

**Tong, L.J., Shaw, M., Chong, D., Tobias, G., Hulst, F., Vinette Herrin, K. and Vogelnest, L.** (September, 2017) “Gastritis in the short-beaked echidna (*Tachyglossus aculeatus*): parallels with ruminal acidosis in herbivores and implications for the understanding of echidna digestive physiology.” AZA Nutritional Advisory Group Annual Conference Proceedings.

Brandis, K., **Meagher, P., Tong, L., Shaw, M.** and Mazumder, D. (December, 2017) “Solving a prickly issue in illegal wildlife trade: Can we use elemental signatures to discriminate wild and captive short-beaked echidnas (*Tachyglossus aculeatus*)? Australasian Wildlife Management Society Conference, Katoomba, NSW. Conference proceedings Pp. 103.

Lundbäck, I, Powers, M. and **Shaw, M.** (December, 2017) Too fat to glide: high protein diets to manage obesity in captive squirrel gliders (*Petaurus norfolcensis*). In Wildlife Disease Association Australasian Section Conference Proceedings.

**Shaw, M., Tong, L., Meagher, P.**, Brandis, K. and Mazumder, D. (September 2017) “Short-beaked echidna: Insectivorous herbivore?” AZA Nutritional Advisory Group Annual Conference Proceedings.

### Workshops convened

ADAPT Workshop (September 2017). Sydney.

Wildlife Pathology Workshop. Wildlife Disease Association Australasia Annual Conference (September 2017), Falls Creek, Victoria.

## APPENDIX 11

### Staff Representation on External Committees

Name	Committee
C. Kerr	Vice 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
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	Committee Member, American Elmsobran Society
P. Meagher	Member – Society for Conservation Biology, Surf Life Saving Australia Shark Mitigation Advisory Group
G. Tobias	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
L. Tong	Member, Zoo and Aquarium Association Vet Specialist Advisory Group
L. Tong	Secretary, 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 Advisory Group
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)
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. 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

Name	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	National Environmental Sciences Research Program/Threatened Species Research Hub – Christmas Island Committee
K. Rose	Christmas Island Reptile Advisory Panel – Parks Australia
K. Rose	Christmas Island Flying Fox Advisory Panel – Parks Australia
K. Rose	Wildlife Disease Association Int'l – Small Grants Committee
K. Rose	Wildlife Disease Association Int'l – Council Member – Member at Large
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	Wildlife Disease Association International Student Awards Committee, Committee member
S. Duffy	ZAA Australasian Species Management Program Committee
S. Duffy	NSW OEH Science Cluster Committee
S. Duffy	Chair, Jane Goodall Institute Australia Board
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	Member 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
G. Fry	Chair, Jaliigirr Biodiversity Alliance Inc
N. Boyle	Committee Member ZAA Animal Management Committee (formerly ASMP)
N. Boyle	Advisory Board Member Conservation Centres for Species Survival
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	President, Australian Society of Zoo Keepers (ASZK) Committee
C. Dryburgh	Vice President, Australian Society of Zoo Keepers (ASZK) Committee
S. Dalleywater	Secretary, 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 planning for the field capture and translocation of Sumatran Rhino in Kalimantan
B. Bryant	Veterinary Co-advisor AZA RhinocerosTAG Rhino Research Council
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	Aboriginal Workforce Development Community



## APPENDIX 12

### Staff Participation in International Programs

Staff Member name –	Destination	Date of travel
Cameron Kerr	Sydney – Jakarta – Lampung – Jakarta– Sydney	19/07/17 - 29/07/17
Stephanie Hedt	Sydney – Jakarta – Lampung – Jakarta– Sydney	17/07/17 - 29/07/17
Stephanie Hart	Sydney – Jakarta – Lampung – Jakarta– Sydney	23/07/17 - 29-07/17
Lauren Cole*	Sydney – Los Angeles – San Diego – Los Angeles – Sydney	29/07/17 - 05/08/17
Kirsty Hargraves**	Sydney – Toronto – Sydney	22/07/17 - 04/08/17
Michelle Shaw*	Sydney – Seoul – Sydney	10/07/17 - 15/07/17
Karrie Rose*	Sydney – Perth – Christmas Island – Perth – Sydney	28/08/17 - 14/09/17
Lydia Tong	Sydney – Dallas – Sydney	23/09/17 - 30/09/17
Edward Kettle	Sydney – Jakarta – Lampung – Jakarta– Sydney	22/10/17 - 10/11/17
Cameron Kerr	Sydney – Dallas – Washington-Jacksonville – Los Angeles – Sydney	7/10/2017 - 13/11/2017
Amy Hackett	Sydney – Beijing – Shanghai – Taipei – Sydney	26/10/17 - 08/11/17
Monika Townsend	Sydney – Los Angeles – Seattle – San Jose – Los Angeles – New York – Philadelphia – Boston – Dallas – Sydney	31/10/17 - 12/11/17
Benn Bryant*	Dubbo – Sydney – Singapore – Soekarno Hatta – Bandar Lampung – Soekarno Hatta – Singapore – Sydney – Dubbo	14/11/17 - 22/11/17
Stephanie Hedt	Sydney – New Delhi – Jaipur – Guwhati – Kaziranga National Park – Guwhati – Sydney	16/11/17 - 28/11/17
Benn Bryant*	Sydney – Kutai Barat, East Kalimantan – Sydney	04/02/18 - 12/02/18
Leanne Elliot*	Sydney – San Diego – Texas – Austin – Sydney	01/04/18 - 23/05/18
Elizabeth Arthur*	Sydney – Hanoi – Con Cuong – Pu Mat National Park – Cuc Phuong – Hanoi – Sydney	22/01/18 - 10/02/18
Courtney Mahoney (Ross)*	Sydney – Cape Town – Sydney	03/02/18 - 25/02/18
Larry Vogelnest	Sydney – Jakarta – Bandar Lampung – Jakarta – Sydney	03/04/18 - 13/04/18
Nick Boyle	Sydney – Jakarta – Bandar Lampung – Jakarta – Sydney	03/04/18 - 13/04/18
Simon Duffy	Sydney – Wellington – Sydney	20/05/18 - 24/05/18
Steve Hinks	Dubbo – Sydney – Wellington – Sydney – Dubbo	20/05/18 - 25/05/18
Paul Maguire	Sydney – Wellington – Sydney	21/05/18 - 24/05/18
Nick Boyle	Sydney – Wellington – Sydney	21/05/18 - 27/05/18
Amy Russell	Sydney – Wellington – Sydney	21/05/18 - 24/05/18
Monika Townsend	Sydney – Munich – Frankfurt – Manchester – Glasgow – London – Paris – Sydney	05/05/18 - 18/05/18
Darcie Carruthers**	Sydney – Dubai – Entebbe – Kibale National Park – Entebbe – Sydney	12/05/18 - 26/05/18
Ben Murphy**	Sydney – Dubai – Entebbe – Kibale National Park – Entebbe – Sydney	12/05/18 - 26/05/18
Kerry Staker	Sydney – Wellington – Sydney	24/05/18 - 27/05/18
Michelle Shaw**	Sydney – Hanoi – Nin Binh – Hanoi – Sydney	30/06/18 - 15/07/18

\*costs fully funded by external party (incl Fellowship)

\*\*costs partly funded by external party

Reason for Travel	Comments
To lead the Taronga 'CEO Challenge'	Costs covered by foundation cost centre
To lead the Taronga 'CEO Challenge'	Costs covered by foundation cost centre
Accompany the Taronga 'CEO Challenge'	Costs covered by Taronga Foundation Legacy Species
Attend San Diego Global's teacher's development programme	Costs covered by Taronga Zoo Friends Fellowship Grant
Attend world Indigenous Peoples Conference on Education	Costs partially covered by FACS
Nutrition Symposium at Seoul Zoo	Costs covered by Seoul Zoo
Christmas Island Field Work	Costs covered by Western Sydney University Grant
Present papers at American Association of Zoo Veterinarians	Trip expenses were covered by the internal 2017/18 Taronga Wildlife Hospital allocation for overseas travel
Lead essential electrical fencing works at the Sumatran Rhino Sanctuary	The maximum cost that will be incurred by Taronga for this travel is \$1,800. All other associated expenses will be covered by the employee
Attend the International Rhino Foundation AGM & Other meetings with Australian Embassy and American Zoo Association	Funded through the Taronga Executive Travel budget
Attend DNSW China Roadshow	Funded by Taronga tourism and group sales budget
Destination NSW USA Roadshow 2017	Expenses covered by approved Taronga tourism and group sales budget
Anaesthetise two critically endangered Sumatran Rhino for semen collection and gene banking	Trip expenses are to be covered by the International Rhinoceros Foundation (IRF)
Reccie trip for Taronga CEO Challenge 2018	Expenses will be covered by the Taronga executive travel budget
To consult on transfer of Sumatran Rhino	WWF covered all costs of travel
To work with teams at San Diego Safari Park and Fossil Rim Wildlife Centre	All costs covered by Mr Len Bleasel AM Scholarship
To work with Fauna and Flora International to train staff and treatment of animals	Costs covered by Taronga Zoo Friends Fellowship Grant
Work with Cheetah Outreach to provide keeping expertise and training	Costs covered by Taronga Zoo Friends Fellowship Grant
Preparation for tiger import from Ragunan Zoo under Sister city relationship	Funded by Taronga curatorial budget
Preparation for tiger import from Ragunan Zoo under Sister city relationship	Funded by Taronga curatorial budget
Attend the Zoo and Aquarium Association (ZAA) Conference	Fully funded by internal Taronga ZAA conference travel and registration budget
Attend the Zoo and Aquarium Association (ZAA) Conference	Fully funded by internal Taronga ZAA conference travel and registration budget
Attend the Zoo and Aquarium Association (ZAA) Conference	Fully funded by internal Taronga ZAA conference travel and registration budget
Attend the Zoo and Aquarium Association (ZAA) Conference	Fully funded by internal Taronga ZAA conference travel and registration budget
Attend the Zoo and Aquarium Association (ZAA) Conference	Fully funded by internal Taronga ZAA conference travel and registration budget
Participate in the Destination NSW, UK and Europe Roadshow	Funded by Taronga tourism and group sales budget
Undertake a Zoo Friends Fellowship with conservation partner New Nature Foundation (NNF)	Costs covered by Taronga Zoo Friends Fellowship Grant
Undertake a Zoo Friends Fellowship with conservation partner New Nature Foundation (NNF)	Costs covered by Taronga Zoo Friends Fellowship Grant
Attend the Engagement Special Advisory Group (ESAG) Conference 2018 for the Zoo and Aquarium Association Australasia (ZAA)	Fully funded by internal Taronga ZAA conference travel and registration budget
Develop appropriate nutrition guidelines for rescued wildlife	Costs covered by Taronga Zoo Friends Fellowship Grant

## APPENDIX 13

### Workforce Diversity

#### Workforce Diversity Achievements in 2017/2018 include:

Aboriginal Education Scholarships and Traineeship	Taronga Training Institute Aboriginal Scholarship along with the keeper traineeship opportunities identified and provided.
Aboriginal Cultural Awareness Training	Cultural Awareness training was incorporated into the Leadership development program 'Leading for the Wild' where participants – current and future leaders – are learning and practicing the delivery of Acknowledgement of Country. Throughout the program the management of diverse teams were emphasized and reinforced.
Workforce diversity celebrations	NAIDOC, Reconciliation Week, International Women's Day, Harmony Day and Sydney Mardi Gras were amongst the celebrations to promote a greater understanding of EEO groups. These celebrations included Taronga's iconic 'Free Flight Bird Show' incorporating Aboriginal Dreaming Stories, morning teas, presentations, lunches and other gatherings welcomed by Taronga's teams.
Aboriginal Employment Strategy	Taronga is working on the Aboriginal Employment strategy and is engaging with various stakeholder and community representatives. The Taronga Wildlife Retreat is due to open in 2019 and the strategy is key to its success.
Reconciliation Action Plan	Taronga's Reconciliation Action Plan (RAP) is continuously monitored as we aim to work towards targets with a completion date of July 2020. Taronga is releasing the Stretch Rap 2018/2019 after wider Indigenous community input.
Work placement program	Taronga's HR and Community Programs team started revisiting the work placement programs as part of the works on the Employment Strategy and therefore more opportunities should be created in the upcoming financial year.
Gender diverse leadership group	Taronga's commitment to gender diverse leadership was emphasized through the strong participation of the current and future female leaders in the leadership and management development program – 'Leading for the Wild'.
Return to work parents	Taronga continues to communicate and consult with employees returning to work after periods of parental leave and gives due consideration to any flexible work requests outside of the parental leave period. Taronga is also working towards the 'if not, why not' commitment from NSW government in making all role flexible by 2019. This is about rethinking the way organisations support flexible work arrangements and rather it being an exception it should be a case of 'if not, why not'.
Disability Plan	Taronga along with the Autism Australia continues to deliver the Access @ Taronga Zoo activation which has been received very positively by the communities by providing early entry into the zoo. This program provided us with a great opportunity to revisit Taronga's inclusion strategies. Taronga also supports volunteers with disabilities to be placed on various roles throughout the zoo. In addition Taronga installed Hearing Loops facilities in the major Taronga buildings open to guests – Tiger Trek and Centenary Theatre.
Community Service Program	Our Community Programs team continues to deliver Burbangana and Walanmarra Programs – this year to 30 young people as well as Youth at the Zoo (YATZ) – this year to 500 youth. The new program – 'Yarra' Taylor Pathways Program was introduced through funding provided by Taylor Construction. The Community and Cultural programs team have developed a new outreach program for Indigenous youth to gain practical, career development skills in horticulture and carpentry. In addition, in partnership with Dubbo Community Corrections – Dept. of Justice, Taronga facilitates community service placements for unpaid work to provide an alternative to custodial sentences for low risk offenders at Taronga Western Plains Zoo.
Return to work parents	Taronga launched an Access @ Taronga day with Autism Australia, providing early entry into the zoo. Taronga also developed online awareness training for employees to complete to support our guests, volunteers and staff.
Disability Plan	In partnership with Dubbo Community Corrections – Dept. of Justice, Taronga facilitates community service placements for unpaid work to provide an alternative to custodial sentences for low risk offenders at Taronga Western Plains Zoo. Taronga also supports volunteers with disabilities to be placed on various roles throughout the zoo.
Community Service Program	In partnership with Dubbo Community Corrections – Dept. of Justice, Taronga facilitates community service placements for unpaid work to provide an alternative to custodial sentences for low risk offenders at Taronga Western Plains Zoo. Taronga also supports volunteers with disabilities to be placed on various roles throughout the zoo.



**Key Workforce Diversity strategies proposed by Taronga for 2018/2019 include:**

Reconciliation Action Plan (RAP)	Taronga's RAP committee will continue to work towards the 2020 targets.
Aboriginal Employment Strategy	In collaboration with Office of Environment and Heritage Taronga will continue to work towards the Aboriginal Employment Strategy developed for 2016-2019. Development of culture awareness training is being discussed and will form part of the employee and volunteer induction process.
Leadership training in mental health awareness	A number of representatives have attended Mental Health First Aid Training to support teams across the organisation and Taronga has also developed a Mental Health Toolkit that is available to all employees.
Workforce Diversity Celebrations	Taronga's commitment to the promotion of Equal Employment Opportunity is being increased in 2018/19 with the formal approval for the new position of Diversity Manager. Diversity strategies in Aboriginal Employment, Disability and Women along with the Taronga Retreat Employment Strategy will be put in place as well as appropriate workplace support to ensure all internal and external stakeholders can engage with the benefits of a diverse Taronga workforce.

**Additional Human Resources Reporting Requirements:****Movements in salaries and wages**

- 2.5% increase to salaries, wages and salary related allowances TCSA Salaried Employee Award effective 9 July 2017
- 2.5% increase to salaries, wages and salary related allowances TCSA Wages Employee Award effective 9 July 2017
- 2.5% increase to salaries, wages and salary related allowances Shop Employees (State) Award effective 16 December 2017
- 2.5% increase to salaries, wages and salary related allowances Restaurant & Employees (State) Award effective 16 December 2017

**Amendments to industrial relations policies and practices**

Taronga are in the process of consulting regarding changes to the following industrial Awards to ensure their consistency, compliance with the Government Sector Employment Act 2013 and to ensure that all industrial instruments are relevant to Taronga employees:

- Taronga Conservation Society Australia Salaried Award
- Taronga Conservation Society Australia Wages Award
- Shop Employees (State) Award
- Restaurant & Employees (State) Award

**Amendments to personnel policies and procedures**

The following personnel policies were updated during the 17/18 year, to ensure their consistency with applicable legislation:

- Conflict of Interest and Disclosure Procedure
- Termination Policy
- Recruitment and Selection Procedure
- Safety Onboarding Forms (TB Form and Pre-Employment Self-Assessment Form)
- Code of Conduct
- Working with Children Policy

## APPENDIX 14

**Senior Executive Service****2017/2018 – Senior Executive Bands**

Band	Total Senior Executives	Average Remuneration (package) end current year
SE Band 1	11*	\$210,792
SE Band 2	1	\$328,898
<b>Total</b>	<b>12</b>	<b>\$220,634</b>

\* One positions at this level was vacant as at 30 June 2017.

In 2017/2018 4 positions in the Senior Executive Bands were filled by female employees.  
4.18% of total employee-related expenditure in 2017/2018 related to Senior Executives.

## APPENDIX 15

### Senior Staff

#### Executive

Cameron Kerr BSc(Hons), MCom – Executive Director and Chief Executive

Stephanie Hedt BAs – Executive Officer

#### 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

Andrew Nikolaidis, Grad Cert Business Administration, Grad Cert HRM, Dip PM, Dip QA, Learning and Development Manager (Resignation Date: 02/04/2018)

Dani Jones, Dip HR, BA Hosp. Mgt – Organisational Development and Learning Manager

Emma Pollard, BAppFin BLB (Hons) MIEL – Taronga Institute of Science and Learning Project and Business Manager

#### Guest Experience, Education and Community Programs

Paul Maguire, PSM, BEd (PE and Sci) – Director Guest Experience, Education and Community Programs

Steven Williams, (BCom and BTrsmMgt) – Guest Experience Operations Manager (Resignation Date: 25/02/2018)

Hayden Turner – Guest Experience, People and Programs Manager

Nicole Whitfield BSc, MAppSc – Interpretations Manager (maternity Leave)

Sophie Daniel – Interpretations Manager (maternity cover)

Courtney Frost (Employed by the Department of Education), Bachelor Science (Biology), Bachelor of Teaching – Education Manager (Acting)

Lucinda Cveticanin, BAppA Bed – Community and Cultural Programs Manager

Belinda Fairbrother, BSc (Env Sc) – Community Conservation Manager

#### Wildlife Conservation and Science

Simon Duffy, BEd, BTeach GAICD – Director Wildlife, Conservation and Science

Nick Boyle, BSc/LLB – Conservation, Health and Welfare Manager

Rodd Stapley, BSc – Operations Wildlife Conservation Science Manager

Justine O'Brien, Doctor of Philosophy in Veterinary Science, Bachelor of Science in Agriculture (Honours) – Conservation Science Manager

#### Corporate Services and Governance

Narelle Beattie, BCom, MA, CA – Director Corporate Services and Governance

Paul White – Head of Information and Digital Technology

Emma Roberts, BA FCCA – Manager Finance (Maternity Leave from: 21/05/2018)

Leonard Lek, BCom, CPA, Manager Finance (Maternity cover)

Puneet Sidana, MA, CPA, Finance Operations Manager

Helen Brennan, Bachelor of Arts/Law (Hons.) – Manager Governance

Bruno Da Silva, B of Agr. Ec, MBA, Prince 2 Practitioner (Project Management) – Procurement Manager

#### Property Infrastructure and Operations

Tim Bain, BA, Construction Management and Economics – Director Property Infrastructure and Operations

True Swain, JD, MBA, M. Pro Dev, B. CPM, GAICD – Head of Capital Programs

Kate McAlpine, BE – Facilities Manager

Anne Kehlhofer, BSc (Hons) Business and Marketing Management, MA Human Geography and Environmental Management, MA of Science in Sustainability – Environmental Sustainability Manager

#### 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 Hospitality Business Management – Head of Commercial Operations

Helen Wright, Dip IDM – Fundraising and Memberships Manager (Sabbatical)

Alison Bennett, DipBusMgt – Corporate Partnerships Manager (Resignation Date: 31/05/2018)

#### Taronga Western Plains Zoo

Steve Hinks, DipMgt, DipBus, MMgt – Director, Taronga Western Plains Zoo

Kathleen Oke, Cert IV Workplace Training and Assessment, Cert IV Frontline Management, Certificate IV Horticulture, Dip of Management – Facilities and Asset Operations Manager

Zac Jones, Ad. Dip Tourism & Hotel Management – Commercial Operations Manager

Bruce Murdock, Ad. Dip Nutritional Medicine, Dreamworld Executive Development, Cert III Zoo Keeping – Life Sciences Operational Manager

## APPENDIX 16

### Employees by Category

Program Area	Permanent			Temp			Casual			Total		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Executive	12	10	10	1	2	2	0	0	0	13	12	12
Clerical	104	113	120	55	48	61	197	94	54	356	255	235
General	23	24	26	2	1	1	0	2	1	25	27	28
Professional	15	19	14	5	5	1	7	7	3	27	31	18
Services	35	53	56	7	12	5	319	395	373	361	460	434
Technical	6	4	5	0	1	2	0	0	1	6	5	8
Trades	166	163	166	24	22	18	134	121	115	324	306	299
<b>TOTAL</b>	<b>361</b>	<b>386</b>	<b>397</b>	<b>93</b>	<b>91</b>	<b>90</b>	<b>657</b>	<b>619</b>	<b>547</b>	<b>1112</b>	<b>1096</b>	<b>1034</b>

## APPENDIX 17

### Government Information (Public Access) Act – Annual Report for Agency Taronga Conservation Society Australia

**Clause 7A:** 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
No	No

**Clause 7B:** 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 7C:** 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)

Number of Applications Refused	Wholly	Partly	Total
	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	0	0	0	0	0	0	0	0	0	0 %
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)	1	0	0	0	0	0	0	0	1	100 %
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	
% 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*	1	0	0	0	0	0	0	0	0	0 %
Access applications (other than personal information applications)	0	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 %
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	
% 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	0 %
<b>Total</b>	<b>0</b>	

**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 %
Executive Council 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 %
<b>Total</b>	<b>0</b>	

\*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 %
<b>Total</b>	<b>0</b>	

**Table F: Timelines**

	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 %
<b>Total</b>	<b>1</b>	

**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 %
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	
% of Total	0 %	0 %		

\*The Information Commissioner does not have the authority to vary decisions, but can make recommendations to the original decision-maker. The data in this case indicates that a recommendation to vary or uphold the original decision has been made by the Information Commissioner.

**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 %
<b>Total</b>	<b>0</b>	

**Table I: Applications transferred to other agencies.**

	Number of applications transferred	% of Total
Agency-Initiated Transfers	0	0 %
Applicant-Initiated Transfers	0	0 %
<b>Total</b>	<b>0</b>	

## APPENDIX 18

### Public Interest Disclosures

Taronga Conservation Society Australia had no public interest disclosures in the period 1 July 2017 to 30 June 2018. 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 2017/18

#### Consultants equal to or more than \$50,000

Nil

#### Consultants less than \$50,000

During the year six consultancies were engaged in the following area:

Management Services – \$85,240

Conservation Services – \$5,861

**Total Consultancies less than \$50,000 = \$91,101**

**Total Consultancies = \$91,101**

Cost Centre	Business Area	Division/Department	(\$) Amount	Consultancy Spent for/ Matter	Consultant/Vendor	Type
25220	TWPZ	Executive Services	\$32,640	Zoofari Lodge proposed redevelopment and expansion	Corview Group Pty Ltd	Management
15685	TZ	Taronga Institute of Science & Learning	\$24,600	University Education Alliance tender	Higher Education Consulting Group	Management
15800	TZ	Capital Works	\$13,600	Contractor management system	Work Science Pty Ltd	Management
15600	TZ	People, Culture & Learning	\$14,400	Strategic planning	Altura Partners Pty Ltd	Management
11935	TWPZ	Life Sciences / Conservation	\$2,100	Geotech investigation – Regent Honeyeater site	Branson Pty Ltd – Dubbo	Conservation
11935	TWPZ	Life Sciences / Conservation	\$3,761	Archaeology survey – Regent Honeyeater site	Access Archaeology & Heritage Pty Ltd	Conservation



## APPENDIX 20

### VIP Visits to Taronga and Taronga Western Plains Zoos in 2017/2018

<b>June 2017</b> Premier of NSW Liverpool football team Dean Cain and Terri Hatcher Prime Minister of Australia	<b>December 2017</b> Paris Hilton	<b>April 2018:</b> Jessica Mauboy
<b>August 2017:</b> Lizzy Lovette	<b>January 2018</b> Kevin Pietersen	<b>May 2018</b> Kelly Rowland Kate Ritchie Kurt Fearnley
<b>October 2017:</b> Rove McManus	<b>March 2018</b> Prime Minister of Laos Adam Brand Kate Miller Heidke	<b>June 2018</b> Jonas Brothers

## APPENDIX 21

### Multicultural Policies and Services Program

Objective	Strategies	Achievements – 2017 /2018	Program for 2017/2018
<b>Integrate ethnic affairs initiatives into all Taronga business and capital plan activities</b>	Ensure all relationships with key country personnel are strong and supportive of long term outcomes	Liaised with the Mongolian Community Association in Australia (MCAA) to ensure authenticity of cultural elements in Wild Herds. The launch was attended by the Mongolian Ambassador.	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 West.	Ongoing
<b>Increase the multi-cultural service capacity at both zoos</b>	Continue to embed employees training and volunteer training in customer service with a particular focus on cultural appreciation and diversity.	'The Taronga Experience' customer service excellence program which emphasise cultural awareness was embedded into Volunteers and Employees induction/onboarding programs.	Working on the new Customer Service Strategy to meet the diverse needs of our guests.
		This ensures enhanced cultural support in communication and guest experience provided by our front liners.	
		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 initiated very successfully in July 2017, attended by over 6000 members of the Muslim community across a two-day festival. The event showcased relevant cultural food options and cultural celebration activities.	Ongoing
		A first-time event was successfully held in October 2017 in partnership with two organisations from the Sydney Jewish community celebrating Sukkot. The event was attended by just under 1,000 guests. We created a specific kids' trail and themed kids' map.	

Objective	Strategies	Achievements – 2017 /2018	Program for 2017/2018
		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 'peepeo' 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.	
		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
		Expansion and increased funding for Burbangana and Walanmarra – Community and Aboriginal 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
		The delivery of "Animals of the Dreaming", a cultural outreach program for schools in partnership with an Aboriginal Elder Col hardy was presented to over 5000 students – 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
		Animal fact sheets Korean, Spanish, Chinese, Vietnamese, German, Italian, and French.	
		Taronga's app was improved and now offers a Mandarin-language option.	Ongoing program
		The Taronga app and new 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
<b>Promotion of the zoos and the services of Taronga within ethnic communities</b>	Eid festival at Taronga Zoo	Through a partnership with Crescent Wealth the Muslim community is engaged via a special event to celebrate Eid at Taronga Zoo over a two-day period. This festival promotes inclusion and diversity towards the Sydney Muslim community and a very affordable ticket is made available to ensure the event is as inclusive as possible.	Ongoing Program

Objective	Strategies	Achievements – 2017 /2018	Program for 2017/2018
	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 – Chinese Japanese and Korean.	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.	On-going 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 from foreign countries.	On-going 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.	On-going Program
<b>Promote respect and accommodate cultural difference amongst Taronga staff.</b>	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 eg 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.
<b>Continuing development of Taronga's Internal communications</b>	To provide and disseminate information to all employees regardless of cultural and language background.	Implementation of the new communication platform – Workplace by Facebook to Taronga employees and volunteers which support visual and simple communication.	Ongoing Program to improve communication strategy.
<b>Ensure Taronga's recruitment activities support the principles of EEO and the promotion of a culturally diverse workforce</b>	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 appointed of Indigenous Trainee.	Ongoing Indigenous Traineeship Program which is being reviewed annually
		Review of the Nura Diya Tour program staffed by Indigenous employees.	Review of the new Tour route to ensure the best experience



Objective	Strategies	Achievements – 2017 /2018	Program for 2017/2018
	Ensure a range of vacant positions at both zoos are made known to a selection of organisations with multi-cultural community reach	<p>A range of zoo vacancies directly advertised with several multi-cultural organisations and via DPE Committees.</p> <p>A selection of zoo vacancies created and appointed as Indigenous roles at both Taronga Zoo's.</p>	<p>Review of the multi-cultural organisation that should be utilised when recruiting for Taronga Retreat vacancies</p> <p>Increase in Indigenous positions available in the Taronga Retreat and across both zoos.</p>
<b>Promote understanding of multi-cultural communities</b>	Provide opportunities to increase understanding of and experience multi-cultural communities	<p>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)</p> <p>Launch of Lion Pride Lands exhibit at Taronga Western Plains Zoo, with a focus on community solutions to human-wildlife conflict in Africa.</p> <p>Development of storyline and key stakeholder relationships for the design phase of the Savannah precinct at Taronga Zoo Sydney, focussing on Beads for Wildlife.</p>	Ongoing

## APPENDIX 22

### Internal Audit and Risk Management Attestation for the 2017-2018 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, excluding the exceptions or transitional arrangements described below, 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	Non-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

#### Departures from Core Requirements

I, Steve Crane, advise that the internal audit and risk management processes for Taronga depart from the following core requirements set out in the Internal Audit and Risk Management Policy for the NSW Public Sector:

The circumstances giving rise to these departures have been determined by the Portfolio Minister and Taronga has implemented the following practicable alternative measures to meet the core requirements.

Departure	Reason for departure and description of practicable alternative measures implemented
<b>Non-compliance</b>	
<b>Core requirement 3.1.3</b> <b>Chair and members of the Audit &amp; Risk Committee must be appointed from the panel of pre-qualified individuals maintained by the Department of Finance, Services and Innovation</b>	<ul style="list-style-type: none"> <li>Corporate Services, Audit and Risk Committee members are appointed from the Taronga Board. The four members have appropriate expertise as required by the Internal Audit and Risk Management Policy for the NSW Public Sector.</li> <li>The structure of Taronga's Corporate Services, Audit and Risk Committee follows the ASX Corporate Governance Principles and Recommendations (3rd Edition) for Audit Committees.</li> <li>Two of the Committee members, including the Chair, are Members of the Prequalification Scheme: Audit and Risk Committee Independent Chairs and Members.</li> </ul>

These processes, including the practicable alternative measures being implemented, demonstrate that Taronga has established and maintained frameworks, including systems, processes and procedures for appropriately managing audit and risk within Taronga.



Steve Crane, Chair  
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 2017/18 was in accordance with the Premier's Memoranda and Treasurer's direction.

## APPENDIX 24

### Annual Report External Production Costs

No external production costs were incurred in the preparation of the Taronga Conservation Society Australia 2017/18 Annual Report.

## APPENDIX 25

### Funds granted to Non-Government Community Organisations

Name of recipient organisation	Amount of Grant	Program Area
Central Coast Council (funded by Boeing Australia)	\$12,575	Project Habitat – habitat restoration in NSW
Jane Goodall Institute Australia	\$30,000	Conservation Partnership for Chimpanzees (Tchimpounga Sanctuary)
International Rhino Foundation	\$33,868	Conservation Partnership for African & Asian Rhinos
Girringun Aboriginal Corporation	\$10,000	Conservation Partnership for cassowary
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
Centre of Ecosystem Science, UNSW	\$10,000	Conservation Partnership for Platypus in Australia
Komodo Survival Program	\$10,000	Conservation Partnership for Komodo Dragon in Indonesia
TRAFFIC (via Wildlife Conservation Fund/ZAA)	\$25,000	Conservation partnership with TRAFFIC – wildlife and trade of wildlife product – Sun Bear, Ivory
Turtle Survival Alliance (via Wildlife Conservation Fund/ZAA)	\$5,000	Conservation partnership to support recovery of confiscated 10,000 Radiated Tortoises in Madagascar
iCow project in Botswana	\$10,000	Conservation Partnership with Botswana Predator Conservation Trust and UNSW – lions and human-wildlife conflict
Free the Bears	\$10,000	Conservation Partnership for Sun Bear in Cambodia
Cheetah Conservation Botswana (Stewardship for Wildlife)	\$10,000	Conservation Partnership for Cheetah in Botswana
Rewilding Australia	\$6,545	Field Conservation Grant: Eastern Shield Wildlife Recovery Program – supporting efforts to return the Eastern Quoll to the wild on mainland Australia
African Wildlife Conservation Fund	\$13,488	Field Conservation Grant: Ensuring the persistence of a stronghold population of Endangered African Wild Dogs in Zimbabwe

Name of recipient organisation	Amount of Grant	Program Area
Conservation South Luangwa	\$19,880	Field Conservation Grant: Supporting critical ground based and aerial anti-poaching patrols in South Luangwa National Park, Zambia
Bush Heritage	\$8,850	Field Conservation Grant: Feral cat research in an Australian global biodiversity hotspot
Borneo Nature Foundation	\$15,213	Field Conservation Grant: Initiating Biodiversity Conservation in the Rungan River Landscape, Central Kalimantan, Indonesia
Durrell Wildlife Conservation Trust	\$19,995	Field Conservation Grant: Creating a refuge from amphibian chytrid fungus for the Critically Endangered Mountain Chicken Frog in its native range
Small Mammals Conservation and Research Foundation	\$9,838	Field Conservation Grant: Educating and Empowering Local Community for Pangolin Conservation in Kathmandu Valley, Nepal
Australian National University & Save the Elephants	\$8,865	Field Conservation Grant: Understanding the behavior of crop-raiding elephants: a project to propose conflict mitigation techniques in Kenya
University of NSW	\$10,000	Field Conservation Grant: Determine relationship between colonial waterbird breeding, river flows and seasonal flooding in Chobe River and Okavango Delta
The Botswana Predator Conservation Trust	\$19,395	Field Conservation Grant: Community-Led Early Warning System for coexistence: carnivore conservation in northern Botswana
Satucita Foundation	\$17,200	Field Conservation Grant: Saving Painted Terrapin ( <i>Batagur borneoensis</i> ) Eggs from Poaching and Natural Predation as an effort to secure the future wild
New Nature Foundation	\$13,000	Field Conservation Grant: Conservation of Kibale National Park through Community Empowerment
Fauna and Flora International	\$9,999	Field Conservation Grant: Conserving the Critically Endangered Northern White-cheeked Gibbon and Saola in Vietnam
Organisation pour le Développement Durable et la Biodiversité	\$10,000	Field Conservation Grant: Strengthening the conservation of Benin's threatened primate through communities empowerment
Institute for the Conservation of Tropical Environments (ICTE), Stony Brook University	\$17,733	Field Conservation Grant: Karianga Greater Bamboo Lemur Conservation Project, Madagascar



## APPENDIX 26

### 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 2018.

## APPENDIX 27

### Digital Information Security Annual Attestation Statement for the 2017-2018 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 2017-2018 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, Chair  
Taronga Conservation Society Australia



TARONGA WESTERN PLAINS ZOO, DUBBO, AUSTRALIA 32°16'27.4"S 148°34'44.6"E



GUESTS AT LION PRIDE LANDS BY Rick Stevens



SUMATRA, INDONESIA 4°55'34.5"S 105°46'34.1"E

SUMATRAN TIGER By Chris Wheeler

# INTO THE WILD

ANNUAL REPORT 2017–2018

