The wonderful support we receive from our community has allowed us to continue improving your Zoo at a remarkable pace, and 2018 was no exception. We completed Wilderness Falls, a children’s water play area themed after the country’s national parks. The area features a waterfall, shallow stream bed, and geysers, as well as a fire look-out tower with slide. We also added plenty of benches under the shade for parents as well as a private area for nursing mothers. Next, we continued the design of Kingdoms of Asia, our next major exhibit project, which will provide beautiful habitats for tigers, sloth bears, hornbills, Komodo dragons and more.

After 27 years of educating us with the Ross Laird Winged Wonders Bird Show, Ross has retired and the Zoo has taken over the presentations. We wish Ross the best and appreciate his years of dedication to the Zoo.

Other highlights of 2018 included special events Roar and Pour and Evenings on the Savannah. They proved to be very popular, and 2018’s Safari Night was not only a beautiful night at the Zoo but a successful night of fundraising. Over the summer, we hosted our Association of Zoos and Aquariums (AZA) professional colleagues with the Felid Taxonomic Advisory Group meeting. Over 100 animal care professionals from across the country met in Fresno to discuss management and conservation of various cat species. We also hosted an AZA Regional Education Workshop, exploring the newest ways to inspire our guests.

We provided 5,000 tickets to the Zoo for organizations working with families who otherwise may not be able to attend, and hosted Dreamnight, a special night at the Zoo for children with disabilities or severe illness.

Throughout these new projects and events, we continue to focus on providing excellent care of our animals and supporting wildlife conservation around the world.

None of this would be possible without the amazing support from our community, and we appreciate that support and trust very much.
Animal Collection

With our exciting new exhibit, Kingdoms of Asia, now in the planning stage, our animal care team begins their preparations early. In 2018, we began discussing and planning the future of the animals that live in the area that will soon become a demolition and construction zone. Many of the species that live in this area will be represented in the new Asia, but not necessarily the same individuals.

Our bear exhibit has a very long history at Fresno Chaffee Zoo. Originally built in 1955, it was designed as three small bear exhibits to house polar bears, black bears and grizzly bears. Many years ago, the dividing walls of that exhibit were removed and the exhibit was then the home to a pair of grizzly bears for many years. After our very old grizzlies passed, sloth bears made their arrival to our Zoo. This was a new species for us and proved to become the favorite of many guests and animal care takers. The SSP (Species Survival Program) was also pleased for Fresno Chaffee Zoo to become involved in the sloth bear program, as there are only 34 individuals in North America and the program was in need of more zoos to assist in building captive populations.

Kingdoms of Asia will include sloth bears in a beautiful new exhibit that will be built where the giraffes lived a few years ago. The existing 1955 exhibit will be demolished. To prepare for this, we began the process of moving our sloth bears to new homes. Our two boys, Sahassa and Rajani were transferred to Little Rock Zoo in Arkansas and Caperon Park Zoo in Massachusetts. We recently received news that Sahassa has already contributed to an increase in the sloth bear population by producing a cub.

Our tiger exhibit is also in need of renovation. Tigers generally spend very little time together and in many cases do not welcome the company of other adult tigers. Our single tiger exhibit makes managing a tiger breeding program very difficult. Our new Asia area will have two much larger exhibits and extra behind the scenes areas that will allow us to have a greater role in breeding these much endangered felines.

Although we will miss the individuals that have left Fresno Chaffee Zoo, we are excited to begin this new chapter in our Zoo’s future. It is very exciting to have this opportunity to design and build state-of-the-art exhibits for the animals and the community that call Fresno home.

Animal Collection 2018 Totals

<table>
<thead>
<tr>
<th>Invertebrates</th>
<th>Species 5</th>
<th>Individuals 256</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartilaginous Fish (Chondrichthyes)</td>
<td>Species 4</td>
<td>Individuals 40</td>
</tr>
<tr>
<td>Bony Fish (Osteichthyes)</td>
<td>Species 21</td>
<td>Individuals 161</td>
</tr>
<tr>
<td>Amphibians</td>
<td>Species 18</td>
<td>Individuals 119</td>
</tr>
<tr>
<td>Reptiles</td>
<td>Species 68</td>
<td>Individuals 192</td>
</tr>
<tr>
<td>Birds</td>
<td>Species 68</td>
<td>Individuals 239</td>
</tr>
<tr>
<td>Mammals</td>
<td>Species 53</td>
<td>Individuals 169</td>
</tr>
<tr>
<td>Totals</td>
<td>Species 237</td>
<td>Individuals 1,176</td>
</tr>
</tbody>
</table>

Births and Hatchings

Reptiles and Amphibians ("Herps")
- 0.05 Blue spiny lizard
- 0.013 Dyeing dart frog
- 0.07 Green and black dart frog
- 0.014 Yellow-headed dart frog

Birds
- 1.2 Laughing kookaburra
- 3.1 Laysan duck
- 3.1 Sun conure
- 4.1 Tououal
- 1.4 Yellow-rumped cacique

Mammals
- 1.1 Addax
- 1.0 Greater kudu
- 0.1 Prehensile-tailed porcupine
- 0.1 Sumatran orangutan

Animal Acquisitions

Reptiles and Amphibians ("Herps")
- 0.2 Black-breasted leaf turtle
- 0.4 Eye dabb lizard
- 1.3 Haitian green anole
- 0.1 King cobra
- 0.1 Komodo dragon
- 0.4 Malagasy leaf-tailed gecko
- 0.05 Sahara spiny-tailed lizard
- 0.03 Volcan Darwin giant tortoise (Galapagos)
- 0.2 Gaboon viper

Birds
- 2.0 Black-necked stilt
- 0.1 Common shama thrush
- 0.1 Eastern brown pelican
- 1.0 Eurasian eagle owl
- 2.0 Inca tern
- 0.1 Lady Ross’s turaco
- 1.0 Lesser sulphur-crested cockatoo
- 1.1 Luzon bleeding-heart dove
- 0.1 Roseate spoonbill
- 4.2 Puna teal

Mammals
- 0.2 African elephant
- 0.1 Miniature horse
- 1.0 Pygmy goat
- 1.0 California sea lion
- 0.1 Four-toed hedgehog
- 0.1 Masai giraffe
- 1.0 Reticulated giraffe
- 0.1 Samang
- 1.0 Striped skunk
- 3.0 Sudan barbary sheep
- 5.4 Virginia opossum
- 0.1 White park cow

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One of the most important roles of Education programs is to support the mission of the Zoo: Fresno Chaffee Zoo inspires wonder of our natural world, provides an engaging learning environment, and creates a passion for conservation. Our behind-the-scenes programs connect visitors to animals through incredible up-close experiences and facilitate personal connections to individual animals. Through these one-on-one experiences, guests can then understand how their actions impact wildlife, both individually and collectively.

In 2018, a record number of guests participated in these Behind the Scenes opportunities. Visitors travelled from great distances (sometimes out of state!) just to participate in these unique and powerful experiences. These programs are also an example of the great collaboration that exists between staff at Fresno Chaffee Zoo. These programs could not happen without teamwork between education and animal care departments. We are looking ahead to 2019 with plans to add new experiences while deepening the interactions between guests, animals and Zoo staff.
Sources of Funding

Measure Z operating funds $4,405,689
Measure Z capital funds 5,069,236
Admissions income 4,229,523
Membership income 1,418,912
Special events income 915,132
Exhibit income 785,003
Food service 661,024
Facility rental income 601,806
Grants and fundraising 511,944
Education income 484,948
Gift shop sales 464,914
Adopt-an-Animal income 32,590
Investment income (loss) -1,268,818
Interest income 580,020
Endowment income 137,264
Other income 332,603

Total Revenue $19,381,790

Use of Funds

Construction in process $5,078,757
Animal services 543,929
Contracted services 674,593
Advertising 406,399
Capital equipment and facilities 1,264,384
Community support 25,500
Conservation 19,919
Bank and credit card fees 198,305
Depreciation 544,196
Dues and subscriptions 42,074
Equipment 279,103
Fleet expense 26,606
Food and catering 30,054
Information technology 85,541
Insurance 181,504
Interest expense 9,212
Miscellaneous 28,387
Office supplies 19,901
Personnel 8,501,373
Postage 43,251
Printing 137,223
Professional services 260,067
Recruiting 17,801
Repairs and maintenance 393,853
Signage 39,067
Special events expense 608,000
Specialized services 24,691
Staff development 127,470
Supplies 418,712
Telephone 50,012
Uniforms 44,825
Utilities 885,060

Total Expenses $21,227,369
Net Surplus (Deficit) -1,845,579

The Zoo is proud and grateful to be in the position to beautify and improve our facilities using surplus funds from previous years. Our 2018 financials reflect this, showing over $1.2 million from previous years used for capital equipment and facilities purchases. Thanks to this, the Zoo did not have to incur debt for these expenditures.

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Total Expenses: $21,227,369, Net Surplus (Deficit) -1,845,579.
The Fresno Chaffee Zoo Wildlife Conservation Fund supports conservation efforts around the globe. Each year we have been in a position to increase our funds and our reach to further our conservation mission. In 2018, our funds were able to support 46 conservation projects in 25 countries.
Special Events

Fresno Chaffee Zoo welcomes guests for everything from private events to seasonal events offering family-friendly fun. In 2018 we helped families and organizations host celebrations at various venues across the Zoo as well as held our own fundraising events that provided guests with unique experiences.

Educating guests about how their food is grown is just one of the components of our Ag Day event sponsored by the Gar Tootolian Foundation. Children enjoyed the hands-on activities that included roping, branding, games and tractors.

Zoobilation, our members’ only event, was revamped as two daytime events held in the spring and fall. Members enjoyed special behind-the-scenes areas and up-close animal experiences during this event.

Closing out the year was ZooLights, which reached a new attendance record of 41,424.
Evening Events to Remember

Nightlife and wildlife come together at Safari Night, our annual fundraising gala, and Roar and Pour, our newest adults’ only evening event. Even rain couldn’t dampen the spirits of our fun springtime beer event with more than 500 guests in attendance! Our fall Roar and Pour featured Valley wines poured for over 750 wine tasters. Bidders were able to snag some amazing Live Auction items at Safari Night, our biggest fundraising event, which raised more than $85,000 to benefit our upcoming exhibit, Kingdoms of Asia.
It is possible I have some bias but I truly believe I have one of the best jobs there is in the world. Every day is different and engaging. Aside from the routine business of caring for animals that I find simply fascinating, there is something new to learn everyday and something to try that has never been done before. The phrase “status quo” simply does not apply to the field of zoological medicine and 2018 was no exception. We are excited to share the highlights from the last year.

In early 2018, our marine mammal keepers started to notice our then 8-year-old female harbor seal Jetta having a harder time seeing fish and treats in the water around her. She was not responding to hand signals during training sessions as readily as she once had. We had been monitoring a fairly rapidly developing cataract in her left eye that had almost completely obstructed the vision in that eye, and her right eye was starting to develop a cataract as well. Keepers worked on transitioning Jetta to sound or auditory cues in addition to her visual hand signals so that she could hear what they were asking rather than just rely on seeing them. As our keepers had already developed a completely auditory training plan for our male sea lion Wishbone who was born blind, they were well equipped to transfer Jetta to cues she could hear as well as see. This allowed them to let her know where her food is and what behaviors keepers are asking of her. Unfortunately, early onset cataracts are nothing new to marine mammals in captivity, as well as in the wild. Research is still ongoing as to the cause, which seems to be multifactorial issues we are still working to understand. As Jetta’s cataracts were progressing, her vision continued to decline. It is as if she is wearing progressively darker sunglasses and every day they get darker and darker, allowing in less light. We were lucky enough to bring in world renowned ophthalmologist Dr. Carmen Coolitz and veterinary anesthesiologist Dr. James Bailey to perform cataract removal surgery on Jetta. This surgery restored her full vision.

Continued on next page

Shannon Nodolf, DVM
Chief Veterinary Officer

You can see the opaque lens of the cataract through Jetta’s pupil. This opacity was causing her vision obstruction.

Photos taken during Jetta’s surgery.

This is the actual lens that has been removed allowing Jetta to see again.
As you may have been aware, through our Fund-a-Need appeal at the 2017 Safari Night fundraiser, the Zoo’s hospital was in desperate need of a new reliable radiology unit. With the help of donations and further input from our 2018 budget, we were able to evaluate several different systems. We obtained reviews from our peers in the domestic and zoological medicine field and chose a Vet Rocket Digital Radiology system. This system is completely portable with a processor no bigger than a tablet. It is wireless, and clear images are produced in seconds. The image quality, ease of use, and reliability are far superior to previous systems, and we have been putting it to work diagnosing pneumonia in tentacle snakes, finding mass lesions in chinchillas, evaluating bladder stones in goats and even picking up hairline fractures in Tamarins.

Through the use of radiology during routine examinations, we were able to diagnose large bladder stones present in our two young warthogs last year. These stones were about golf ball sized and formed from the accumulations of normal minerals the body excretes in urine. By finding these stones early, we were able to go in and surgically remove the stones before they caused life-threatening urethral obstruction.

One of the great joys of our field of conservation is the successful pregnancy of endangered species. Through extensive training and trust building with our staff, we were lucky enough to be able to be present from day one to carefully monitor the progression of gestation in our orangutan Siabu in 2018. Throughout her pregnancy, Siabu participated in weekly ultrasounds where we used sugar free Jello in place of ultrasound gel and were able to monitor the growth and development of baby Hantu in utero. As her due date grew closer, dedicated volunteer staff took turns to monitor cameras 24-7 to look for signs of distress that indicated intervention or cesarean section may be needed for delivery. Local human obstetricians were on call as well, in the event any emergency assistance may be needed. Luckily, late in the evening on November 3rd Siabu gave birth to beautiful baby Hantu.

Keeping up with the best health and wellness program for our animals is our highest objective in everything we do. Advances in technology, knowledge shared amongst our peers and the constant strive for excellence helps us do just that to continue to advance the care for these amazing animals that do so much to teach us more about the world around us. We, and the animals in our care, are all so grateful for your continued support.
Thank You

On behalf of the animals here at Fresno Chaffee Zoo, we gratefully thank those who donated $1,000 or more in 2018.

Scott & Alisha Anderson
Scott Barton
Renee Boches
Don & Ruth Bricker
Gary Catron
Jean Chaffee
Todd & Sara Cook
Jim & Dotty Doyle
James & Joan Emerson
Erin Espinosa
Nina Gagnebin
Janet Galloway
Michael Gonzales
Paul & Wendy Gottlieb
Kathryn Hanks
Charles Hensley
Nanette Hernandez
Alicia Holland
Mary Hung
Jim & April Kaufmann
Kristine Kizer
Stephen & Patricia Knudsen
Matthew Leedom
Jeff LeFors
Gerald & Nanette Lyles
Michael & Heather MacChesney
Norma Mastin
David McDonald
Jesse Merrell
Dwight & Barbara Miller
William & Dorothy Mills
Lisa Monaco
Nathan & Francesca Negri
Don & Lynn Nelson
Louis & Christi Paradise

John Paul
Dennis & Nancy Ralston
Tom Richards & Dr. Sue McDermid
Devin & Shannon Sackett
Wendy Shannon
Steve & Ruth Sibbett
Tommy & Melissa Tarlton
Richard Thistle
Pauline Trainer
Randy & Peggy Vaughn-Dotta
Jim & Terri Walls
Jerry & Rosemary Waters
Michael & Susan Woods

Kevin’s Concrete Pumping
Livingstone Community Health
Los Angeles Zoo & Botanical Gardens
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Proper Defense Law Corp.
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Regency Investment Advisors
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Ryan Liggett Project Management & Consulting
Sacramento Zoo
Santa Barbara Zoo
St. Helen’s PTO
TAM+VZ Architects, LLP
The Penstar Group
The Valley Cats Band
Truxell & Valentino Landscape Development Inc.
United Healthcare
Valley Children’s Hospital
Valley Public Radio
Valley Urology
Vista Energy
Wanger, Jones, Helsley PC Attorneys
Waterhouse Animal Hospital
Wells Fargo

Mixed Events 17
Visitor Services 31
Facilities 13
Security 11
Horticulture 8
Marketing 3
Development .75

Volunteers Hours 38,979

Individual Volunteers 1,341
2018 Projects

Thanks to the generous support of our community and members, the Fresno Chaffee Zoo has many exciting new plans to engage and excite guests at the Zoo.

In 2018, we completed and opened Wilderness Falls, an interactive play area that opened on May 4. Modeled after a National Parks motif, this area encourages kids and adults to connect to nature with interpretive elements. It includes a fire lookout tower with a slide and a water play area that includes a waterfall and stream. This attraction broke ground in June 2017 and was completely funded by Measure Z.

We are also looking forward to many new and exciting exhibits in 2019 and beyond. We will complete an infrastructure project that will help prepare for future construction and operations improvements. This area will also feature a play area, photo opportunities, and other options for guests to enjoy their time at the Zoo.

Also in 2019, we will be bringing in an exciting temporary exhibit, Zoorassic Park, which will see a currently unutilized area in the Zoo transformed into a prehistoric self-guided exhibit featuring 17 species of dinosaurs that move and roar.

Looking farther ahead into the Zoo’s projects, we also have plans for the Kingdoms of Asia re-design and plans for further expanding African Adventure.

All of these projects start with support from community members, sponsors and members of the Zoo. We thank you for allowing us to expand and improve your Zoo and we look forward to welcoming you to these new exhibits in the future.
To inspire wonder of our natural world, provide an engaging learning environment, and create a passion for conservation.