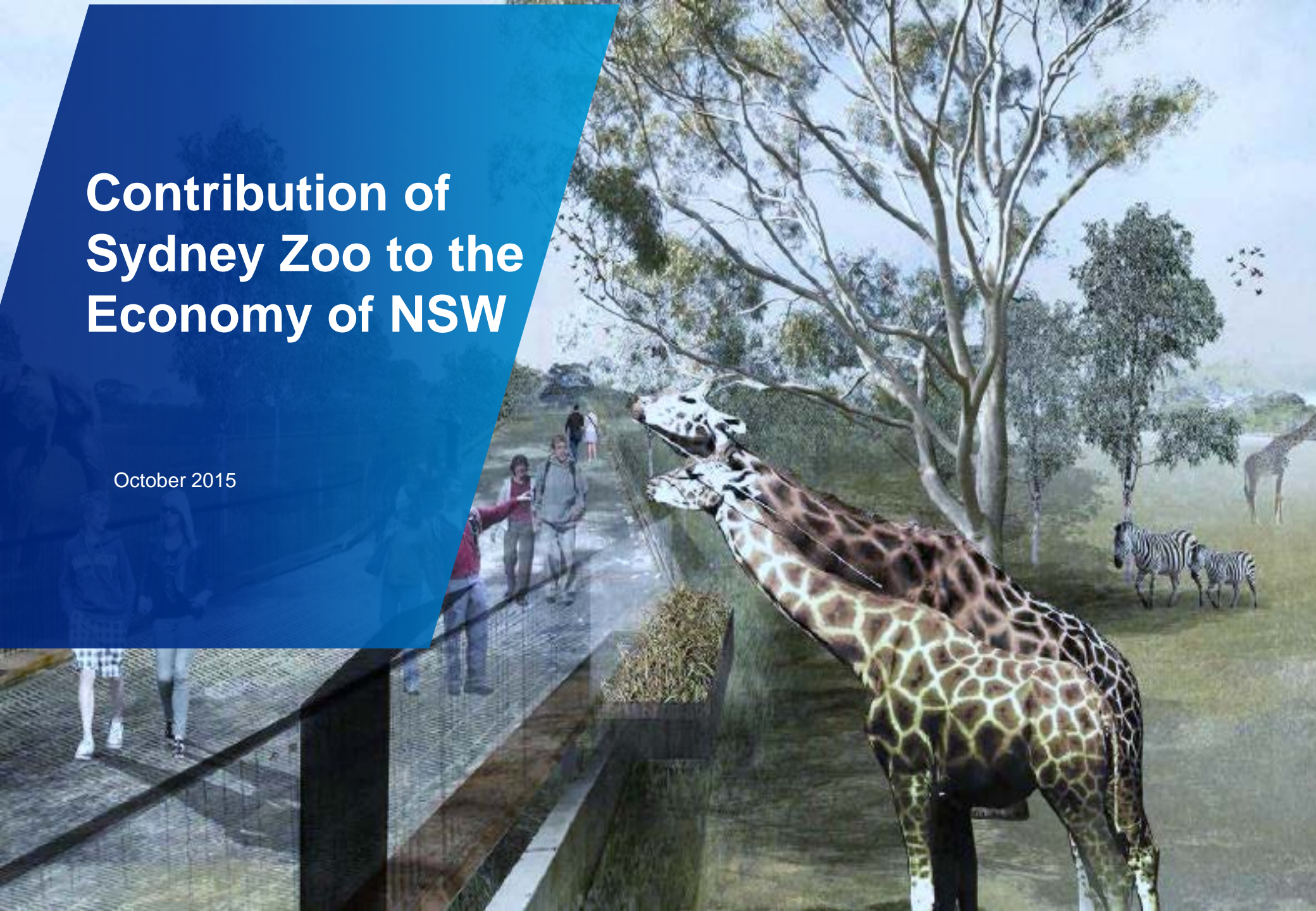


Contribution of Sydney Zoo to the Economy of NSW

October 2015



Executive Summary

This report was commissioned by Sydney Zoo Pty Ltd to assist it to determine the economic impact of the proposed Sydney Zoo at the NSW state level. The economic impacts flow from three major components, being 1) construction and operations of Sydney Zoo; 2) offsite spending of visitors attracted to or retained in NSW due to their visit to Sydney Zoo; and 3) expenditure associated with travel costs arising from all visitors to the zoo. The study considers both the direct economic impact as well as the flow-on impact. In addition to over \$60 million worth of benefits created during the construction period, the annual impact on the wider NSW economy is estimated to be around \$45 million. These economic benefits will translate into about 160 incremental full time person years of employment; and the operational phase of Sydney Zoo is anticipated to generate an on-going impact of between 120 jobs (Base Case) and 210 jobs (High case) per annum.



Tourist expenditure

Over 35,000 annual visitation from interstate and overseas

\$3 million extra tourist spending each year in NSW on goods and services



Capex/opex

\$24 million direct capital expenditure

\$14 million annual expenditure



Visitor travel expenditure

Almost 745,000 total visitors per annum

\$2.3 million total traveling spending per annum



Employment is expected to be boosted by **160 jobs during construction** and at least **120 jobs during operations**



Total contribution to the **NSW economy** valued at **\$45 million each year**

Establishment of Sydney Zoo in the Bungarribee Park Precinct of Western Sydney will be a key cultural and recreation attraction serving Western Sydney and the wider region beyond. It creates an economic impact by attracting visitors to Western Sydney and retaining the recreation spending of tourists within NSW.

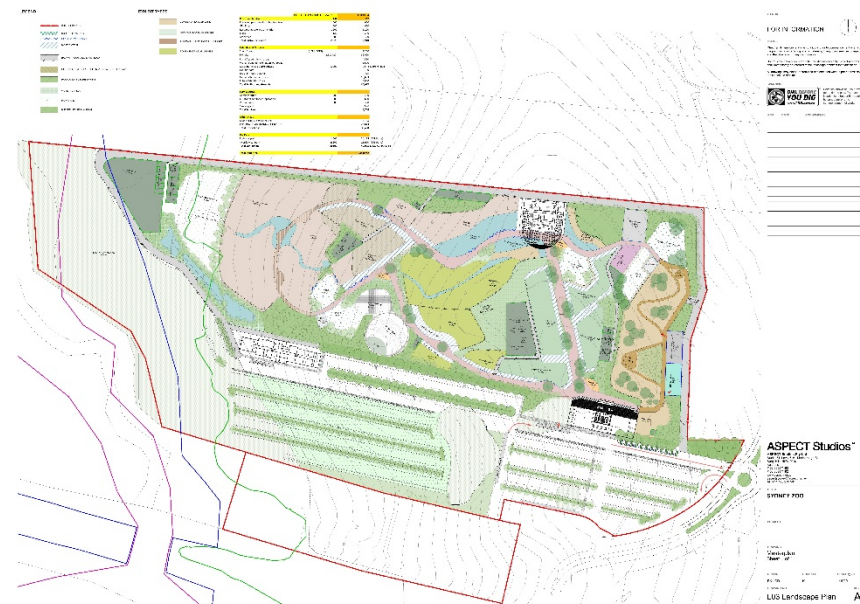
This report has been prepared to assist Sydney Zoo Pty Ltd to identify and communicate the major potential economic benefits accruing to the NSW economy from the proposed development.

Our report follows similar studies that have been undertaken in Australia and provide an estimate of the economic value of Sydney Zoo. The core impact areas quantified in this study are:

- Capital expenditures (CAPEX) and operating expenses (OPEX);
- International and domestic visitor expenditure;
- Visitor travel expenditure;
- Wider economic benefits; and
- Employment benefits.

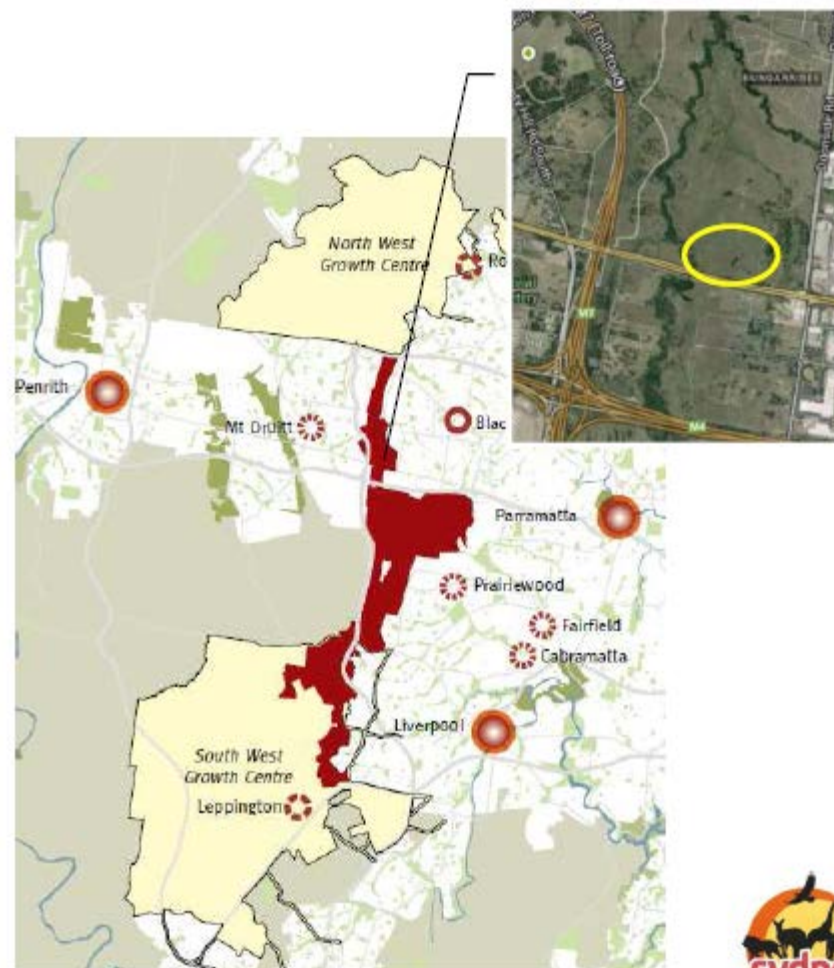
Depending on the extent of the market penetration of Sydney Zoo for tourists, two scenarios, base case and high case, are considered, and the economic impacts for each of the scenarios are estimated. There may be a range of public goods benefits arising from the development and operations of Sydney Zoo, including its impacts on environment, conservation, education and research activities. We focus on the quantification of the economic benefits arising from Sydney Zoo, and estimating the economic value of its public goods are beyond the scope of this study.

Initial concept plan for the Sydney Zoo site



Project significance

- Sydney Zoo will form an integral part of the Bungarribee Park Precinct.
- The NSW Government announced Bungarribee Park will be redeveloped to create a 200 hectare “super park” for Western Sydney.
- It is central to the population of Sydney and has a large catchment of potential visitors, with an estimated 2.3 million people within 20 minutes’ drive. Most of Sydney’s 4.6 million resident population is also within an hour’s drive of the proposed site for Sydney Zoo.
- One of the key developmental imperatives for the Western Sydney region is the construction of good quality passive recreation activities and attractions. The construction of the second Sydney international airport at Badgerys Creek will also assist in achieving this outcome. As hotels and other infrastructure will be constructed in the area, there is the potential for the precinct around the Sydney Zoo and Wet ‘n’ Wild to become a tourism cluster.
- The proposed facility is anticipated to be constructed in a manner that will take advantage of modern animal husbandry methods, display technologies and planning to redefine the visitor experience as more immersive and engaging than traditional zoos. It is expected to provide an opportunity to view the animals behaving in as close to a natural environment as possible.



Key economic benefits



Capex and opex

Seeks to identify the construction and operation of Sydney Zoo



International and domestic tourist expenditure

Seeks to understand the contribution of incremental international and domestic tourism expenditure on the NSW economy



Visitor travel expenditure

Seeks to understand the expenditure arising from travelling to and from Sydney Zoo



Wider economic benefits

Seeks to understand the broader, flow-on benefits associated with the operations of Sydney Zoo.



Employment impacts

Seeks to identify the wider contribution to local labour market

KPMG has utilised the approach proposed in Applied Economics' study¹ to provide updated economic multipliers for each type of direct new spending attracted to Sydney Zoo. The updated multipliers take into account the changing structure in the NSW economy and provides a more realistic view of how the initial spending circulates within the local economy.

KPMG notes that an Input-output (IO) multiplier based estimate is a simplified approach to understand indicative impacts of a major project. While it takes into account the forward and backward linkages of the production sector of an economy, it also uses some simplifying assumptions, including a lack of supply-side constraints, fixed prices, fixed ratios for intermediate inputs and production, and an absence of budget constraints. Therefore, we appreciate the estimates contained in this analysis may be at the upper end, and as such we have attempted to adopt conservative input assumptions to counter this impact.

Key assumptions sourced from Sydney Zoo

- The market penetration of Sydney Zoo using a combination of a "heat-map" approach
- Annual visitation of Sydney Zoo is expected to be 710,000 and 178,000, for locals and tourists respectively
- Financial information related to Sydney Zoo's capex and opex

KPMG assumptions

- The estimation is conducted for a typical year after Sydney is fully operational
- The value is expressed in \$2015
- All non-resident zoo visitors would increase their trip time to spend an extra half day in Sydney due to visiting Sydney Zoo
- 50% of their daily expenses is assumed to be spent on NSW goods and services as a result of extra time spent in the State
- Both linear and non-linear extrapolation methods are applied to recalibrate the opex according to the level of visitation
- Costs of accessing Sydney Zoo for NSW-based visitors are estimated on the distances from each LGA (where visitors live) to Sydney Zoo and road expenses per kilometre by car (the capacity of 3 passengers per car is further assumed)
- Costs of accessing Sydney Zoo for tourists are estimated on the distances from the CBD (where visitors live) to Sydney Zoo and road expenses per kilometre by bus (the capacity of 20 passengers per bus is further assumed).

¹ *Contribution of Taronga and Western Plains Zoos to the Economy of New South Wales*, Applied Economics, 2005

Two scenarios considered in this study

The key factor determining the two scenarios is the level of market penetration for domestic and international tourists.

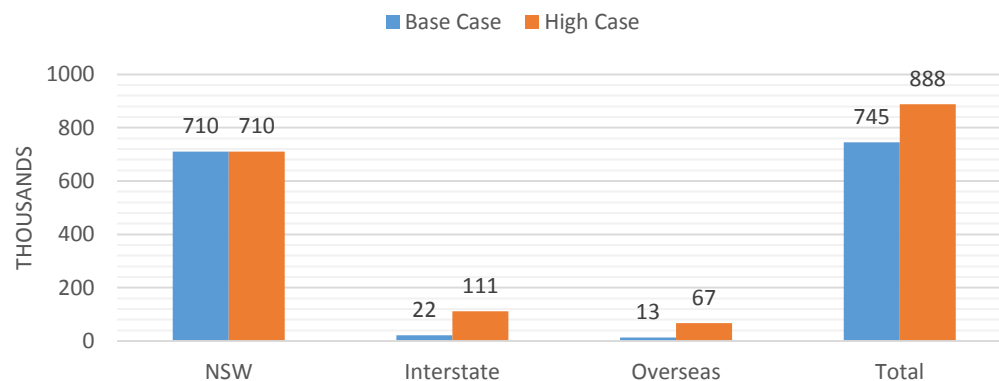
High Case

- Sydney Zoo has estimated a total of 178,000 incremental international and domestic tourists (111,000 domestic tourists and 67,000 international tourists) would visit the facility once operational.
- A total of 888,000 visitors per annum have been incorporated within the High Case, which is a combination of the 178,000 incremental international and domestic tourists, plus the local residential visitation of 710,000 visitors per annum. This equates to about 2,500 visitors per day¹.

Base Case

- We have incorporated the local residential visitation estimates of 710,000 per annum, and then incorporated a smaller value of domestic and international tourists than what Sydney Zoo has anticipated in the High Case.
- That is, we have assumed that about 20% of the High Case international and domestic tourists forecast to attend Sydney Zoo will form part of the Base Case visitation estimates. That is, about 35,200 international and domestic tourists per year (22,200 domestic tourists and 13,400 international tourists) have been included in the Base Case.

Number of zoo visitors





Capex/opex

- Two primary categories of outlays are reflected in this analysis: capital outlays involving the construction of infrastructure and facilities and annual operating outlays made by Sydney Zoo. The former are one-time outlays and recur on an as needed basis while the latter recur annually and might increase annually to reflect changes in costs and the services provided. When articulating the full magnitude of economic benefits that flow from Sydney Zoo, it is important to separately present the benefits of annual operating outlays from once-off capital spending.
- The capex outlay for Sydney Zoo is \$24.2 million. Being independent of the number of zoo visitors, this spending is fixed for both base and high cases.
- In the case of opex, Sydney Zoo's estimate of \$13,299.210 annual spending is based on 700,000 visitors per annum. Given the different visitation presented in the base case and high case, a recalibration of opex is required to reflect the different operating outlays required to cater for visitor needs.
- As shown below, opex spending of \$14.1 million and \$14.9 million are extrapolated for the base case and high case respectively.

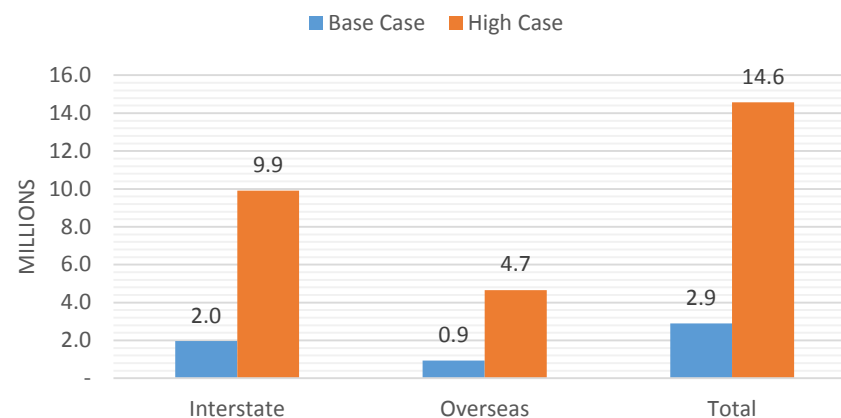
Annual operating expenditure			
	Sydney Zoo's estimate	Base Case	High Case
Number of visitors	700,000.0	745,400.0	888,000.0
Salaries, wages and on costs	5,645,377.0	5,828,448.5	6,385,959.1
Animal care	635,090.0	635,090.0	635,090.0
Maintenance consumables	835,000.0	862,077.9	944,538.5
Cost of sales	3,097,500.0	3,197,947.5	3,503,841.9
Utilities	595,000.0	614,295.0	673,054.4
Marketing	1,613,000.0	1,665,307.3	1,824,599.5
Printing/postage/stationery	50,000.0	50,810.7	55,670.9
Other expenses	828,244.0	855,102.8	936,896.2
Total	13,299,211.0	13,709,079.6	14,959,650.4



Tourist expenditure

- Some international and interstate visitors may increase their length of stay in NSW as a result of their visits to Sydney Zoo and accordingly spend more in NSW. Average tourism expenditure per day was \$140 and \$178 for international and domestic visitors respectively (IVS & DTM, March 2015). We note that no recreational expenditure associated with local visitors has been included in this analysis as it would generally represent a transfer from one expenditure type to another (with the exception of travel costs).
- It has been assumed that tourist-induced expenditure will occur due to the development of Sydney Zoo, and the following assumptions have been incorporated in this analysis:
 - All non-local zoo visitors would spend an extra half day in Sydney due to their visits to Sydney Zoo.
 - 50% of their daily expenses is assumed to be spent on NSW goods and services as a result of extra time spent in the State (additional to the marginal travel expenses associated with travelling to and from Sydney Zoo).
- Total projected tourist expenditure induced from visiting Sydney Zoo is substantial, approximately \$2.9 million per annum for the Base Case and \$14.6 million for the High Case.

Tourist expenditure

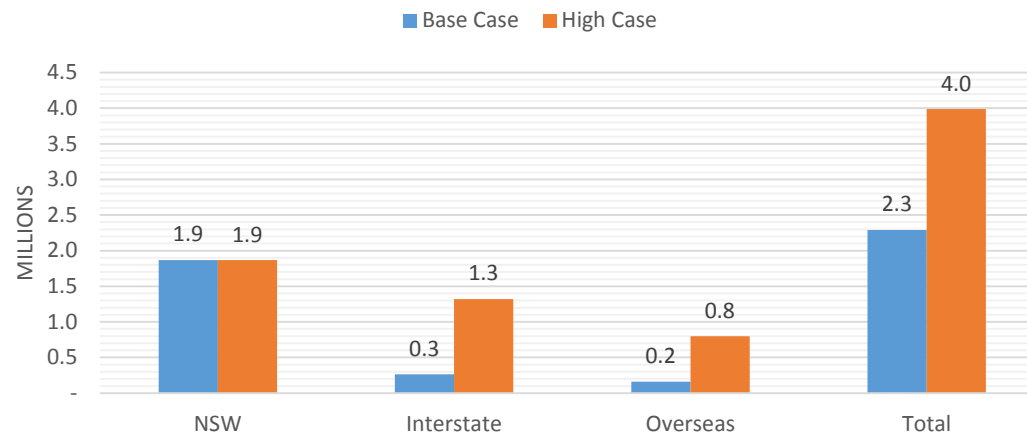




Visitor travel expenditure

- We have separately identified the cost of travel expenditure for all visitors to the Sydney Zoo. This has been done on the basis that all expenditure on travel to and from Sydney Zoo would be incremental to the NSW economy, including that spent by local residents.
- Estimates of travel costs for residents has been calculated using the data from the market penetration study conducted by Sydney Zoo.
- Based on estimated annual visitor numbers and estimated trip costs per person, estimated access costs total \$2.3 million per annum for the Base Case and \$4.0 million for the High Case. This has been determined based on the distances from each LGA to Sydney Zoo and travel costs per kilometre sourced from Austroads data, which resulted in estimates that, for local visitors, travel costs to Sydney Zoo are around \$6 per person per trip, while travel costs for non-local visitors were estimated to be around \$12 per person trip.

Visitor travel expenditure

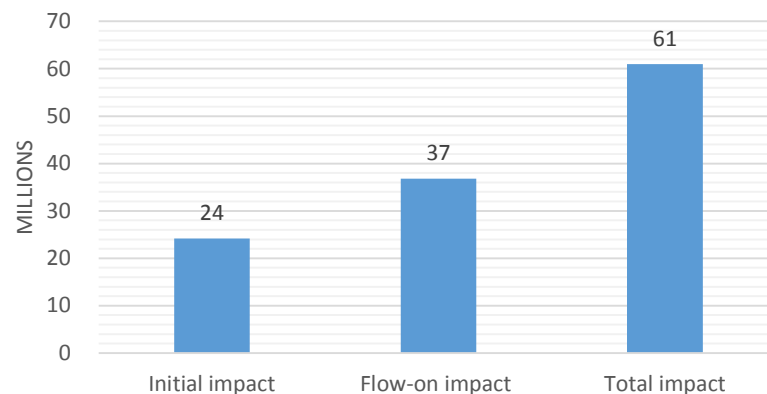




Wider economic benefits

- The benefits identified so far, being incremental tourist spending, travel access costs, capex and opex are direct impacts produced as a consequence of operating Sydney Zoo, and have not included any subsequent flow-on effects.
- The wider economic benefits analysis takes into account the potential benefits of economic activity that may accrue to businesses in the NSW economy as a result of direct spending from zoo visitors, tourists and constructing and operating Sydney Zoo.
- The aggregate value of this direct and indirect spending can be calculated by applying appropriate economic multipliers calculated by the Centre for Agricultural and Regional Economics² and adjusted by KPMG.
- As discussed previously, to avoid confusion in communicating the wider economic impacts of Sydney Zoo, one-time impacts of capex need to be reported separately from annual impacts of on-going expenditure.
- As shown below, the total economic impact for once-off capex of \$61 million is the sum of the direct impact of \$24 million and the flow-on effect of \$37 million.

Once-off economic impact of Capex

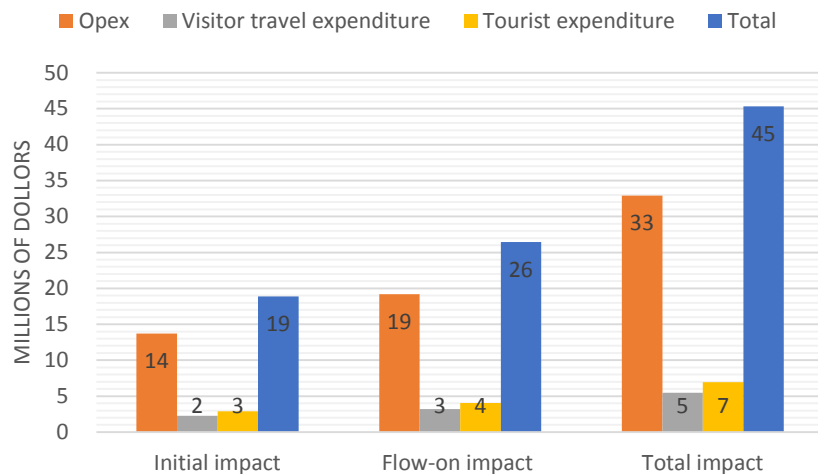




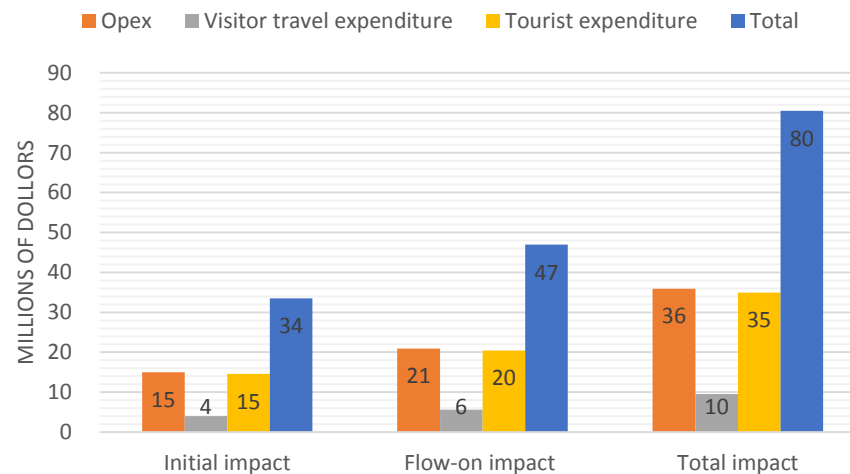
Wider economic benefits (cont.)

- Sydney Zoo is forecast to make a substantial ongoing contribution to the wider NSW economy of around \$45 million per annum, possibly increasing to as much as \$80 million per annum if the High Case assumptions are reached.

Annual economic impact (Base Case)



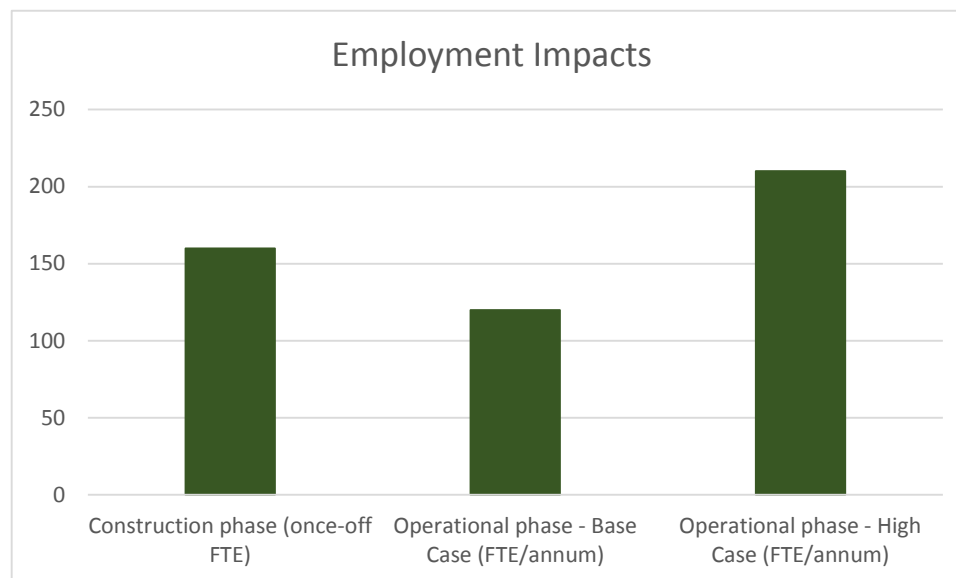
Annual economic impact (High Case)





Employment impacts

- The development and operations of Sydney Zoo will also add incremental employment opportunities into the local labour market.
- The proponents of Sydney Zoo have indicated they anticipate about 59 full time equivalent positions plus an additional (up to) 50 part time positions will be directly generated through the operations of the facility.
- KPMG has assessed the anticipated total employment impacts associated with both the construction and operational phases of Sydney Zoo using the Input Output employment multipliers.
 - The construction phase of Sydney Zoo proposal is anticipated to generate a once-off impact of about 160 incremental full time person years of employment; and
 - The operational phase of Sydney Zoo is anticipated to generate an on-going impact of between 120 jobs (Base Case) and 210 jobs (High case) per annum.





cutting through complexity

Inherent Limitations

This report has been prepared as outlined in the Introduction Section. The services provided in connection with this engagement comprise an advisory engagement which is not subject to Australian Auditing Standards or Australian Standards on Review or Assurance Engagements, and consequently no opinions or conclusions intended to convey assurance have been expressed.

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by, Adelaide Airport Limited, consulted as part of the process.

KPMG have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

KPMG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form.

The findings in this report have been formed on the above basis.

Third Party Reliance

This report is solely for the purpose set out in the Introduction Section and for Sydney Zoo's information, and is not to be used for any other purpose or distributed to any other party without KPMG's prior written consent. Other than our responsibility to the Sydney Zoo neither KPMG nor any member or employee of KPMG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party's sole responsibility.