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Dear Andy,

SSD15_7419 AUSTRALIA HABITAT AND TARONGA WILDLIFE RETREAT - RESPONSE TO SUBMISSIONS

I refer to the Department of Planning and Environment's letter of 2 June 2016 which requests the applicant's response to submissions received during the public exhibition of SSD 15_7419 from 7 April 2016 to 23 May 2016. In summary, the key matters identified in the submissions were:

- Land Use;
- Landscaping and Trees;
- Built Form;
- Heritage;
- Traffic and Parking;
- Noise and Vibration; and
- Threatened Species.

This letter is accompanied by a detailed response to each of the submissions received and addenda to the technical information provided within the Environmental Impact Statement (EIS) submitted as part of SSD 15_7419.

This letter is also accompanied by supplementary and revised architectural plans (**Attachment B**), which include minor amendments to the proposed design to accommodate:

- Revised guest room wall widths (typically from 200mm to 350mm to suit Cross Laminated Timber);
- Associated minor adjustments to egress stair locations;
- Additional solar panels on Restaurant pod;
- Terrace roof overhang simplified;
- Confirmation of lift overrun details; and

- Rectification of minor plan discrepancies.

A revised BCA Report has been prepared and is included at **Attachment L** to confirm the capability of these changes to meet the BCA.

As shown clearly on the elevations, all changes are exceptionally minor, and are largely in response to the detailed design progress undertaken in response to the submissions received.

1. LAND USE AND PERMISSIBILITY

Several public submissions received during the public exhibition period raised concern with the proposed land use, public access to the proposal, and its consistency with the predominant use of the site as a Zoological Garden. In response to these matters this section provides additional detail regarding:

- The proposed use is ordinarily incidental and ancillary to the use of the site as a Zoological Garden;
- Details of the areas, programs, and activities available to the general public and those that are restricted to guests as part of the proposal;
- The consistency of the proposal with the relevant Master Plan, being *Zoo 2000 'A View to the Future'* and associated documents; and
- The consistency of the proposal with the objectives of the *Zoological Parks Board Act 1973*.

1.1. ORDINARILY INCIDENTAL DEVELOPMENT

Under the *Mosman Local Environmental Plan 2012* (MLEP 2012), the only uses permitted on the site with development consent is for the purpose shown on the Land Zoning Map, being "Zoological Gardens" including any development that is ordinarily incidental or ancillary to development for that purpose.

In our opinion, the proposed Australia Habitat and Taronga Wildlife Retreat would be considered to be a use that is ordinarily incidental to a zoo.

The Courts generally apply the Macquarie and Oxford Dictionary to the term "*ordinarily incidental*". Both Dictionaries refer to something that arises "*in fortuitous or subordinate conjunction with*" something else. In a development context, this means a land use that naturally and commonly arises out of another land use. The NSW Land and Environment Court has found that for a land use to be "*ordinarily incidental*" to another use, it does not have to be "*ordinarily incidental*" to that particular development, but rather to the **type of development generally**. The Court also found in the same matter that a land use that is "ordinarily incidental" can be a **separate** and **significant** use of the site. As such, questions as to whether the land use also meets the ancillary test do not arise. It is therefore possible to be "ordinarily incidental" if the proposed development does not meet the "ancillary" test discussed below.

Taronga has a world class reputation in education and immersion of people with wildlife. A core function of the zoo is to increase understanding of conservation and change human behaviour to support the conservation and preservation of species. One of the ways they do this is through overnight experiences such as the 'Roar and Snore' and ZooSnooze programs at Taronga Zoo and the Zoofari Lodge at Western Plains Zoo. The overnight experiences create direct and positive

connections between wildlife and people. It provides an opportunity for visitors to learn first-hand about conservation and the revenue helps support conservation projects.

As stated above, in order to determine whether a type of use is “*ordinarily incidental*” to another, the test is whether **that type** of development is ordinarily incidental to “zoological gardens” generally, rather than looking at the **particular site** or development. This means it is necessary to consider whether visitor accommodation naturally or commonly arises in conjunction with zoological gardens. In that regard there are numerous examples of overnight accommodation at zoos in NSW, other states in Australia and overseas, including:

- Taronga Zoo ‘Roar and Snore’ overnight accommodation programme. Mosman Council approved the relocation of the existing ‘Roar and Snore’ programme including new tents, tent platforms, amenity block and lighting in December 2006. At the time of the approval the site was zoned 5(a) Community Uses under *Mosman Local Environmental Plan 1998* (MLEP 1998). The land use table permitted uses identified on the zoning map. The site was identified on the zoning map as “*Zoological Gardens*”. In review of the Council Planning Officer’s report that went to Council on 22 December 2006, the ‘Roar and Snore’ overnight accommodation proposal was considered to be ancillary to the “*Zoological Gardens*” use and permissible with development consent.
- Taronga Zoo ZooSnooze – on 2 August 2016 Mosman Council approved the pitching of 25 x 4 person tents and the use of two existing buildings for overnight accommodation for the ZooSnooze program for school students and community groups. The ZooSnooze program will accommodate up to 120 participants per night, which comprises 100 people in tents and 20 in the Backyard to Bush (the two existing buildings). Taronga has a target of 8,000 participants each year. This program has been running at Zoo since 1995 and provides students and community groups the opportunity to experience animal encounters and night walks at the Zoo.
- The Taronga Western Plains Zoo at Dubbo has two types of overnight accommodation: the Zoofari Lodge (cabins) and Billabong Camping (tents), which have both been approved by Dubbo Council. Zoofari Lodge was the first zoo-based accommodation experience to be opened in Australia and it continues to evolve and develop. Zoofari Lodge has recently undergone a \$2.1 million makeover and now features 10 new African-inspired lodges along the edge of the Savannah exhibit. Self-contained (two bedroom and bathroom) permanent cabins have been approved by Dubbo Council and opened in mid-September 2014. Consequently there are three tiers of overnight experiences at the Taronga Western Plains Zoo.
- Werribee Open Range Zoo (Victoria) – up-market safari tents.
- Mansfield Zoo (Victoria) – tent camping.
- Monarto Zoo (South Australia) – tent camping.
- National Zoo and Aquarium Hotel (ACT) – 5 star hotel.
- Wellington Zoo (New Zealand) – communal lodge.
- Auckland Zoo (new Zealand) – communal lodge.
- Dallas Zoo (USA) – tent camping.
- Livingstone Lodge at Port Lympne (United Kingdom) – lodge.
- ZSL Whipsnade Zoo (United Kingdom) – lodge.

These examples have a variety of building forms, including tents, lodges and a 5 star hotel, and are commensurate in operation, function, and use as the proposed development. The development of the above mentioned facilities to accommodate short-stay overnight accommodation in an immersive animal environment within zoological gardens is directly comparable to the proposal.

The above list is not exhaustive and there are many other examples. The provision of immersive overnight experiences is a growing trend in zoos in Australia and worldwide, as it has been found it can provide a better connection between people and wildlife than a standard day visit can. The above examples therefore illustrate that overnight accommodation is therefore considered to be “*ordinarily incidental*” to zoological gardens generally (irrespective of the scale, form or quality of the proposed buildings) and an eco-retreat is a natural extension of the current ‘Roar and Snore’ and ZooSnooze accommodation offering at Taronga Zoo.

1.2. WOULD THE PROPOSED ‘ROAR AND SNORE’ RETREAT BE CONSIDERED TO BE ANCILLARY TO ZOOLOGICAL GARDENS?

The Department of Planning and Infrastructure (DPI) published a Planning Circular on 21 February 2013 on how to characterise development. We note that whilst the Planning Circular provides some guidance on matters which must be considered when characterising development, it does contain some commentary that is inconsistent with principles established by the relevant case law.

The Circular refers to ancillary uses, which it defines as a use that is “*subordinate or subservient to the dominant purpose*”.

The Circular goes on to state:

- If a component serves the dominant purpose, it is ancillary to the dominant purpose
- If a component serves its own purpose, it is not a component of the dominant purpose but an independent use on the same land. It is a dominant use in its own right.

Consideration for characterisation

The Circular states that a component of a development may have features that are both ancillary and independent. The Circular set outs key determinants in the consideration of whether the development would be characterised as an ancillary use. These are given consideration below.

Is the component going to serve the dominant purpose of the development or is it independent?

In our view the proposed Australia Habitat and Taronga Wildlife Retreat can meet this test. The proposed use would certainly be subordinate to the primary use of the site as a zoo. Whilst the proposed retreat will accommodate some guests who are not necessarily patrons of the zoo, such as guests from the existing function centre, the central purpose of the Taronga Wildlife Retreat is to accommodate and enhance the total experience of people visiting the zoo, similar to the existing ‘Roar and Snore’ and ZooSnooze overnight accommodation program. Furthermore, any guest, including function guests will still have a connection to the zoo experience, even if they did not use a zoo day pass, given that wildlife experiences (the Australian Habitat) will be integrated into the Taronga Wildlife Retreat and a world class zoo is within the immediate visual and aural catchment of the eco-retreat.

What is the amount of land to be used for a certain component, relative to the amount of land proposed to be used for other purposes? If the amount of land is relatively small, it is more likely to be ancillary

In our view, the proposed Australia Habitat and Taronga Wildlife Retreat meets this test as the Taronga Wildlife Retreat component of the development will 'take- up' a very small area compared to the remainder of the zoo, being 0.7% of the overall Taronga Zoo grounds (building area approximately 2,015sqm compared to a total site area of 28.2ha).

Evidence of a purpose that is inconsistent with the dominant purpose is likely to undermine a claim that a component is ancillary

In our view, the proposed Australia Habitat and Taronga Wildlife Retreat meets this test. It will not undermine the purpose of the zoological gardens, is consistent with the Zone SP1 Zoological Gardens zone objectives, and is a complimentary use. It is therefore not inconsistent with the dominant purpose.

If the component is temporary, it is more likely to be ancillary; if it is regular (that is, will constitute an ongoing use for a long period of time), it is likely to be an independent use

Whilst the proposed Taronga Wildlife Retreat is permanent (similar to the ZooSnooze program), we note that the approved Roar and Snore tents are semi-permanent (noting tents are only removed for maintenance purposes). Mosman Council considered that both the 'Roar and Snore' and ZooSnooze overnight accommodation was ancillary to the zoological gardens irrespective of their ongoing use for a long period of time. Further, we understand that the law relating to 'ancillary' development does not in fact preclude or discourage permanency, as ancillary developments are often by their very nature **inspired by** the dominant use and arise to serve that dominant use on a permanent and continuing basis.

If the component goes beyond what is reasonably required in the circumstances for the development to implement the dominant purpose, it is likely to be an independent use (regardless of whether it has ancillary qualities)

Taronga Zoo has operated independently without the proposed Taronga Wildlife Retreat for many years. Therefore, the proposal can to some extent exhibit characteristics of an independent use, as this use has not been relied upon for the continued operation of the zoo. Notwithstanding, it is considered that there is a natural trend towards the provision of accommodation within zoos to enhance the natural and cultural experience of the zoo. Here, the proposed Australia Habitat and Taronga Wildlife Retreat will serve and be inspired by the dominant purpose in providing an integrated immersive experience for visitors, with the zoo as its central theme, and is not a dominant or truly independent use in its own right.

Related components of a development are likely to have an ancillary relationship, although this is not necessarily determinative of such a relationship

Not applicable for the purposes of this assessment.

Physical proximity of the component to the rest of the development is likely to be evidence of an ancillary relationship, although again not necessarily determinative

In our view, the Taronga Wildlife Retreat meets this test as it will be immersed in the zoo landscape, located on the same allotment as the zoo and will provide wildlife experiences close by and the Australia Habitat will be integrated within the proposed eco-retreat.

As such, the consent authority can be satisfied that the proposal, which we believe is most appropriately categorised as an eco-tourist facility, is a development that is ordinarily incidental to a “Zoological Garden” and is therefore permissible with development consent under the MLEP 2012.

1.3. GENERAL PUBLIC ACCESS

It has been suggested within some submissions received that equitable access and public access to the development site (as a part of the wider Taronga Zoo) is compromised by this proposal. This assertion is disputed by the applicant as:

- The development site currently includes approximately 1,270sqm of exhibit space that is publically visible. This includes an existing ‘Kangaroo and Quokka Exhibit’ and existing aviaries. The remaining area of the existing development site is used as a function centre and back of house facilities.
- As part of the proposal, the area within the development site that will be used for exhibit space that will be publically visible is approximately 3,710sqm (increase of approximately 2,440sqm). Further this additional exhibit space has improved accessibility (DDA compliance) compared to the existing exhibits. This includes the following new exhibits:
 - ‘Sanctuary Exhibit’ (Accessible access to view exhibit by day visitors – with closer encounters for retreat visitors, which is 80%+ accessible);
 - ‘Kangaroo Exhibit’ (Accessible access to view exhibit – retreat visitors same access as per day visitors);
 - ‘Platypus Exhibit’ (Accessible access to view exhibit – retreat visitors same access as per day visitors);
 - New walkthrough aviary at the south of the existing Wollemi aviary (Accessible access into exhibit – retreat visitors same access as per day visitors);
- Further to the new exhibits identified above, the proposal will also deliver a new accessible boardwalk into the Wollemi aviary, which retreat visitors will also have the same access as per day visitors.
- As outlined above, the extent of area within the development site used for the purpose of exhibiting animals and habitat has significantly increased as a result of the proposal. Further, the proposal has enabled a significant improvement in the accessibility for all guests to interact with this part of the Zoo. Notably the development is successful in achieving a balance between the desire to maximise public access across the development site, maintaining existing mature vegetation, and the functional requirements of providing DDA compliant pathways on a steep site.
- As experienced throughout the wider Zoo exhibits, general guests will have access to viewing platforms into the Australia Habitat. As illustrated at **Attachment C**, the proposed viewing platform has been designed to maximise vistas of the precinct, but also has been positioned to avoid substantial impact to significant trees and vegetation, and provide DDA compliant access. These

platforms are typical of many animal exhibits, where personal interaction between animals and large volumes of people is simply not practical or desirable.

- Guests of the Taronga Wildlife Retreat will be granted access inside the perimeters of the Australia Exhibit to interact personally with native wildlife. This is an experience that is not available to general day guests of the Zoo for many practical reasons, notably safety and protection of the animals which could not cope with the millions of visitors annually. The inclusion of this personal interaction for some guests is an additional experience compared to the existing exhibit, however is typical of the operation of the wider Zoo, where special or VIP tours can be arranged at an additional cost to entry. This additional charge or benefit for overnight guests is not atypical for the operation of Taronga Zoo or other major cultural institutions.
- The price of entry to the Taronga Wildlife Retreat will be market driven, as are all ticketed aspects of Taronga Zoo. Taronga Conservation Society Australia (TCSA) is a non-for-profit organisation and as such all profits from the operation of the Taronga Wildlife Retreat will contribute to the ongoing initiatives of TCSA in accordance with the *Zoological Parks Board Act 1973*.

The supplementary plans and photomontage at **Attachment B** and **Attachment C** respectively illustrate clearly the areas of the development site that will be available to general guests and areas that will be available to guests of the Taronga Wildlife Retreat, including areas only accessible by guests of the Taronga Wildlife.

As outlined above, the applicant has sought to design the Australia Habitat to maximise public viewing opportunities, improve disability access throughout the precinct, retain significant vegetation at the perimeter of the precinct, and provide an additional user experience for guests of the Taronga Eco Retreat.

1.4. CONSISTENCY WITH ZOO 2000 'A VIEW TO THE FUTURE'

A Master Plan for Taronga Zoo was prepared and adopted in 2002 by the Minister for Planning, pursuant to Clause 21 (3) of the now repealed *State Environmental Planning Policy No.56 - Sydney Harbour Foreshores and Tributaries* and comprises the following suite of documents:

- *Zoo 2000 'The View to the Future' – December 1999;*
- *Taronga Zoo Master Plan Urban Design Principles and Visual Analysis (UDAS Guidelines) – May 2001; and*
- *Taronga Zoo Conservation Strategy – July 2002.*

The EIS submitted with the application provide a table demonstrating how the proposal was consistent with the Master Plan and each of its associated documents. In summary, the proposal is consistent with *Zoo 2000 'The View to the Future' – December 1999* as:

- The Master Plan states that the 'intent' of the exhibit precincts (including the Australia Precinct) is to "develop a series of discreet exhibit experiences where visitors can comfortably spend time experiencing the thrill of discovery and the joy of acquiring new insights in face-to-face encounters with living animals and staff of the Zoo". The design of the Australia Habitat and the Taronga Eco Retreat directly responds to this intention of the Master Plan, as outlined throughout this letter and the EIS submitted with the application.

- Whilst the proposed exhibit pathways have been revised since the 2002 Master Plan, the 'Primary Visitor Circulation' spaces have not been significantly altered and all 'Public Precincts' identified in the Master Plan have been retained. Further the general arrangement of the exhibit pathway through the Wollemi exhibit and at the southern portion of the Australia Precinct is being retained as part of this proposal.
- The proposal includes the development of the Australia Habitat exhibit within the area of the Zoo identified in the Master Plan as the "Australia Precinct". The development of the Australia Habitat will increase the extent of animal displays, number of species exhibited, native vegetation, and quality of facilities for the animals within the Australia Precinct, thus enhancing the primary function of this exhibit. As such the proposal will improve the visual appearance of the Australian Precinct, including investment in rejuvenating Australian animal exhibits.
- The proposal has been designed to redevelop existing back of house and small Australian habitat exhibits into a new Australia Habitat that is a natural extension of the Wollemi exhibit and connects via a pathway to the Tasmanian Devils exhibit. The proposal therefore reinforces the thematic Australian Precinct of the Zoo.
- The Taronga Wildlife Retreat further reinforces the thematic Australian precinct of the Zoo by specifically engaging guests with immersive animal encounters with Australia animals, where they will learn about Australian native wildlife, as well as opportunities to gain insights into conservation research undertaken at the Zoo.

As outlined above, the proposal is consistent with the primary document of Master Plan for Taronga Zoo prepared and adopted by the Minister for Planning. The proposal is also consistent with the objectives of the associated documents including the *Taronga Zoo Master Plan Urban Design Principles and Visual Analysis (UDAS Guidelines)* – May 2001, and the *Taronga Zoo Conservation Strategy* – July 2002 as outlined below.

- The UDAS Guidelines identifies seven urban design principles to guide development at the Zoo. The proposal is consistent with these seven principles as:
 1. The proposal directly seeks to achieve the objectives of the land use principle including "preserving the balance between the natural bushland setting, contemporary zoo design, and that of visitor focussed services and activities of the zoo" as outlined in this letter and the EIS.
 2. The proposal does not restrict or adversely impact any of the objectives relating to 'Public access and linkages' as the proposal maintains public access along the Foreshore, maintains connections with Bradleys Head SHNP and MMC, provides clear means of circulation within the Zoo, and maintains visual and physical links to and along the foreshore.
 3. With regards to the conservation of significant bushland and other natural features of the site the proposal preserves significant vegetation where possible, and where tree removal is required, the proposal will replant significant native vegetation to ensure there is no net loss of mature vegetation across the development site. Further, this proposal retains the natural landform of the Zoo by proposing terraced building forms that follow the steep topography of the site. Notably the proposal is not positioned to impact any major ridge lines and gullies within the Zoo site.
 4. The proposal has been specifically designed to respond to the principal to protect the unique visual qualities of the harbour, and local context as illustrated in the photomontages submitted with the EIS. These photomontages have been positioned in the same key locations identified

within the UDAS Guidelines at Figures 2.4.2 – 2.4.h. Notably, none of the view corridors identified within the Zoo to the harbour (Figures 2.4.4 and 2.4.5 of the UDAS Guidelines) are impacted by the proposal.

5. The proposed scale and quality of the development has been derived from a context analysis which has sought to minimise visibility of the proposal from the Harbour and maintain the dominant bushland setting of the site. Within this principle it is noted that the site is identified within the 'Upper East' landscape precinct of the Zoo. The built form guidelines for this precinct includes confining buildings to flat areas wherever possible, minimising visual intrusion visible from the water, avoid development that is clearly visible from the water, and avoid development close to the gully and ridgeline of the precinct to the west. The proposal avoids the gully and ridgeline within the precinct, and has been designed to terrace down the natural slope of the land to minimise visibility from the water. Whilst the proposal does include buildings on sloping land, it is considered that this positioning to the east of the main Zoo functions will minimise the impact the proposal will have on the ongoing operation and general arrangement of the public pathways of the Zoo.
 6. The proposal has sought to select low-energy and sustainable building products to ensure the application of ESD principles is maintained within the precinct.
 7. The proposal will not restrict or adversely impact maritime activities on the site.
- The proposal is generally consistent with the Conservation Policy and Conservation Principles contained within the 2002 Conservation Strategy for Taronga Zo as outlined in Section 4 of the Heritage Impact Statement submitted with the EIS.

As outlined above and in the EIS and associated documents, the proposal is consistent with the relevant Master Plan for the site, being *Zoo 2000 'A View to the Future'* and its associated documents.

1.5. OBJECTIVES OF THE ZOOLOGICAL PARKS BOARD ACT 1973

The *Zoological Parks Board Act 1973* (Zoological Act) governs Taronga and Taronga Western Plains Zoos. Under clause 5(2)(b) of the Zoological Act the Board shall, for the purposes of any Act, be deemed to be a statutory body representing the Crown.

Whilst the Zoological Act does not contain explicit objectives, the TCSA has a formal mandate, as defined in section 15 of the Zoological Act, to:

- a) *carry out research and breeding programs for the preservation of endangered species;*
- b) *carry out research programs for the conservation and management of other species;*
- c) *conduct public education and awareness programs about species conservation and management; and*
- d) *display animals for educational, cultural and recreational purposes.*

The proposal is consistent with this formal mandate as it will improve public awareness of species conservation and management and also provide for the improved display of animals and habitat for the educational and cultural purposes. The Zoological Act further allows for the Board to “provide

educational services for the public” and “may provide and charge for such services in connection with zoological parks maintained and controlled by the Board as the Board may determine”.

2. LANDSCAPING AND TREES

In response to the submissions received and the request from the Department, this letter is accompanied by supplementary landscape information (Refer to **Attachment D**) which outlines the detailed landscape specifications proposed as part of the development. Notably the planting schedule confirms that **there will be no net loss of significant trees** (i.e. trees rated ‘A’ or higher) **as a result of the proposal**.

The proposed building structures (in ‘pods’, rather than in singular large floor plates) inherently reduces impacts of significant vegetation compared to a typical building design as established root zones can be avoided by smaller more agile floor plates. Further, the proposed construction of the structures will be sensitive to the existing vegetation as:

- ‘Pods’ will be constructed using Cross Laminated Timber (CLT). This reduces the total amount of construction time on the site, in addition minimising impacts to ground vegetation and root zones of trees to be retained as part of the proposal.
- Other construction methodology utilised to protect existing trees and landscaping.

A significant landscaping overlay has been prepared as part of this application to ensure the Australian Habitat and immersive experience is generated with a comprehensive landscaping plan to be developed through detailed design. The proposed site levels, building locations and paths have been determined using existing key site levels and trees. To allow improved accessibility the levels will be modified to work with these key features. Specifically pods have been sited to minimise impacts to trees during and after the construction stage, with the proposed walkways being elevated to ensure clearance with the lower canopy.

With respect to particular high retention value trees identified for removal or that may be adversely impacted by the proposal, the Arboricultural Report submitted as part of the EIS made recommendations for mitigation measures to protect trees that were capable of being retained. TCSA commits to the retention of significant trees where possible.

Where the proposal requires the loss of significant trees due to irreconcilable challenges, TCSA has committed, as outlined in **Attachment D** to plant significant, mature trees with a planting height of at least 3.0m and 4.0m. This is at significant cost to the project, but is considered important to ensure that the bushland setting and scenic quality of the site is respected, and that the new exhibits can operate as soon as possible.

3. BUILT FORM

3.1. OVERVIEW OF PROPOSAL

Several submissions posed questions regarding the scale of the proposed development. As illustrated on the architectural plans, the ‘pods’ are proposed at various heights depending on the natural ground level in that location, so that taller buildings were positioned at low points in the development site, with all buildings proposed no higher than the existing Taronga Centre.

This positioning of lower buildings towards the north of the site has also mitigated any adverse overshadowing impacts of the proposal on the proposed Sanctuary Exhibit. As illustrated within the shadow diagrams at **Attachment B**, a significant portion of this new exhibit will still receive direct solar access within mid-winter. Further, more detailed reviews of sun access and mechanical heating for animal and habitat welfare within all new exhibits will be undertaken as part of the separate approvals required under the *Exhibited Animals Protection Act 1986*. The TCSA is satisfied that adequate solar access to these exhibits can be achieved to satisfy those separate approvals.

Whilst the height of the 'Restaurant pod' structure itself will be consistent with the Taronga Centre, upon review of the technical aspects of the lift overrun, it has been determined that the lift overrun will be proposed a maximum 0.3m higher than the existing Taronga Centre lift overrun. This will be imperceptible, particularly as the lift overrun is location within the centre of the building footprint. Regardless, this has been rectified within the architectural plans submitted at **Attachment B**.

Please find below clarification on the scale of the proposed development:

Table 1 – Numeric Aspects of the Proposal

Matter	Proposal
Total Zoo Site Area	28.2ha
Development Site Area	12,970sqm
Footprint of proposed retreat structures	2,015sqm (0.7% of total zoo area)
Maximum Height of Existing Structures within Development Site	RL 75.6 (Taronga Centre Lift Overrun)
Maximum Height of Proposed Structures within Development Site	RL 75.9 (Restaurant Lift Overrun)
Total GFA Proposed	4,395sqm (4,150sqm in Stage 1, 245sqm in Stage 2)

As discussed with the Department of Planning and Environment staff previously, additional elevations and additional photomontages of the proposal are not considered necessary as part of this response to submissions, as the package submitted with the EIS has an appropriate level of detail to provide a robust assessment of the proposal.

3.2. FIRE AND RESCUE NSW AND NSW RURAL FIRE SERVICE

Fire and Rescue NSW prepared a submission dated 10 May 2016 on the proposal which made several comments, observations and recommendations. In response to these comments, a Revised Fire Safety Strategy has been prepared by Core Engineering Group and is included at **Attachment I**.

The Core Engineering Group provides direct responses to the five recommendations made by Fire and Rescue NSW at Appendix A of that report.

Due to the location of heritage listed fences and trees at the boundary of the site, and further in response to the requirements for security to the zoo site, direct access via the site roadway is not

possible for this development, and this recommended condition cannot be accepted by TCSA. Existing access arrangements that are currently in operation with the local fire brigade are instead proposed to continue.

In addition to the comments made by Fire and Rescue NSW, the NSW Rural Fire Service provided a formal letter in response to the application on 10 August 2016. TCSA has been in continual contact with NSW Rural Fire Service relating to the ongoing operation of the zoo and the proposed development.

NSW Rural Fire Service supports the comments and recommendations of Fire and Rescue NSW, including additional protections for external combustible timber facades and ember protection which have been adopted within the Revised Fire Safety Statement (**Attachment I**), however also propose a number of conditions for additional fire safety measures for implementation. In order to address these recommendations a response by Australian Bushfire Assessment Consultants has been prepared and is included at **Attachment J**.

As outlined within this response, some of the recommendations made by NSW Rural Fire Service cannot be accommodated on this site as summarised below:

- It is neither feasible, nor desirable on heritage, security and landscape grounds to provide vehicular access to each proposed accommodation pod. Pedestrian pathways are identified from each proposed accommodation pod, with perimeter vehicular access available.
- Pedestrian access to the buildings nominated as refuge buildings will be to the west, into the zoo site and away from the hazard. These buildings are located in excess of 300 metres from any vegetation to the eastern side of Bradleys Head Road – the potential bushfire hazard vegetation to the proposed accommodation buildings. As such the recommendation to upgrade the refuge building cannot be reasonably accommodated.
- The zoo site is subject to a high degree of management and guests will be accompanied in the event that they need to be evacuated from their accommodation to the refuge building(s). This will be further developed in the update of the zoo's emergency management plan.

4. HERITAGE

In response to the submissions received and the request from the Department, this letter is accompanied by an Addendum to the Heritage Impact Statement (HIS) prepared by Jean Rice, Heritage Architect of the TCSA (Refer to **Attachment E**). This HIS Addendum provides the following:

- Clarity regarding the numbering used for the tree removal within the Heritage Impact Statement and the Arboricultural Assessment;
- Additional detail on the proposed relocation of the Circular Kiosk (item 96B) as part of the development and integration of the original fountain in the reception area.
- An overlay of the Original and Early Paths (item 99L) on the proposed architectural plans, noting that the majority of the Original and Early Paths is no longer in existence. Whilst avoiding impact to all paths is not feasible, the Heritage Impact Statement Addendum does provide measures to interpret the original paths, and recommends archaeological monitoring around any original paths.
- Recommended mitigation measures for the partial removal of the Rustic Stone Garden Walling (item 149L).

- Recommended mitigation measures for the Rustic Stone Garden Wall near the *Gardenia Thunbergia* (item 152L).
- Updated mitigation measures to include an archaeological survey process that can be incorporated as a condition of consent, should consent be granted.

5. TRAFFIC AND PARKING

In response to the submissions received and the request from the Department, this letter is accompanied by a supplementary assessment to the Transport Impact Assessment (TIA) prepared by GTA Consultants (Refer to **Attachment F**). This supplementary information provides the following:

- An updated assessment of the proposal which incorporates the cumulative peak traffic and demand of the Sumatran Tiger Adventure project and the proposed Taronga Institute of Science and Learning, and night-time events; and
- Measures to be implemented to discourage zoo visitors parking on streets surrounding the zoo.

This supplementary assessment notably finds that the peak overlapping traffic and parking demands of the three development projects on the site, are:

- Traffic generation up to 84 vph;
- Parking demand up to 62 spaces.

Based on the findings of all night time uses and the overlapping development projects, it can be concluded that adequate parking can be provided on site for all uses, and that any parking on surrounding streets is the subject of choice, rather than capacity. As a result, the applicant will also offer incentives to encourage utilisation of on-site parking, by:

- Issuing internal communications amongst staff members to avoid using on street parking.
- Offering discounted night time parking rates and 'staggered session' tickets for Vivid Sydney in order to avoid the concurrent arrival and departure of large number of crowd.
- Including 'free' on-site parking for retreat guests included with the reservation.
- The promotion of public transport.

6. NOISE AND VIBRATION

In response to the submissions received and the request from the Department, this letter is accompanied by a revised Noise and Vibration Assessment prepared by Renzo Tonin and Associates (Refer to **Attachment G**).

The revised Noise and Vibration Assessment includes additional noise monitoring and a quantified assessment of the likely construction and operational noise anticipated for the proposal.

This assessment notably finds that the predicted noise levels as a result of the operation of the proposal are compliant with the relevant standards for the day, evening and shoulder time periods. During the night time, exceedances of up to 13dB are predicted in mid frequencies. As such, it is recommended that use of external areas, including the terrace outdoor area and the guest lodge deck

is limited to 12:00 midnight, and doors and windows of the terrace, restaurant, and guest lodge should also be closed at 12:00 midnight.

Further, the assessment notes that the car park noise predictions and the traffic noise from the development will comply with the relevant standards for surrounding residences.

The revised Noise and Vibration Assessment also assesses the noise generated during the construction phase of the development. The Assessment finds that the construction management levels at all receiver locations would generally comply with the relevant standards at sensitive receivers during the day period. A very minor exceedance of up to 2dB during demolition is however anticipated and noise management levels would generally be exceeded during the evening and night time periods should they occur. As such, the Noise and Vibration Assessment provides recommendations to mitigate potential noise and vibration impacts during the demolition and construction phase.

7. THREATENED SPECIES

One submission received during the public exhibition period has question whether the proposal will impact on the Red-crowned Toadlet (*Pseudophryne australis*) within the development site. Please refer to **Attachment H** which confirms that the proposal will not impact upon the Red-crowned Toadlet species.

8. SEPARATE APPROVALS

As per other projects, Taronga will be lodging an 'Application for approval to construct or alter an animal enclosure or facility' with the Department of Industries in accordance with the Exhibited Animals Protection Act 1986. Due to the specific details required as part of the application, the formal application process will commence during the detailed design phase.

If required, the Conditions of Consent can include (under Other Approvals and Permits).

The Applicant shall apply to the Department of Primary Industries for all necessary permits and other approvals as required under the Exhibited Animals Protection Act 1986 (EAPA).

9. CONCLUSION

This letter and its attachments have addressed the comments made by the public authorities and agencies and the general public in response to the public exhibition of SSD 15_7419 from 7 April 2016 to 23 May 2016. Specifically this letter has sought to provide clarity on the proposal including although not limited to:

- Providing additional detail that the proposed use is ordinarily incidental and ancillary to the use of the site as a Zoological Garden and therefore permissible development, with consent.
- Confirmation that the proposal is consistent with the objectives of the *Zoological Parks Board Act 1973* and *Zoo 2000 'A View to the Future'* and its associated documents.
- Providing numeric areas of the proposed exhibit and new retreat facilities, confirming that the proposal will improve areas available for animal exhibits, increase the level of accessibility to existing and proposed exhibits, and provide appropriate access for both day visitors and retreat guests to the new exhibits offered.

- Confirmation that there will be no net loss of significant trees as a result of the proposal.
- Providing additional information on the proposed interpretation of the existing heritage Circular Kiosk and 1917 fountain base.

Having considered all the relevant matters, we conclude that the proposal will facilitate a sound development outcome balancing the interests of the ongoing operation of TCSA and the Taronga Zoo and the public interest and that the proposal is therefore considered well-worthy of the Department's support and ultimate approval.

We trust this package of information provides a satisfactory response to the submissions. However, should you require further clarification of the response, or any additional information please do not hesitate to contact myself or Mr Matthew Spooner of TCSA on (02) 9978 4708.

Yours sincerely,

A handwritten signature in black ink, appearing to read "A. Ryan".

Ashleigh Ryan
Senior Consultant - Planning

Attachments

- Attachment A – Detailed Response to Submissions
- Attachment B – Supplementary and Revised Architectural Plans
- Attachment C – Supplementary Photomontage of Visitor Viewing Platform
- Attachment D – Supplementary Landscape Plans
- Attachment E – Heritage Impact Statement Addendum
- Attachment F – Transport Impact Assessment Addenda
- Attachment G – Revised Noise and Vibration Assessment
- Attachment H – Native Fauna Curator Response
- Attachment I – Revised Fire Safety Strategy
- Attachment J – Bush Fire Safety Response
- Attachment K – Flooding Response
- Attachment L – Revised BCA Statement