

15 November 2013

Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Attn: Carl Dumpleton

Dear Sir,

Submission Regarding the Proposed Dubbo Zirconia Project

The following provides the submission of Taronga Conservation Society Australia (TCSA) in relation to the Environmental Impact Statement for the proposed Dubbo Zirconia Project.

TCSA would like to express its general support for this project in recognition of its likely contribution to the local and broader economy. We do however have a number of concerns in relation to the project and request additional information and commitments from the proponent (Australian Zirconia Ltd) to ensure that there are no impacts to the function and the quality of experience offered by Taronga Western Plains Zoo. The concerns relate to the use of Obley Road for the transport of materials to and from the proposed facility, specifically:

- Traffic safety
- Traffic noise.

1. Taronga Western Plains Zoo

Taronga Western Plains Zoo (TWPZ) is situated within the Western Plains Tourism Precinct adjacent to Obley Road Dubbo, the primary access point nominated by the proponent. TWPZ is an anchor attraction for not only Dubbo, but New South Wales, and has over 220,000 visitors annually. Since opening, the zoo has had nearly nine million visitors pass through its gates. TWPZ is an extremely important contributor to the regional economy and the community of Dubbo and inland NSW.

In addition to its positive economic and direct financial impacts, Taronga Western Plains Zoo also provides significant social, education, and global conservation outcomes through its extensive array of program participation. These include globally significant programs such as that of the Southern Black Rhinoceros for which TWPZ holds over 20% of the world's managed program for this species, among numerous others. TWPZ's Southern Black Rhinoceros facility runs adjacent to the Obley Road.

Key indicators of the zoo's contribution to the local area and region include:

- The Dubbo LGA visitor economy is worth \$335 million annually*
- Direct visitor expenditure within the Dubbo LGA is \$175 million each year*

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- 70% of leisure tourists visiting Dubbo are motivated by a trip to Taronga Western Plains Zoo*
- 78% of leisure tourists that visit Dubbo patronise the zoo*
- TWPZ employs 99 permanent staff and up to 180 casual staff (full time equivalent 124), and has a retention rate of 95.1%.
- TWPZ has operational expenditure of around \$12.5 million in the local economy each year.
- Over \$100,000 annually in community / schools / charitable group support and donations
- TWPZ provides volunteering opportunities for 77 adult volunteers and 30 Youth at the Zoo volunteers representing over 6000 hours this year.
- TWPZ is an accredited provider for Community Service placement through the Dept of Correctional Services NSW and has provided over 2900 hours of work placement this year.
- TWPZ is a major contributor to local social and community programs including through the Orana Juvenile Justice Centre Lincoln School, and the 'Walanmara' program, a partnership with NSW Community Services for at risk Indigenous youth.
- TWPZ contains numerous key wildlife conservation programs including, but not limited to, Southern Black Rhinoceros, Sumatran Tiger, and Tasmanian Devil.
- TWPZ contains the only zoo based conservation wildlife reproductive biology laboratory, which also doubles as the Cryo Preserve for the Great Barrier Reef Coral Preservation partnership program with the Smithsonian Conservation Biology Institute.
- TWPZ through its dedicated Wildlife Hospital attends to and undertakes rehabilitation of native wildlife species, over 400 cases in the last year.

(*The above information pertaining to Visitor Motivation, Spend and Economic Impact have been sourced via Tourism Australia National Visitor Survey Calendar Year 2012, and Tourism Australia Dubbo LGA Profile 2007.)

2. Traffic safety

Traffic generated by the proposal (during both construction and operation) would potentially increase the risk of traffic incidents in the vicinity of the zoo, specifically on Obley Road, between the Newell Highway and Camp Road. Under the EIS's worst case estimate, there would be 478 vehicle trips per day generated by the proposal that would use Obley Road adjacent to the zoo. Of these, 158 would be heavy vehicles, largely related to the transport of chemicals for input into the processing facility. Taronga Conservation Society Australia requests a number of commitments and clarifications from Australian Zirconia Ltd in its submissions report to ensure that traffic safety risks are minimised. These relate the provision of

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an adequate road standard and risks associated with the transport of hazardous materials.

Adequate Road Standard

The EIS indicates that there would be various upgrades to Obley Road under the proposal, including alignment adjustments to meet Austroads *Guide to Road Design* requirements for a 100km/hr speed limited road, pavement improvements, and the establishment of a 9m wide pavement seal. No specific improvements to Obley Road adjacent to the main operational area of the zoo, are indicated in Figure 2.4 of the EIS

As acknowledged in the EIS, traffic volumes on Obley Road adjacent to the zoo are significantly higher than traffic volumes south of the zoo. Table 4.75 of the EIS shows average annual daily traffic numbers on Obley Road between the Newell Highway and the zoo entrance increasing from 2330 in 2012 to 3331 in 2036. Many vehicle users driving between the Newell Highway and the zoo entrance are unfamiliar with the road. There are also a large number of caravan and motor homes that enter the zoo. Traffic in this area is also accessing the nearby attractions of Dundullimal Homestead and the adjacent reserve on the Macquarie River.

The Tracker Riley Cycle Path on the western side of Obley Road provides a heavily used cycle and pedestrian link between Dubbo and the zoo, with an at-grade crossing immediately to the south of the zoo entry road. It also provides a link to the Dundullimal Homestead and adjacent recreation reserve.

All of the above factors contribute to a challenging road safety environment in this area. This is likely to become significantly more challenging with the addition of large numbers of heavy vehicles on Obley Road as a result of the proposal.

It will be vital to minimise the risk of conflict between vehicles associated with zoo visitation and those associated with the proposal. TCSA therefore suggests that the standards to be adopted for Obley Road between the Newell Highway and the zoo entrance, should be higher than those adopted for the remainder of Obley Road. Specific improvements requested by TCSA for this section of Obley Road are:

- The establishment of a standard 12m wide road cross section based on Austroads guidelines for roads carrying more than 3000 vehicles per day. This would comprise 2 x 3.5m wide lanes in each direction, 2 x 1.5m wide sealed shoulders, and 2 x 1m unsealed shoulders on the outside of the sealed shoulders.
- Clear road and edge line delineation.
- Addressing the presence of clear zone hazards such as trees (potentially through minor adjustments to the road alignment and/or safety barriers)
- Upgrading of the cyclist/pedestrian crossing on Obley Road near the zoo entrance. The most appropriate solution may be grade-separation

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(underpass), however TCS acknowledge this would require discussion between the TCSA, Australian Zirconia Ltd, Council and RMS to identify the optimum solution.

TCSA also requests that pavement upgrades are undertaken along Obley Road between the Newell Highway and Camp Road to create a consistent high quality surface along the entire length of this section of road. We would like consideration to be given to the use of low noise pavement as part of any pavement upgrade.

The Newell Highway/Obley Road intersection is also an area of concern to TCSA, due to potential conflicts between zoo user vehicles (particularly caravans and motor homes) and heavy vehicles. TCSA requests discussions with Australian Zirconia Ltd (and with RMS and Council) regarding potential improvements to this intersection.

While acknowledging that it is not in the control of Australian Zirconia Ltd, TCSA would like to highlight the inappropriate nature of the posted speed limit (currently 100km/hr) on Obley Road adjacent to TWPZ. TCSA believes (as expressed in previous communication to relevant agencies) that the speed limit under the current traffic environment is already too high, given the shared space between vehicles, pedestrians and cycles. The addition of large numbers of heavy vehicles increases the already strong case to reduce the speed limit in this area to 80km/hr.

Hazardous Material Risks

The EIS identifies a range of hazardous materials that are likely to be transported by truck along Obley Road adjacent to the zoo. A traffic incident involving a spill from one of these vehicles could potentially have serious consequences for the welfare of zoo patrons, staff and animals.

While it is appreciated that a spill is unlikely, there is relatively little detail provided in the EIS to determine this likelihood and any associated consequences. Section 4.14.4.1 of the EIS refers to a Sherpa (2013) report as identifying that transport risk screening thresholds are exceeded due to the movement of hazardous materials, and that a transport route selection study is required. The Sherpa (2013) report included as Appendix 4 of the EIS is however a Preliminary Hazard Analysis that specifically excludes (in Section 2.4) risks associated with transport of hazardous materials to and from the site. Appendix 11 of the EIS includes Material Safety Data Sheets for products that are dispatched from the site but not for those that would be incoming.

Section 4.14.4.2 of the EIS identifies various measures proposed to address the risks associated with the transport of hazardous materials. These include the preparation of a Transport Management Plan for the project. There is however little indication of the types of measures that would be included in the Transport Management Plan.

TCSA requests that Australia Zirconia Ltd, in its submissions report:

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- Provide more detail on the likelihood and potential consequences of an incident involving a loss of containment in the vicinity of the zoo, of hazardous materials being transported to and from the proposed facility.
- Identify and commit to key measures that would be included in the Transport Management Plan, particularly in relation to transport operating procedures, that may include restrictions on exhaust braking, speed controls and driver awareness training that addresses the sensitivity of the environment adjacent to TWPZ.
- Commit to consult with TCSA during the preparation of the Transport Management Plan.
- Identify likely emergency response procedures in the event of an incident in the vicinity of TWPZ.

3. Traffic Noise

The noise modeling undertaken for the EIS appears to be robust. Taronga Conservation Society Australia acknowledge that predicted road noise levels meet the relevant criteria under the Road Noise Policy in relation to the zoo as expressed in terms of LA_{eq} .

The LA_{eq} measure does not however necessarily provide a clear indication of the impact of intermittent noise increases caused by trucks. An assessment of maximum noise assessment typically provides a more complete picture of this type of noise. This is of particular importance to the operation of the zoo, as truck noise at night potentially has an impact on the quality of the experience provided by the zoo's existing and proposed accommodation products, such as Zoofari Lodge and the Eco Cabin precinct currently under development, which are reliant on a natural ambience for their appeal.

There is also the potential for zoo animals to be disturbed by intermittent high levels of truck noise. These include the Black Rhinoceros breeding facility and the African Wild Dogs exhibit, which are located close to Obley Road.

Section 5.4 of the Noise and Vibration Impact Assessment Specialist Report provides a sleep disturbance assessment that includes a maximum noise assessment of loading and unloading a train at the proposed facility. No maximum noise assessment is however, provided for road traffic noise.

TCSA requests that Australian Zirconia Ltd:

- Undertake additional noise assessment to identify maximum noise levels associated with truck movements, at key locations within the zoo, including the Black Rhinoceros breeding facility and the Zoofari Lodge precinct.
- Consider additional mitigation depending on the outcomes of the maximum noise level assessment.

4. Conclusion

Taronga Conservation Society Australia has identified a number of areas that require clarification in relation to the EIS for the Dubbo Zirconia Project. We have also requested additional commitments to be made in relation to managing particular impacts. It is vital that the amenity and operation of Taronga Western Plains Zoo, along with the protection of its staff, visitors and wildlife inhabitants, is not compromised by transport associated with this project.

We remain committed to working proactively with Australian Zirconia Ltd, to ensure that this significant project can proceed in a manner that avoids impacts to other regionally significant activities.

Yours faithfully



Matthew Fuller
General Manager
Taronga Western Plains Zoo

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