

**ANGEL PLACE
LEVEL 8, 123 PITT STREET
SYDNEY NSW 2000**

URBIS.COM.AU
Urbis Pty Ltd
ABN 50 105 256 228

2 July 2021

Cameron Sargent
Team Leader, Key Sites Assessment
Department of Planning, Industry and Environment
4 Parramatta Square,
12 Darcy Street, Parramatta 2150

Attn: Lucinda Craig

Dear Lucinda,

REQUEST FOR FURTHER INFORMATION - UPPER AUSTRALIA PRECINCT - SSD-10456-MOD-1

This letter has been prepared by Urbis on behalf of Taronga Conservation Society Australia (TCSA, the Applicant) regarding the proposed modification to State Significant Development (SSD) Development Application for the Taronga Zoo Upper Australia Precinct located at Bradleys Head Road, Mosman (SSD-10456-Mod-1).

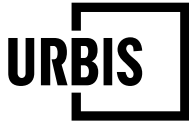
This letter provides a detailed response to issues identified by the NSW Department of Planning, Industry and Environment (NSW DPIE) regarding the application in a letter dated 14 May 2021. DPIE requested a response in relation to comments from multiple government agencies.

1. RESPONSE TO GOVERNMENT AGENCIES

The following government agency responses were received following the notification of the modification:

- Mosman Council provided no comments or recommendations for consideration in relation to the scope of the proposed modification and did not require any further information.
- Department of Primary Industries provided no comments or recommendations for consideration in relation to the scope of the proposed modification and did not require any further information.
- NSW Fire and Rescue provided no comments or recommendations for consideration in relation to the scope of the proposed modification and did not require any further information.
- RFS provided correspondence outlining they did not agree to the proposed modifications to conditions in relation to bushfire safety.

A meeting was held with TCSA, RFS, DPIE, Urbis and Australian Bushfire Consultants on 23 June 2021 to discuss possible changes to the conditions that would satisfy RFS. Following this meeting, amended conditions were emailed to Alastair Patton from RFS to reflect recommendations and comments made during the meeting.



Based on this correspondence the following modifications were agreed to by RFS:

- Minor amendments to Condition B16 to ensure the condition only relates to new services on site.
- Amendments to Condition D3 to reflect the Taronga Zoo Emergency Response Plan.
- Amalgamation of Conditions D21 and D22 into one new condition which also reflects the Taronga Zoo Emergency Response Plan.

These amendments were accepted by TSCA and are outlined in Section 3 of this letter. A copy of email correspondence between Urbis and RFS identifying their preferred conditions is appended to this letter (**Appendix A**).

2. TREE REMOVAL

Following previous discussions with DPIE, four (4) additional trees previously identified for retention will have major encroachments into their Structural Root Zones (SRZ), and now require removal to facilitate the approved development.

The supplied plans and associated documentation show that the four (4) tree species are mature locally endemic natives including:

- Tree 2 *Melaleuca quinquenervia* (Broad-leaved Paperbark) – not impacted by the approved development or modifications but a termite nest has been found in the tree which has severely impacted the structural integrity of the tree
- Tree 11 *Tristaniopsis laurina* (Water Gum)– plans will result in a walkway and ramp within SRZ
- Tree 116 *Eucalyptus botryoides* (Bangalay) –plans will result in structures within the SRZ
- Tree 186 *Eucalyptus robusta* (Swamp Mahogany) – plans will result in asphalt in the SRZ. Works undertaken as part of early works including the removal of the retaining wall within its SRZ have impacted the structural integrity of the tree.

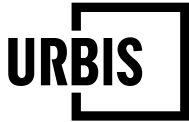
To reflect these proposed changes, the following documents are appended to this letter:

- Amended Architectural and Landscape Plans prepared by Lahznimmo (**Appendix B**)
- An addendum to the Arboricultural Assessment prepared by Sydney Arbor Trees in relation to the four additional trees (**Appendix C**)
- An amended Biodiversity Development Application Report (BDAR) prepared by Narla Environmental to reflect the four additional trees proposed for removal (**Appendix D**)

3. AMENDED CONDITIONS OF CONSENT

To reflect the proposed amendments in relation to tree removal and bushfire management, the following amendments are proposed to the current conditions of consent.

The proposed modifications to the conditions of the consent are shown by a strike through the deleted text and red text for new text.



Terms of Consent

A2. The development may only be carried out:

...

(e) In accordance with the approved plans in the table below.

Architectural Drawings prepared by Lahznimmo Architects			
Drawing No.	Revision	Name of Plan	Date
A-DA-001	02	Cover page	15/06/2020
A-DA-002	02	Site Analysis	15/06/2020
A-DA-003	02	Site Survey	15/06/2020
A-DA-011	02	Existing Site Plan	15/06/2020
A-DA-012	02	Early Works Demolition Site Plan	15/06/2020
A-DA-013	02	Early Works Temporary End State Site Plan	15/06/2020
A-DA-014	02	SSDA Demolition Site Plan	15/06/2020
A-DA-2-01	02	Site Demolition Plan	22/06/2021
A-DA-015	01	Nocturnal Housing Demolition Site Plan	15/06/2020
A-DA-021	02	Proposed Site Plan	15/06/2020
A-DA-2-02	01	Site Plan	12/03/2021
A-DA-022	02	Site Sections	15/06/2020
A-DA-023	02	Site Sections	15/06/2020
A-DA-2-03	01	Site Sections / Elevations	12/03/2021
A-DA-024	02	Photomontage	15/06/2020
A-DA-2-04	01	Boundary Fence	12/03/2021
A-DA-101	02	Pavilion & ropes bridge floor plan	15/06/2020
A-DA-102	02	Pavilion & ropes bridge sections & elevations	15/06/2020
A-DA-201	02	Tree house & koala walk floor plan	15/06/2020
A-DA-202	02	Tree house & koala walk roof plan	15/06/2020
A-DA-203	02	Tree house & koala walk sections	15/06/2020
A-DA-301	02	Escarpment & koala talks floor plan	15/06/2020
A-DA-2-05	02	Dingo Exhibit	22/06/2021
A-DA-401	01	Nocturnal house ground floor plan	15/06/2020
A-DA-402	01	Nocturnal house sections and elevations	15/06/2020
A-DA-501	02	Macropods holding yard floor plan, sections and elevations	15/06/2020
A-DA-601	02	Southern link floor plan, sections and elevations	15/06/2020
Landscape Drawings prepared by Lahznimmo Architects			
Drawing No.	Revision	Name of Plan	Date
A-DA-701	02	Tree protection and removal plan	15/06/2020
A-DA-2-07	05		21/06/2021
A-DA-702	02	Landscape Plan	15/06/2020
A-DA-2-08	04		22/06/2021
A-DA-703	02	Planting zones plan	15/06/2020
A-DA-2-09			12/03/2021
A-DA-703	02	Planting palette	15/06/2020
A-DA-704	02	Planting palette	15/06/2020
A-DA-706	02	Planting palette	15/06/2020
A-DA-2-10	0		12/03/2021
A-DA-707	02	Surface treatment plan	15/06/2020
A-DA-2-11			12/03/2021

A-DA-708 A-DA-2-12	02 03	Level Plan	15/06/2020 12/03/2021
A-DA-804 A-DA-2-06	02 01	Shadow diagrams	15/06/2020 12/03/2021

Fire Safety

- B16. The provision of **any new services including** water, electricity and gas must comply the following in accordance with Table 5.3c of Planning for Bush Fire Protection 2019:
- reticulated water is to be provided to the development where available;
 - fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard **AS2419.1:2005**;
 - hydrants are not located within any road carriageway;
 - all above-ground water service pipes are metal, including and up to any taps;
 - where practicable, electrical transmission lines are underground;
 - where overhead, electrical transmission lines are proposed as follows:
 - (a) lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas;
 - (b) no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.

Construction Environmental Management Plan

- B30. Prior to the commencement of works, the Applicant shall prepare and implement a Construction Environmental Management Plan (CEMP) for the development and be submitted to the Certifier. The CEMP must:

...

- (t) include the relevant recommendations detailed in the Arboricultural Impact Assessment, prepared by Sydney Arbor Trees, dated 18 June 2020; **and appended by Sydney Arbor Trees on 9 June 2021**
- (u) include a site-specific tree protection plan
- (v) include the relevant recommendation and mitigation measures detailed in the Biodiversity Development Assessment Report, prepared by Narla Environmental, dated 4 November 2020 **and appended by Narla Environmental on June 2021**

Bush Fire Emergency Management and Evacuation Plan/Bushfire Management Plan (Condition D3)

- D3. The existing ~~Bush Fire Emergency Management and Evacuation Plan/Bushfire Management Plan~~ **Taronga Zoo Emergency Response Plan** must be updated to include the redevelopment of the Upper Australia Precinct and be consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. ~~Specific updates should~~

Recommended actions include:

- (a) emphasis that evacuation routes are to be into the zoo site initially toward the west (away from the bushfire hazard outside the eastern boundary of the zoo) and not to the overflow carpark to the north.
- (b) re-assessment of the bushfire risk rating considering the Mosman North Sydney Willoughby Bush Fire Management Committee Bush Fire Risk Management Plan 2017-2022 assessment of the likelihood of a bush fire as 'Likely' and the consequence as 'Catastrophic'

- (c) consideration should be given to the planned closure of the zoo based on specific triggers such as Extreme and/or Catastrophic Fire Danger Rating forecasts.

The update to the plan should include provisions so that evacuation routes from the Upper Australia Precinct are to be away from the bushfire hazard outside the eastern boundary of the site.

A copy of the updated plan shall be submitted to NSW RFS, FRNSW, Planning Secretary, the Certifier, Mosman Council and the Local Emergency Management Committee prior to the commencement of the use.

Tree Planting and Landscape Works (Conditions 21 and 22)

- D4. *The Zoo's Vegetation Management Plan is to be updated to include the approved development and associated landscaping and revegetation, including a proposed schedule of maintenance to ensure a reduced risk of bushfire spread to the proposed exhibit and the overall zoo.*

The updated plan should be prepared in consultation with an accredited bushfire consultant, and should provide an appropriate combination of the following measures to manage the risk of bushfire to the proposed exhibit and spread from the exhibit to the overall zoo;

1. *compatibility with animal welfare, creation of habitat within the exhibit and containment requirements;*
2. *Taronga Zoo's own horticulture and public safety requirements including the Taronga Zoo Emergency Response Plan; and*
3. *Relevant principles of Appendix 4 of Planning for Bushfire Protection 2019 for an Outer Protection Area (OPA), and the following:*
 - (a) *A species list of all plantings including estimated size at maturity and a preference for species with low flammability;*
 - (b) *A maintenance regime that provides for ongoing adequate canopy separation between trees i.e. thinning and regular pruning to avoid adjoining canopies, and provides for ongoing pruning of lower limbs of trees where not essential for animal welfare;*
 - (c) *Adequate spacing between plantings to avoid continuous vegetation pathways resulting in the creation of fire paths toward proposed structures;*
 - (d) *Regular removal of fine fuels to maintain a fuel reduced landscape;*
 - (e) *Suitable impervious areas are provided immediately surrounding the proposed structures such as pathways;*
 - (f) *Species are avoided, where possible, that have rough fibrous bark, or which keep flash shed bark in long strips or retain dead material in their canopies;*
 - (g) *Smooth barks species of trees are chosen for additional trees where possible which generally do not carry fire up the bark into the crown; and*
 - (h) *Planting of deciduous species are avoided which may increase fuel at surface/ground level.*

A copy of the updated plan demonstrating compliance with the above requirements and the Taronga Zoo Emergency Response Plan shall be submitted to NSW RFS, FRNSW and the Planning Secretary, prior to the commencement of use. Any variations to the above requirements must be made to the satisfaction of NSW RFS.



If you have any further questions or would like to discuss further, please do not hesitate to contact myself or Sarah Horsfield.

Yours sincerely,

A handwritten signature in black ink that reads "Brigitte Bradley". The signature is written in a cursive, flowing style.

Brigitte Bradley
Consultant
(02) 8424 5146
bbradley@urbis.com.au