

## Brigitte Bradley

---

**From:** Alastair Patton <Alastair.Patton@rfs.nsw.gov.au>  
**Sent:** Thursday, 1 July 2021 1:19 PM  
**To:** Brigitte Bradley  
**Cc:** Kalpana Varghese; Lucinda Craig; kmarshall@zoo.nsw.gov.au  
**Subject:** RE: Taronga Upper Australia Precinct Modification - Bushfire Management conditions

Hi Brigitte,

We have considered your proposed changes to the conditions, and in the interest of moving this forward, have reworded some of them to provide a level of bushfire protection that we are happy with. I have added our comments / reworded conditions to your table below in a new column titled "RFS Comment". Note that we have combined the last two conditions into one.

I believe our proposed wording is flexible enough to meet the needs of all stakeholders, however I am happy to discuss further if you have any concerns.

Regards,



**Alastair Patton** | Development Assessment and Planning Coordinator| Planning and Environment Services (East)

**NSW RURAL FIRE SERVICE**

Planning and Environment Services (East) 4 Murray Rose Avenue, Sydney Olympic Park NSW 2127| Locked Bag 17 Granville NSW 2142

**P** 1300 NSW RFS **F** 02 8867 7983 **E** [Alastair.patton@rfs.nsw.gov.au](mailto:Alastair.patton@rfs.nsw.gov.au)

[www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au) | [www.facebook.com/nswrfs](https://www.facebook.com/nswrfs) | [www.twitter.com/nswrfs](https://www.twitter.com/nswrfs)

**PREPARE. ACT. SURVIVE.**

---

**From:** Brigitte Bradley <[bbradley@urbis.com.au](mailto:bbradley@urbis.com.au)>  
**Sent:** Friday, 25 June 2021 4:26 PM  
**To:** Alastair Patton <[Alastair.Patton@rfs.nsw.gov.au](mailto:Alastair.Patton@rfs.nsw.gov.au)>  
**Cc:** Kalpana Varghese <[Kalpana.Varghese@rfs.nsw.gov.au](mailto:Kalpana.Varghese@rfs.nsw.gov.au)>; Kristine Marshall <[kmarshall@zoo.nsw.gov.au](mailto:kmarshall@zoo.nsw.gov.au)>; Lucinda Craig <[lucinda.craig@dpie.nsw.gov.au](mailto:lucinda.craig@dpie.nsw.gov.au)>  
**Subject:** Taronga Upper Australia Precinct Modification - Bushfire Management conditions

Hi Alastair,

Thanks for your time this week. Following our meeting, we have prepared revised conditions which reflect the comments made by RFS and Taronga

### Fire Safety (Condition B16)

We agree with RFS' approach that the condition should be amended rather than removed.

As discussed, the condition should be amended to reflect new services on site.

We also note:

- The Upper Australia Precinct is serviced by existing water mains and sewerage
- Fire hydrants comply with Aus Standards and the Precinct does not incorporate any road carriageways
- No electrical transmission lines traverse the site

Approved Condition	Amended Condition following RFS Meeting	RFS Comment
--------------------	-----------------------------------------	-------------

<p>The provision of water, electricity and gas must comply the following in accordance with Table 5.3c of Planning for Bush Fire Protection 2019:</p> <ul style="list-style-type: none"> <li>reticulated water is to be provided to the development where available;</li> <li>fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard</li> <li>AS2419.1:2005;</li> <li>hydrants are not located within any road carriageway;</li> <li>all above-ground water service pipes are metal, including and up to any taps;</li> <li>where practicable, electrical transmission lines are underground;</li> <li>where overhead, electrical transmission lines are proposed as follows: <ul style="list-style-type: none"> <li>(a) lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas;</li> <li>(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.</li> </ul> </li> </ul>	<p>The provision of <b>any new services including</b> water, electricity and gas must comply the following in accordance with Table 5.3c of Planning for Bush Fire Protection 2019:</p> <ul style="list-style-type: none"> <li>reticulated water is to be provided to the development where available;</li> <li>fire hydrant, spacing, design and sizing complies with the relevant clauses of Australian Standard <b>AS2419.1:2005</b>;</li> <li>hydrants are not located within any road carriageway;</li> <li>all above-ground water service pipes are metal, including and up to any taps;</li> <li>where practicable, electrical transmission lines are underground;</li> <li>where overhead, electrical transmission lines are proposed as follows: <ul style="list-style-type: none"> <li>(a) lines are installed with short pole spacing (30 metres), unless crossing gullies, gorges or riparian areas;</li> <li>(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.</li> </ul> </li> </ul>	<p>This amended condition is acceptable.</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------

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

As discussed, references to *A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan* are recommendations rather than restrictions on the overall approved design. We propose the condition is updated to reflect that.

We still require the condition to be updated to reflect Taronga's Emergency Response Plan rather than a Bushfire Management Plan which incorporates evacuation management in many types of emergency events including bushfires and will be submitted to NSW RFS prior to the commencement of the use.

Approved Condition	Proposed Condition	Amended Condition following RFS Meeting	RFS Comment
--------------------	--------------------	-----------------------------------------	-------------

<p>The existing Bush Fire Emergency Management and Evacuation Plan/Bushfire Management 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 include:</p> <p>(a) emphasis that evacuation routes are to be into the zoo site toward the west (away from the bushfire hazard outside the eastern boundary of the zoo) and not to the overflow carpark to the north.</p> <p>(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'</p> <p>(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.</p> <p>The updated Bush Fire Emergency Management and Evacuation Plan/Bushfire Management Plan shall: be prepared by a suitably qualified bushfire consultant in consultation with FRNSW and Mosman Council; demonstrate compliance with the above requirements; and be submitted to and approved by NSW RFS</p>	<p><del>D3. The existing Bush Fire Emergency Management and Evacuation Plan/Bushfire Management Plan</del></p> <p><b>Taronga Zoo Emergency Response Plan</b> must be updated to include the redevelopment of the Upper Australia Precinct <del>and be consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. Specific updates should include:</del></p> <p><del>a. emphasis that evacuation routes are to be into the zoo site toward the west (away from the bushfire hazard outside the eastern boundary of the zoo) and not to the overflow carpark to the north.</del></p> <p><del>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'</del></p> <p><del>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.</del></p> <p><b>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.</b></p> <p><del>The updated Bush Fire Emergency Management and Evacuation Plan/Bushfire Management Plan</del></p>	<p><del>D3. The existing Bush Fire Emergency Management and Evacuation Plan/Bushfire Management Plan</del></p> <p><b>Taronga Zoo Emergency Response Plan</b> must be updated to include the redevelopment of the Upper Australia Precinct and be <b>generally</b> consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. <b>Specific updates should include:</b></p> <p>a. emphasis that evacuation routes are to be into the zoo site <b>initially</b> toward the west (away from the bushfire hazard outside the eastern boundary of the zoo) and not to the overflow carpark to the north.</p> <p>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'</p> <p>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.</p> <p><b>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.</b></p>	<p><b>Small change below:</b></p> <p><del>D3. The existing Plan Taronga Zoo Emergency Response Plan must be updated to include the redevelopment of the Upper Australia Precinct and be generally consistent with the NSW RFS document: A Guide to Developing a Bush Fire Emergency Management and Evacuation Plan. Recommended actions include:</del></p> <p>d. emphasis that evacuation routes are to be into the zoo site <b>initially</b> toward the west (away from the bushfire hazard outside the eastern boundary of the zoo) and not to the overflow carpark to the north.</p> <p>e. 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'</p> <p>f. 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.</p> <p><b>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</b></p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>prior to the release of any Occupation Certificate. Any variations to the above requirements must be made to the satisfaction of NSW RFS. 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</p>	<p><i><b>Taronga Zoo Emergency Response Plan</b> shall: be prepared by a suitably qualified bushfire consultant <del>in consultation with FRNSW and Mosman Council;</del> demonstrate compliance with the above requirements; and be submitted to and approved by NSW RFS prior to the release of any Occupation Certificate. Any variations to the above requirements must be made to the satisfaction of NSW RFS. 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.</i></p> <p><i><b>Two copies of the updated Emergency Response Plan must be stored in a prominent 'Emergency Information Cabinet' located in a position directly adjacent to the site's main entry point/s.</b></i></p>	<p>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.</p>	<p>eastern boundary of the site.</p> <p>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.</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### Tree Planting and Landscape Works (Conditions 21 and 22)

As we cannot meet the bushfire requirements identified due to animal welfare requirements, we have updated the wording on the condition to ensure that evacuation and public safety is maintained on site and where the BFP principles can be incorporated they will be.

The Taronga Zoo Vegetation Management Plan will be updated to reflect BFP Principles and ensure evacuation in emergency events has been considered while maintaining animal welfare requirements. This plan will be submitted to NSW RFS prior to the commencement of the use.

Approved Condition	Proposed Condition	Assessment of Approved Scheme against OPA requirements	Amended Condition following RFS Meeting	RFS Comment

<p>The Zoo's Vegetation Management Plan is to be updated to include the approved development and associated landscaping, including a proposed schedule of maintenance to ensure the provisions of fire and asset protection management zones as an Outer Protection Area (OPA) in accordance with Appendix 4 of <i>Planning for Bushfire Protection 2019</i>.</p> <p>When establishing and maintaining an OPA the following requirements apply:</p> <ol style="list-style-type: none"> <li><i>tree canopy cover should be less than 30%;</i></li> <li><i>canopies should be separated by 2-5 metres;</i></li> <li><i>shrubs should not form a continuous canopy;</i></li> <li><i>shrubs should form no more than 20% of ground cover;</i></li> <li><i>grass should be cover mown to a height of less than 100 mm; and</i></li> <li><i>leaf and other debris should be removed.</i></li> </ol>	<p>D21. The Zoo's Vegetation Management Plan is to be updated to include <b>the plan required by Condition D22</b>. <del>include the approved development and associated landscaping, including a proposed schedule of maintenance to ensure the provisions of fire and asset protection management zones as an Outer Protection Area (OPA) in accordance with Appendix 4 of Planning for Bushfire Protection 2019. When establishing and maintaining an OPA the following requirements apply:</del></p> <ol style="list-style-type: none"> <li><del>tree canopy cover should be less than 30%;</del></li> <li><del>canopies should be separated by 2-5 metres;</del></li> <li><del>shrubs should not form a continuous canopy;</del></li> <li><del>shrubs should form no more than 20% of ground cover;</del></li> <li><del>grass should be cover mown to a height of less than 100 mm; and</del></li> <li><del>leaf and other debris should be removed.</del></li> </ol>	<p>(a) tree canopy cover should be less than 30%;</p> <p>Cannot fulfill habitats are required for animal welfare</p> <p>(b) canopies should be separated by 2-5 metres;</p> <p>Cannot fulfill habitats are required for animal welfare</p> <p>(c) shrubs should not form a continuous canopy;</p> <p>Cannot fulfill habitats are required for animal welfare</p> <p>(d) shrubs should form no more than 20% of ground cover;</p> <p>Cannot fulfill habitats are required for animal welfare</p> <p>(e) grass should be cover mown to a height of less than 100 mm; and</p> <p>No turf proposed only native grasses are proposed which potentially could grow over 100mm but will be managed by Taronga's horticultural team.</p> <p>(f) leaf and other debris should be removed.</p> <p>Will be managed by Taronga's horticultural team.</p>	<p><i>The Zoo's Vegetation Management Plan is to be updated to include the approved development and associated landscaping, including a proposed schedule of maintenance to ensure the provisions of fire and asset protection management zones as an Outer Protection Area (OPA) in accordance with Appendix 4 of Planning for Bushfire Protection 2019.</i></p> <p><del>When establishing and maintaining an OPA the following requirements apply:</del></p> <ol style="list-style-type: none"> <li><del>tree canopy cover should be less than 30%;</del></li> <li><del>canopies should be separated by 2-5 metres;</del></li> <li><del>shrubs should not form a continuous canopy;</del></li> <li><del>shrubs should form no more than 20% of ground cover;</del></li> <li><del>grass should be cover mown to a height of less than 100 mm; and</del></li> <li><del>leaf and other debris should be removed.</del></li> </ol>	<p><b>This condition, along with D22 below, should be completely re-worded as one condition as provided below.</b></p> <p><i>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.</i></p> <p><i>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;</i></p> <ol style="list-style-type: none"> <li><i>compatibility with animal welfare, creation of habitat within the exhibit and containment requirements;</i></li> <li><i>Taronga Zoo's own horticulture and public safety requirements including the Taronga Zoo Emergency Response Plan; and</i></li> <li><i>Relevant principles of Appendix 4 of Planning for Bushfire Protection 2019 for an Outer Protection Area (OPA), and the following:</i> <ol style="list-style-type: none"> <li><i>A species list of all plantings including estimated size at maturity and a preference for species with low flammability;</i></li> <li><i>a maintenance regime that provides for ongoing adequate canopy separation between trees i.e. thinning and regular pruning to avoid adjoining canopies, and</i></li> </ol> </li> </ol>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



<p>A copy of the updated plan demonstrating compliance with the above requirements 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.</p>	<p><i>A copy of the updated plan demonstrating compliance with the above requirements shall be submitted to RFS, FRNSW and the Planning Secretary.</i></p>		<p>A copy of the updated plan demonstrating compliance with the above requirements <b>and the Taronga Zoo Emergency Response Plan</b> 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.</p>	<p><i>provides for ongoing pruning of lower limbs of trees where not essential for animal welfare;</i></p> <ul style="list-style-type: none"> <li><i>c. adequate spacing between plantings to avoid continuous vegetation pathways resulting in the creation of fire paths toward proposed structures;</i></li> <li><i>d. regular removal of fine fuels to maintain a fuel reduced landscape;</i></li> <li><i>e. suitable impervious areas are provided immediately surrounding the proposed structures such as pathways;</i></li> <li><i>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;</i></li> <li><i>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</i></li> <li><i>h. planting of deciduous species are avoided which may increase fuel at surface/ground level.</i></li> </ul> <p><i>A copy of the updated plan demonstrating compliance with the above requirements and</i></p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

*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.*

Approved Condition	Proposed Condition	Assessment of Approved Scheme against BFP requirements	Amended Condition following RFS Meeting	RFS Comment
--------------------	--------------------	--------------------------------------------------------	-----------------------------------------	-------------

<p>The landscaping and revegetation within the proposed exhibit should incorporate the principles of Appendix 4 of <i>Planning for Bushfire Protection 2019</i>, including:</p> <ul style="list-style-type: none"> <li>a. <i>A species list of all plantings including estimated size at maturity and a preference for species with low flammability;</i></li> <li>b. <i>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;</i></li> <li>c. <i>adequate spacing between plantings to avoid continuous vegetation pathways resulting in the creation of fire paths toward vulnerable buildings;</i></li> <li>d. <i>regular removal of fine fuels to maintain a fuel reduced landscape;</i></li> <li>e. <i>suitable impervious areas are provided immediately surrounding the building such as pathways;</i></li> <li>f. <i>grassed areas, mowed lawns</i></li> </ul>	<p><del>D22. The landscaping and revegetation within the proposed exhibit should incorporate the principles of Appendix 4 of <i>Planning for Bushfire Protection 2019</i>, including:</del></p> <ul style="list-style-type: none"> <li><del>a. <i>A species list of all plantings including estimated size at maturity and a preference for species with low flammability;</i></del></li> <li><del>b. <i>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;</i></del></li> <li><del>c. <i>adequate spacing between plantings to avoid continuous vegetation pathways resulting in the creation of fire paths toward vulnerable buildings;</i></del></li> <li><del>d. <i>regular removal of fine fuels to maintain a fuel reduced landscape;</i></del></li> <li><del>e. <i>suitable impervious areas are provided immediately surrounding the building such as pathways;</i></del></li> <li><del>f. <i>grassed areas, mowed lawns</i></del></li> </ul>	<ul style="list-style-type: none"> <li>(a) A species list of all plantings including estimated size at maturity and a preference for species with low flammability; <i>OK. Can be provided</i></li> <li>(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; <i>Lower limbs are required in Koala areas (within 10 m of eastern site boundary) to provide habitat</i></li> <li>(c) adequate spacing between plantings to avoid continuous vegetation pathways resulting in the creation of fire paths toward vulnerable buildings; <i>Definition of vulnerable buildings? Is tree house and ropes course building considered vulnerable?</i></li> <li>(d) regular removal of fine fuels to maintain a fuel reduced landscape; <i>OK</i></li> <li>(e) suitable impervious areas are provided immediately surrounding the building such as pathways; <i>The approved scheme does incorporate impervious areas around structures</i></li> <li>(f) grassed areas, mowed lawns or ground cover plantings are provided in close proximity to the building; <i>Treehouse required large trees to be are retained for biodiversity and animal habitats.</i></li> <li>(g) species are avoided that have rough fibrous bark, or which keep flash shed bark in long strips or retain dead material in their canopies;</li> </ul>	<p>The landscaping and revegetation within the proposed exhibit should incorporate the principles of Appendix 4 of <i>Planning for Bushfire Protection 2019</i>, including:</p> <ul style="list-style-type: none"> <li><del>a. <i>A species list of all plantings including estimated size at maturity and a preference for species with low flammability;</i></del></li> <li><del>b. <i>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;</i></del></li> <li><del>c. <i>adequate spacing between plantings to avoid continuous vegetation pathways resulting in the creation of fire paths toward vulnerable buildings;</i></del></li> <li><del>d. <i>regular removal of fine fuels to maintain a fuel reduced landscape;</i></del></li> <li><del>e. <i>suitable impervious areas are provided immediately surrounding the building such as pathways;</i></del></li> <li><del>f. <i>grassed areas, mowed lawns</i></del></li> </ul>	<p><b>This condition should be replaced with the above condition.</b></p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------



<p>or ground cover plantings are provided in close proximity to the building;</p> <p>g. species are avoided that have rough fibrous bark, or which keep flash shed bark in long strips or retain dead material in their canopies;</p> <p>h. smooth barks species of trees are chosen which generally do not carry fire up the bark into the crown; and</p> <p>i. planting of deciduous species are avoided which may increase fuel at surface/ground level.</p> <p>A copy of the updated plan demonstrating compliance with the above requirements shall be submitted to NSW RFS, FRNSW and the Planning Secretary.</p> <p>A copy of the updated plan demonstrating compliance with the above requirements shall be submitted to RFS, FRNSW and the Planning Secretary.</p>	<p>or ground cover plantings are provided in close proximity to the building;</p> <p><del>g. species are avoided that have rough fibrous bark, or which keep flash shed bark in long strips or retain dead material in their canopies;</del></p> <p><del>h. smooth barks species of trees are chosen which generally do not carry fire up the bark into the crown; and</del></p> <p><del>i. planting of deciduous species are avoided which may increase fuel at surface/ground level.</del></p> <p>A copy of the updated plan demonstrating compliance with the above requirements shall be submitted to RFS, FRNSW and the Planning Secretary.</p> <p><i>A plan for landscaping and revegetation within the proposed exhibit should be prepared in consultation with an accredited bushfire consultant and should address (in order of priority);</i></p> <p><i>a. compatibility with animal welfare, creation of habitat within the exhibit and containment requirements;</i></p> <p><i>b. Taronga Zoo's own horticulture and public safety requirements; and</i></p> <p><i>c. Relevant principles of</i></p>	<p>Possibility through specification. Or thorough maintenance and removal of material in canopies.</p> <p>(h) smooth barks species of trees are chosen which generally do not carry fire up the bark into the crown; and</p> <p>Can be adopted for new species but existing paperbarks are located on site and will be retained</p> <p>(i) planting of deciduous species are avoided which may increase fuel at surface/ground level.</p> <p>Possibly could be provided</p>	<p>or ground cover plantings are provided in close proximity to the building;</p> <p><del>g. species are avoided that have rough fibrous bark, or which keep flash shed bark in long strips or retain dead material in their canopies;</del></p> <p><del>h. smooth barks species of trees are chosen which generally do not carry fire up the bark into the crown; and</del></p> <p><del>i. planting of deciduous species are avoided which may increase fuel at surface/ground level.</del></p> <p><i>A plan for landscaping and revegetation within the proposed exhibit should be prepared in consultation with an accredited bushfire consultant and should address (in order of priority);</i></p> <p><i>4. compatibility with animal welfare, creation of habitat within the exhibit and containment requirements;</i></p> <p><i>5. Taronga Zoo's own horticulture and public safety requirements including the Taronga Zoo Emergency Response Plan; and</i></p> <p><i>6. Relevant principles of Appendix 4 of</i></p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p><i>Appendix 4 of Planning for Bushfire Protection 2019.</i></p> <p><i>The plan required by the Condition is to form part of the updated Vegetation Management Plan as per Condition D21.</i></p>	<p><i>Planning for Bushfire Protection 2019.</i></p> <p><i>The plan required by the Condition is to form part of the updated Vegetation Management Plan as per Condition D21.</i></p> <p><del>A copy of the updated plan demonstrating compliance with the above requirements 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.</del></p>	
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Please let us know if you require any further clarification on the amended conditions

Kind regards,  
Brigitte

**BRIGITTE BRADLEY**  
CONSULTANT

D +61 2 8424 5146  
T +61 2 8233 9900  
E [bbradley@urbis.com.au](mailto:bbradley@urbis.com.au)

**SHAPING  
CITIES AND  
COMMUNITIES**



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

Urbis recognises the traditional owners of the land on which we work.  
Learn more about our [Reconciliation Action Plan](#).

This email and any files transmitted are for the intended recipient's use only. It contains information which may be confidential and/or protected by copyright. Any personal information in this email must be handled in accordance with the *Privacy Act 1988 (Cth)*. If you have received this email by mistake, please notify the sender and permanently delete the email. Any confidentiality or copyright is not waived or lost because this email has been sent to you by mistake.