



Building Code & Bushfire Hazard Solutions

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Anglican Schools Corporation
C/- Midson Group P/L
PO BOX 283
HUNTERS HILL NSW 2110

10th February 2017
Our Ref. 170846

Attn: Mr Ian Thompson

**Re: PROPOSED INCREASE IN STUDENT NUMBERS
ST LUKES GRAMMAR SCHOOL
210 HEADLAND ROAD, DEE WHY NSW 2099
BUSHFIRE ASSESSMENT STATEMENT**

Dear Ian,

We thank you for the opportunity of undertaking this assessment for you.

It is understood that St Lukes Grammar School are seeking approval for an increase in student numbers from eight-hundred and eighty-four (884) to one thousand and ninety-two (1092).

The site is located at 210 Headland Road, Dee Why and is within Northern Beaches Council's local government area. The subject site has street frontage to Headland Road to the south and Tango Avenue to the east and abuts neighbouring private allotments to the west and Stony Range Botanic Garden to the north.

Properties considered to be affected by possible bushfire impact are determined from local Bushfire Prone Land Map's as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document '*Planning for Bush Fire Protection 2006*' (PBP).

North Beaches Council's (formally Warringah) Bushfire Prone Land Map indicates the property not bushfire prone land. The application of *Planning for Bush Fire Protection 2006* (PBP) is therefore not formally triggered (the site has been declassified in the most current map review).

It is however understood that Council has requested that the applicant provide a bushfire assessment prepared by a suitably qualified bushfire consultant. The purpose of this bushfire assessment is to provide the Anglican Schools Corporation, Midson Group P/L, the Rural Fire Service and Council with an independent bushfire hazard determination together with appropriate recommendations considered necessary.

The scope of this statement is limited to providing a bushfire assessment and recommendations for the proposed student increase. Where reference has been made to the surrounding lands, this statement does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

There are no new buildings works proposed as part of this application.

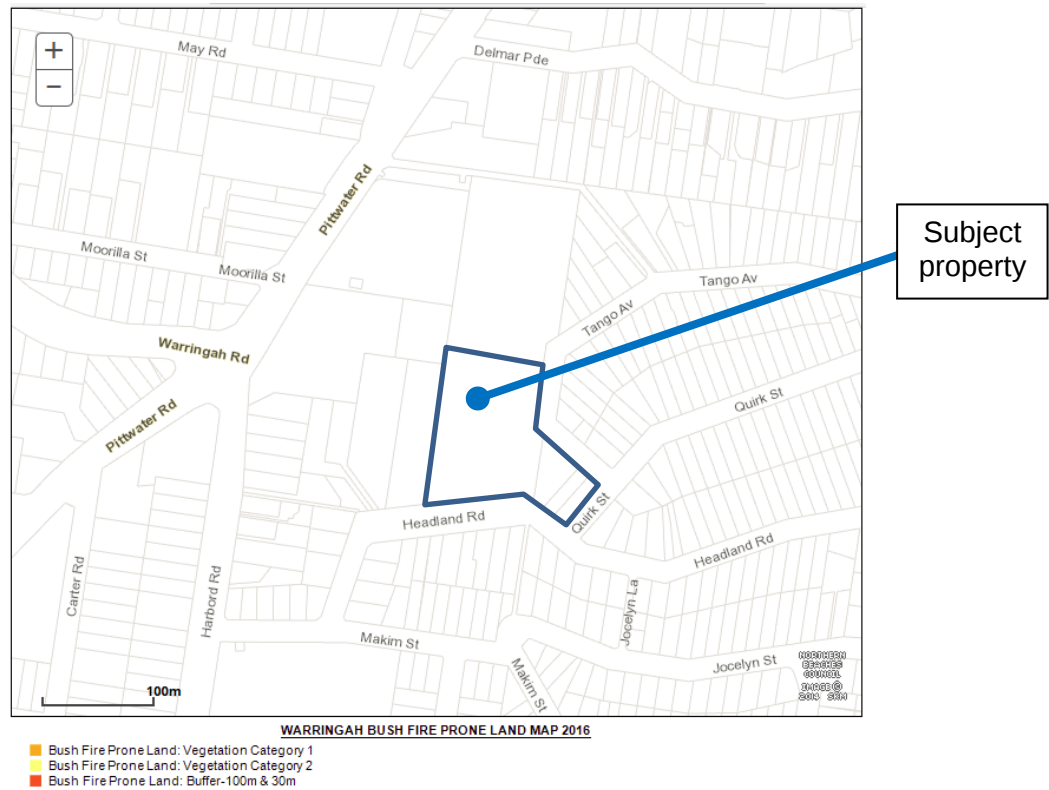


Image 01: Extract from Northern Beaches Council's Bushfire Prone Land Map



Image 02: Aerial view from the Land and Property Management Authority SixMaps

Vegetation:

The subject property was predominately found to comprise of hard surface areas, with some isolated trees adjacent the entry and various weed varieties on the retaining wall adjacent the northern boundary.

The subject property abuts Stony Range Botanic Garden to the north which was previously identified on Council Bush Fire Prone Lands Map as being a bushfire hazard (Category 2 Vegetation).

Council's current Bush Fire Prone Lands Map has removed Stony Range Botanic Garden as being Category 2 vegetation and subsequently no longer identifies the subject site as being bushfire prone land. As part of the legislated process the current Bush Fire Prone Lands Map would have been reviewed and endorsed by the Commissioner of the NSW Rural Fire Service.

Botanic Gardens have an inherent need to display numerous vegetation communities and flora to support their very function. This is typically attained by modifying the local environmental characteristics to achieve multiple microclimates within a localised area. The Stony Range Botanic Garden was found to have several microclimates including a rainforest gully, sandstone heath, and a lush ecosystem around the Federation Cascades.

The rainforest gully is populated with cedar, coachwood, flame trees, hoop pine, lilly pilly, ferns and palms.

The site of the sandstone heath in the upper area of the reserve was part of the stone quarry which was reclaimed with soil fill. There is a collection of grasses, grevilleas and baeckias along with other species endemic to dry sclerophyll forest, scrub and exposed woodland.

The waterfalls that form the Federation Cascades were constructed by volunteers in 2001 to commemorate 100 years of Federation in Australia. Since then they have created their own ecosystem and now abound in lush plants and ferns and other species endemic to dry sclerophyll forest, scrub and forested wetlands.



Image 03: Extract from the Stony Range Botanic Garden Masterplan (dated 18.12.12)

The garden is jointly managed by Warringah Council and a Volunteer Advisory Committee. The garden was also found to have numerous elevated sprinklers which help support the various microclimates.

The garden is subject to a Plan of Management and periodic hazard reductions / ecological burns and mechanical fuel modification.



Neighbouring
Office Works
property

Photograph 01: View south from within the garden where the vegetation transitions from the rainforest microclimate to the sandstone heath / forest



Rainforest

Formed
walkways

Photograph 02: View north from within the rainforest area of the garden



Photograph 03: View northwest from within the garden of the vegetation adjacent the subject site

Elevated
sprinkler



Formed
walking
path

Photograph 04: View south from within the rainforest area of the garden

Slope Analysis:

The slope that would most significantly affect bushfire behaviour must be assessed for at least 100 metres from the subject site.

As no hazard was found within 100 metres of the subject site no slope analysis is required.

Asset Protection Zones:

There is no identified bushfire hazard within 100 metres of the subject site in any direction.

Furthermore there are previous developments requiring the entire property be managed as an inner protection area as outlined within Planning for Bush Fire Protection 2006 and Standard for Asset Protection Zones.

Fire Fighting Water Supply:

Existing in ground hydrants are available along Headland Road and other existing road infrastructure nearby and hydrants and hose reels are currently located throughout the school proper.

Water (taps and hoses) is available every 20 – 30 metres throughout Stony Range and a sprinkler system is also installed within the Reserve

The water supply is considered suitable for the replenishment of fire service vehicles.

Property Access:

The access and car parking has been approved by the NSW RFS under PBP 2006 and is not being altered as part of this development. This development does not restrict or alter the approved access arrangements.

Access for fire services and opportunities for occupant evacuation are considered adequate and no additional new recommendations are necessary.

Viable Construction Method:

The aim of Planning for Bush Fire Protection – 2006 is to use the NSW development assessment system to provide for protection of human life (including firefighters) and to minimise impacts on property from the treat of bushfire.

There are no new buildings works proposed as part of this application.

Recommendations

Emergency Management

1. That the existing Emergency Management Plan for the school be updated to include the increased student numbers.

Conclusion:

The development proposal relates to an increase in student numbers at an existing educational establishment known as St Lukes Grammar School.

The subject property abuts Stony Range Botanic Garden to the north which was previously identified on Council Bush Fire Prone Lands Map as being a bushfire hazard (Category 2 Vegetation).

Council's current Bush Fire Prone Lands Map has removed Stony Range Botanic Garden as being Category 2 vegetation and subsequently no longer identifies the subject site as being bushfire prone land. As part of the legislated process the current Bush Fire Prone Lands Map would have been reviewed and endorsed by the Commissioner of the NSW Rural Fire Service.

We agree with the declassification of Stony Range Botanic Garden in consideration of the extensive management practices, comprehensive access and diverse range of vegetation.

In the unlikely event that a fire does occur within Stony Range Botanic Garden we are also satisfied that the existing school buildings will be ample refuge for the students.

The existing access provisions and water supply are considered adequate.

We are therefore in support of the development application.

Should you have any questions please do not hesitate to contact the undersigned.

Prepared by
Building Code & Bushfire Hazard Solutions



Stuart McMonnies

Building Code & Bushfire Hazard Solutions

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Site Inspection and Review by
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Quote from *Planning for Bush Fire Protection* 2006, 'Any representation, statement opinion, or advice expressed or implied in this publication is made in good faith on the basis that the State of New South Wales, the NSW Rural Fire Service, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement or advice referred to above.'

Similarly the interpretations and opinions provided by Building Code and Bushfire Hazard Solutions in regard to bushfire design, protection and mitigation are also given in the same good faith.