

Proposed Subdivision

Lots 1 & 2 DP725785
The Glades Estate
North Moonee Beach



November 2017

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1. Introduction

This report has been prepared by Resource Design & Management Pty Ltd (RDM) on behalf of The Rothwell Boys Pty Ltd in support of a modification to the existing project approval for the proposed subdivision of Lots 1 & 2 DP752785, Parish of Moonee, County of Fitzroy.

1.1 Background

The proposed development forms part of the North Moonee Beach residential precinct stretching from Moonee Beach Road through to Skinners Creek as shown below in **Figure 1**.

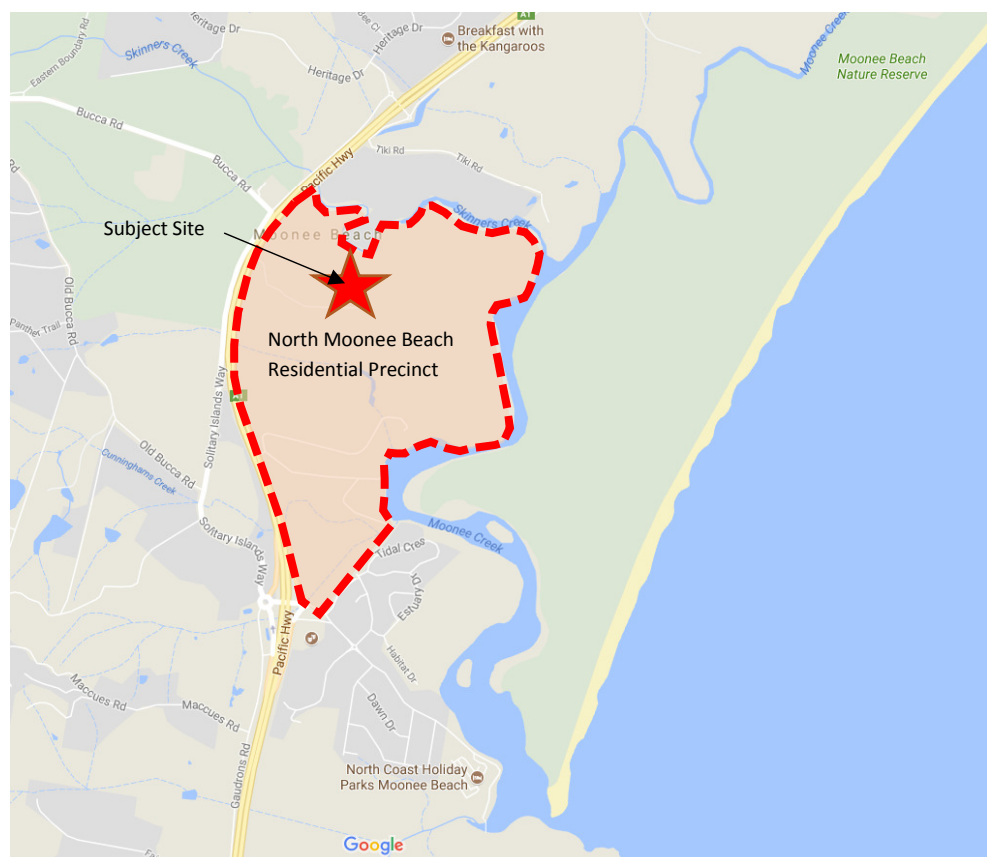


Figure 1 – Locality

(Source: Google Maps)

1.2 Proposed Development

The development involves the subdivision and development of the site to create thirty one (31) residential allotments within an already approved residential estate containing approximately 550 allotments together with various internal roads, subdivision infrastructure and foreshore reserves as illustrated below in **Figures 2 & 3.**

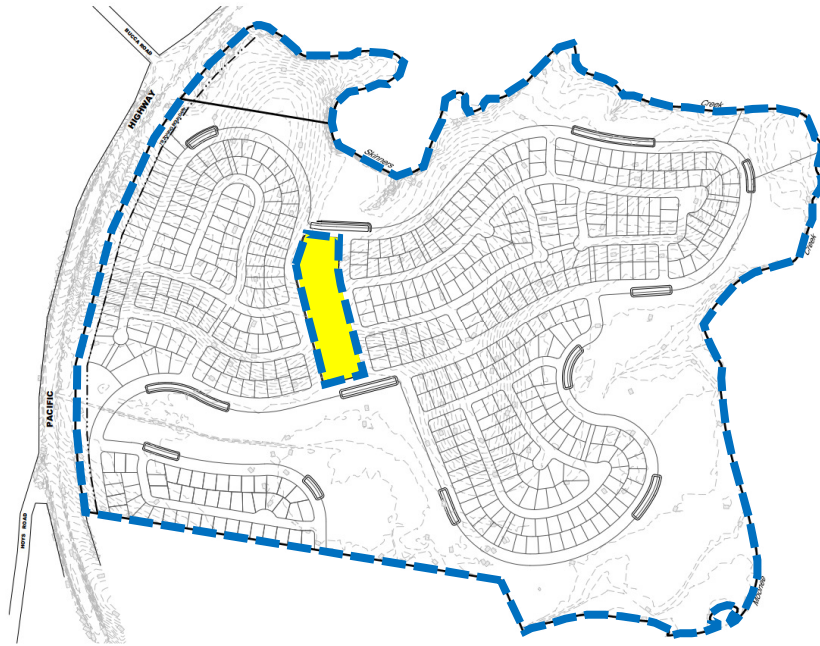


Figure 2 – Overall Development Site

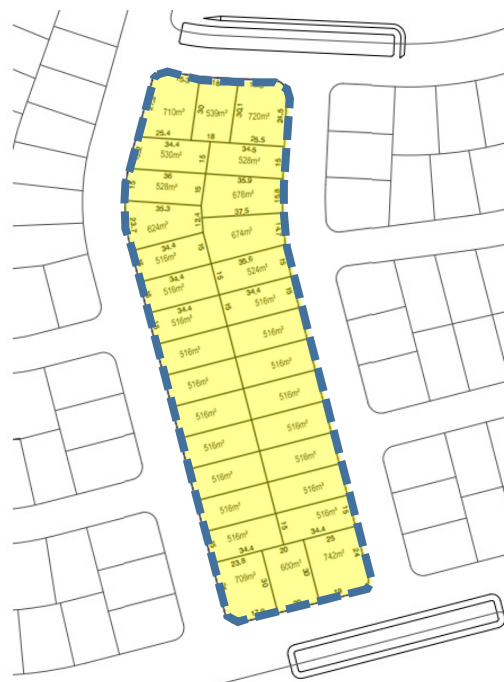


Figure 3 – Proposed Development

1.3 Purpose of Bushfire Assessment Report

The purpose of the report is to address bushfire protection and management issues relative to the proposed residential subdivision as prescribed by “Planning for Bushfire Protection” published by the NSW Rural Fire Service in December, 2006.

The document has been introduced to provide effective planning guidelines to Councils, Planners, Fire Authorities, developers and home owners. The document describes the necessary planning considerations when developing areas for residential use where development sites are located in close proximity to areas with the potential to be affected by bushfire events.

1.4 Bushfire Assessment Requirements

Section 100B of the Rural Fires Act 1997 requires a Bushfire Safety Authority from the NSW Rural Fire Service for the development of bushfire prone land where such land is intended to be developed for residential and rural residential subdivision or for a special fire protection purpose.

Properties affected by bushfire prone land within the Coffs Harbour City Council Local Government area are identified on Council’s bushfire prone land maps.

Development proposals for residential, rural residential purposes (including boundary re-alignments) or for a special fire protection purpose that are affected by bushfire prone land are required to be assessed in accordance with the matters describes under Section 44 of the Rural Fires Regulation 2013.

1.5 Identification of Bushfire Prone Land

Each Local Council is required to produce a Bush Fire Risk Management Plan (BFRMP) under the Rural Fires Act 1997. The plan is to include a bushfire hazard map identifying areas of high, medium, low and no hazard.

Land which is identified by the mapping as being bushfire prone requires a Bushfire Risk Assessment to accompany the Development Application. As shown below in **Figure 4**, the site is deemed to be affected.

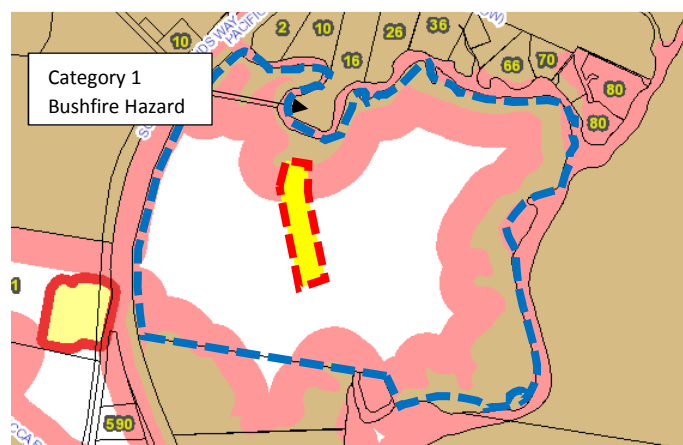


Figure 4 – Bushfire Prone Land Mapping

(Source: CHCC)

2. Clause 44 Matters

The following matters address the issues requiring consideration under Clause 44 of the Rural Fires Regulation 2013. More specifically, the matters addressed below correspond to those described under sub-clauses 1(a) – 1(f).

2.1 Site Location and Description

The site is located on undulating land situated north of the village of Moonee Beach. The site is bordered east and west by managed vacant land earmarked for future residential development as shown in **Figures 2 & 3** above. North of the site is riparian vegetation bordering Skinners Creek. South of the site is managed vacant land earmarked to form part of the future public reserve system. The site is currently forested vacant land as seen in **Figure 5** below.

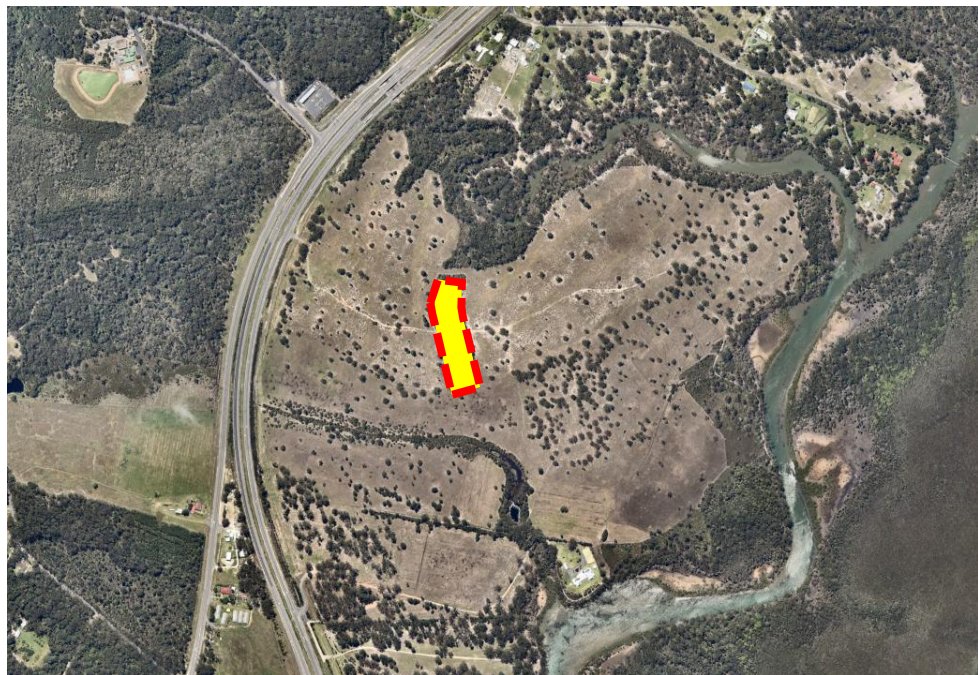


Figure 5 – Aerial View

(Source: Nearmaps)



Figure 7 - Site Contours

(Source: CHCC)

2.4 Significant environmental features

The subject site consists mostly of managed grasslands and riparian forests along Skinners Creek as shown in **Figure 7** above. Council's mapping also indicates that part of the site is considered secondary koala habitat particularly along the riparian corridor of Skinners Creek.

The majority of the development site has been highly modified. Outside of the proposed development area, it is not proposed to remove any significant vegetation communities and therefore impacts to threatened species are not anticipated.

2.5 Detail and location of any aboriginal relic or place

The subject land is not listed in Schedule 5 of the Coffs Harbour Local Environmental Plan 2013.

A preliminary assessment of the site was undertaken by ERM. The assessment identified areas of likely cultural significance. The identified areas are predominantly contained within the proposed foreshore reserve and are not impacted by the proposed development.

3. Bushfire Risk Assessment

The following matters address the issues requiring consideration under Clause 44 of the Rural Fires Regulation 2013. More specifically, the matters addressed below correspond to those described under sub-clauses 1(g)(i-viii).

3.1 Vegetation and Slope Assessment

The assessment of vegetation and slope in this instance has been undertaken having regard to the following:

- The structural description of each vegetation group in accordance with the identification key in Keith D (2004);
- The effective slope refers to the slope under the classified vegetation in relation to the building site which has been determined having regard to Appendix 2 of PfBP 2000 and AS 3959.

With respect to the vegetation and slope assessment relative to the subject site reference is made to **Figures 6 & 7** above.

The following table sets out the appropriate Asset Protection Zone and applicable BAL ratings.

Aspect	Predominant Vegetation Type within 140m	Effective Slope (degrees)	Up-slope / Flat or Down-slope	APZ width (m)	BAL Rating AS3959
North	Future Foreshore Reserve	5° to 10°	Down-slope	33m.	BAL 29
East	Future residential development	Flat	Flat	N/A	BAL 12.5
South	Future Foreshore Reserve	0° to 5°	Down-slope	27m.	BAL 29
West	Future residential development	0° to 5°	Down-slope	N/A	BAL 12.5

Refer to **Figure 8** on the following page for a graphical representation of the APZ & BAL rating.

3.2 Water Supply

Issue:

‘the siting and adequacy of water supplies for fire fighting’

Comment:

The proposed development will be serviced by a reticulated water main constructed to Council’s standard within the various road reserves. Each lot will be serviced and hydrants will be placed at appropriate intervals.

3.3 Capacity of Public Road

Issue:

‘the capacity of public roads in the vicinity to handle increased volumes of traffic in the event of a bush fire emergency’.

Response:

Access to the site will be gained from the approved internal road network all of which will be constructed to Council’s specifications. All roads will be dedicated public roads under the control of Council. The key dimensions of such roads is provided in the following table.

Road	Dimensions
Moonee Creek Drive and perimeter roads	Min. 8m kerb to kerb
Internal Service Roads	Min. 7m. kerb to kerb

3.4 Public Roads and Fire Trail Network

Issue:

‘whether or not public roads in the vicinity that link with the fire trail network have two-way access’.

Response:

The proposed development does not contain any fire trails.

3.5 Access and Egress

Issue:

‘the adequacy of arrangements for access to and egress from the development site for the purposes of an emergency response’.

Response:

The proposed road reserve and corresponding road pavements are of sufficient width to allow for the timely access and egress of vehicles in an emergency.

3.6 Bushfire Maintenance & Emergency Procedures

Issue:

'the adequacy of bush fire maintenance plans and fire emergency procedures for the development site'

Response:

All lots affected by an APZ will have an appropriate positive covenant registered on their title. The proposed public foreshore reserve and stormwater management facility will be dedicated to and managed by Council.

3.7 Construction Standards

Issue:

'the construction standards to be used for building elements in the development'.

Response:

Each proposed lot with direct exposure to bushfire prone land has an appropriate Asset Protection Zone (APZ) to achieve a Bushfire Attack Level (BAL) of no greater than 29.

3.8 Fire Protection Measures

Issue:

'the adequacy of sprinkler systems and other fire protection measures to be incorporated into the development'.

Response:

The proposed development is not of a type which requires the implementation of specific fire protection measures.

3.9 Chapter 4 - Assessment of Performance Based Controls

The following section provides an assessment of the extent to which the proposed development conforms with or deviates from the standards, specific objectives and performance criteria set out in Chapter 4 (Performance Based Controls) of Planning for Bush Fire Protection.

3.9.1 Asset Protection Zones

Intent of Measures:

To provide sufficient space and maintain reduced fuel loads, so as to ensure radiant heat levels at buildings are below critical limits and to prevent direct flame contact with a building.

Comment:

Having regard to Section 3.1 above, it is apparent that the subject land can provide the necessary APZ's to achieve a maximum BAL rating of no greater than 29.

3.9.2 Access (1) ~ Public Roads

Intent of Measures:

To provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from the area.

Comment:

All roads within the development will be constructed to achieve the dimensions shown in Section 3.3 above. A reticulated water supply will be available along all roads with appropriately spaced hydrants.

3.9.3 Access (2) ~ Property Access

Intent of Measures:

To provide safe access to/from the public road system for fire-fighters providing property protection during a bush fire and for occupants faced with evacuation.

Comment:

The proposed development will be serviced by a public road system constructed to the dimensions set out in section 3.3 above.

3.9.4 Access (3) ~ Fire Trails

Intent of Measures:

To provide suitable access for fire management purposes and maintenance of APZ's.

Comment:

The proposed development does not contain any fire trails. .

3.9.5 Services ~ Water, Gas & Electricity

Intent of Measures:

To provide adequate services of water for the protection of buildings during and after the passage of a bushfire, and to locate gas and electricity so as not to contribute to the risk of a fire to a building.

Comment:

The proposed development will form part of the urban development area of North Moonee Beach which will be serviced by reticulated water and underground electricity. There is no reticulated gas supply in this locale.

4. Assessment Recommendations

Having regard to Section 3, the following recommendations are made as a means of providing an appropriate level of bushfire protection to the development of the land for residential purposes.

4.1 Asset Protection Zone and Grounds

The proposed development is directly exposed to bushfire prone land on its northern and southern boundaries. With respect to the northern boundary it is recommended that an APZ of at least 33 metres applies to achieve a BAL rating of 29 in accordance with AS3959. The actual APZ is 36 metres comprising of the 6m. building line, 20m. wide road reserve and 10m. wide stormwater management facility.

With respect to the southern boundary it is recommended that an APZ of at least 37m. applies to achieve a BAL rating of 19 in accordance with AS3959. The actual APZ is 41 metres comprising of the 6m. building line, 25m. wide road reserve and 10m. wide stormwater management facility.

4.2 Construction Requirements

The proposed development does not seek approval for building construction. Accordingly, building construction standards which are to be applied to any future dwelling house within the development should be considered at the Development Application stage for same.

Notwithstanding, due to the distances which separates the proposed lot from the bushfire prone land, it is RDM's opinion that each proposed lot and /or building envelope should support a building constructed to a BAL of no greater than 29.

4.3 Site Access

Each proposed allotment has direct access to the public road network.

4.4 Service Supply

Water:

Each proposed allotment will be connected to a reticulated water supply system. Accordingly, a supplementary water supply for firefighting purposes is not required.

Electricity

Each proposed allotment will be connected to an underground electricity supply.

Gas

The proposed development does not seek approval for building construction. Accordingly, the gas supply and protection measures should be considered at the development application stage for same.

5. Conclusion

The preceding assessment has been undertaken in accordance with the relevant sections of the Environmental Planning Act 1979, the Rural Fires Regulation 2013 and Planning for Bushfire Protection 2006.

Having regard to the assessment provided herein, it is Resource Design and Management's opinion that the proposed subdivision may be approved without further requirement for site specific bushfire protection requirements.