

Bushfire Assessment

In relation to

Proposed Subdivision

Precinct 3

Old Bar South

Prepared for

Lidbury Summers & Whiteman

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Project: 130292

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1. Introduction

The subject site comprises land known as:

- Lot 2 DP 1022067, 106 Forest Lane;
- Lot B DP 377867, 142 Forest Lane;
- Part Lot 14 DP 733054 (southern half);
- Lots 591 and 592 DP 1180317, 95 Forest Lane;
- Portion 117 DP 753149, 27 Forest Lane;
- Portion 217 DP 753149, 37 Forest Lane;
- Portion 218 DP 753149, 55 Forest Lane; and
- Portion 219 DP 753149, 75 Forest Lane.

The overall site is dissected by Forest Lane, which runs generally east-west. Of the above allotments, only Lot 2 DP 1022067 and Lot B DP 377867 are located on the southern side of Forest Lane, with all other allotments to the northern side of Forest Lane.

The proposed development involves a subdivision of the site to create a total of 525 allotments, associated roads and drainage infrastructure and a nine (9) hole golf course and ancillary facilities.

The proposal is shown on plans entitled “*Preliminary Discussion Plans for Precinct 3 Forest Lane, Old Bar – Overall Layout Plan*”, prepared by Lidbury, Summers & Whiteman (File 6066).

The proposed development involves the subdivision of the site as follows:

| Existing Parcel | Description | Proposed subdivision |
|--|---------------|----------------------|
| Lot 2 DP 1022067 | Jarberg North | 126 allotments |
| | Jarberg West | 64 allotments |
| Lot B DP 377867 | Stone | 5 allotments |
| Part Lot 14 DP 733054 (southern half) | Goodear | 38 allotments |
| Lot 591 DP 1180317 | Rawson | 66 allotments |
| Lot 592 DP 1180317 | Taylor | 16 allotments |
| Portion 117 DP 753149 | Love | 7 allotments |

| Existing Parcel | Description | Proposed subdivision |
|-----------------------|-----------------|----------------------|
| Portion 217 DP 753149 | Sainisch-Plimer | 47 allotments |
| Portion 218 DP 753149 | Archer | 71 allotments |
| Portion 219 DP 753149 | Trad | 85 allotments |

According to the ecological assessment prepared in relation to the proposal (Darkheart 2013), the footprint for the subdivision will occupy approximately 48 hectares of the overall site area of approximately 57 hectares. Also, a 7 hectare conservation zone/corridor is proposed in the north-west of the site with a series of drainage reserves to be constructed adjacent to the northern side of Forest Lane.

Parts of the overall site are mapped as bushfire prone land. Land within the portion of the site located to the northern side of Forest Lane are mapped as containing Category 1 vegetation, with land within 100 metres of the Category 1 vegetation mapped as being within the 100 metre bushfire buffer to Category 1 vegetation.

The major portion of the land within the portion of the site located to the southern side of Forest Lane is not mapped as bushfire prone land. Only a very small area in the north-western corner of Lot 2, and another limited area in the south-eastern corner of the allotment are mapped as being within the 100 metre bushfire buffer to Category 1 vegetation.

As the proposal involves the subdivision of bushfire prone land that may lawfully be used for residential purposes, Section 100B of the *Rural Fires Act 1997* provides that a person must obtain a Bushfire Safety Authority before developing bushfire prone land for that purpose.

Clause 44 of the *Rural Fires Regulation 2008* contains the matters that must be included in an application for a Bushfire Safety Authority. This assessment addresses the relevant points as listed in Clause 44 of the Rural Fires Regulation in relation to the matters that must be included in an application for a Bushfire Safety Authority.



Figure 1 (North to left of page): Source of base photo: LS&W.
Approximate outline of overall site added.

2. Description of the Site

The subject site comprises land known as:

- Lot 2 DP 1022067, 106 Forest Lane;
- Lot B DP 377867, 142 Forest Lane;
- Part Lot 14 DP 733054 (southern half);
- Lots 591 and 592 DP 1180317, 95 Forest Lane;
- Portion 117 DP 753149, 27 Forest Lane;
- Portion 217 DP 753149, 37 Forest Lane;
- Portion 218 DP 753149, 55 Forest Lane; and
- Portion 219 DP 753149, 75 Forest Lane.

An aerial photograph showing the overall site is at Figure 1 on the previous page. The relationship of the site to adjoining land uses is clearly shown in Figure 1.

The overall site is dissected by Forest Lane, which runs generally east-west. Of the above allotments, only Lot 2 DP 1022067 and Lot B DP 377867 are located on the southern side of Forest Lane, with all other allotments to the northern side of Forest Lane.

Overall the land within the southern part of the site is relatively flat, with a gradual slope up towards Forest Lane to the north and also towards the existing residential subdivision adjoining the eastern boundary of Lot 2 DP 1022067. The land within the northern part of the site generally slopes upwards from its southern boundary with Forest Lane towards the north, east and west.

Within the site, existing dwellings are located on Portions 117, 218 and 219 and also on Lot 592 and Part Lot 14. An existing shed is located on Lot B, while a golf driving range and associated buildings and infrastructure exist in the northern part of Lot 2. The remainder of Lot 2 is vacant.

The land within Lot 2 surrounds Lot 1 DP 1022067, which contains an existing sewer pump station and associated infrastructure. Access to Lot 1 is over the north-western part of Lot 2, via an access road from the eastern end of The Breezeway. This access road is visible in Figure 1.

Areas of land within the site are mapped as bushfire prone land. An extract of Greater Taree City Council's bushfire prone land map is at Figure 2.

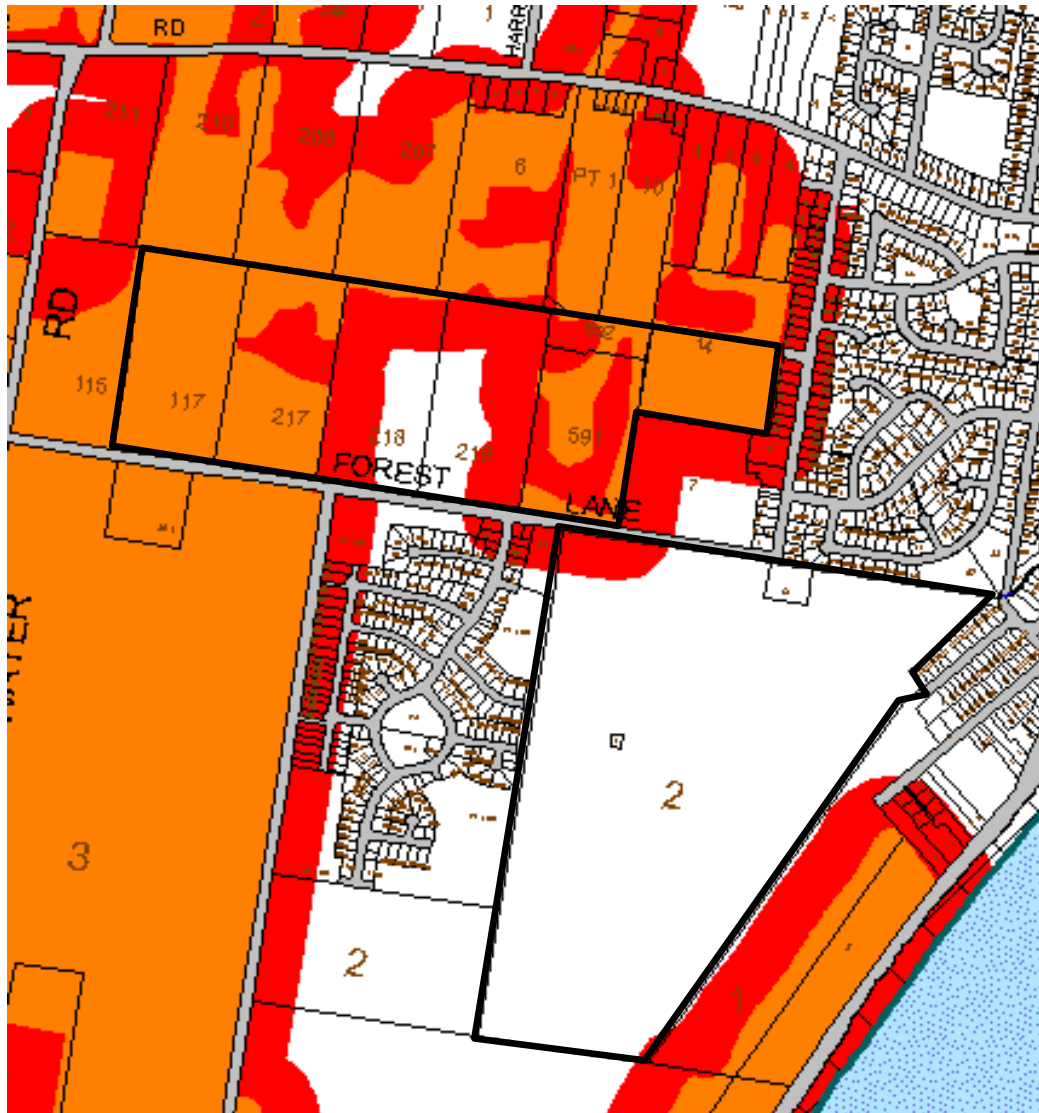


Figure 2: Extract of Bushfire Prone Land Map (Source: Greater Taree City Council)
North to top of page (Approximate outline of site added)

As shown in Figure 2 in relation to the portion of the site located to the

- northern side of Forest Lane, areas of the land within Portions 117, 217 591, 592 and Part Lot 14 are mapped as containing Category 1 vegetation (shown orange), with land within 100 metres of the Category 1 vegetation mapped as being within the 100 metre bushfire buffer (shown red) to Category 1 vegetation
- southern side of Forest Lane, that is, the land within Lot 2 DP 1022067, the major portion of this land is not mapped as bushfire prone land

(shown white). Only a very small area in the north-western corner of Lot 2, and another limited area in the south-eastern corner of the allotment are mapped as being within the 100 metre bushfire buffer to Category 1 vegetation which is located on the northern side of Forest Lane and within the land to the south-east of the site respectively.

The land within the overall site is affected by a number of different land zonings for the purposes of Greater Taree Local Environmental Plan 2010.

In relation to the portion of the overall site that is located to the northern side of Forest Lane, all of the land is zoned R1 Residential General except for:

- Portion 117, which is zoned part R5 and part E2; and
- Portion 217, which is zoned part R1 and part E2.

In relation to the portion of the overall site that is located to the southern side of Forest Lane, Lot B is zoned R1, while Lot 2 is zoned part R1, part RE2 and part E3.

Photographs which show the general condition of the various areas of land within the site are at Appendix 1.

3. Classification of Vegetation

Figure 1 shows the extent of vegetation across the site, and also on adjoining lands.

Based upon the provisions of *Planning for Bush Fire Protection* 2006, the vegetation formations within the site have generally been classified as shown in Table 3.1.

| Table 3.1 | | |
|--|-------------------------------|---|
| Existing Parcel | Description | Vegetation |
| Lot 2 DP 1022067 | Jarberg North Jarberg West | Shrubland (assessed as tall heath/scrub for APZ purposes) |
| Lot B DP 377867 | Stone | Grassland (within Jarberg North to east/west/south) |
| Part Lot 14 DP 733054 (southern half) | Goodear | Open forest to north Grassland to south |
| Lot 591 DP 1180317 | Rawson | Grassland to east |
| Lot 592 DP 1180317 | Taylor | Open forest to north |
| Portion 117 DP 753149 | Love | Dry sclerophyll (open forest) |
| Portion 217 DP 753149 | Sainisch- Plimer | Dry sclerophyll (open forest) to north and west |
| Portion 218 DP 753149 | Archer | Open forest to north |
| Portion 219 DP 753149 | Trad | Open forest to north |

4. Assessment of the Slope of the Land

As mentioned in Section 2 of this assessment, the land within the southern part of the site is relatively flat, with a gradual slope up towards Forest Lane to the north and also towards the existing residential subdivision adjoining the eastern boundary of Lot 2 DP 1022067. The land within the northern part of the site generally slopes upwards from its southern boundary with Forest Lane towards the north, east and west.

The effective slope of the land (that is, the slope of the land most likely to influence bushfire behaviour for the purposes of calculating Asset Protection Zones), is:

- for the northern part of the site – generally up slope towards the north, east and west; and
- for the southern part of the site – relatively flat and/or upslope towards the north and east.

5. Any Significant Environmental Features

The proposal has been the subject of a Statutory Ecological Impact Assessment (SEIA) by Darkheart Eco-Consultancy (November 2013). The SEIA notes that:

- The footprint for the subdivision will occupy approximately 48 hectares of the overall site area of approximately 57 hectares. Also, a 7 hectare conservation zone/corridor is proposed in the north-west of the site with a series of drainage reserves to be constructed adjacent to the northern side of Forest Lane.
- The vegetation on the site largely consists of derived grassland with some areas of open and modified forest in the north.
- Lack of management in recent years over some parts of the site has also seen the regeneration of shrubland and forest communities. Hollow-bearing trees were present in the north-west and north-east of the site.
- No threatened flora species were detected, and none were considered likely occurrences. None of the vegetation communities on the site qualified as Threatened Ecological Communities due to the lack of alluvial soils and/or indicative floristic assemblages.
- While the removal/modification of up to about 24 hectares of native vegetation for the proposed development will have the generic negative effect of removal of some known/potential foraging habitat and reduced carrying capacity of the study area for most of the subject fauna species: in context of the ecology of potentially occurring threatened species, extent of remaining habitat on and adjacent to the site, this action is not considered likely to have an impact of sufficient order of magnitude to place a local population at risk of extinction.

Significant environmental features within the site include the area proposed for the conservation zone/corridor within the north-western part of the site, and areas of low lying land within the existing Lot 2 DP 1022067. The plan of subdivision indicates the retention and protection of areas of shrub/heath

vegetation within the southern part of the land proposed for the golf course. These areas of vegetation will not be impacted upon by any Asset Protection Zones for residential development which is proposed to the west, within the Jarberg West sub-precinct.

6. Any Threatened Species

As noted in Section 5, the Darkheart SEIA notes that the land within Precinct 3 has been subject to a long history of disturbances such as clearing, underscrubbing, cattle grazing and sand mining in the south-east.

The SEIA also noted that no threatened flora species were detected, and none were considered likely occurrences. None of the vegetation communities on the site qualified as Threatened Ecological Communities due to the lack of alluvial soils and/or indicative floristic assemblages.

7. Any Aboriginal Relics

An Aboriginal Archaeological Survey (AAS) was undertaken for the proposal by Doowakee (May 2012). The results of the AAS in relation to Aboriginal cultural material noted that:

- Lower swampy areas that are evident in the subject area would have proven to be a more frequented location for conducting traditional Aboriginal resource acquisition activities.
- In a previous survey (2005), over 126 individual artefacts were recorded. Most artefacts recorded were constructed using basic manufacturing techniques.
- Material was recorded in the central western and south-western sections of the property during the AAS.

Relevant to the final dot point above, the “property”, according to the AAS, is the land within Precinct 3 to the southern side of Forest Lane. The material that was recorded appeared to have been found in the areas nearer the existing sporting complex adjoining the south-western part of Lot 2, apparently in the area where the clubhouse facilities are proposed for the golf course.

The AAS made several recommendations in relation to the proposal. These are not repeated here. In general, it does not appear that any of the recommendations will preclude the provision of Asset Protection Zones in favour of the residential allotments proposed as part of the subdivision.

8. Bushfire Assessment

8.1 The extent to which the development is to provide for setbacks including Asset Protection Zones

The site is located within the Greater Taree local government area, in the North Coast Fire Weather area, and is subject to an FDI rating of 80 according to Table A2.3 of *Planning for Bush Fire Protection 2006*.

As per Section 3 of this Assessment, the vegetation formations in relation to the proposed subdivision have been classified as shown in Table 8.1.

| Table 8.1 | | |
|-------------------------------|---|---|
| Description | Vegetation | Effective Slope |
| Jarberg North Jarberg West | Shrubland (assessed as tall heath/scrub for APZ purposes) | relatively flat and/or upslope to north and east |
| Stone | Grassland (within Jarberg North to east/west/south) | relatively flat and/or upslope to north and east |
| Goodear | Open forest to north Grassland to south | up slope to north |
| Rawson | Grassland to east | up slope to north, |
| Taylor | Open forest to north | up slope to north |
| Love | Dry sclerophyll (open forest) | up slope to north and west relatively flat and/or across slope to east |
| Sainisch-Plimer | Dry sclerophyll (open forest) to north and west | up slope to north relatively flat and/or across slope to east |
| Archer | Open forest to north | up slope to north |
| Trad | Open forest to north | up slope to north |

In relation to the effective slope identified in the third column in Table 8.1, it is acknowledged that variations in slope within the site may result in localised areas where an effective slope of $>0-5^{\circ}$ downslope occurs between proposed allotments in the subdivision and respective areas of classified vegetation. Overall, such variations do not alter the overall Asset Protection Zone requirements with respect to the vegetation formations identified throughout the site and immediately adjoining lands.

The asset protection zone values shown in Table 8.2 are based upon the classification of vegetation formations as shown in Table 8.1. The extent of the Asset Protection Zones in relation to the various sub-precincts within the site is shown in Figures 8.1-8.4.

| Table 8.2 | | | | |
|--|--|---------------------------------------|---------------------------------------|---------------------------------------|
| Jarberg West (see Figure 8.1) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North-east | Relatively flat and/or upslope to north and east | 15 | 15 | - |
| East | Relatively flat | 15 | 15 | - |
| South | Relatively flat | 15 | 15 | - |
| Jarberg North (see Figures 8.1 and 8.2) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| South | Relatively flat | 15 | 15 | - |
| East/South-east | Relatively flat | 15 | 15 | - |
| South-west | Relatively flat | 15 | 15 | - |

| Table 8.2 | | | | |
|---------------------------------|------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| West | Relatively flat | 10 | 10 | - |
| Goodear (see Figure 8.3) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North | Upslope to north | 21 | 11 | 10 |
| South | Relatively flat/across slope | 10 | 10 | - |
| Rawson (see Figure 8.3) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| East | Relatively flat/across slope | 10 | 10 | - |
| Taylor (see Figure 8.3) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North | Upslope | 21 | 11 | 10 |
| Trad (see Figure 8.4) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North | Upslope | 21 | 11 | 10 |
| Archer (see Figure 8.4) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North | Upslope | 21 | 11 | 10 |

| Table 8.2 | | | | |
|---|--|---------------------------------------|---------------------------------------|---------------------------------------|
| Sainisch-Plimer (see Figure 8.4) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North | Upslope | 21 | 11 | 10 |
| West/North-west | Upslope and/or relatively flat and/or across slope | 21 | 11 | 10 |
| Love (see Figure 8.4) | | | | |
| Direction | Slope | Asset Protection Zone (metres) | Inner Protection Area (metres) | Outer Protection Area (metres) |
| North/East/West/South | Upslope and/or relatively flat and/or across slope | 21 | 11 | 10 |

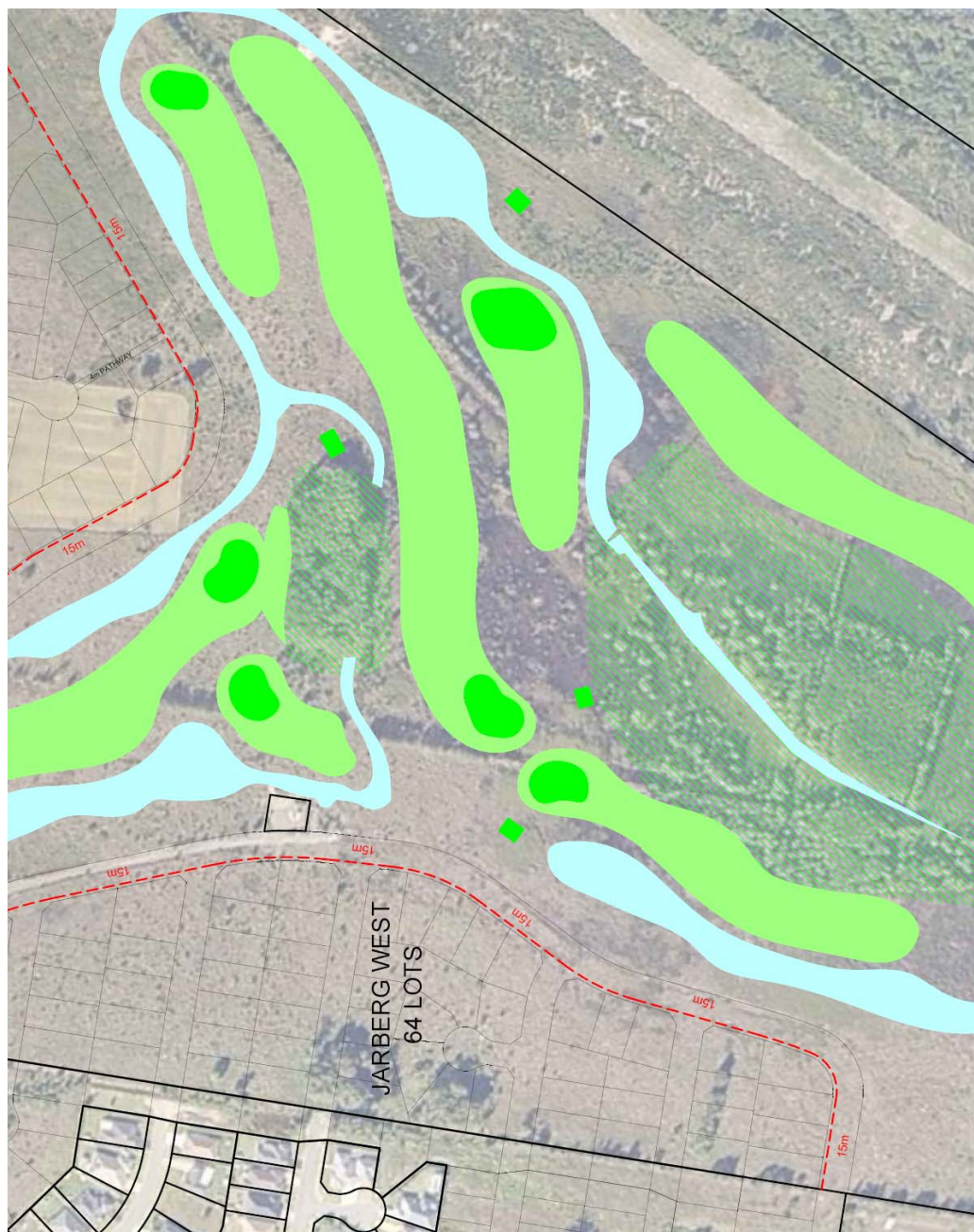


Figure 8.1 (North to left of page)



Figure 8.2 (North to left of page)



Figure 8.3 (North to left of page)

As shown in Figures 8.2 and 8.3, there are some examples within the Jarberg North and Goodear lands where the minimum required APZs are proposed to be provided over adjacent land which is under the same ownership.

In these instances, it is proposed to create an easement (Section 88B of the Conveyancing Act 1919) over that part of the land where indicated in Figure 8.2 or 8.3 (as the case may be) in favour of the affected allotment(s) for APZ creation and management purposes.

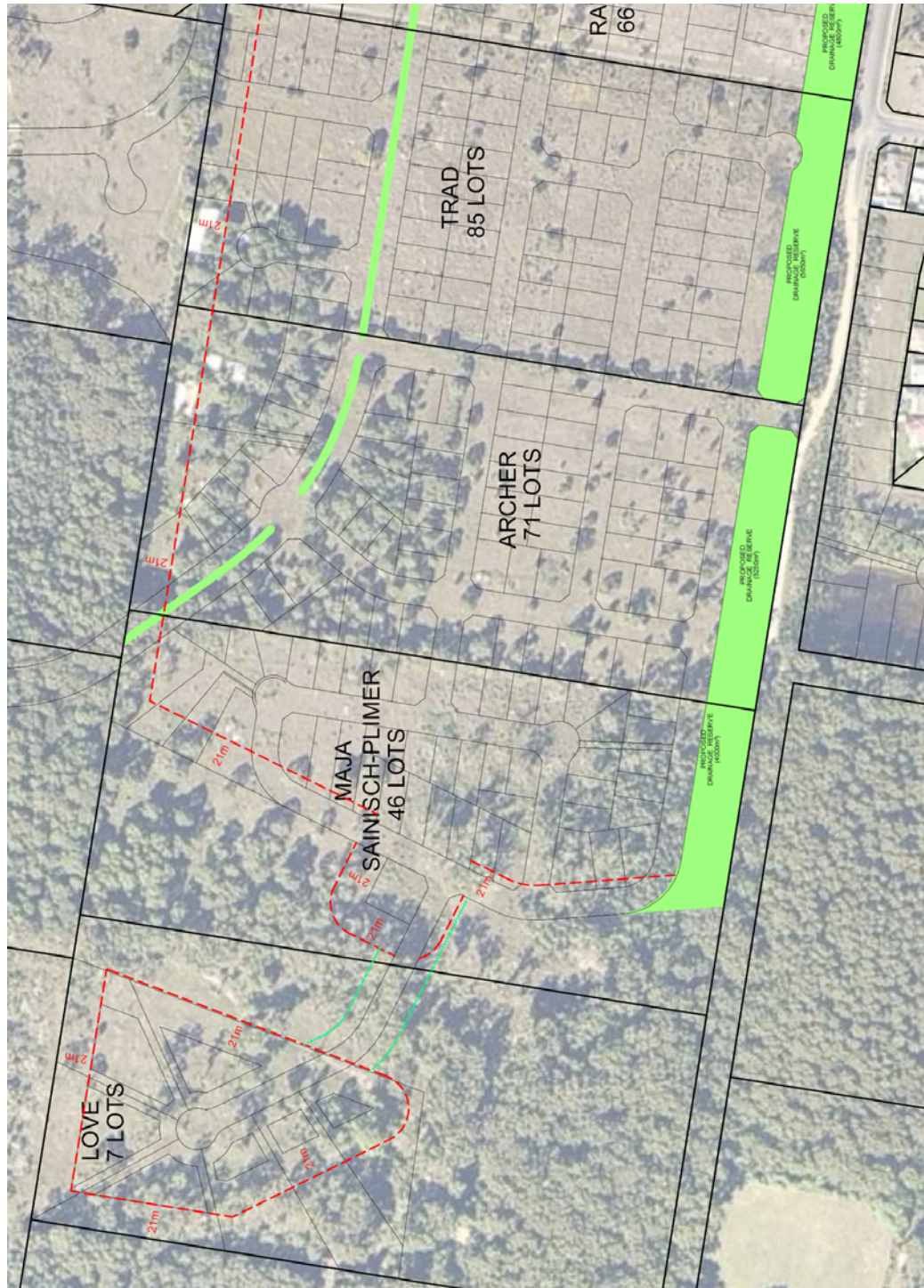


Figure 8.4 (North to left of page). The diagram also indicates a cleared area 10 metres wide to either side of the proposed roadway through the vegetation corridor (by green dotted lines). This is intended to ensure that there is a degree of separation between the edge of the roadway and the adjacent vegetation.

In several instances in Figures 8.1-8.4, it is shown that the relevant parts of the proposed internal roadways within the respective parts of the site

may also be used to supplement Asset Protection Zones in favour of residential allotments within the proposed subdivision.

8.2 The siting and adequacy of water supplies for fire fighting

It is understood that the subject development site will be connected to the existing reticulated town water supply which currently services the Old Bar area and existing residential development.

According to *Planning for Bush Fire Protection 2006*, an acceptable solution for a reticulated water supply is where:

Fire hydrant spacing, sizing and pressures comply with AS2419.1-2005. Where this cannot be met, the RFS will require a test report of the water pressures anticipated by the relevant water supply authority. In such cases, the location, number and sizing of hydrants shall be determined using fire engineering principles.

All reticulated water supply & hydrant connection points are to be located and installed throughout the subject development in accordance with AS2419 and any other standard MidCoast Water requirement.

Other acceptable solutions for water supply within a reticulated area considered relevant to the subject development require that:

- *hydrants are not located within any road carriageway;*
- *all above ground water pipes external to the building are metal including and up to any taps;*
- *the provisions for parking on public roads are met.*

Overall, in relation to water supply for fire fighting purposes, the provision of reticulated water throughout the subdivision will provide for the installation of hydrant connection points in order to meet the minimum standards outlined by *Planning for Bush Fire Protection 2006*.

8.3 The capacity of public roads to handle increased volumes of traffic in the event of a bushfire emergency

The nine (9) properties that presently comprise the site are served by an existing road network with the Old Bar locality. The major roads directly serving the site are:

- Wyden Street – which runs south-north from its intersection with Forest Lane, through established residential areas and intersects with Old Bar Road at its northern end; and
- Forest Lane – which runs east to west through the site and intersects with Wyden Street at its eastern end and Saltwater Road at its western end.

In general, the route via Wyden Street is through established residential areas and is unlikely to come under any significant bushfire attack.

The route via Forest Lane is gravel in parts and traverses relatively heavily forested areas between the north-western part of the site and Saltwater Road.

It is likely that parts of Forest Lane, in particular, will be subject to some upgrading in conjunction with the proposed subdivision so as to comply with Section 4.1.3 of Planning for Bush Fire Protection to provide a standard of access to ensure that the roads will have capacity to handle increased volumes of traffic in a bushfire emergency.

The plan of subdivision also indicates that the road network within the northern part of the site will interconnect with the future road network planned as part of the Precinct 2B development. Once these interconnections are established, then there will be a number of alternate routes available for access and egress to the proposed subdivision.

8.4 Whether or not public roads in the vicinity have two-way access

Each of the public roads serving the site, Wyden Street and Forest Lane, are two-way as noted in the dot points in Section 8.3 above. The previous section also notes that the proposed subdivision will involve future interconnections with the Precinct 2B land to the north to provide a

number of alternate means of access and egress once each development is established.

8.5 The adequacy of arrangements for access to and egress from the development site for the purposes of an emergency response

Given the proposed access arrangements, upgrading of the relevant sections of public road in Forest Lane and the future interconnections with roads within the Precinct 2B land to the north as outlined above, it is considered that the arrangements for access to and egress from the site for the purposes of an emergency response will be appropriate in the circumstances of the proposed development. Logically, the primary means of access and egress to/from the site will presently be via Wyden Street towards the north-east of the site given its route through established residential areas which are unlikely to come under any significant bushfire attack.

8.6 The adequacy of bushfire maintenance plans and fire emergency procedures for the development site

There are no known bushfire maintenance plans for the development site.

8.7 The construction requirements to be used for building elements in the development

Based on the APZ areas (as identified in Figures 8.1-8.4) as recommended by this report and Table 2.4.3 of AS3959, the required Bushfire Attack Level (BAL) for any proposed dwellings will be subject to the actual siting of the dwelling relative to the nearest areas of potential bushfire hazard vegetation.

The final construction requirements for any residential building(s) on any of the proposed allotments will be subject to separate assessment once the final location for the building(s) within the individual allotment is known.

8.8 The adequacy of sprinkler systems and other fire protection measures to be incorporated into the development

There is no proposal to install any sprinkler system or other fire protection measures as part of the proposed development.

9. Compliance: Planning for Bush Fire Protection

The details provided in Section 8 of this Assessment outline the relationship between the development and the specifications set out in Chapter 4 (Performance Based Controls) of *Planning for Bush Fire Protection* 2006.

9.1 Asset Protection Zones

In relation to the provision of Asset Protection Zones, Table 9.1 assesses the proposed development against the relevant performance criteria.

Table 9.1

| Performance Criteria | Relationship of proposed development to Performance Criteria |
|---|---|
| <i>Radiant heat levels at any point on a proposed building will not exceed 29kW/m²</i> | <p>9.1.1 APZs recommended to be provided to the proposed subdivision as indicated in Figures 8.1-8.4.</p> <p>9.1.2 In the case of the areas indicated in Figures 8.2 and 8.3, the APZ for a number of allotments within the Jarberg North and Goodear sub-precincts will be provided outside the allotments but within land that is in the same ownership. As such, it is proposed to create an easement (Section 88B of the Conveyancing Act 1919) over that part of the land as shown in Figures 8.2 and 8.3 in favour of the relevant allotment(s) for APZ creation and management purposes.</p> |
| <i>APZs are managed and maintained to prevent the spread of a fire towards the building</i> | 9.1.3 APZs to be maintained in accordance with the requirements of the NSW Rural Fire Service document entitled Standards for Asset Protection Zones (2005) |
| <i>APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is negated</i> | 9.1.4 The APZs do not extend into any areas that have been identified as having high flora/fauna significance and also avoid land that has a slope which is >18° |

9.2 Access

In relation to access, Table 9.2 assesses the proposed development against the relevant performance criteria.

Table 9.2

| Performance Criteria | Relationship of proposed development to Performance Criteria |
|---|--|
| <i>firefighters are provided with safe all weather access to structures (thus allowing more efficient use of firefighting resources)</i> | <p>9.2.1 The provision of internal roads within the subdivision as shown on the plan of subdivision, in combination with the existing road network within the locality, will achieve the performance criteria.</p> <p>9.2.2 It is likely that parts of Forest Lane will be subject to some upgrading in conjunction with the proposed subdivision so as to comply with Section 4.1.3 of Planning for Bush Fire Protection to provide a standard of access to ensure that the road will have capacity to handle increased volumes of traffic in a bushfire emergency.</p> |
| <i>Public road widths and design that allow safe access for firefighters while residents are evacuating an area.</i> | 9.2.3 Construction of the internal roads within the subdivision and any upgrading of public roads in conjunction with the subdivision will facilitate the provision of appropriate road widths and design. |
| <i>The capacity of road surfaces and bridges is sufficient to carry fully loaded fire fighting vehicles.</i> <i>Roads that are clearly sign-posted (with easily distinguishable names) and buildings/properties that are clearly numbered.</i> | <p>9.2.4 The existing and proposed road surfaces are to be of a standard that is sufficient to carry fully loaded fire fighting vehicles (approximately 28 tonnes or 9 tonnes per axle).</p> <p>9.2.5 Roads will be clearly signposted and any future allotments will be designated street numbers through usual local authority processes</p> |
| <i>there is clear access to reticulated water supply</i> | 9.2.6 The subject development site will be connected to the existing reticulated town water supply which currently services the Old Bar area and existing residential development |
| <i>parking does not obstruct the minimum paved width</i> | 9.2.7 The proposed roads within the subdivision will be of sufficient width so that any parking will not obstruct the minimum paved width of the road |

9.3 Water Supply, Electricity and Gas

In terms of water supply for fire fighting, reticulated water is not available to the site. Table 9.3 assesses the proposed development against the relevant performance criteria for water supply, electricity and gas.

Table 9.3

| Performance Criteria | Relationship of proposed development to Performance Criteria |
|---|--|
| Water Supply <i>Water supplies are easily accessible and located at regular intervals</i> | 9.3.1 The subject development site will be connected to the existing reticulated town water supply which currently services the Old Bar area and existing residential development. |
| Electricity Services <i>location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings</i> | 9.3.2 Electrical supply lines for the proposed development are to be installed underground |
| Gas services <i>location of gas services will not lead to ignition of surrounding bush land or the fabric of buildings</i> | 9.3.3 Any bottled gas is to be installed and maintained in accordance with 1596 and the requirements of relevant authorities. Metal piping is to be used 9.3.4 All fixed gas cylinders are to be kept clear of all flammable materials to a distance of 10 metres and shielded on the hazard side of the installation 9.3.5 If gas cylinders need to be kept close to the building, the release valves are to be directed away from the building and at least 2 metres away from any combustible material 9.3.6 Connections to and from gas cylinders are to be metal |

10. Conclusion/Recommendations

The subject site comprises land known as:

- Lot 2 DP 1022067, 106 Forest Lane;
- Lot B DP 377867, 142 Forest Lane;
- Part Lot 14 DP 733054 (southern half);
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- Portion 217 DP 753149, 37 Forest Lane;
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- Portion 219 DP 753149, 75 Forest Lane.

The proposed development involves a subdivision of the site to create a total of 525 allotments, associated roads and drainage infrastructure and a nine (9) hole golf course and ancillary facilities.

The proposal is shown on plans entitled “*Preliminary Discussion Plans for Precinct 3 Forest Lane, Old Bar – Overall Layout Plan*”, prepared by Lidbury, Summers & Whiteman (File 6066).

The following recommendations are made in relation to the bushfire protection measures for the proposed development, and are based on the relevant provisions of the NSW Rural Fire Service guideline entitled *Planning for Bush Fire Protection 2006*:

- A. Asset Protection Zones are to be provided as indicated in Figures 8.1-8.4 of this assessment.
- B. An easement (Section 88B of the Conveyancing Act 1919) is to be created over those parts of the land within the Jarberg North and Goodear sub-precincts shown in Figures 8.2 and 8.3 as being proposed outside of the residential allotments where indicated. The easement is to be provided in favour of the relevant residential allotment(s) for APZ creation and management purposes.
- C. Asset Protection Zones are to be maintained in accordance with the requirements of the NSW Rural Fire Service document entitled *Standards for Asset Protection Zones (2005)*.

- D. Fire hydrants are to be located throughout the proposed subdivision in accordance with the relevant requirements of AS2419.1.
- E. Water supply is to be available for fire fighting purposes for any future residential building(s) on the proposed allotments. The final requirements with regard to water supply for any residential building(s) on any of the proposed allotments will be subject to separate assessment at the time of construction of those buildings.
- F. Electricity supply lines for the proposed development are to be installed underground.
- G. In relation to access, internal roads to be constructed within the proposed subdivision are to comply with the relevant performance criteria outlined in Section 4.1.3(1) of *Planning for Bush Fire Protection* 2006.
- H. Bottled gas shall be installed and maintained in accordance with AS/NZS 1596-2002; *Storage and Handling of LP Gas* and the requirements of the relevant authorities. Any gas cylinders are to be located in accordance with the acceptable solutions for gas services as outlined in Section 4.1.3 of *Planning for Bush Fire Protection* 2006 and Table 9.3 of this assessment).



SIMON CARROLL November 2013 (Revision 1: December 2013)

***Graduate Diploma in Design for Bushfire Prone Areas MFPA
Graduate Diploma in Building Fire Safety & Risk Engineering
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NOTE AND DISCLAIMER:

- 1. *This assessment relates to a proposal to carry out a subdivision of the subject land only. Only the plan of proposed subdivision referenced in this Assessment has been considered.*
- 2. *This Assessment has been based on bushfire protection guidelines as outlined in Planning for Bush Fire Protection 2006 (PBP). As noted by PBP, notwithstanding the precautions recommended, it should always be remembered that bushfires burn under a range of conditions and an element of risk, no matter how small, always remains.*

3. *The adoption of bushfire protection measures cannot guarantee that any future buildings on the proposed allotments will survive a bushfire event on every occasion. This is substantially due to the unpredictable behaviour and nature of fire and the difficulties associated with extreme weather and fire weather conditions.*
4. *This assessment does not imply or infer any approval for the removal and/or thinning of vegetation for Asset Protection or other purposes. It is the responsibility of the client/land owner to obtain any and all necessary approvals in this regard.*

REFERENCES

NSW Rural Fire Service (2006)
Planning for Bushfire Protection 2006

Appendix 1 – Photos



Photo: Condition of land in the north-western part of the site.



Photo: Condition of land in the north-western part of the site.



Photo: Condition of land in the north-western part of the site.



Photo: Condition of land in the north-western part of the site.



Photo: View of land within the Sainisch-Plimer site.



Photo: View of land within the Archer site.



Photo: View of land within the Trad site.



Photo: View of land within the Taylor site, closer to the existing dwelling (looking south, with existing residential development on the land to the west of the Jarberg West site visible in the distance).



Photo: View of land within the Rawson site, looking north along the common boundary of that land with Lot 7 Forest Lane (the allotment which also adjoins the southern boundary of the Goodear site).



Photo: View of land within the Goodear site, looking north. The land shown forms part of the Goodear Precinct 2B site).



Photo: View of land within the Goodear site, looking south.



Photo: View of land at the eastern end of the Jarberg north site.



Photo: View of land within the Stone site, looking east, with the vegetation within the eastern part of the Jarberg north site shown in the background.



Photo: View of the golf driving range within the Jarberg north site, looking south.



Photo: View of land in the western part of the Jarberg north site looking south from Forest Lane.



Photo: View of land in the western part of the Jarberg west site, looking north.



Photo: View of some of the vegetation within the Jarberg west site.



Photo: View of some of the vegetation within the Jarberg west site, generally looking east towards the centre of the area proposed for the golf course.