

BUSHFIRE HAZARD REPORT



**Thirteen (13) Lot & Two (2) Balance Lot Subdivision
General Residential Zone
27-29 Opossum Road, Kings Meadows
Prepared for the Launceston Golf Club**

August 2021

Executive Summary

Development of a thirteen (13) lot residential subdivision is proposed for 27-99 Opossum Road, Kings Meadows. The subdivision consists of thirteen residential lots, one road lot, two lots for pedestrian connectivity and two balance lots. Access to each residential lot will be via a proposed cul-de-sac road, which is provided as an extension of Negara Street to the east.

The site is entirely within the boundary of a bushfire prone area shown on an overlay of a planning scheme map for the *Launceston Interim Planning Scheme 2015*. A bushfire event at this site or within the immediate area is likely to impact on future buildings at this location and subject development to considerable radiant heat and ember attack.

A bushfire hazard management plan has been prepared and is provided as an appendix to this report. The plan sets out the owner's responsibilities to maintain a managed area for each lot, taking into consideration the relevant requirements under Australian Standard *AS3959-2018 Construction of buildings in bushfire-prone areas*.

Conclusions and recommendations

- a) Hazard management areas meeting the requirements of BAL 19 can be achieved for lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13.
- b) Lots 14 and 15 are considered exempt in accordance with clause E1.4 (a) of PD 5.1 Bushfire Prone Areas Code.
- c) Lot 100, the proposed cul-de-sac road, must be in compliance with Table E, Element A, with the exception of the 12m outer radius for cul-de-sacs.
- d) New hydrants are required in accordance with the TasWater Supplement to Water Supply Code of Australia WSA 03-2011-3.1 MRWA Edition 2:0. Hydrants to have a separation of not more than 60m.
- e) A 23m wide hazard management area is to be provided to the south and west of lots 1-7. This area is to be managed in accordance with section 5.2 of this report, prior to Council sealing a final plan of subdivision.
- f) A 10m wide hazard management area is to be provided to the north of lots 7-13. This area is to be managed in accordance with section 5.2 of this report, prior to Council sealing a final plan of subdivision.
- g) Maintenance of hazard management areas must be in perpetuity.

Signed:



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Accreditation No: BFP-157

Table of Contents

- Executive Summary ii
- 1. Introduction..... 1
 - 1.1 The subject site 1
 - 1.2 Bushfire Assessment 1
 - 1.3 References..... 2
- 2. Site Description 3
 - 2.1 Site context..... 3
 - 2.2 Planning controls 5
- 3. The Proposal 6
- 4. Bushfire Site Assessment 7
 - 4.1 Vegetation Analysis 7
 - 4.2 Effective slope Analysis..... 9
 - 4.3 Photos 10
- 5. Bushfire Protection Measures 12
 - 5.1 BAL Rating and Risk Assessment 12
 - 5.2 Hazard Management Areas 16
 - 5.3 Access 17
 - 5.4 Fire Fighting Water Supply 18
- 6. Bushfire-Prone Areas Code Assessment..... 19
- 7. Justification of Cul-De-Sac Road 22
- 8. Assessment of Risk – Balance Lots 14 & 15..... 24
- 9. Conclusions and Recommendations 25
- Annexure 1 – Bushfire Hazard Management Plan 26
- Annexure 2 – Subdivision Proposal Plan..... 27
- Annexure 3 – Planning Certificate..... 28
- Annexure 4 – Letter from the Launceston Golf Club regarding Bushfire Hazard Management Area 29

1. Introduction

This Bushfire Hazard Report and Bushfire Hazard Management Plan (BHMP) has been prepared in support of a proposed thirteen residential lot and two balance lot subdivision at 27-99 Opossum Road, Kings Meadows.

1.1 The subject site

The following is a summary of the application information:

| | |
|--------------------------------------|--|
| Property address | 27-29 Opossum Road, Kings Meadows |
| Certificate of title | CT 198059/1, CT16/4964 |
| Property ID (PID) | 6883203 |
| Property Owners | The Launceston Golf Club Ltd. |
| Existing Use and Development | Sports and Recreation – Golf Course |
| Existing Zoning | Recreation Zone |
| Proposed Zoning | General Residential Zone |
| Planning Scheme | Launceston Interim Planning Scheme 2015 |
| Identified on a Bushfire Overlay Map | Yes |
| Priority Habitat identified | No |
| Proposed Works | Thirteen (13) lot subdivision, road and pedestrian lots, balance lots (2). |
| Water Supply | Reticulated water supply |
| Vehicular Access | Negara Street – Council maintained road. |

1.2 Bushfire Assessment

A bushfire assessment is a process of analysing information about the potential impacts on a proposed development that is likely to occur in a bushfire hazard scenario. A ‘bushfire-prone area’ is an area where a bushfire event is potentially likely to occur, and that may result in significant adverse impact on buildings and/or lives.

In Tasmania, most local Councils have a planning scheme overlay map that identifies bushfire-prone areas. Subdivision within a bushfire-prone area triggers the assessment of the Bushfire-Prone Areas Code under the planning schemes and subsequently requires assessment against the provisions of the Code. The assessment generally requires a BHMP to be provided as part of the application.

The bushfire assessment will determine the Bushfire Attack Level (BAL) for the future lots, which measures the possible exposure of a building to bushfire hazard. The BAL is assessed in accordance with Australian Standard *AS 3959-2018 construction of buildings in bushfire-prone areas*.

The subject site falls within the municipal area of Launceston City Council. The assessment has been undertaken in accordance with E1.0 Bushfire-Prone Areas Code and to accompany a

subdivision application under the *Launceston Interim Planning Scheme 2015*. Please refer to Section 6 of the report for detail.

A BAL assessment is required to understand the fuel management requirements for the subject site and to demonstrate that future new buildings within each proposed new lots can be constructed to a BAL19 level under the *Building Act 2016*.

1.3 References

The following documents were referred in the preparation of, and should be read in connection with, this bushfire assessment report:

- Tasmanian Government, Planning Directive No. 5.1 – Bushfire-Prone Areas Code
- Tasmanian Government, Director’s Determination – Requirements for Building in Bushfire Prone Areas (transitional) Version 2.2.
- Tasmanian Government, Director’s Determination – Application of Requirements for Building in Bushfire Prone Areas (transitional) Version 1.4.
- Launceston Interim Planning Scheme 2015
- Australian Standard, AS3959-2018 construction of buildings in bushfire-prone areas.
- Building Act 2016
- Tasmanian Fire Service, Bushfire Hazard Advisory Notes

2. Site Description

2.1 Site context

A thirteen (13) lot residential and two (2) balance lot subdivision is being undertaken on land owned and managed by the Launceston Golf Club. The entire site currently consists of two titles, with a total area of approximately 54ha.

The site currently provides an 18-hole golf course and associated club rooms and infrastructure. All buildings are located in the south western portion of the site, while the golf course is spread across both titles. The majority of the site is maintained and used as a golf course, while there are two areas on site which contain unmanaged and established vegetation.

The land adjoins residential development on the eastern, and western sides. The Launceston cemetery is located to the south of the site. A light industrial/business area is provided to the north west of the site. To the north lies Punchbowl Reserve, which is a mostly unmanaged 24ha area of land. Residential properties adjoin the Punchbowl Reserve on the eastern and western sides.

The proposed new lots are located in the north eastern part of the site, adjacent to existing residential development along Negara and Warragul Streets. Access to the area being subdivided will be via an extension of Negara Street which is maintained by the Launceston City Council. Access to the balance lots remains via the primary entrance on Opossum road.

The site is generally level with a gentle fall from the south to the north. The northern part of the site includes two dams which form part of the Kings Meadows rivulet.



Figure 1 – Aerial view of the subject site and its surrounding area (source: The LISTMap)



Figure 2 – Looking west along Negara Street to the proposed access point for the subdivision.

The subject site is serviced by a reticulated water supply maintained by TasWater. There is a hydrant located on the eastern property boundary where Negara Street ends.



Figure 3 – Area of subject site being subdivided. Blue lines represent water mains and yellow FH squares represent fire hydrants. (source: The LISTMap)

2.2 Planning controls

The site is within the municipal area of Launceston City Council. Therefore, the planning instrument is the *Launceston Interim Planning Scheme 2015* (The Scheme).

The subject site is currently within the Recreation Zone. This report has been written to accompany a planning scheme amendment application to rezone a portion of the site to General Residential Zone. This report has therefore been written as though the land is General Residential.

The area to the east of the subdivided area is currently General Residential. The balance of the golf course land is within the Recreation zone.

The subject site also entirely falls within the Bushfire-Prone Areas Overlay and the Scenic Management Overlays.



Figure 4 – Zoning Map (source: The LISTMap)

3. The Proposal

It is proposed to subdivide the subject site into thirteen residential lots, whilst retaining two balance lots for the golf course. The lots are intended for residential development, ranging from 500m² to 2339m² in size. Negara street to the east will be extended approximately 120m, ending in a cul-de-sac head. All lots will be connected to reticulated services.

The details of the lots are as follows:

| Lot number | Lot size | Frontage |
|------------------|--------------------|----------|
| Lot 1 | 638m ² | 19m |
| Lot 2 | 634m ² | 20m |
| Lot 3 | 556m ² | 18m |
| Lot 4 | 550m ² | 19m |
| Lot 5 | 510m ² | 23m |
| Lot 6 | 500m ² | 13.7m |
| Lot 7 | 2339m ² | 15m |
| Lot 8 | 567m ² | 13.7m |
| Lot 9 | 500m ² | 23m |
| Lot 10 | 604m ² | 20m |
| Lot 11 | 640m ² | 20m |
| Lot 12 | 643m ² | 19m |
| Lot 13 | 602m ² | 17m |
| Lot 14 (Balance) | 12.6ha | NA |
| Lot 15 (Balance) | 41.4ha | NA |

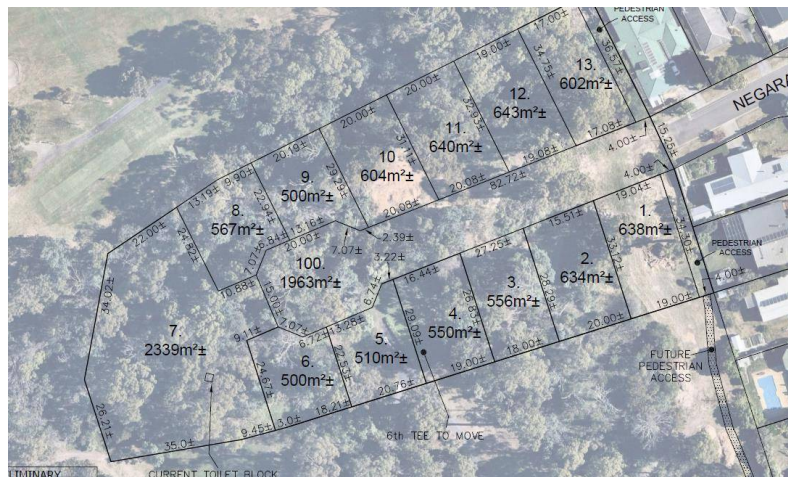


Figure 5 – Proposed subdivision layout. Refer to Annexure 2 for detail.

4. Bushfire Site Assessment

4.1 Vegetation Analysis

4.1.1 TasVeg Mapping

The TasVeg map 4.0 provides general information indicating potential bushfire prone vegetation in the area.

The mapping shows the vegetation community in the eastern section of the subject site as dry eucalypt forest and woodland (DAZ), with surrounding areas classified as urban areas (FUR). While the DAZ does extend down to the south, the majority of the site is shown as modified land which fits under the FUR classification on TasVeg. Surrounding residential areas outside of the site are classified as FUR.

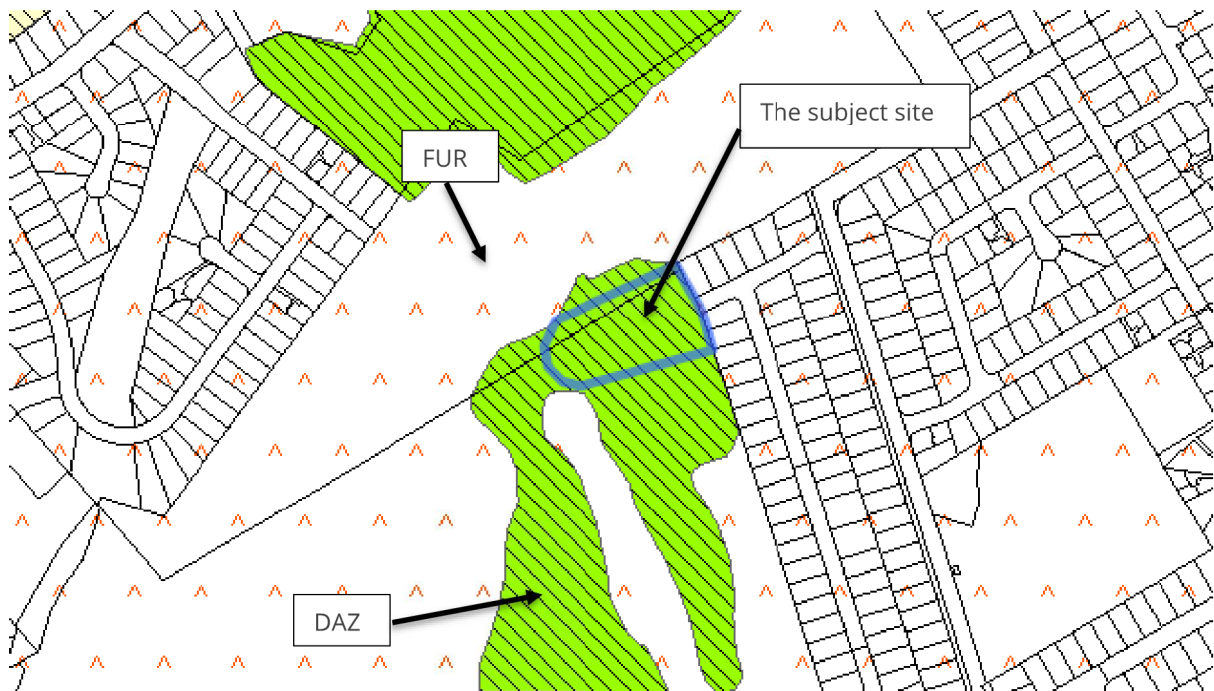


Figure 6 – TasVeg 4.0 map (source: The LISTMap)

4.1.2 Vegetation Type and Separation

A site visit was conducted on Friday 13th of June 2021. Chris Moore from the Tasmanian Fire Service was also present onsite. An analysis of the land and bushfire prone vegetation within 120m from the subject site is provided below.

| Direction | Analysis |
|-----------|---|
| North | The residential lots being developed adjoin a small section of unmanaged vegetation to the north of lots 7-13. This area vegetation is approximately 3000m ² in size, 25m – 30m in depth, and contains established forest with unmanaged understory. The area appeared to contain extensive weeds such as gorse. Beyond the unmanaged strip, was the managed area of the golf course. This managed section stretched to the north. There were no additional areas to the north which were classified as unmanaged. Beyond the golf course to the north lies the Punchbowl Reserve. While this area is over 100m from the proposed rezone and |

| | |
|-------|---|
| | subdivision, the Reserve does provide a 24ha area of generally unmanaged land. |
| South | The residential lots being developed adjoin a larger section of unmanaged vegetation. Lots 1-7 adjoin a section of forest which extends to the south. The forest is thickest in the area adjoining the proposed lots, however thins out as it extends to the south. A visual inspection indicated that the land was unmanaged for approximately 80m from the site, then transitioned into managed land with established trees. The non-managed areas were classified as forest. |
| East | The subject site adjoins an established residential area to the east. This area is made up of single dwellings within the General Residential zone. The land contains urban sized allotments and is managed. There is no bushfire prone vegetation to the east of the site. |
| West | There is a small section of forest to the west of lot 7. This section of forest is not larger than 1500m ² . While classified as forest it does not present as thick or dense as other areas of forest. The forest stretches for approximately 30m before being classified as managed land forming and part of the golf course curtilage. There were no additional areas to the west which were classified as unmanaged. |



Figure 7 – Vegetation analysis within 120m of site.

Legend

- Forest
- Managed land

4.2 Effective slope Analysis

Figure 9 below shows the effective slope which is the slope of land under the classified vegetation **in relation to** the subject site. The identified bushfire prone vegetation is a combination of subtle upslope in the south and to the east. Land to the north and west is flat.

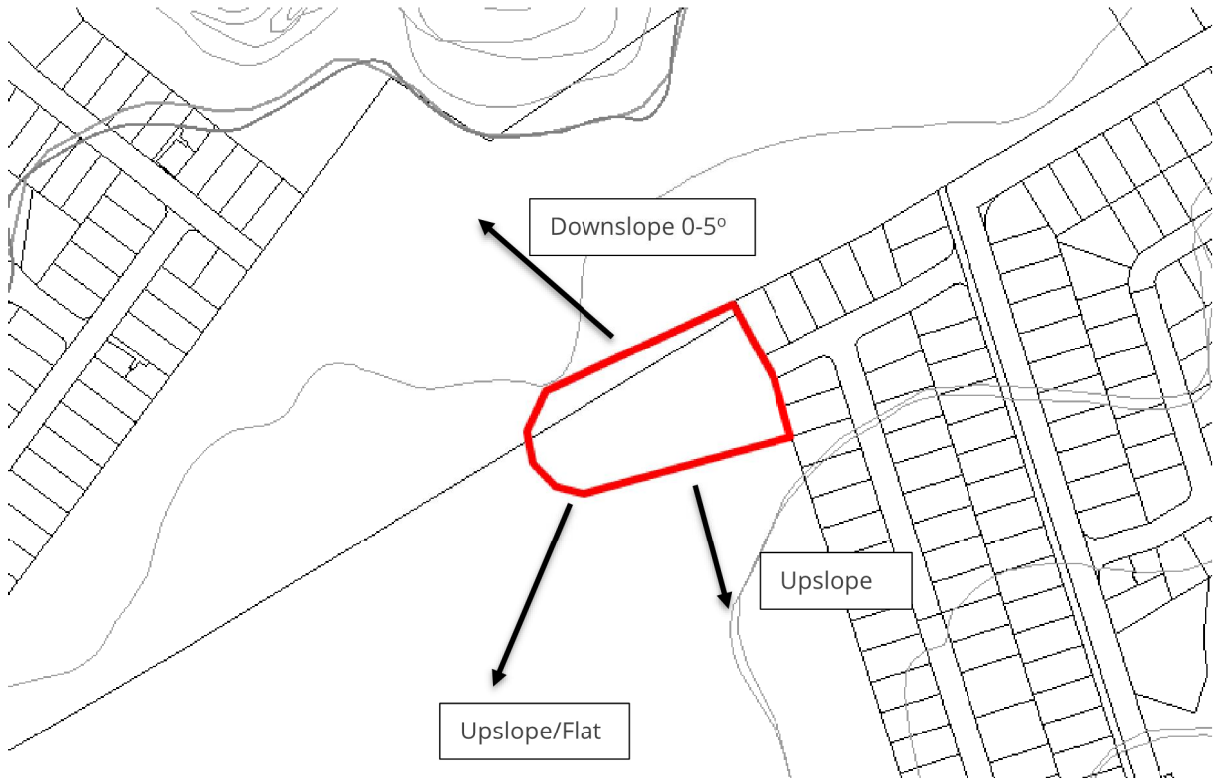


Figure 8 - Effective slope of site and surrounding bushfire prone vegetation.

4.3 Photos



Figure 9 – Looking west from end of Negara Street.



Figure 10 – Looking south along abated area at rear of dwellings on Warragul Street.



Figure 11 – Looking north along hole 6 fairway. Unmanaged vegetation on right of photo.



Figure 12 – Looking south east towards lot 11. Unmanaged forest with dense understory.



Figure 13 – Looking along fairway to the west of lot 7.



Figure 14 – Looking north from lot 11 over managed land and fairways.



Figure 15 – Looking south along pedestrian access adjoining lot 13.



Figure 16 – Looking west along proposed road.



Figure 17 – Existing hydrant at the boundary on Negara Street.

5. Bushfire Protection Measures

5.1 BAL Rating and Risk Assessment

The purpose of the BAL assessment is to identify the minimum separation between the bushfire prone vegetation and a building area within each proposed lot. The assessment aims to achieve the minimum requirements of **BAL 19**.

The definition of BAL 19 and 12.5 are highlighted as follows:

| Bushfire attack level (BAL) | Predicted bushfire attack and exposure level |
|-----------------------------|--|
| BAL-LOW | Insufficient risk to warrant specific construction requirements |
| BAL-12.5 | Ember attack, radiant heat below 12.5kW/m ² |
| BAL-19 | Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5-19kW/m ² |
| BAL-29 | Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19-29kW/m ² |
| BAL-40 | Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 29-40kW/m ² |
| BAL-FZ | Direct exposure to flames radiant heat and embers from the fire front. |

The distances from each lot to the classified vegetation is presented below, along with the slope and type of vegetation. To better demonstrate the required separation as hazard management areas, a 10m x 15m building area is shown on each site. As per the analysis in Section 4.1, the only identified bushfire-prone vegetation around the site is forest.

| Lot 1 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 2 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 3 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 4 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 5 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 6 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 7 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -23m Managed 23m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | 9m | NA |

| Lot 8 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -80m Managed 80m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | NA | NA |

| Lot 9 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -80m Managed 80m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | NA | NA |

| Lot 10 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -80m Managed 80m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | NA | NA |

| Lot 11 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -80m Managed 80m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | NA | NA |

| Lot 12 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -80m Managed 80m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | NA | NA |

| Lot 13 | North | East | South | West |
|---------------------------------------|------------------|------------------|------------------------------------|------------------|
| Vegetation within 100m of site | 0m -100m Managed | 0m -100m Managed | 0m -80m Managed 80m-100m Forest | 0m -100m Managed |
| Slope (degrees, over 100m) | NA | NA | Upslope/flat | NA |
| BAL 19 Setbacks | NA | NA | NA | NA |
| BAL 12.5 Setbacks | NA | NA | NA | NA |

5.2 Hazard Management Areas

As outlined in the *Planning Directive 5.1 – Bushfire-Prone Areas Code*, a Bushfire Hazard Management Area (BHMA) will be managed in accordance with the provided plan. Existing vegetation needs to be strategically modified and then maintained within this area in accordance with the BHMP to achieve the following outcomes:

- to reduce the quantity of windborne sparks and embers reaching buildings;
- to reduce radiant heat at the building; and
- to halt or check direct flame attack.

The BHMA will be developed within and up to the property boundaries to provide access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present that will significantly contribute to the spread of a bushfire.

The BHMA will be achieved by adoption of the following strategies:

Maintenance of Fuel Management Areas

It is the responsibility of the property owner to maintain and manage the landscaping in accordance with the Bushfire Hazard Management Plan and the current Guidelines for Development in Bushfire-Prone Areas of Tasmania.

This area is to be regularly managed and maintained. Landscaping in this area will be minimised:

- Grass maintained to a maximum height of 100mm, with fuel loads kept to less than 2 tonnes per hectare which will be maintained at this level.
- Trees and any undergrowth will be clear of (BCA) class 1 – 9 buildings on all sides.
- All undergrowth and understorey of trees (up to 2m) will be removed within the bushfire hazard management area.
- Select larger trees can be retained within the BHMA, ensuring a minimum 5m canopy separation is provided between each established tree.
- Pathways to 1 metre surrounding the buildings and landscaping material, will be non-combustible (stone, pebbles etc.).
- The total shrub cover will be a maximum of 20% of the available area.
- There will be a clear space from the buildings of at least four (4) times the mature height of any shrubs planted.
- Shrubs will not be planted in clumps, this is to avoid build-up of debris and dead vegetation materials.

Landscaping

- vegetation along the pathways to comprise non-flammable style succulent ground cover or plants (avoid plants that produce fine fuel which is easily ignited, plants that produce a lot of debris, trees and shrubs which retain dead material in branches or which shed long strips of bark, rough fibrous bark or drop large quantities of leaves in the spring and summer, vines on walls or tree canopies which overhang roofs)
- timber woodchip and flammable mulches cannot be used and brush and timber fencing should be avoided where possible

5.3 Access

Private access roads must be constructed as per the following table:

| Element | Requirement |
|---|--|
| A. Property access length is less than 30m; or access is not required for a fire appliance to access a fire fighting water point. | There are no specified design and construction requirements. |
| B. Property access length is 30m or greater; or access is required for a fire appliance to a fire fighting water point. | The following design and construction requirements apply to property access: <ul style="list-style-type: none"> (a) all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width of 4m; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 0.5m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (h) curves with a minimum inner radius of 10m; (i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and (j) terminate with a turning area for fire appliances provided by one of the following: <ul style="list-style-type: none"> (i) a turning circle with a minimum outer radius of 10m; or (ii) a property access encircling the building; or (iii) a hammerhead "T" or "Y" turning head 4m wide and 8m long. |
| C. Property access length is 200m or greater. | The following design and construction requirements apply to property access: <ul style="list-style-type: none"> (a) the requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length provided every 200m. |
| D. Property access length is greater than 30m, and access is provided to 3 or more properties. | The following design and construction requirements apply to property access: <ul style="list-style-type: none"> (a) complies with requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length must be provided every 100m. |

5.4 Fire Fighting Water Supply

Table E4 Reticulated water supply for fire fighting.

| Element | | Requirement |
|---------|--|---|
| A. | Distance between building area to be protected and water supply. | <p>The following requirements apply:</p> <ul style="list-style-type: none"> (a) the building area to be protected must be located within 120m of a fire hydrant; and (b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area. |
| B. | Design criteria for fire hydrants | <p>The following requirements apply:</p> <ul style="list-style-type: none"> (a) fire hydrant system must be designed and constructed in accordance with <i>TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA 2nd Edition</i>; and (b) fire hydrants are not installed in parking areas. |
| C. | Hardstand | <p>A hardstand area for fire appliances must be:</p> <ul style="list-style-type: none"> (a) no more than 3m from the hydrant, measured as a hose lay; (b) no closer than 6m from the building area to be protected; (c) a minimum width of 3m constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property access. |

6. Bushfire-Prone Areas Code Assessment

An assessment of E1.0 Bushfire-Prone Areas Code under the Scheme is provided as follows.

E1.6 Development Standards

E1.6.1 Subdivision: Provision of hazard management areas

Objective

Subdivision provides for hazard management areas that:

- (a) facilitate an integrated approach between subdivision and subsequent building on a lot;
- (b) provide for sufficient separation of building areas from bushfire-prone vegetation to reduce the radiant heat levels, direct flame attack and ember attack at the building area; and
- (c) provide protection for lots at any stage of a staged subdivision.

| Acceptable solutions | Proposed solutions |
|--|---|
| <p>A1</p> <p>(a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or</p> <p>(b) The proposed plan of subdivision:</p> <ul style="list-style-type: none"> (i) shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivision; (ii) shows the building area for each lot; (iii) shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of <i>Australian Standard AS 3959 – 2009 Construction of buildings in bushfire-prone areas</i>; and (iv) is accompanied by a bushfire hazard management plan for each individual lot, certified by the TFS or accredited person, showing hazard management areas equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of <i>Australian Standard AS 3959 – 2009 Construction of buildings in bushfire-prone areas</i>; and | <p>A1a) Not applicable.</p> <p>A1b) The acceptable solution is achieved. The BHMP:</p> <ul style="list-style-type: none"> i) shows all thirteen lots within the bushfire prone area. Lots 14 and 15 are classified as exempt. ii) shows a 10m x 15m building area on lots 1-13. iii) shows a HMA associated with each building area demonstrating the separation distances required for BAL 19 in Table 2.4.4 of AS 3959 – 2018 <i>Construction of buildings in bushfire-prone area</i>. iv) The application provides a bushfire hazard management plan which is prepared by a provisional bushfire hazard practitioner and will be certified by TFS. <p>A1c) Part 5 agreement is not required. A requirement to maintain land in perpetuity on the balance lots is required as part of the recommendations of this report.</p> |

(c) If hazard management areas are to be located on land external to the proposed subdivision the application is accompanied by the written consent of the owner of that land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan.

E1.6.2 Subdivision: Public and firefighting access

Objective

Access roads to, and the layout of roads, tracks and trails, in a subdivision:

- (a) allow safe access and egress for residents, fire fighters and emergency service personnel;
- (b) provide access to the bushfire-prone vegetation that enables both property to be defended when under bushfire attack and for hazard management works to be undertaken;
- (c) are designed and constructed to allow for fire appliances to be manoeuvred;
- (d) provide access to water supplies for fire appliances; and
- (e) are designed to allow connectivity, and where needed, offering multiple evacuation points.

| Acceptable solutions | Proposed solutions |
|---|--|
| <p>P1 A proposed plan of subdivision shows access and egress for residents, fire-fighting vehicles and emergency service personnel to enable protection from bushfires, having regard to:</p> <ul style="list-style-type: none"> a) appropriate design measures, including: <ul style="list-style-type: none"> i) two way traffic; ii) all weather surfaces iii) height and width of any vegetation clearances iv) load capacity v) provision of passing bays vi) traffic control devices vii) geometry, alignment and slope of roads, tracks and trails viii) use of through roads to provide for connectivity ix) limits on the length of cul-de-sacs and dead-end roads x) provision of turning areas xi) provision for parking areas xii) perimeter access; and | <p>P1) Performance criteria is relied upon due to the outer radius of the proposed cul-de-sac. A response to the criteria and justification has been provided in section 7 of this report.</p> |

| | |
|--|--|
| <ul style="list-style-type: none"> xiii) fire trails b) the provision of access to <ul style="list-style-type: none"> i) bushfire-prone vegetation to permit the undertaking of hazard management works; and ii) fire fighting water supplies; and c) any advice from the TFS. | |
|--|--|

E1.6.3 Subdivision: Provision of water supply for fire fighting purposes

| Objective | |
|---|---|
| <p>Adequate, accessible and reliable water supply for the purposes of fire fighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bushfire-prone areas.</p> | |
| Acceptable solutions | Proposed solutions |
| <p>A1 In areas serviced with reticulated water by the water corporation:</p> <ul style="list-style-type: none"> (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of a water supply for fire fighting purposes; (b) A proposed plan of subdivision showing the layout of fire hydrants, and building areas, is included in a bushfire hazard management plan approved by the TFS or accredited person as being compliant with Table E4; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire. | <p>A1</p> <ul style="list-style-type: none"> a) Not applicable b) The acceptable solution is achieved, noting that the proposed plan of subdivision shows the location of hydrants. Building areas are compliant with table E4, being within 120m of a hydrant. |
| <p>A2 In areas that are not serviced by reticulated water by the water corporation:</p> <ul style="list-style-type: none"> (a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for fire fighting purposes; (b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to fire fighting, will be provided and located compliant with Table E5; or | <p>A2 Not applicable as the subject site is serviced by reticulated water.</p> |

| | |
|--|--|
| <p>(c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.</p> | |
|--|--|

7. Justification of Cul-De-Sac Road

As noted in section 6 of this report, the application relies on performance criteria due to the cul-de-sac not proposing a 12m outer radius turning head. The cul-de-sac has instead proposed to be constructed in accordance with LGAT standards, being a 9m outer radius head.

In providing justification on a reduced standard, it is noted that all parts of the access standards can be achieved as compliant with Table E1, with the exclusion of the cul-de-sac radius.

The current cul-de-sac is proposed to be 9m outer radius, with regular kerb and channel, consistent with the remainder of Negara Street to the east, and other cul-de-sacs within the surrounding urban environment.

In arguing that that a cul-de-sac constructed to urban standards is appropriate, the following is noted:

- Lots 1-13, which are serviced via this cul-de-sac road, are all large enough to ensure dwellings can be constructed to achieve BAL 12.5 setbacks. The area of bushfire prone vegetation, being primarily in one location to the south, is approximately 50m from the cul-de-sac.
- The surrounding area is not bushland, but predominantly urban in character, made up of residential uses. There are no large areas of unmanaged vegetation within 100m of the new lots.
- Lots 1-13 can all provide compliant accesses, as building areas for each of these lots is less than 30m from a road.
- Hydrants will be installed along the extension of Negara Street, ensuring all lots will have a building area within 120m of a hydrant.

It is subsequently argued that an urban cul-de-sac outer radius of 9m is appropriate for the location, given the nature of the lots and surrounding area, compliant accesses, and water provisions.

The safety of fire fighters has been considered when making this assessment. The short length of the cul-de-sac and urban environment ensures there will be no unmanaged fuels within the road reserve. The lots provide a suitable buffer from radiant heat and direct flame for fire fighters. A large tanker with a turning radius of 19.8m would require a three point turn at the end of the cul-de-sac, however as they are not considered to be in imminent danger (based on above factors), the risk of burn over is assessed as low.

A detailed response to the performance criteria of clause E1.6.2 Subdivision: Public and firefighting access is provided below.

P1) Performance criteria is relied upon as:

a) The cul-de-sac head will be constructed in accordance with LGAT Standard drawings,

having a radius of 9m. The acceptable solution requires a radius of 12m for cul-de-sacs within a bushfire prone area.

- i. The road provides for two way traffic, including access for fire vehicles in a bushfire event.
- ii. The road will be sealed as per LGAT standards. The road will be suitable for use in all weather conditions.
- iii. There is no vegetation above the road. The road has a horizontal separation to any potential threat to the south of some 50m. There is no identified threat to the north or west once hazard management areas are provided on the balance lots. A letter from the golf course is provided stating they will maintain these areas in perpetuity.
- iv. The road has an appropriate load capacity to facilitate fire vehicles in a bushfire event.
- v. Passing is achievable given the width of the road (6.9m) and road reserve (15m).
- vi. There are no recommended traffic control devices as part of the subdivision.
- vii. The road is level, on a flat surface. The bushfire threat is upslope of the road. There are no bends or deviations proposed in the road.
- viii. The road is a cul-de-sac road. The road joins to Negara Street to the east, with Warragul Street located to the south of Negara Street.
- ix. The cul-de-sac has a length of approximately 120m. The limited length of road reduces risk and provides ample opportunity for vehicles to exit in a bushfire event.
- x. Turning area is provided. There are numerous access strips in the western end of the proposed roads allowing for a three-point turn if required.
- xi. Parking areas at the end of the cul-de-sac will be limited due to the number access strips in this part. It would be expected vehicles would park onsite.
- xii. Perimeter access is provided via the golf course. A managed strip is required on the balance lots around the proposed residential lots.
- xiii. There are no proposed fire trails.
- b) The TFS can access the bushfire prone vegetation on the balance lot should a bushfire event occur. Access is via Opossum Road. The size of lots also ensures a fire vehicle can park on the proposed road, and fight the fire to the south.
- c) The application has been signed off by the TFS

The bushfire threat in this area is assessed as low. The lots will be cleared in their entirety to provide for residential development. A hazard management area is provided to the south, west and north, providing sufficient separation from any bushfire threat. The development is within an established urban environment. The requirements to provide a cul-de-sac with 12m radius would be out of character with this area, and not warranted given the level of threat. Land south of the bushfire prone vegetation is managed. Once the development is complete. There will only remain a small area of bushfire prone vegetation within 120m of the site. The risk is considered low based on the site characteristics and nature of the area.

Performance criteria is achieved.

8. Assessment of Risk – Balance Lots 14 & 15

The development includes two balance lots which contain the existing golf course, associated buildings and infrastructure. The proposed subdivision seeks to cut off a 1.15ha portion of land which makes up part of these balance lots. The balance lot currently contains an 18-hole golf course on land that is generally classified as managed.

Outside of the subject site, the majority of the land within 100m has been assessed as managed. The unmanaged eastern portion of Carr Villa lies to the south of the subject site. There are no other identified areas of bushfire prone vegetation within 100m of the site.

The existing golf course and associated buildings will continue operations as per usual. There is a minor change on the balance lots, as they reduce by approximately 1.15ha total. The access to the golf course off Opossum Road will remain unchanged. There are no changes or increase in risk in relation to the water supply which services the golf course or associated buildings.

Based on the overall impact, it is assessed that the balance lots 14 and 15 as shown on the plan are suitable to be classified as exempt under clause E1.4 of the *Launceston Interim Planning Scheme 2013*.

9. Conclusions and Recommendations

The proposal seeks planning approval for a thirteen (13) lot residential subdivision, two balance lots, and lots to provide associated infrastructure and connectivity. The proposal provides a logical expansion of Negara Street in the east of the subject site.

All of the lots have demonstrated that a building area can be provided in an area meeting the requirements of BAL 19, with most future dwellings expecting to locate in areas subject to BAL 12.5. Hydrants will be provided along the proposed cul-de-sac road, thus ensuring all building areas can be adequately protected in a bushfire event. Access to each of the lots will be less than 30m in length, thus negating the need for any specific access considerations.

An area surrounding the residential lots must be managed in accordance with this report. Due to the scenic management overlay which currently overlays the site, select clearing of the hazard management can occur to retain larger trees but provide a managed understory. Guidelines for this clearing can be found in section 5.2 of this report.

The following recommendations and conclusions are made:

- a) Hazard management areas meeting the requirements of BAL 19 can be achieved for lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13.
- b) Lots 14 and 15 are considered exempt in accordance with clause E1.4 (a) of PD 5.1 Bushfire Prone Areas Code.
- c) Lot 100, the proposed cul-de-sac road, must be in compliance with Table E, Element A, with the exception of the 12m outer radius for cul-de-sacs.
- d) New hydrants are required in accordance with the TasWater Supplement to Water Supply Code of Australia WSA 03-2011-3.1 MRWA Edition 2:0. Hydrants to have a separation of not more than 60m.
- e) A 23m wide hazard management area is to be provided to the south and west of lots 1-7. This area is to be managed in accordance with section 5.2 of this report, prior to Council sealing a final plan of subdivision.
- f) A 10m wide hazard management area is to be provided to the north of lots 7-13. This area is to be managed in accordance with section 5.2 of this report, prior to Council sealing a final plan of subdivision.
- g) Maintenance of hazard management areas must be in perpetuity.

Annexure 1 – Bushfire Hazard Management Plan


PLANNING EXHIBITED DOCUMENTS

Ref. No: SF7239 &
DA0506/2021
Date advised: 11/12/2021

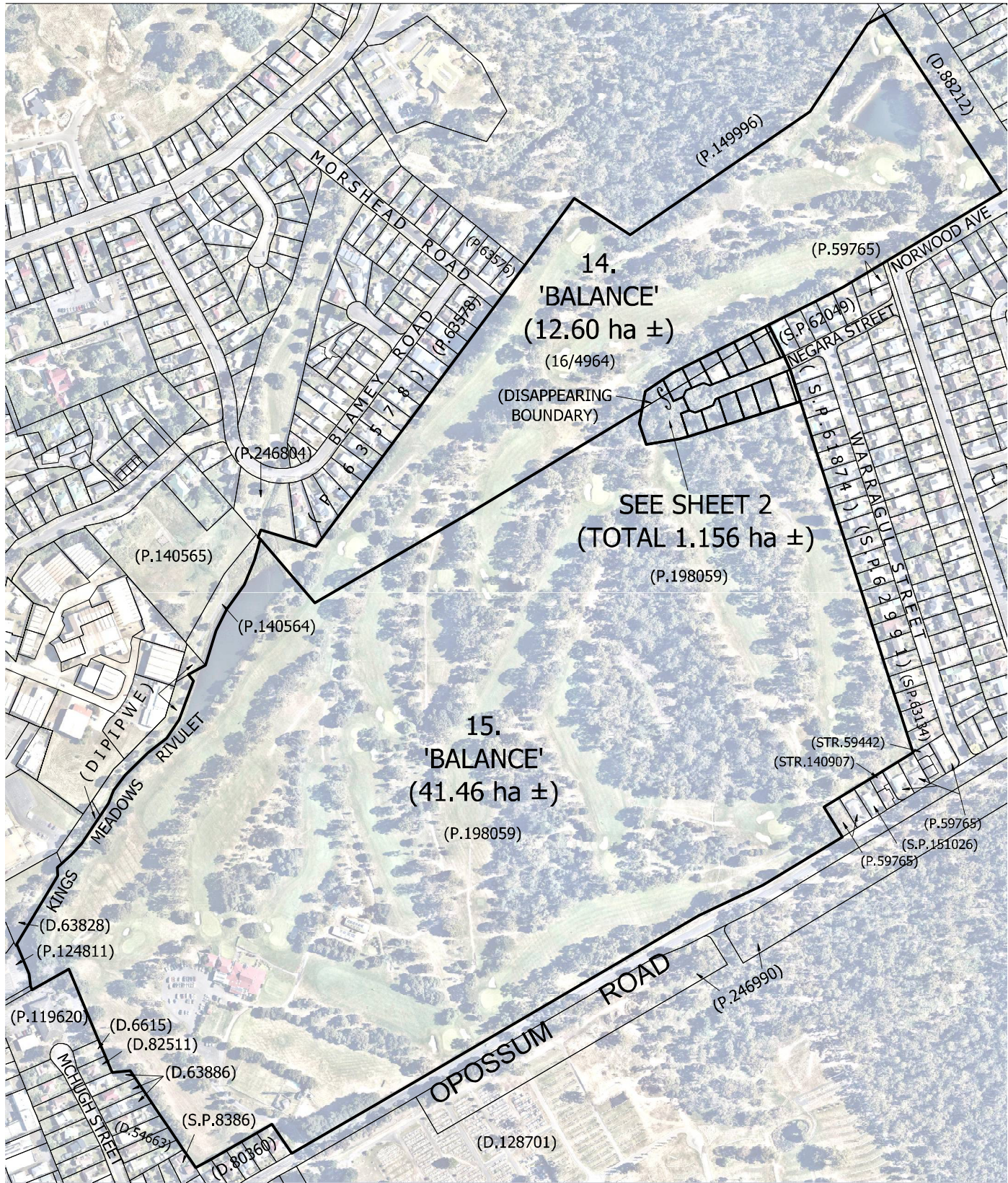


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Chris Moore Bushfire Planning and
Assessment Officer On behalf of the
Chief Officer Tasmania Fire Service
September 06 2021



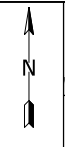
Annexure 2 – Subdivision Proposal Plan



THIS PLAN WAS PREPARED AS A PRELIMINARY PROPOSAL PLAN FOR DISCUSSION AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE ALL MEASUREMENTS AND AREAS ARE SUBJECT TO SURVEY .

Notes:
 Distances are in meters.
 All distances and offsets are subject to final survey.

LAUNCESTON GOLF CLUB
 PROPOSED 13 LOT SUBDIVISION (PLUS ROAD AND PEDESTRIAN CONNECTIVITY LOTS) AND 2 BALANCE LOTS
 27-99 OPOSSUM RD, KINGS MEADOWS
 C.T. 198059/1, C.T. 16/4964



WOOLCOTT SURVEYS

10 Goodman Court Invermay TAS 7248
 PO Box 593 Mowbray Heights TAS 7248
 Phone (03) 6332 3760
 Fax (03) 6332 3764
 Email: office@woolcottsurveys.com.au

Job Number
 L191207

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| Drawn GLM/RA | File name L191207_proposal_plan_160821_v1.0 | Date 16/08/21 | Scale 1:4000@A3 | Edition V1.0 | Sheet 1/2 |
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Annexure 3 – Planning Certificate

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) LAND USE PLANNING AND APPROVALS ACT 1993

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

27-99 Opossum Road, Kings Meadows

Certificate of Title / PID:

CT198059/1, CT16/4964 PID6883203

2. Proposed Use or Development

Description of proposed Use and Development:

Proposed 13 Lot Subdivision (plus road and pedestrian connectivity lots) and 2 balance lots.

Applicable Planning Scheme:

Launceston Interim Planning Scheme 2015

3. Documents relied upon

This certificate relates to the following documents:

| Title | Author | Date | Version |
|--|------------------|------------|---------|
| Bushfire Hazard Report | Woolcott Surveys | 25/08/2021 | 2 |
| Bushfire Hazard Management Plan | Woolcott Surveys | 16/08/2021 | 1 |
| Proposed 13 Lot Subdivision (plus road and pedestrian connectivity lots) and 2 balance lots. | Woolcott Surveys | 16/08/2021 | 1 |
| | | | |

¹ This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

| <input checked="" type="checkbox"/> | E1.4 / C13.4 – Use or development exempt from this Code | |
|-------------------------------------|--|--|
| | Acceptable Solution | Compliance Requirement |
| <input checked="" type="checkbox"/> | E1.4(a) / C13.4.1(a) | Insufficient increase in risk (Lots 14 and 15) |

| <input type="checkbox"/> | E1.5.1 / C13.5.1 – Vulnerable Uses | |
|--------------------------|---|---|
| | Acceptable Solution | Compliance Requirement |
| <input type="checkbox"/> | E1.5.1 P1 / C13.5.1 P1 | Planning authority discretion required. A proposal cannot be certified as compliant with P1. |
| <input type="checkbox"/> | E1.5.1 A2 / C13.5.1 A2 | Emergency management strategy |
| <input type="checkbox"/> | E1.5.1 A3 / C13.5.1 A2 | Bushfire hazard management plan |

| <input type="checkbox"/> | E1.5.2 / C13.5.2 – Hazardous Uses | |
|--------------------------|--|---|
| | Acceptable Solution | Compliance Requirement |
| <input type="checkbox"/> | E1.5.2 P1 / C13.5.2 P1 | Planning authority discretion required. A proposal cannot be certified as compliant with P1. |
| <input type="checkbox"/> | E1.5.2 A2 / C13.5.2 A2 | Emergency management strategy |
| <input type="checkbox"/> | E1.5.2 A3 / C13.5.2 A3 | Bushfire hazard management plan |

| <input checked="" type="checkbox"/> | E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas | |
|-------------------------------------|---|---|
| | Acceptable Solution | Compliance Requirement |
| <input type="checkbox"/> | E1.6.1 P1 / C13.6.1 P1 | Planning authority discretion required. A proposal cannot be certified as compliant with P1. |
| <input type="checkbox"/> | E1.6.1 A1 (a) / C13.6.1 A1(a) | Insufficient increase in risk |
| <input checked="" type="checkbox"/> | E1.6.1 A1 (b) / C13.6.1 A1(b) | Provides BAL-19 for all lots (including any lot designated as 'balance') |
| <input type="checkbox"/> | E1.6.1 A1(c) / C13.6.1 A1(c) | Consent for Part 5 Agreement |

| <input checked="" type="checkbox"/> | E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access | |
|-------------------------------------|--|--|
| | Acceptable Solution | Compliance Requirement |
| <input checked="" type="checkbox"/> | E1.6.2 P1 / C13.6.2 P1 | <i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i> |
| <input type="checkbox"/> | E1.6.2 A1 (a) / C13.6.2 A1 (a) | Insufficient increase in risk |
| <input type="checkbox"/> | E1.6.2 A1 (b) / C13.6.2 A1 (b) | Access complies with relevant Tables |

| <input checked="" type="checkbox"/> | E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes | |
|-------------------------------------|---|---|
| | Acceptable Solution | Compliance Requirement |
| <input type="checkbox"/> | E1.6.3 A1 (a) / C13.6.3 A1 (a) | Insufficient increase in risk |
| <input checked="" type="checkbox"/> | E1.6.3 A1 (b) / C13.6.3 A1 (b) | Reticulated water supply complies with relevant Table |
| <input type="checkbox"/> | E1.6.3 A1 (c) / C13.6.3 A1 (c) | Water supply consistent with the objective |
| <input type="checkbox"/> | E1.6.3 A2 (a) / C13.6.3 A2 (a) | Insufficient increase in risk |
| <input type="checkbox"/> | E1.6.3 A2 (b) / C13.6.3 A2 (b) | Static water supply complies with relevant Table |
| <input type="checkbox"/> | E1.6.3 A2 (c) / C13.6.3 A2 (c) | Static water supply consistent with the objective |

5. Bushfire Hazard Practitioner


| | | | |
|--------------------------|--------------------------------|-----------------------|------------------------------|
| Name: | James Stewart | Phone No: | 0467 676 721 |
| Postal Address: | PO BOX 593, Mowbray, Tas, 7248 | Email Address: | james@woolcottsurveys.com.au |
| Accreditation No: | BFP – 157 | Scope: | 1, 2, 3B |

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

- Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name:

James Stewart

Date:

25/08/2021

Chris Moore Bushfire Planning and Assessment Officer On behalf of the Chief Officer Tasmania Fire Service
September 06 2021



Certificate Number:

WS-31

(for Practitioner Use only)

Annexure 4 – Letter from the Launceston Golf Club regarding Bushfire Hazard Management Area

LAUNCESTON GOLF CLUB LIMITED

A.C.N. 009 476 466 A.B.N. 14 009 476 466
Tasmania's Oldest 18-Hole Course
Opossum Road, Kings Meadows 7249

Founded 1899



25 August 2021

To Whom it may concern

The Launceston Golf Club, owners of lot number 1, on plan 198059, and lot number 4964, on plan number 16, agree to maintain an area of land around the proposed 13 Lot residential subdivision which extends west from Negara Street, Norwood.

We understand that a bushfire hazard management area, as dimensioned and shown on the Bushfire Hazard Management Plan, completed by Woolcott Surveys, dated 16/08/2021, requires that a 23m strip of land must be maintained to the south and west of the subdivision, while a 10m strip must be maintained to the north.

We can confirm that these areas will be maintained by the Launceston Golf Club in a minimum fuel condition, and in perpetuity.

Sincerely

.....
Tony Wilks
President
Launceston Golf Club Ltd

.....
Martin Brown
Captain
Launceston Golf Club Ltd

PLANNING EXHIBITED DOCUMENTS

Ref. No: SF7239 & DA0506/2021
Date advised: 11/12/2021

Planning Administration

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