Bushfire Hazard Assessment Report &
Bushfire Hazard Management Plan

882 West End Road, Leeka
Prepared for (Client)
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Executive Summary

The proposed development at 882 West End Road, Leeka, is subject to bushfire threat. A bushfire attack under extreme fire weather conditions is likely to subject buildings at this site to considerable radiant heat, ember attack along with wind and smoke.

The site requires bushfire protection measures to protect the buildings and people that may be on site during a bushfire.

These measures include provision of hazard management areas in close proximity to the buildings, implementation of safe egress routes, establishment of a water supply and construction of buildings as described in AS 3959-2009 Construction of Buildings in Bushfire Prone Areas.

Primary responsibilities identified within this report:

| Occupier | • Establish and maintain Hazard Management Areas as described in this report, including egress and access routes.  
• Establish adequate turning facilities for emergency vehicles on site, as described in this report.  
• Establish an independent dedicated water supply for fire fighting purposes.  
• Construct cabin to meet **BAL 12.5** (AS3959-2009).  
• Establish/maintain a Bushfire Emergency Plan for the Visitor Accommodation Use. |

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Schedule 1 – Bushfire Report

1.0 Introduction
The Bushfire Attack Level (BAL) Report and Bushfire Hazard Management Plan (BHMP) has been prepared for submission with a Planning Permit Application under the Land Use Planning and Approvals Act 1993; and/or with a Building Permit Application under the Building Act 2016 & Regulations 2016.

The Bushfire Attack Level (BAL) is established taking into account the type and density of vegetation within 100 metres of the proposed building site and the slope of the land; using the simplified method in AS 3959-2009 Construction of Buildings in Bushfire Prone Areas; and includes:

- The type and density of vegetation on the site,
- Relationship of that vegetation to the slope and topography of the land,
- Orientation and predominant fire risk,
- Other features attributing to bushfire risk.

On completion of assessment, a Bushfire Attack Level (BAL) is established which has a direct reference to the construction methods and techniques to be undertaken on the buildings and for the preparation of a Bushfire Hazard Management Plan (BHMP).

1.1 Scope
This report was commissioned to identify the Bushfire Attack Level for the existing property. ALL comment, advice and fire suppression measures are in relation to compliance with Schedule 7 of the Flinders Planning Scheme 1994, the Building Code of Australia and Australian Standards, AS 3959-2009, Construction of buildings in bushfire-prone areas.

1.2 Limitations
The inspection has been undertaken and report provided on the understanding that:-

1. The report only deals with the potential bushfire risk, all other statutory assessments are outside the scope of this report.
2. The report only identifies the size, volume and status of vegetation at the time the site inspection was undertaken and cannot be relied upon for any future development.
3. Impacts of future development and vegetation growth have not been considered.

No action or reliance is to be placed on this report; other than for which it was commissioned.

1.3 Proposal
The proposal is for the construction of a cabin to be used for visitor accommodation.
2.0 Site Description for Proposal (Bushfire Context)

2.1 Locality Plan

![Locality Plan of 882 West End Road, Leeka](image)

Figure 1: Location Plan of 882 West End Road, Leeka

2.2 Site Details

<table>
<thead>
<tr>
<th>Property Address</th>
<th>882 West End Road, Leeka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate of Title</td>
<td>Volume 133491 Folio 4</td>
</tr>
<tr>
<td>Owner</td>
<td>Martin Simon Morrissey and Fiona Wagg</td>
</tr>
<tr>
<td>Existing Use</td>
<td>Residential</td>
</tr>
<tr>
<td>Type of Proposed Building Work</td>
<td>Construction of new cabin</td>
</tr>
<tr>
<td>BCA Classification</td>
<td>Visitor Accommodation – Class 1b</td>
</tr>
<tr>
<td>Water Supply</td>
<td>On-site for fire fighting purposes</td>
</tr>
<tr>
<td>Road Access</td>
<td>Street Frontage – West End Road</td>
</tr>
</tbody>
</table>
3.0 Bushfire Site Assessment

3.1 Vegetation Analysis
3.1.1 TasVeg Classification

Reference to Tasmanian Vegetation Monitoring & Mapping Program (TASVEG) indicates the land in and around the property is generally comprising of varying vegetation types including:

<table>
<thead>
<tr>
<th>Code</th>
<th>Species</th>
<th>Vegetation Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRG</td>
<td>• Regenerating cleared land</td>
<td>Agricultural, urban and exotic vegetation</td>
</tr>
<tr>
<td>NAV</td>
<td>• Allocasuarina verticillata forest</td>
<td>Non eucalypt forest and woodland</td>
</tr>
<tr>
<td>DVC</td>
<td>• Eucalyptus viminalis – Eucalyptus globulus coastal forest and woodland</td>
<td>Dry eucalypt forest and woodland</td>
</tr>
</tbody>
</table>
3.1.2 Site & Vegetation Photos

View looking east from cabin site

View looking north from cabin site
View looking north towards house from cabin site

View looking southwest from cabin site
View looking west from cabin site

Existing access
### 3.2 BAL Assessment – Visitor Accommodation

<table>
<thead>
<tr>
<th>Vegetation classification AS3959</th>
<th>North ☒ North-East ☐</th>
<th>South ☐ South-West ☒</th>
<th>East ☐ South-East ☒</th>
<th>West ☐ North-West ☒</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>☐ Forest</td>
<td>☐ Forest</td>
<td>☐ Forest</td>
<td>☐ Forest</td>
</tr>
<tr>
<td>Group B</td>
<td>☐ Woodland</td>
<td>☒ Woodland</td>
<td>☐ Woodland</td>
<td>☐ Woodland</td>
</tr>
<tr>
<td>Group C</td>
<td>☐ Shrub-land</td>
<td>☐ Shrub-land</td>
<td>☐ Shrub-land</td>
<td>☐ Shrub-land</td>
</tr>
<tr>
<td>Group D</td>
<td>☐ Scrub</td>
<td>☐ Scrub</td>
<td>☐ Scrub</td>
<td>☐ Scrub</td>
</tr>
<tr>
<td>Group E</td>
<td>☐ Mallee-Mulga</td>
<td>☐ Mallee-Mulga</td>
<td>☐ Mallee-Mulga</td>
<td>☐ Mallee-Mulga</td>
</tr>
<tr>
<td>Group F</td>
<td>☐ Rainforest</td>
<td>☐ Rainforest</td>
<td>☐ Rainforest</td>
<td>☐ Rainforest</td>
</tr>
<tr>
<td>Group G</td>
<td>☒ Grassland</td>
<td>☒ Grassland</td>
<td>☒ Grassland</td>
<td>☒ Grassland</td>
</tr>
<tr>
<td></td>
<td>☐ Managed Land</td>
<td>☐ Managed Land</td>
<td>☐ Managed Land</td>
<td>☐ Managed Land</td>
</tr>
<tr>
<td>Effective slope (degrees)</td>
<td>☒ Up/0°</td>
<td>☐ Up/0°</td>
<td>☒ Up/0°</td>
<td>☐ Up/0°</td>
</tr>
<tr>
<td></td>
<td>☐ &gt;0-5°</td>
<td>☒ &gt;0-5°</td>
<td>☐ &gt;0-5°</td>
<td>☒ &gt;0-5°</td>
</tr>
<tr>
<td></td>
<td>☐ &gt;5-10°</td>
<td>☒ &gt;5-10°</td>
<td>☐ &gt;5-10°</td>
<td>☒ &gt;5-10°</td>
</tr>
<tr>
<td></td>
<td>☐ &gt;10-15°</td>
<td>☒ &gt;10-15°</td>
<td>☐ &gt;10-15°</td>
<td>☒ &gt;10-15°</td>
</tr>
<tr>
<td></td>
<td>☐ &gt;15-20°</td>
<td>☒ &gt;15-20°</td>
<td>☐ &gt;15-20°</td>
<td>☒ &gt;15-20°</td>
</tr>
<tr>
<td>Distance to classified vegetation</td>
<td>Metres 0m</td>
<td>Metres 0m</td>
<td>Metres 0m</td>
<td>Metres 0m</td>
</tr>
<tr>
<td>Likely direction of bushfire attack</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>Prevailing winds</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>Exclusions</td>
<td>a b c d e f</td>
<td>a b c d e f</td>
<td>a b c d e f</td>
<td>a b c d e f</td>
</tr>
<tr>
<td>BAL Value (FDI 50)</td>
<td>BAL – FZ (May be reduced to BAL-12.5 if Specified Hazard Management Area established and maintained)</td>
<td>BAL – FZ (May be reduced to BAL-12.5 if Specified Hazard Management Area established and maintained)</td>
<td>BAL – FZ (May be reduced to BAL-12.5 if Specified Hazard Management Area established and maintained)</td>
<td>BAL – FZ (May be reduced to BAL-12.5 if Specified Hazard Management Area established and maintained)</td>
</tr>
</tbody>
</table>

The Bushfire Attack Level shall be classified BAL-LOW where the vegetation is one or a combination of any of the following:
(a) Vegetation of any type that is more than 100 metres from the site.
(b) Single areas of vegetation less than 1 hectare in area and not within 100m of other areas of vegetation being classified.
(c) Multiple areas of vegetation less than 0.25 hectare in area and not within 20 metres of the site, or each other.
(d) Strips of vegetation less than 20 metres in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 metres of the site or each other, or other areas of vegetation being classified.
(e) Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.
(f) Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTE: Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognisable as short-cropped grass for example, to a nominal height of 100mm).

| BAL – LOW      | The risk is considered to be VERY LOW.  
|               | There is insufficient risk to warrant any specific construction requirements but there is still some risk. |
| BAL – 12.5    | The risk is considered to be LOW.  
|               | There is a risk of ember attack. The construction elements are expected to be exposed to a heat flux not greater than 12.5 kW/m². |
| BAL – 19      | The risk is considered to be MODERATE.  
|               | There is a risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to radiant heat. The construction elements are expected to be exposed to a heat flux not greater than 19 kW/m². |
| BAL – 29      | The risk is considered to be HIGH.  
|               | There is an increased risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to an increased level of radiant heat. The construction elements are expected to be exposed to a heat flux not greater than 29 kW/m². |
| BAL – 40      | The risk is considered to be VERY HIGH.  
|               | There is a much increased risk of ember attack and burning debris ignited by windborne embers, a likelihood of exposure to a high level of radiant heat and some likelihood of direct exposure to flames from the fire front. The construction elements are expected to be exposed to a heat flux not greater than 40 kW/m². |
| BAL – FZ      | The risk is considered to be EXTREME.  
|               | There is an extremely high risk of ember attack and burning debris ignited by windborne embers, and a likelihood of exposure to an extreme level of radiant heat and direct exposure to flames from the fire front. The construction elements are expected to be exposed to a heat flux greater than 40 kW/m². |
3.3 Specified Hazard Management Areas

Hazard management areas are to be established and maintained between the bushfire prone vegetation and the building at a distance equal to, or greater than the separation distance specified for the Bushfire Attack Levels (BAL) in table 2.4.4 of Australian Standard 3959-2009 Construction of Buildings in Bushfire Prone Areas.

Where the Hazard Management Areas can be increased around the building and the classified vegetation in accordance with table 2.4.4 of Australian Standard 3959, the risk from bushfire attack can reduce.

Visitor Accommodation

<table>
<thead>
<tr>
<th>Distance from Predominant vegetation for BAL 12.5</th>
<th>North/ North-East</th>
<th>South/ South-West</th>
<th>East/ South-East</th>
<th>West/ North-West</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-&lt;50m</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
</tr>
<tr>
<td>26-&lt;100m</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
</tr>
<tr>
<td>22-&lt;100m</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
</tr>
<tr>
<td>16-&lt;50m</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
<td>Metres</td>
</tr>
</tbody>
</table>

The separation distance for the SPECIFIED Hazard Management Area is to be shown on the attached Bushfire Hazard Management Plan measured from the external walls (Façade) of the building in metres along the ground to the bushfire hazard vegetation (if applicable).

3.4 Outbuildings

Not applicable – existing.

3.5 Road Access

Roads are to be constructed to provide vehicle access to the site to assist firefighting and emergency personnel to defend the building or evacuate occupants; and provide access at all times to the water supply for firefighting purposes on the building site.

Private access roads are to be constructed from the entrance to the property cross over with the public road through to the cabin and water storage area on the site. Private access roads are to be designed, constructed and maintained to a standard not less than Table E4.2.

<table>
<thead>
<tr>
<th>Existing/ New Road Access and Driveways</th>
<th>Private access driveway / roads are to be constructed from the entrance of the property cross over at the public road through to the buildings and on-site dedicated fire fighting water supply. Private access roads are to be constructed/maintained to a standard not less than specified in Table E4.2B.</th>
</tr>
</thead>
</table>
Table E4.2: Standards for Property Access

The following design and construction requirements apply to property access length is 30 metres or greater or access for a fire appliance to a fire fighting water point:

(i) All weather construction;
(ii) Load capacity of at least 20 tonnes, including for bridges and culverts;
(iii) Minimum carriageway width of 4 metres;
(iv) Minimum vertical clearance of 4 metres;
(v) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
(vi) Cross falls of less than 3 degrees (1:20 or 5%);
(vii) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;
(viii) Curves with a minimum inner radius of 10 metres;
(ix) 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
(x) Terminate with a turning area for fire appliances provided by one of the following:
   a) A turning circle with a minimum inner radius of 10 metres;
   b) A property access encircling the building; or
   c) A hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.

3.6 Water Supply

A building that is constructed in a designated bushfire prone area must provide access at all times to a sufficient supply of water for firefighting purposes on the building site.

The exterior elements of a Class 1 building in a designated Bushfire prone area must be within reach of a 120m long hose (lay) connected to –

(i) A fire hydrant with a minimum flow rate of 600L per minute and pressure of 200kpa; or
(ii) A stored water supply in a water tank, swimming pool, dam or lake available for firefighting at all times which has the capacity of at least 10,000L for each separate building.

<table>
<thead>
<tr>
<th><strong>New On-site Dedicated Fire Fighting Water Supply</strong></th>
<th><strong>On-site water supply is required.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A water tank of at least 10,000 litres per building area to be protected and above ground pipes and fittings used for a stored water supply must be of non-rusting, non-combustible, non-heat-deforming materials and must be situated more than 6m from a building area to be protected.</td>
<td></td>
</tr>
</tbody>
</table>

It should be recognised that although water supply as specified above may be in compliance with the requirements of the Building Code of Australia, the supply may not be adequate for all firefighting situations.
<table>
<thead>
<tr>
<th><strong>Column 1</strong></th>
<th><strong>Column 2</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td><strong>Requirement</strong></td>
</tr>
<tr>
<td>A. Distance between building area to be protected and water supply</td>
<td>The following requirements apply: &lt;br&gt; 1. The building area to be protected must be located within 90 metres of the fire fighting water point of a static water supply; and &lt;br&gt; 2. The distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.</td>
</tr>
<tr>
<td>B. Static Water Supplies</td>
<td>A static water supply: &lt;br&gt; 1. May have a remotely located offtake connected to the static water supply; &lt;br&gt; 2. May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times; &lt;br&gt; 3. Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems; &lt;br&gt; 4. Must be metal, concrete or lagged by non-combustible materials if above ground; and &lt;br&gt; 5. If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009 the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by: &lt;br&gt; a. Metal; &lt;br&gt; b. Non-combustible material; or &lt;br&gt; c. Fibre-cement a minimum 6mm thickness.</td>
</tr>
<tr>
<td>C. Fittings, pipework and accessories (including stands and tank supports)</td>
<td>Fittings and pipework associated with a fire fighting water point for a static water supply must: &lt;br&gt; 1. Have a minimum nominal internal diameter of 50mm; &lt;br&gt; 2. Be fitted with a valve with a minimum nominal diameter of 50mm; &lt;br&gt; 3. Be metal or lagged by non-combustible materials if above ground; &lt;br&gt; 4. Where buried, have a minimum depth of 300mm (compliant with AS/NZS 3500.1-2003 Clause 5.23); &lt;br&gt; 5. Provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment; &lt;br&gt; 6. Ensure the coupling is accessible and available for connection at all times; &lt;br&gt; 7. Ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);</td>
</tr>
</tbody>
</table>
(8) Ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and

(9) Where a remote offtake is installed, ensure the offtake is in a position that is:
   (a) Visible;
   (b) Accessible to allow connection by fire fighting equipment;
   (c) At a working height of 450-600mm above ground level; and
   (d) Protected from possible damage, including damage from vehicles.

D. **Signage for static water connections**
   The fire fighting water point for a static supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.

E. **Hardstand**
   A hardstand area for fire appliances must be provided:
   (1) No more than three metres from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);
   (2) No closer than six metres from the building area to be protected;
   (3) With a minimum width of three metres constructed to the same standard as the carriageway; and
   (4) Connected to the property access by a carriageway equivalent to the standard of the property access.

### 4.0 Layout Options
Not relevant to this proposal.

### 5.0 Other Planning Provisions
The proposal is compliant with all acceptable solution contained within Schedule 7 of the Flinders Planning Scheme 1994.
6.0 Conclusions and Recommendations

Mitigation from bushfire is dependent on the careful management of the site by maintaining reduced fuel loads within the hazard management areas and within the site.

The site has been assessed as requiring buildings (visitor accommodation cabin) to conform to or exceed BAL 12.5 requirements based on AS 3959 – 2009 Construction of Buildings in Bushfire Prone Areas.

Access

The driveway is to be constructed/upgraded to meet Table 4.2B. Requirements for Property Access, Director’s Determination – Requirements for Building in Bushfire-Prone Areas, Version 2.1.

Water Supplies

The new cabin is to be supplied with a water supply tank at least 10,000 litres, with a fitting suitable for TFS access, meeting the requirements for Reticulated Water Supply for Fire Fighting, Table 4.3B, Director’s Determination – Requirements for Building in Bushfire-Prone Areas, Version 2.1.

Fuel Managed Areas

Hazard Management Areas as detailed within the plan shall be constructed and maintained as detailed in Section 2 of Schedule 2 (where applicable).
1.0 Introduction

The Bushfire Hazard Management Plan (BHMP) is developed from the results of a Bushfire Attack Level (BAL) Assessment Report prepared for the site in accordance with Australian Standard 3959. The BHMP provides reference and information to existing and subsequent owners on their responsibilities for the establishment, maintenance and future management of their property to reduce the risk of bushfire attack and includes:

- Establishment of a Hazard Management Area in and around the existing and/or proposed buildings,
- Specifications of Private access road construction,
- Provision on firefighting water supply,
- Construction requirements in relation to the Building Code of Australia, dependent on the Bushfire Attack Level and requirements of Australian Standard 3959.
- Reduction and removal of vegetation and fuel loads in and around the property, buildings and Hazard Management Areas,
- Ongoing maintenance responsibilities by successive owners for perpetuity.

A copy of the plan MUST also be provided to ALL current and successive owners to make them aware of their continuing obligations to maintain the plan and protection measures attributed to their property in to the future.

2.0 Hazard Management Areas

The Hazard Management Area (defendable space) is provided between the vegetation and the buildings subject to bushfire risk. The space provides for management of vegetation and reduction in fuel loads in an attempt to:

- Prevent flame impingement on the building;
- Provide a defendable space for property protection;
- Reduce fire spread;
- Deflect and filter embers;
- Provide shelter from radiant heat; and
- Reduce wind speed.

The **Building Act 2016**, requires a hazard management area to be established and maintained between the bushfire prone vegetation and the building at a distance equal to, or greater than the separation distance specified for the Bushfire Attack Levels (BAL) in **AS 3959-2009 Construction of Buildings in Bushfire Prone Areas**.

Refer to the attached BHMP Site Plan in Section 6 of this management plan for specific details on the Hazard Management Area.
2.1 Vegetation (Fuel) Management

Managing an area in a minimum fuel condition generally means a reduction in the amount and altering the arrangement of fuels. Most fine fuels are at or close to the ground, often as part of a grass, litter or shrub layer. If there is enough fuel, when a fire comes these fuels will ignite the trees above or set the bark alight which will burn up into the tree canopy causing the most dangerous of bushfire situation; a crown fire.

To prevent crown fires occurring it is necessary to remove the “ladder of fuel” between the ground and the tree crowns and to make sure the amount of ground fuel is not sufficient to set the crowns alight. Without fire burning below, a crown fire should not be sustained. Further removing continuity and separation of the vegetation canopies both horizontally and vertically will assist.

All vegetation will burn under the influence of bushfire; shrub layers need to be modified to remove tall continuous walls of vegetation and establish clear separation between the ground and the bottom of the tree canopy. Further minimisation of flammable ground litter such as leaves, twigs, bark, ferns and debris will further reduce fuel load with potential to burn or contribute to the growth of a bushfire.

Fuels do not need to be totally removed however fuels close to the building and inside the Hazard Management Area are to be kept to a minimum. As a general practice 5 tonnes per hectare is accepted as being controllable with normal firefighting resources. This can be visualised as grass cut to about 10 centimetres in height or ground litter about 2 centimetres thick. This is considered to be a low fuel level.

2.2 Other Risk Management Actions

Other actions that can be implemented to reduce the bushfire risk in the Hazard Management Areas include:

1. Establishing non-combustible paths and driveways around buildings.
2. Establish plantings of low flammability shrub species.
3. Ensure garden beds and shrubs are established well away from buildings.
4. Tree planting to be located at the outer edge of the Hazard Management Area and spaced well apart to ensure canopy separation.
5. Cut lawns short and maintain.
6. Remove fallen limbs, leaf and bark litter.
7. Avoid using pine bark and other flammable mulch in gardens.
8. Prune trees to ensure canopy separation horizontally and vertically, remove low hanging branches to ensure separation from ground litter.
9. Where the amount of land permits extend the vegetation management in to a secondary hazard management zone.
3.0 On-going Site Management and Maintenance

On-going maintenance is required to the buildings and landscaping within the hazard management area to ensure the continued performance of the bushfire mitigation measures which have been designed into the development for occupant and community protection.

Specified Hazard Management Areas are only a minimum distance required; owners are encouraged to establish a greater management area where land area and opportunity permits. An additional fuel modified buffer zone between the Hazard Management Area and the bushfire vegetation will only improve the protection level and reduce the risk to the property during a bushfire event.

Preparedness comes down to diligent annual maintenance in and around the buildings and Hazard Management Areas particularly during the period of greatest risk; August to February of each year.

Recommendation:

1. Locate wood piles or other flammable storage well away from the building.
2. Solid non-combustible fencing such as steel provides a fire and heat radiation shield to the dwelling.
3. Metal flywire screens prevent sparks and embers from entering the building.
4. Seal gaps under floor spaces, roof space, under eaves, external vents, skylights, chimneys and wall cladding.
5. Remove ladder fuels from the under storey of larger trees. Prune canopies to provide separation.
6. Rake up leaf litter and vegetation debris. Cut grass and maintain to less than 10cm.
7. Keep garden beds well away from the dwelling and use non-combustible garden mulches including rock or stones.
8. Establish plantings of low flammability shrub species.
9. Seal all gaps in external claddings.
10. Keep roof gutters clear of leaf litter, bark and similar debris, remove and maintain. Install gutter guards to assist.
11. Flammable fuels such as gas bottles should be located on the opposite side of the house to the likely direction of a bushfire.
12. Seal gaps in roofing to prevent the entry of embers.
13. Surround the dwelling with non-combustible paths.
14. Outbuildings to be at least 6m from the main dwelling/building.
15. Ensure hoses provide coverage to the whole site. Use metal hose fittings.
16. Flammable fuels and the like to be stored in minimum volumes well away from the dwelling.

4.0 Vehicular Access

Roads are to be constructed to provide vehicle access to the site to assist firefighting and emergency personnel to defend the building or evacuate occupants; and provide access at all times to the water supply for firefighting purposes on the building site.
Private access roads are to be constructed from the entrance to the property cross over with the public road through to the habitable building and water storage area on the site (if applicable). Private access roads are to be designed, constructed and maintained to a standard as recommended below:

**Recommendations:**

The following design and construction requirements apply to property access length is 30 metres or greater or access for a fire appliance to a fire fighting water point:

(i) All weather construction;
(ii) Load capacity of at least 20 tonnes, including for bridges and culverts;
(iii) Minimum carriageway width of 4 metres;
(iv) Minimum vertical clearance of 4 metres;
(v) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
(vi) Cross falls of less than 3 degrees (1:20 or 5%);
(vii) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;
(viii) Curves with a minimum inner radius of 10 metres;
(ix) 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
(x) Terminate with a turning area for fire appliances provided by one of the following:
   a) A turning circle with a minimum inner radius of 10 metres;
   b) A property access encircling the building; or
   c) A hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.

5.0 **Water Supply**

A building that is constructed in a designated bushfire prone area must provide access at all times to a sufficient supply of water for firefighting purposes on the building site.

**Recommendations:**

The exterior elements of a Class 1 building in a designated Bushfire prone area must be within reach of a 120m long hose (lay) connected to –

(i) A fire hydrant with a minimum flow rate of 600L per minute and pressure of 200kPa; or
(ii) A stored water supply in a water tank, swimming pool, dam or lake available for fire fighting at all times which has the capacity of at least 10,000L for each separate building.

5.1 **Reticulated Water Supply**

Not applicable to this proposal.
5.2 On-Site Dedicated Fire Fighting Water Supply

A water tank of at least 10,000 litres and above ground pipes and fittings used for a stored water supply must be made of non-rusting, non-combustible, non-heat-deforming materials and must be situated more than 6m from a building, but within 90m of the building area. Hardstanding must be provided within 3m of a static water supply.

The water tank must be fitted with a 65mm outlet and DIN or NEN Standard compliant forged Storz 65mm adaptor fitted with a standard (delivery) washer rated to 1800kPa working pressure and 2400kPa burst pressure.

It should be recognised that although water supply as specified above may be in compliance with the requirements of the Building Code of Australia the supply may not be adequate for all fire fighting situations.
Bushfire Hazard Management Site Plan
Access Road:
Private access roads are to be maintained from the entrance to the property cross-over with the public road through to the fire fighting water point on the site.
> All-weather construction (minimum)
> Minimum carriageway width of 4 metres
> Vegetation must be cleared for a height of 4 metres above the carriageway and 0.5 metres each side of the carriageway
> Must terminate with a turning area for fire appliances of either a turning circle with a minimum inner radius of 10 metres, a property access encircling the building, or a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long

Hazard Management - Vegetation Management:
Vegetation in the hazard management area (as dimensioned and shown) is to be managed and maintained in a minimum fuel condition

Fire Fighting Water Supply:
10,000 litre dedicated fire fighting water supply tank, Swimming pool, Dam or the like is to be provided as specified below:
> Tanks above ground pipes and fittings must be made of non-rusting, non-combustible, non-heat-deforming materials
> Tanks and fittings must be situated more than 6 metres from a building but contained within the hazard management area
> Tanks must be fitted with a standard compliant forged storz 65mm adaptor fitted with a standard (delivery) washer rated to 1800kPa working pressure and 2400kPa burst pressure

BUSHFIRE HAZARD MANAGEMENT PLAN
882 West End Road, Leeka
Bushfire Attack Level - BAL 12.5 (Cabin)
Date: 18 November 2017
Form 55
# CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

**To:** Martin Morrissey  
Owner /Agent martin.morrissey@ths.tas.gov.au  

**Address:**  
Suburb/postcode

**Qualified person details:**

**Qualified person:** Rebecca Green  
**Phone No:** 0409 284 422

**Address:** PO Box 2108  
Launceston 7250

**Licence No:** BFP-116  
**Email address:** admin@rgassociates.com.au

**Qualifications and Insurance details:** 
Accredited to report on bushfire hazards under Part IVA of the *Fire Services Act 1979*

**Speciality area of expertise:** 
Analysis of hazards in bushfire prone areas

**Details of work:**

**Address:** 882 West End Road  
LEEKA 7255

**Lot No:** 4  
**Certificate of title No:** 133491

**The assessable item related to this certificate:** 
New Cabin (Visitor Accommodation)

**Certificate details:**

**Certificate type:** Bushfire Hazard

This certificate is in relation to the above assessable item, at any stage, as part of - (tick one)

- building work, plumbing work or plumbing installation or demolition work:  
  ✓

- a building, temporary structure or plumbing installation:
In issuing this certificate the following matters are relevant –

**Documents:**
Bushfire Hazard Assessment Report &
Bushfire Hazard Management Plan (Rebecca Green & Associates, 18 November 2017, Job No. RGA-B701)

**Relevant**
N/A

**References:**
*Australian Standard 3959-2009*

**Substance of Certificate:** (what it is that is being certified)
1. Assessment of the site Bushfire Attack Level (BAL – 12.5 for cabin) to Australian Standard 3959
2. Bushfire Hazard Management Plan showing BAL-12.5 solutions.

**Scope and/or Limitations**

**Scope**
This report and certification was commissioned to identify the Bushfire Attack Level for the existing property. All comment, advice and fire suppression measures are in relation to compliance with the *Building Act 2016 & Regulations 2016, Building Code of Australia* and *Australian Standard 3959-2009, Construction of buildings in bushfire-prone areas.*

**Limitations**
The assessment has been undertaken and report provided on the understanding that:-
1. The report only deals with the potential bushfire risk all other statutory assessments are outside the scope of this certificate.
2. The report only identifies the size, volume and status of vegetation at the time the inspection was undertaken and cannot be relied upon for any future development.
3. Impacts of future development and vegetation growth have not been considered.
4. No assurance is given or inferred for the health, safety or amenity of the general public, individuals or occupants in the event of a Bushfire.
5. No warranty is offered or inferred for any buildings constructed on the property in the event of a Bushfire.

No action or reliance is to be placed on this certificate or report; other than for which it was commissioned.

I certify the matters described in this certificate.

Signed: [Signature]
Certificate No: RG-577/2017
Date: 18 November 2017
<table>
<thead>
<tr>
<th>DECKS ETC.</th>
<th>ROOFS</th>
<th>EXTERNAL DOORS</th>
<th>EXTERNAL WINDOWS</th>
<th>EXTERNAL WALLS</th>
<th>FLOORS</th>
<th>SUPPORTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
</tr>
<tr>
<td>BAL-LOW</td>
<td>BAL-125</td>
<td>BAL-19</td>
<td>BAL-39</td>
<td>BAL-40</td>
<td>BAL-72</td>
<td>BAL-72 (FLAME ZONE)</td>
</tr>
<tr>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
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<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
<td>Technical data, material properties, fire resistance, thermal insulation, load-bearing capacity</td>
</tr>
</tbody>
</table>
Attachment 2 – Proposal Plans
Attachment 3 – Tasmania Fire Service Water Supply Signage Guideline
Tasmania Fire Service
Water Supply Signage Guideline

Guidelines for the design and installation of water supply signs & fire hydrant marking in bushfire-prone areas
This Guideline has been developed in consultation with TasWater.

For further information

Tasmania Fire Service
Bushfire Planning & Policy
GPO Box 1526
HOBART TAS 7001
PH: (03) 6230 8600
Fax: (03) 6234 6647
Email: planning@fire.tas.gov.au
Web: www.fire.tas.gov.au

Disclaimer

While the State Fire Commission has made every effort to ensure the accuracy and reliability of the information contained in this booklet, the State Fire Commission does not accept any responsibility for the accuracy, completeness, or relevance to the reader’s purpose, of the information contained in this document and those reading it for whatever purpose are advised to verify its accuracy and to obtain appropriate professional advice.

The State Fire Commission, its officers, employees and agents do not accept any liability, however arising, including liability for negligence, for any loss or damage resulting from the use of, or reliance upon, the information contained in this document.
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1.0 Identification

1.1 Guideline Title

1.1.1 This Guideline is called the *Tasmania Fire Service Water Supply Signage Guideline*.

1.2 Composition of this Guideline

1.2.1 This Guideline consists of:

- (a) This document;
- (b) Design drawing TFS-WS01; and
- (c) Design drawing TFS-WS02.

2.0 Purpose

2.1 The purpose of this Guideline is:

(a) To ensure that fire fighting water points are appropriately identified to reduce the risk to human life and property, and the cost to the community, caused by bushfires; and

(b) To describe the water supply signage requirements which are referred to in the *Bushfire-Prone Areas Code*¹ and the *Directors Determination Requirements for Building in Bushfire-Prone Areas*².

3.0 Application

3.1 Where referenced by the relevant planning and building regulations, the content of this Guideline forms a statutory requirement for development within bushfire-prone areas.

3.2 This Guideline may be voluntarily adopted as required.

3.3 This Guideline applies to:

(a) Private and water corporation owned or managed fire fighting water points;

(b) Fire fighting water points servicing a bushfire-prone area; and

(c) Fire fighting water points connected to:

i. A static water supply; or

ii. A reticulated water supply that does not comply with the design criteria of *reticulated water supply for fire fighting* as defined within the *Bushfire-Prone Areas Code*, and where a single fire fighting water point discharges a minimum of 5 L per second and a minimum of 150 kPa residual pressure.

¹ The *Bushfire-Prone Areas Code* can be accessed via [www.iplan.tas.gov.au](http://www.iplan.tas.gov.au)

### 4.0 Definition of Terms

In this Guideline:

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>bushfire-prone area</td>
<td>means:</td>
</tr>
<tr>
<td></td>
<td>(a) land that is within the boundary of a bushfire-prone area shown on an overlay on a planning scheme map; and</td>
</tr>
<tr>
<td></td>
<td>(b) i. where there is no overlay on a planning scheme map; or</td>
</tr>
<tr>
<td></td>
<td>ii. where the land is outside the boundary of a bushfire-prone area shown on an overlay on such a map, land</td>
</tr>
<tr>
<td></td>
<td>that is within 100m of an area of bushfire-prone vegetation equal to or greater than 1 hectare.</td>
</tr>
<tr>
<td>bushfire-prone vegetation</td>
<td>means contiguous vegetation including grasses and shrubs but</td>
</tr>
<tr>
<td></td>
<td>not including maintained lawns, parks and gardens, nature strips, plant nurseries, golf courses, vineyards, orchards or</td>
</tr>
<tr>
<td></td>
<td>vegetation on land that is used for horticultural purposes.</td>
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<tr>
<td>carriageway</td>
<td>means the section of road formation which is used by traffic, and includes all the area of the traffic lane pavement together</td>
</tr>
<tr>
<td></td>
<td>with the formed shoulders.</td>
</tr>
<tr>
<td>fire hydrant</td>
<td>means a fire hydrant as described in AS 2419.1-2005 Fire hydrant installations – System design, installation and</td>
</tr>
<tr>
<td></td>
<td>commissioning.</td>
</tr>
<tr>
<td>fire fighting water point</td>
<td>means the point where a fire appliance is able to connect to a water supply for fire fighting purposes. This includes a coupling in the</td>
</tr>
<tr>
<td></td>
<td>case of a fire hydrant, offtake or outlet, or the minimum water level in the case of a static water body.</td>
</tr>
<tr>
<td>property access</td>
<td>means the carriageway which provides vehicular access from the carriageway of a road onto land, measured along the centre line of the</td>
</tr>
<tr>
<td></td>
<td>carriageway, from the edge of the road carriageway to the nearest point of the building area.</td>
</tr>
<tr>
<td>static water supply</td>
<td>means water stored in a tank, swimming pool, dam, or lake, that is available for fire fighting purposes at all times.</td>
</tr>
<tr>
<td>water corporation</td>
<td>means the corporation within the meaning of the Water and Sewerage Corporation Act 2012.</td>
</tr>
</tbody>
</table>
5.0 Referenced Documents

The following documents are referenced in this guideline:

AS 1743 Road signs—Specifications
AS 1744 Standard alphabets for road signs
AS 2700 Colour Standards for general purposes
AS 2419.1 Fire hydrant installations - System design, installation and commissioning
AS/NZS 1734 Aluminium and aluminium alloys—Flat sheet, coiled sheet and plate
AS/NZ 1906.1 Retroreflective materials and devices for road traffic control purposes

Australian Paint Approval Scheme Specifications AP-S0041, CSIRO

Bushfire-Prone Areas Code, Tasmanian Planning Commission, Department of Justice, Tasmania.

Determination Director of Building Control Requirements for Building in Bushfire-Prone Areas, Building Standards & Occupational Licencing, Department of Justice, Tasmania.

TasWater Supplement to Water Supply Code of Australia WSA 03-2011-3.1 MRWA, TasWater, Tasmania.

6.0 Design Standards for Marking Compliant Fire Hydrants

6.1 Compliant Hydrant Markings (General)

A fire hydrant connected to a reticulated water supply that complies with the design criteria of reticulated water supply for fire fighting as defined within the Bushfire-Prone Areas Code will be marked in accordance with water corporation specifications.

Water corporation specified fire hydrant markings include a combination of:

   a) Fire Plug Indicator: a yellow, 250 mm x 450 mm triangle, marked on the pavement, and pointing towards the location of the hydrant;
   b) Fire Plug Kerb Marking: a yellow, 300 mm long rectangle, marked on the carriageway kerb, adjacent to the location of the fire hydrant;
   c) Two-Way Retroreflective Raised Pavement Marker: a blue, square marker, adhered to the pavement, and located perpendicular to the hydrant;
   d) Fire Plug Cover and Surround: a yellow, 400 mm x 400 mm square; surrounding the hydrant cover; and
   e) Marker Post: a yellow post with blue decals, located adjacent to the carriageway.

---

7.0 Design Standards for Marking Non-Compliant Fire Hydrants

7.1 Marking Criteria

A fire hydrant connected to a reticulated water supply that:

- a) Otherwise complies with the design criteria of *reticulated water supply for fire fighting* as defined within the *Bushfire-Prone Areas Code*, except for flow and pressure; and
- b) Discharges a minimum of 5 L per second and a minimum of 150 kPa residual pressure;

shall have additional markings to those identified in 6.1, in accordance with the following:

7.2 Pavement Marking Material

<table>
<thead>
<tr>
<th>Objective:</th>
<th>Pavement markings that identify fire fighting water points are clearly visible and durable.</th>
</tr>
</thead>
</table>

7.2.1 Pavement marking materials shall conform to Australian Paint Approval Scheme Specifications *AP-S0041*, or similar.

7.3 Post Marking Material

<table>
<thead>
<tr>
<th>Objective:</th>
<th>Pavement markings that identify fire fighting water points are clearly visible and durable.</th>
</tr>
</thead>
</table>

7.3.1 Post marking material shall be:

- (a) Class 1 retroreflective material, compliant with *AS/NZS1906.1*; or
- (b) A suitable outdoor, long-life, UV stabilised coating.

7.4 Pavement & Post Marking Design

<table>
<thead>
<tr>
<th>Objective:</th>
<th>Fire fighting water points are clearly visible and identifiable.</th>
</tr>
</thead>
</table>

7.4.1 Pavement and post marking shall comprise of a legend designed in accordance with design drawing TFS-WS02.

7.4.2 The legend shall be:

- (a) Coloured red, ‘Signal Red’ (R13) in accordance with *AS2700* (or equivalent colour); and
- (b) Comprised of the letter ‘W’ within a circular band.

7.4.3 The letter ‘W’ in the legend shall be:

- (a) Uppercase;
- (b) No less than 44 mm in height;
(c) Located in the centre of the circular band; and  
(d) Consistent with the form and dimensions of Series F, as defined in AS1744.

7.4.4 The circular band in the legend shall have:  
(a) An outer diameter of 100 mm; and  
(b) A line thickness of 6.5 mm.

7.5 Pavement & Post Marking

Objective: Fire fighting water points are clearly visible and identifiable.

7.5.1 Where fire hydrants are of the in-ground type (fire plug), the hydrant cover (lid) shall be marked in accordance with 7.2 and 7.4.

7.5.2 Where hydrant location is identified using a marker post, the post shall be marked:  
(a) In accordance with 7.3 and 7.4;  
(b) With legend facing the carriageway; and  
(c) No less than 400 mm above ground level (where practical).

8.0 Design Standards for Signs

Static water supplies shall be identified in accordance with the following:

8.1 Sign Materials

Objective: Signs that identify fire fighting water points are durable and resilient against the elements.

8.1.1 The signboard material shall be:  
(a) 1.6 mm thick aluminium alloy, type 5251 or 5052, of temper H36 or H38;  
(b) Free from scratches or other surface blemishes;  
(c) Have edges that are true and smooth; and  
(d) Compliant with AS/NZS1734.

8.1.2 The sign background material shall be:  
(a) Non-reflective;  
(b) Of uniform density;  
(c) Compatible with the material used for the legend both in application and durability; and  
(d) Applied to the sign face in accordance with AS1743.

8.1.3 The sign legend material shall be:  
(a) Class 1 retroreflective material, compliant with AS/NZS1906.1;  
(b) Of uniform density;
8.2 Sign Design

<table>
<thead>
<tr>
<th>Objective:</th>
<th>Signs that identify fire fighting water points are clearly visible and identifiable.</th>
</tr>
</thead>
</table>

8.2.1 The sign shall be designed in accordance with:
(a) Design drawing TFS-WS01.

8.2.2 The sign shall:
(a) Be square;
(b) Have rounded corners with a radii of 25 mm; and
(c) Have a side length of 300 mm.

8.2.3 The sign background shall be:
(a) Coloured red, ‘Signal Red’ (R13) in accordance with AS2700 (or equivalent colour).

8.2.4 The legend shall be:
(a) Coloured white (N14) in accordance with AS2700 (or equivalent colour);
(b) Comprised of the letter ‘W’ within a circular band; and
(c) Visually centred on the sign.

8.2.5 The letter ‘W’ in the legend shall be:
(a) Uppercase;
(b) No less than 100 mm in height;
(c) Located in the centre of the circular band; and
(d) Consistent with the form and dimensions of Series F, as defined in AS1744.

8.2.6 The circular band in the legend shall have:
(a) An outer diameter of 230 mm; and
(b) A line thickness of 15 mm.

8.2.7 The rear surface of the signboard shall be stamped or engraved with:
(a) The designation of the sign manufacturer;
(b) Four numerals indicating the month and year of manufacture (e.g. 01/17);
(c) The design drawing identification (e.g. TFS-WS01); and
(d) Letters & numerals no less than 5 mm high.

8.3 Sign Mounting

| Objective: | Signs that identify fire fighting water points are, and will remain, clearly visible. |
8.3.1 The sign shall be permanently mounted to:
(a) A vertical surface;
(b) A surface that cannot change orientation or position; and
(c) A surface that is:
   i. Non-flammable; and
   ii. Non-heat deforming.

8.4 Sign Location

<table>
<thead>
<tr>
<th>Objective:</th>
<th>Signs that identify fire fighting water points are located adjacent to the fire fighting water point, and are clearly visible.</th>
</tr>
</thead>
</table>

8.4.1 The sign shall be mounted in a location:
(a) No further than 2 m vertically and 1 m horizontally from the fire fighting water point;
(b) No less than 400 mm above ground level;
(c) That will not impede access or operation of the fire fighting water point;
(d) That will not become obscured by visual obstructions; and
(e) That is visible from the property access on approach from a public road.

9.0 Design & Manufacture Tolerances of Sign & Legend

9.1 Dimensional tolerances of the signboard

(a) Overall dimensions of signboard: ±5 mm;
(b) Maximum allowable warp, twist or departure from flatness: 1.5 mm; and
(c) Squareness: corners < 2 mm from theoretical position relative to other corners.

9.2 Dimensional tolerances of the legend

(a) Shape, size and alignment of legend elements: ±2 mm; and
(b) Legend position: ±2 mm.
OVERALL SIGN DIMENSIONS (mm): 300 x 300, +/- 5
SURFACE AREA OF SIGN (sq m): 0.0895
LEGEND COLOUR: WHITE (N14) IN ACCORDANCE WITH AS2700,
WITH A RETROREFLECTIVE SURFACE FINISH
BACKGROUND COLOUR: SIGNAL RED (R13) IN ACCORDANCE WITH AS2700
FOR SIGN FIXING AND LOCATION REQUIREMENTS, REFER TO
TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES
FOR LEGEND SPECIFICATIONS AND MANUFACTURING DETAIL
REFER TO TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES

GRID MODULE X = 30mm Y= 30mm
POST AND PAVEMENT DESIGN

OVERALL LEGEND DIMENSIONS (mm): 100 x 100, +/- 5
FOR TEMPLATE APPLICATION REQUIREMENTS, REFER TO TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES
FOR LEGEND SPECIFICATIONS AND MANUFACTURING DETAIL REFER TO TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES

GRID MODULE  X = 15mm Y= 15mm

TEMPLATE
WHERE A TEMPLATE IS USED, THE CIRCULAR BAND MAY HAVE UP TO FOUR BREAKS OF UP TO 6.5MM IN WIDTH

TASMANIA FIRE SERVICE
NON-COMPLIANT FIRE HYDRANT MARKING

NOTES
- all dimensions are in mm
- written dimensions take precedence over scaled measurements

TASMANIA FIRE SERVICE WATER SUPPLY SIGNAGE GUIDELINES

ANNEXURE 11 - A3 - JUNE 2018
References

