# **Brighton Council**

# Dromedary Bushfire Mitigation Plan 2025-2030

For Council owned and/or Managed bushfire-prone areas. Version 1.2

March 2025





#### Cover photo – Clarks Road, Dromedary, TAS (Fire Risk Consultants)

version control			
Version:	Date:	Description:	Prepared By:
1.0	14/01/2025	First draft Bushfire Mitigation Plan developed for bushfire-prone areas owned and/or managed by Brighton Council within Dromedary locality.	Fire Risk Consultants Pty Ltd
1.1	7/02/2025	Finalisation of plan post Brighton Council consultation.	Fire Risk Consultants Pty Ltd
1.2	13/03/2025	Final plan post Hobart FMAC feedback and Brighton Council Elected Member Workshop.	Milly Burgess

#### Version control

#### Acknowledgement and endorsement

Bushfire Mitigation Plan noted by Hobart Fire Management Area Committee (HFMAC):	12 March 2025	
Bushfire Mitigation Plan adopted by Brighton Council:	18 March 2025	

### Acknowledgement of Country

We acknowledge the traditional owners who once walked this country: the Mumirimina people.

The Mumirimina belonged to the Oyster Bay tribe. This was the largest tribe in Tasmania and covered 8000 square kilometres. Kutalayna levee in Brighton was a significant meeting place where hundreds of generations of Aboriginal families hunted, gathered, corroboreed, camped and traded.

In the course of colonisation, dispossession of the Mumirimina was early, rapid and extensive.

We acknowledge the Tasmanian Aboriginal Community today as the continuing custodians of this land, and pay our respects to Elders past and present. Through our words and actions we strive to build a community that reflects and respects the history and hopes for all the people of Brighton. We also acknowledge their skill and care in managing the land through the use of fire for many thousands of years.

#### Disclaimer and information statement

The information in this Bushfire Mitigation Plan (the plan) is current as at the date of publication. The information and/or the recommendations contained in the plan have been compiled and based on the information, records, data, and any other sources of information available at time of publication. Accordingly, the accuracy of the information and/or recommendations in the plan relies entirely upon the information and material available at time of publication. Whilst Brighton Council have exercised all due care and skill in compiling this plan, readers should confirm the accuracy and reliability of the information, systems or data which is the property of Brighton Council. In these circumstances, the property referred to will remain the property of Brighton Council and Brighton Council has in no way waived or altered in any way its ownership right, or provided consent for use, unless expressly provided in the plan.

# **Executive Summary**

The Brighton Council - Dromedary Bushfire Mitigation Plan 2025-2030 (the plan) is a tactical level planning document managed by Brighton Council (Council). It supports addressing bushfire risks within Council owned and/or managed bushfire-prone areas within the Dromedary locality.

The plan focuses on public roads within the Dromedary locality where Brighton Council is the road authority. Priority roads identified by Brighton Council relevant to this plan are identified within Table 1 and Figure 6. Areas not owned and/or managed by Council are outside of this plan's scope.

Council identified the need to focus on the Dromedary locality for two key reasons:

- 1) The existing Dromedary road network is long and includes narrow dead-end roads in a highly forested bushfire-prone environment with varying fuel types, topography and asset distribution; and
- 2) Much of the built assets within the Dromedary locality do not appear to meet contemporary bushfire design standards, predates the legislated bushfire requirements introduced in 2012 and appear to have minimal resistance to bushfire attack mechanisms, particularly ember attack. Ember attack is the most common cause of building damage or loss from bushfires.

This plan is not a fire response plan and does not deal with bushfire response, instead the plan outlines specific steps and six key recommendations that Council could implement to reduce bushfire risk levels. This includes:

- Four-yearly reviews of the Bushfire Mitigation Plan including consultation with the Hobart Fire Management Area Committee;
- Preparation of a Community Engagement Plan specifically for bushfire for the Dromedary locality;
- Management of adjacent roadside vegetation in alignment with State Government guidelines and industry best practices;
- Vehicle turning areas upgraded to meet industry best practices at dead end roads; and
- Installation of additional static firefighting water supplies in alignment with Stage Government guidelines and industry best practices.

This plan includes a detailed Treatment Plan (Appendix A) that guides a coordinated staged approach for Council to ensure the plan's recommendations are implemented successfully.

This plan was first prepared by Fire Risk Consultants in 2024 for Council with the purpose to support Brighton Council enhance community resilience during and after bushfire events.

This plan is a live document and functions for a five-year period. The first review must be undertaken during 2029. The plan will then continue to perpetually run for five-year periods and must include regular subsequent reviews to ensure the plan maintains its currency.

This plan must be formerly adopted by Brighton Council. Prior to Council adoption, this plan must be noted by the Hobart Fire Management Area Committee (HFMAC) to ensure the plan has the appropriate linkages to the Tasmanian State Government bushfire risk reduction framework, its agreed principles and strategies, and contributes to a shared approach to reduce bushfire risk.

Most bushfire-prone areas in the Brighton LGA cannot be treated with broadscale fuel reduction burning due to difficult terrain, fuel types, and asset distribution, especially in high-risk areas like Dromedary (State Fire Management Council, 2023).

Although 90% of Brighton LGA is bushfire-prone, only 3% is managed by Brighton Council, primarily along road casements, which are often unsuitable for planned burning. Where fuel reduction burning is not

suitable, alternative measures such as vegetation thinning/slashing, community education, or Community Bushfire Response Plans (prepared by the Tasmania Fire Service) are more appropriate.

Untreatable fuels have the potential to significantly increase levels of bushfire risk as they will often only be dry enough or 'available' to burn during the warmer summer bushfire period. Where asset distribution and topography drives the unsuitability for fuel reduction burning and fuels remain untreated, it is likely for fuel loads to be in maximum fuel condition.

The key factors influencing bushfire risk to Dromedary is the unsuitability for broadscale fuel reduction burning, the topography, dead end roads, asset distribution, and many of the existing homes being built prior to contemporary bushfire construction standards.

Community fire safety in the Dromedary area relies heavily on the knowledge and situational awareness of individual landowners and occupiers. This includes seasonal and incident response triggers (what to do and when to do it), communications and situational awareness.

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# Glossary

To promote the use of common terminology, the Australasian Fire and Emergency Services Authority Council (AFAC) Bushfire Glossary, and Director's Determination - Bushfire Hazard Areas version 1.2 will be used as reference in this plan.

AS 3959 Means Australian Standard AS 3959:2018 Construction of buildings in bushfire- prone areas;			
Asset	A term used to describe anything valued by the community that may be adversely impacted by bushfire. This may include houses, infrastructure, agriculture, production forests, industry, and environmental and heritage sites.		
Bushfire	An unplanned fire burning vegetation.		
Bushfire Attack level (BAL)	Means the bushfire attack level for a building site determined by TFS or a bushfire hazard practitioner in accordance with AS 3959.		
Bushfire hazard	The potential or expected behaviour of a bushfire burning under a particular set of conditions, i.e., the type, arrangement and quantity of fuel, the fuel moisture content, wind speed, topography, relative humidity, temperature, and atmospheric stability.		
Bushfire-prone area	Land is a bushfire-prone area if:		
	<ul> <li>a) the land is within the boundary of a bushfire-prone area on a planning scheme overlay map; or</li> </ul>		
	b) where the relevant planning scheme overlay map for the land does not show any land within the relevant municipal area as being within the boundary of a bushfire-prone area, the land is within 100 metres of an area of bushfire-prone vegetation that is equal to or greater than one hectare.		
Bushfire risk management	A systematic process to coordinate, direct and control activities relating to bushfire risk with the aim of limiting the adverse effects of bushfire on the community.		
Consequence	Impact(s) of an event on the five key areas: environment, economy, people, social setting, and public administration.		
Cultural fire	Fire deliberately put into the landscape authorized and led by Traditional Owners of that Country, for a variety of purposes, including but not limited to: ceremony, protection of cultural and natural assets, fuel reduction, regeneration and management of food, fibre and medicines, flora regeneration, fauna habitat protection and healing Country's spirit.		
Cultural heritage	Encompassing both Aboriginal and historic heritage values both statutory and non- statutory.		
Ecological burning	A form of prescribed burning. Treatment with fire of vegetation in nominated areas to achieve specified ecological objectives.		
Fuel	Any material such as grass, leaf litter and live vegetation which can be ignited and sustains a fire. Fuel is usually measured using the Overall Fuel Hazard Assessment Guide 4th ed. 2010 DSE.		
Fuel break	A natural or manmade change in fuel characteristics which affects fire behaviour so that fires burning into them can be more readily controlled.		
Fuel management	Modification of fuels by prescribed burning or other means.		

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Fuel reduction burning	The planned application of fire to reduce hazardous fuel quantities; undertaken in prescribed environmental conditions within prescribed boundaries.		
Hazard Management Area	The area between a habitable building or building area and bushfire-prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire.		
Human Settlement Area	Term given for the dataset used to define where people live and work. The dataset was developed for the purpose of risk modelling and was created using a combination of building locations, cadastral information, and Australian Bureau of Statistics data. Includes seasonally populated areas and industrial areas.		
Likelihood	Chance of something happening. It is used as a general description of probability and may be expressed qualitatively or quantitatively.		
Risk treatment	Process of selection and implementation of controls to modify risk. The term 'risk treatment' is sometimes used for the controls themselves.		
Traditional fire	The application of fire knowledge and practice prior to European settlement.		

# Acronyms

AFDRS	Australian Fire Danger Rating System	
ВМР	Bushfire Mitigation Plan	
BMS	Bushfire Mitigation Strategy	
BRMP	Bushfire Risk Management Plan	
FDR	Fire Danger Rating	
FMA	Fire Management Area	
HFMAC Hobart Fire Management Area Committee		
LGA Local Government Area		
NRE Department of Natural Resources and Environment Tasmania		
PWS Tasmania Parks and Wildlife Service		
SFMC	State Fire Management Council	
TASVEG         Comprehensive digital map of Tasmania's vegetation		
TERAG	Tasmanian Emergency Risk Assessment Guidelines	
TFS	Tasmania Fire Service	

# 1 Introduction

This Bushfire Mitigation Plan (the plan) has been prepared by Fire Risk Consultants for Brighton Council (Council). Fire Risk Consultants are industry leaders within the specialist area of bushfire risk analysis and bushfire impact and mitigation planning.

This is the first Bushfire Mitigation Plan for Council owned and/or managed bushfire-prone areas within the Dromedary locality.

This plan is a tactical level planning document that focuses on addressing bushfire hazards and improving the resilience of the Dromedary community and its assets. This BMP functions for a five-year period with a review to be implemented at year four (2029). Triggers for reviews to take place less than this are noted in Section 8 of this plan.

The bushfire mitigation outcomes articulated in this plan are designed to align with and support the Tasmanian State Government's bushfire risk planning framework and industry best practices at time of authoring.

Bushfire has been a constant and natural phenomenon in Australia for many thousands of years. Southeastern Australia, including Tasmania, is particularly prone to fire and is regarded as one of the most bushfire-affected regions in the world. Fire is an important and natural component in the management and renewal of biodiversity and habitat. If uncontrolled, however, its effects can be catastrophic (Tasmanian State Bushfire Safety Policy, 2014).

Approximately 98% of Tasmania's land area is designated as bushfire-prone including approximately 90% of the Brighton LGA (including Dromedary); meaning the likelihood is high for Dromedary to be impacted by bushfire and that management of risk is fundamental to bushfire safety. However, bushfire risk can never be completely removed and there is an increased need for enhanced community safety and resilience from bushfires.

It is not possible to prevent bushfires occurring within or impacting Dromedary. Unless bushfires are suppressed quickly, there is a risk that large destructive bushfires may impact some or all of Dromedary. Depending on weather conditions, fires may burn a substantial portion of Dromedary and adjoining human settlement areas causing damage to assets, cultural and environmental values, and loss of life.

Areas not owned and/or managed by Council are outside of this plan's scope. Areas outside of scope with increased bushfire risk levels are generally coordinated by the State Government and addressed within Fire Management Area Bushfire Risk Management Plans (BRMP) available at <u>www.sfmc.tas.gov.au</u>.

### 1.1 Bushfire Mitigation Plan purpose

This plan is intended to provide information to Brighton Council in relation to Brighton Council owned and/or managed bushfire-prone areas within the Dromedary locality. It will support giving guidance to Brighton Council to address Council's duties as an occupier of land under the *Fire Service Act 1979*.

This plan is also intended to provide tactical guidance regarding the management of priority Brighton Council managed roads and support community engagement in relation to reducing bushfire risk levels to the Dromedary locality.

## 1.2 Bushfire Mitigation Plan objectives

In alignment with the Tasmanian Vegetation Fire Management Policy principles and strategies available at <u>www.sfmc.tas.gov.au</u>, the primary objective of this plan is to:

• Minimise the impact of bushfires on human life, communities, essential and community infrastructure, industries, the economy, cultural values, and the environment. Human life will be afforded priority over all other considerations.

A set of actions to support achieving the plan's objective are summarised into a Treatment Plan enclosed as Appendix A to this plan. When implemented, these actions should support reducing bushfire risk to the Dromedary locality.

# 1.3 Alignment to Tasmanian State Government bushfire risk management framework

The Tasmanian Emergency Risk Assessment Guidelines (TERAG) were created to provide a consistent and reliable risk assessment process for emergency management. TERAG allows users to treat priority risks using risk management processes in alignment with ISO 31000 Risk Management – Guidelines. This plan is structured on the five main phases of the TERAG risk management process; establish the context, identify risks, analyse risks, evaluate risks, and treat risks.

The Tasmanian Vegetation Fire Management Policy 2017 is managed by the State Fire Management Council. The purpose of the policy is to enable the safe and effective conduct of vegetation fire management activities on public and private land across Tasmania. This plan is aligned with the Principles and Strategies of the policy.

A fundamental aim of this plan is to create linkages between the Hobart Fire Management Area BRMP to avoid duplication. The Hobart Fire Management Area BRMP is overseen by the Hobart Fire Management Area Committee (HFMAC) and established under the *Fire Service Act 1979*. The Hobart Fire Management Area BRMP is designed to provide a coordinated approach to the identification and treatment of bushfire risk within the Hobart Fire Management Area.

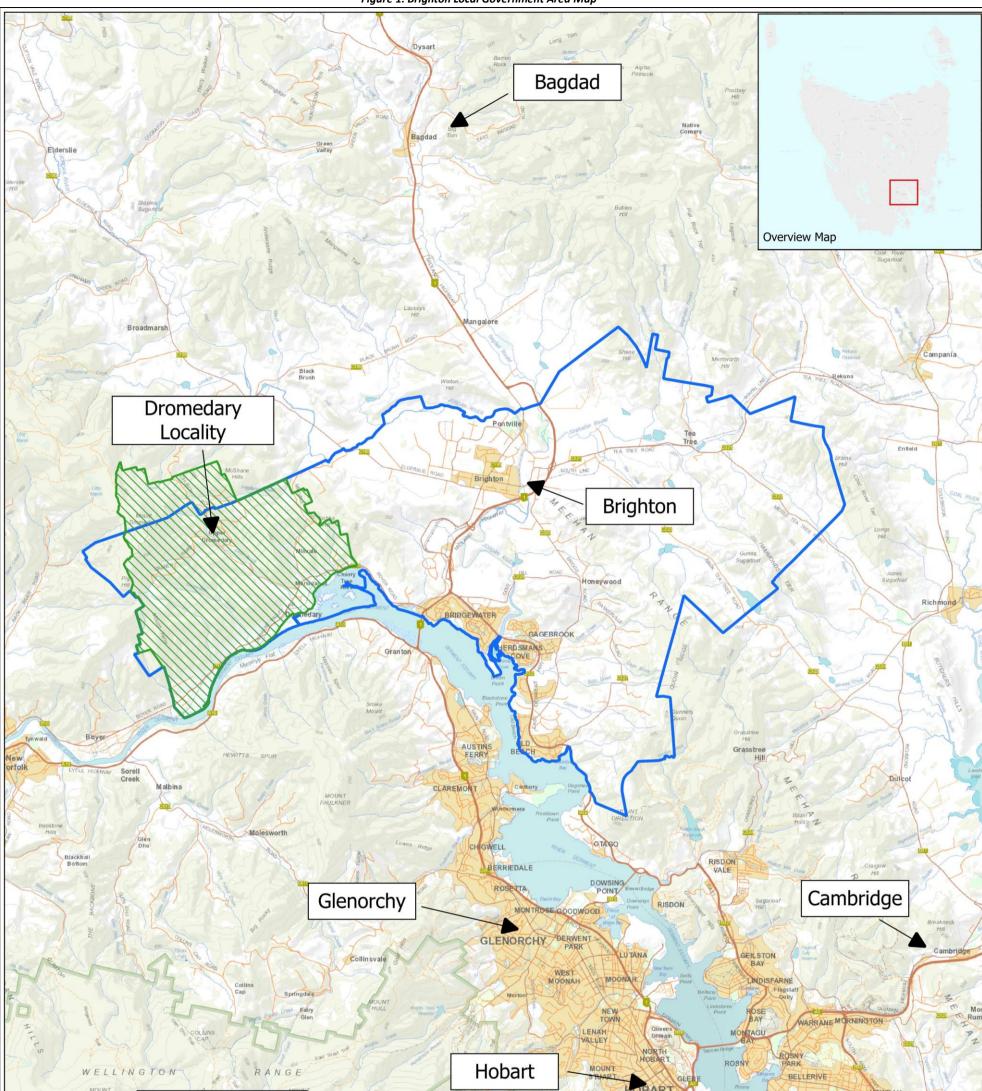
The draft plan has been noted by the HFMAC prior to Brighton Council adoption and was circulated to members for individual feedback.

### 1.4 Implementation and ownership

Implementation and ownership of this plan is the responsibility of Brighton Council's HFMAC Representative, or their delegate.

A Treatment Plan to implement this plan is enclosed as Appendix A and discussed in Section 5.

Figure 1: Brighton Local Government Area Map



Georges Register	Vellington	SOUTH BATTERY Point SOUTH BATTERY Point SOUTH BATTERY POINT Section Point	Baderse Beach Second Biotr	ata
Dromedary Bushfire Mitigation Plan (For Council Owned and/or Managed Bushfire-prone Areas) Brighton Local Government Area Map Map creation: December 2024	Legend: Brighton Council Local Government Area Boundary Dromedary Locality		Brig Cou	jhton ncil
Disclaimer: While all efforts have been taken to ensure the accuracy of this product, there may be omissions in the data accuracy. Users are advised to independently verify all data for accuracy and completeness prior to use.		0 2.5 5 Scale 1:80000 @A3	GPS Projection: GDA94/MGA zone 55 EPSG:28355	FIRE RISK Consultants



# 2 Establishing the context

# 2.1 Description of Dromedary locality

Dromedary is a rural residential locality located approx. 6 kilometres west of the township of Brighton on the eastern side of the Derwent River. Dromedary is within the LGAs of Brighton and Southern Midlands in southern Tasmania. The locality was first gazetted as a locality in 1970.

Dromedary is approx. 3660<sup>ha</sup> in size, elevation ranges from sea level up to 990m above sea level at the summit of Mount Dromedary.

The majority of Dromedary is zoned as Landscape Conservation under the Tasmanian Planning Scheme – Brighton Local Provisions Schedule.

# 2.2 Tasmanian Planning Scheme – Brighton Local Provisions, Bushfire-prone Areas Code

Bushfire-prone areas overlays have been developed by the Tasmanian State Government for all 29 local government areas. Bushfire-prone areas overlays apply to land that may be significantly affected by a bushfire. Approximately 98% of Tasmania's land area is designated as bushfire-prone, approximately 90% of the Brighton LGA (including Dromedary) is designated as bushfire-prone. This means the likelihood is high for Dromedary to be impacted by bushfires and that management of risk is fundamental to bushfire safety.

If a property is mapped within a bushfire-prone areas overlay there may be mandatory bushfire safety requirements for planning or building compliance purposes. If a property is not mapped within a bushfire-prone areas overlay, it does not mean that there is no risk.

Planning scheme overlays are available to view on the LISTmap website <u>www.thelist.tas.gov.au</u>.

Under the Tasmanian Planning Scheme – Brighton Local Provisions Schedule, Brighton LGA includes a Bushfire-prone Area Code. The purpose of the code is to ensure that use and development is appropriately designed, located, serviced, and constructed, to reduce the risk to human life and property, and the cost to the community caused by bushfires.

The code applies to:

- a) subdivision of land that is located within, or partially within, a bushfire-prone area; and
- b) a use, on land that is located within, or partially within, a bushfire-prone area, that is a vulnerable use or hazardous use.

Much of the built assets within the Dromedary locality do not appear to meet contemporary bushfire design standards, predates the legislated bushfire requirements introduced in 2012 and appears to have minimal resistance to bushfire attack mechanisms, particularly ember attack.

### 2.3 Population dispersion

The 2021 Australian Bureau of Statistics census recorded 279 houses within Dromedary with a population of 856 and a median age of 46.

The urban-rural interface is where structures and other human developments including homes adjoin or overlap with undeveloped bushland. These areas are where properties and people are most likely to be exposed to smoke, embers, radiant heat and direct flame. Consequently, risk to life and property is greatest in this zone, and losses most pronounced (Tasmania Fire Service, 2016). The Tasmania Fire Service classifies the urban-rural interface into two distinct classes:

- a) Classic Interface (Type 1): or
- b) Mixed Interface, (Type 2).

Dromedary can be classified as a Type 2 interface (Figure 3).

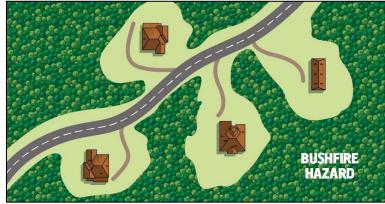
A distinguishing feature of the Dromedary locality which increases the bushfire risk profile is that it has no distinct urban/rural interfaces, the population is dispersed with most structures being scattered throughout bushland and dwellings are spaced further apart.

Within Type 2 interfaces the active perpetual management of vegetation adjacent to built assets, roadsides, availability of water supply for firefighting, and private property access (maintained by the property owner) is critical towards reducing bushfire risk.



Figure 2: Classic Interface (Type 1) (Source: Tasmania Fire Service)

Figure 3: Mixed Interface (Type 2) (Source: Tasmania Fire Service)



### 2.4 Authority land managers relevant to Dromedary

Land tenure within Dromedary is predominantly private freehold (privately owned). The Parks and Wildlife Service manage approx. 870ha within the Mount Dromedary and Mount Terra area. The Parks and Wildlife Service is also the authority land manager for sections of marshlands directly adjacent to the Derwent River.

The only land that Council owns and/or manages within Dromedary is much of the public road network. The public road network Council manages only accounts for approx. 1% of land within Dromedary, however given the critical role public road networks play in community fire safety and emergency management during bushfires, the effective and ongoing management of these areas by Council is critical.

### 2.5 Priority Council managed roads

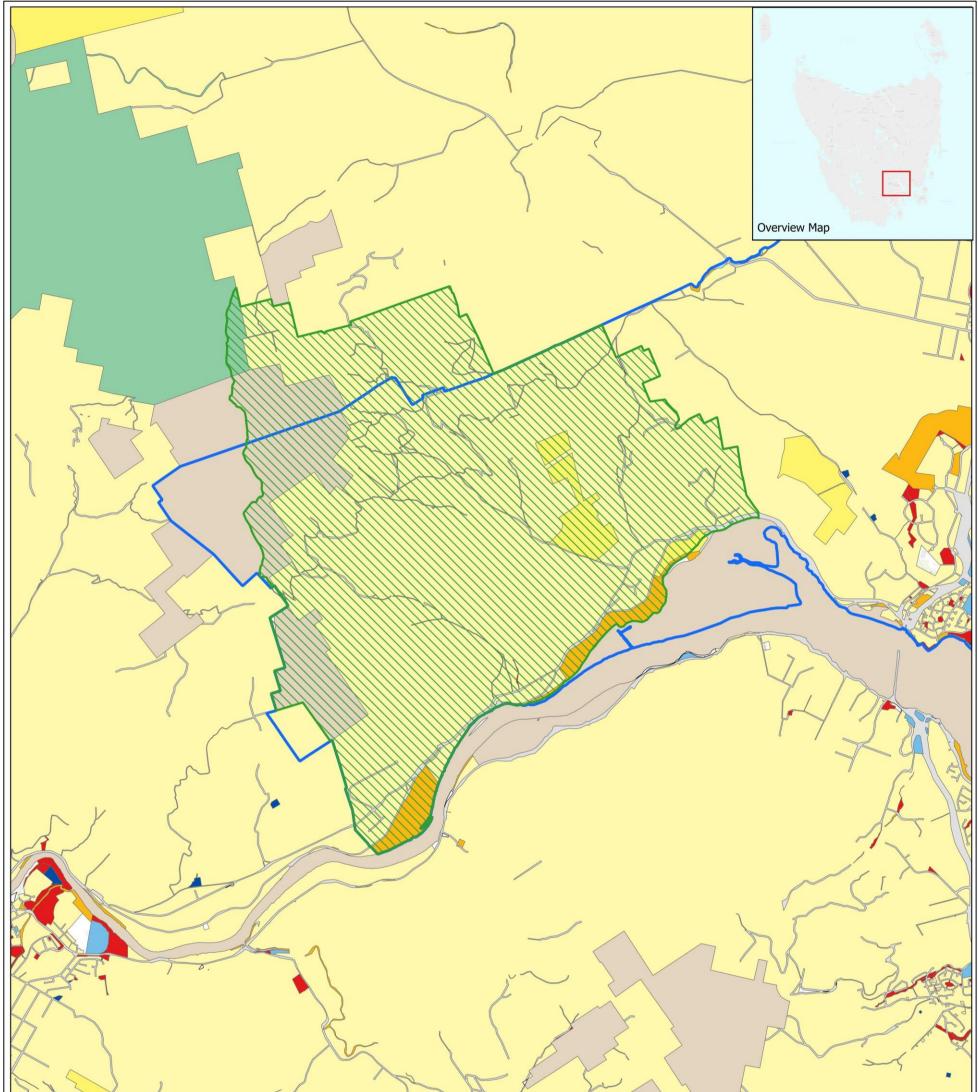
Roads surrounded by dense forest like those within Dromedary are unlikely to be effective in containing fully developed bushfires, even under relatively mild conditions. However, public roads facilitate community evacuation and firefighter intervention and are therefore critically important during bushfire emergencies.

During the development of this plan Council identified six priority Council managed roads in which this plan focuses on. Council's identification process included factors such as road width, if the road was a dead-end road, adjacent bushfire fuel types, topography and asset distribution.

Table 1 & Figure 6 of this plan identifies priority roads this plan focuses.

Road Name:	Approx. Length (km):	Road Authority:	Locality:
Brynafon Road	0.4km	Brighton Council	Dromedary
Clarks Road	2.0km	Brighton Council	Dromedary
Cranes Road	4.3km	Brighton Council	Dromedary
Deans Valley Road	0.4km	Brighton Council	Dromedary
Perrymore Road	0.9km	Brighton Council	Dromedary
Tongatabu Road	1km	Brighton Council	Dromedary

Figure 4: Dromedary Locality and Surrounds Authority Land Map



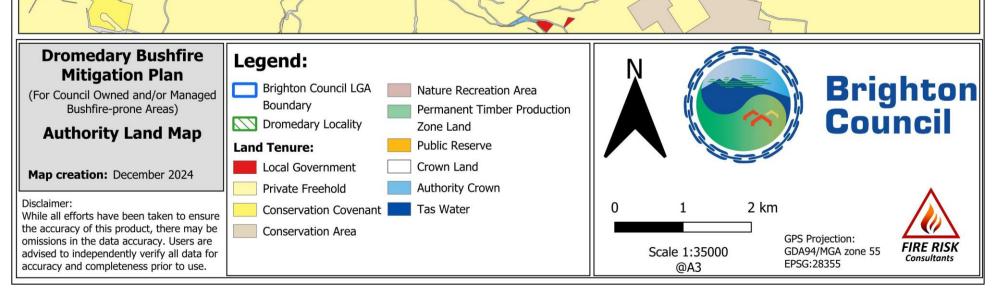
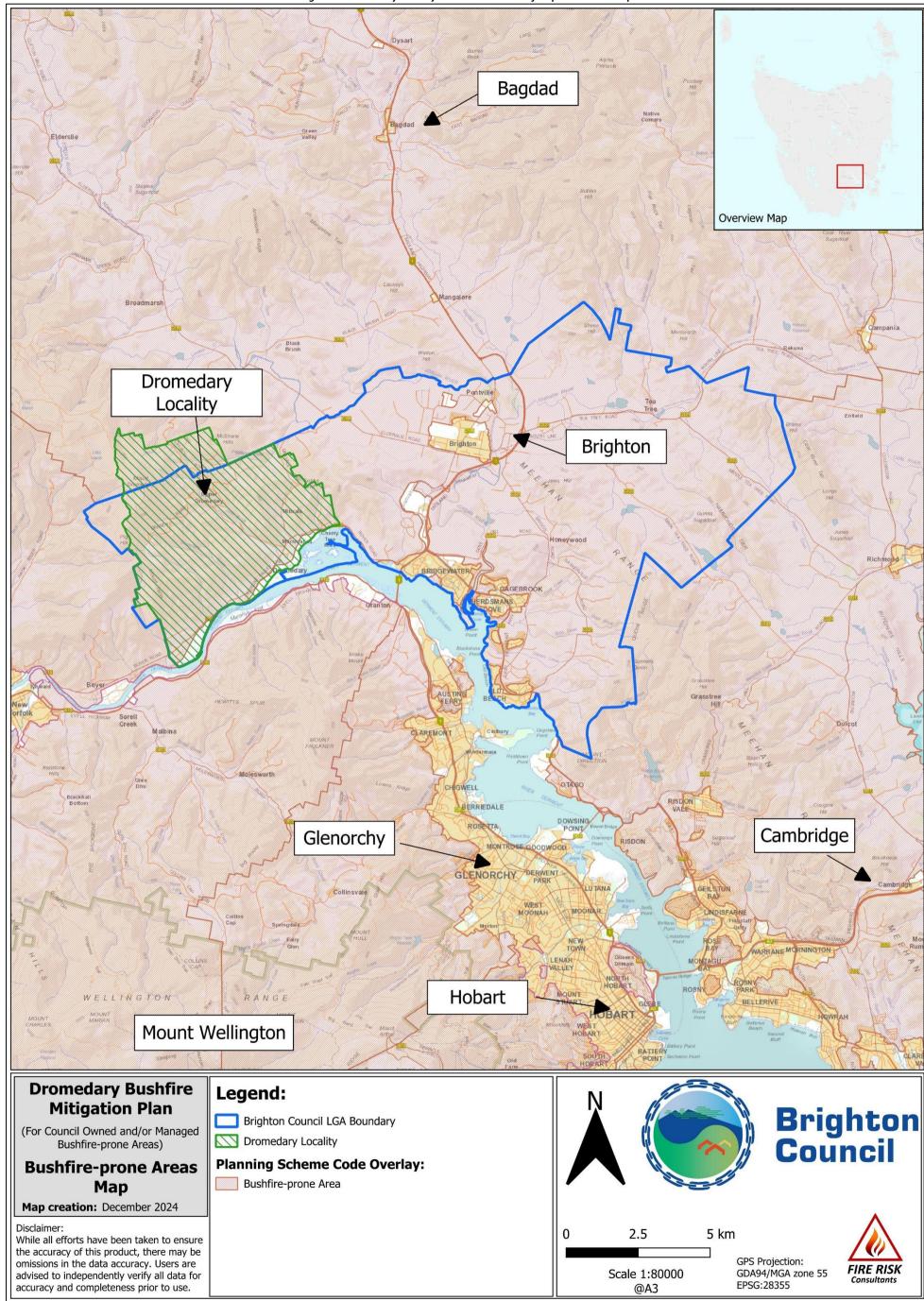




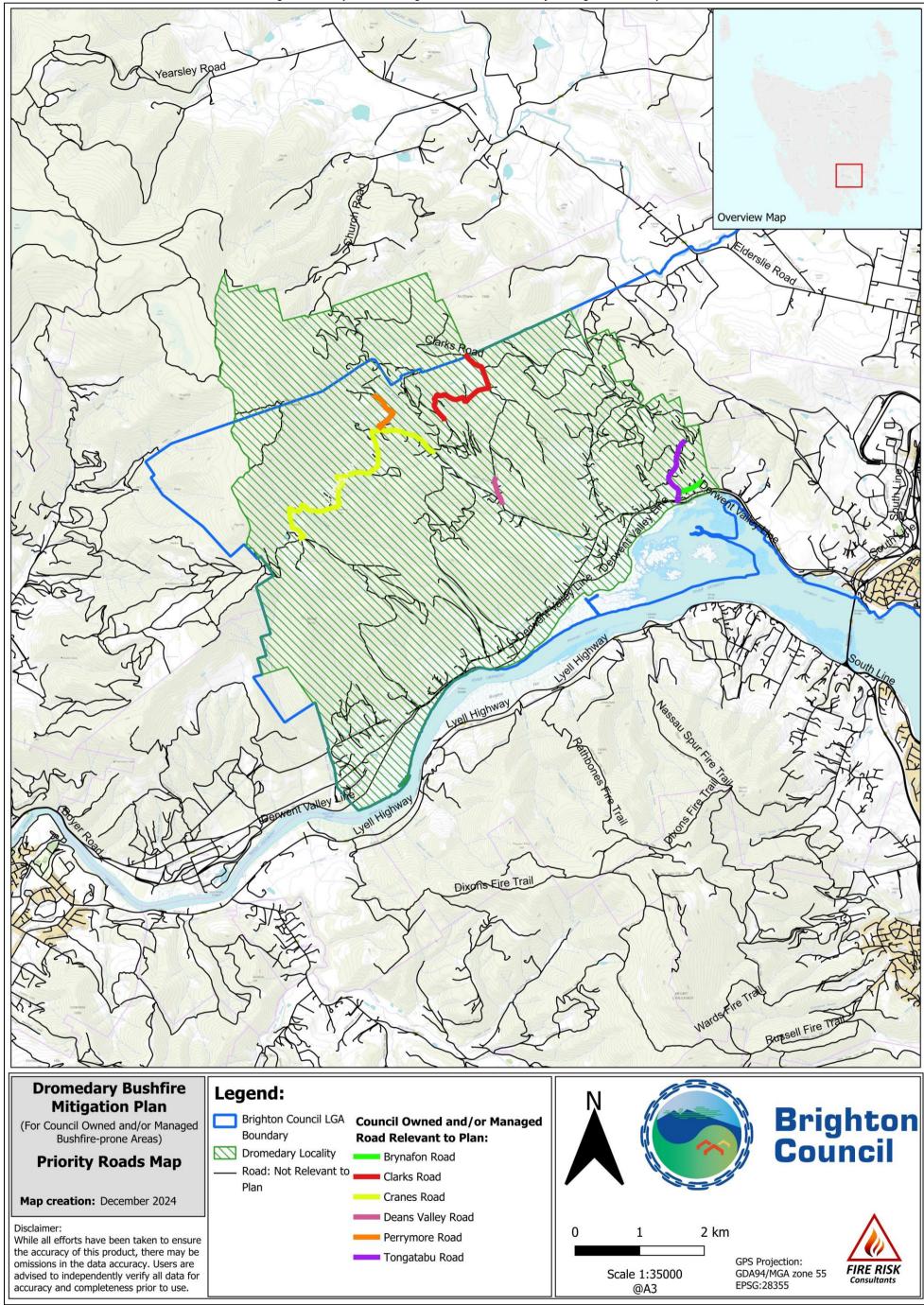
Figure 5: Dromedary Locality and Surrounds Bushfire-prone Areas Map





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Figure 6: Priority Council Managed Roads Relevant to Bushfire Mitigation Plan Map





# 2.6 Vegetation

The predominant vegetation community group within Dromedary is dry eucalypt forest and woodland, followed by modified land which presents as agricultural land and areas generally cleared of vegetation where dwellings are located. There are some small aggregates of wet eucalypt forest and woodland confined to gullies, there also areas of saltmarsh and wetland adjacent to the Derwent River. Much of the dry eucalypt forest and woodland communities include damp to wet understorey species such as *Pomaderris apetala* (dogwood) and *Olearia argophylla* (musk). The damp to wet understorey species combined with the topography often inhibits sunlight from reaching the forest floor for extended periods of time. This contributes to the unsuitability of fuels for fuel reduction burning.

Much of the vegetation within Dromedary can readily burn during the fire danger period. Weather, topography, quantity of fuels, time since previous fire, and structure of fuels will influence bushfire severity. Much of the dry eucalypt forest within Dromedary is generally highly fire-adapted, a single fire should generally not affect biodiversity although high intensity fires or repeated short intervals i.e. < 10 years may cause long-term changes (Pyrke & Marsden-Smedley, 2005). Wet eucalypt forest and woodland vegetation communities are generally a fire-adapted community requiring at least 30 years between fires to maintain the defining species. Fire intervals greater than 80 years are required to reach mature stand structure.

Most of the vegetation within and adjacent to the Dromedary locality can be classified as untreatable for fuel reduction burning. This has the potential to pose increased levels of bushfire risk to Dromedary and surrounds (Section 3.5.1).

# 2.7 Climate and bushfire season

Climate change refers to long-term shift in temperatures and weather patterns. The most direct link between bushfire and climate change comes from the long-term trend towards a hotter climate. Climate change makes hot days hotter, heatwaves longer and more frequent, resulting in increased bushfire weather. Combining this with less rain over southern Australia during cooler months, the number of days suitable to undertake fuel reduction burning decreases significantly.

### 2.7.1 Potential climate change considerations

Tasmania is separated into 10 Fire Management Areas (FMA). The Brighton LGA sits within the Hobart FMA. High risk fire weather can be expected in the Hobart FMA when dry winters and springs are followed by summers, resulting in very dry fuels.

The strong north-westerly winds that often precede cold fronts in summer contain dry air from the interior of the Australian mainland, which results in very low humidity as this air stream descends from the Central Highlands. This combination of strong winds and low humidity creates the ideal weather conditions for major bushfires in south-east Tasmania and particularly the Hobart FMA.

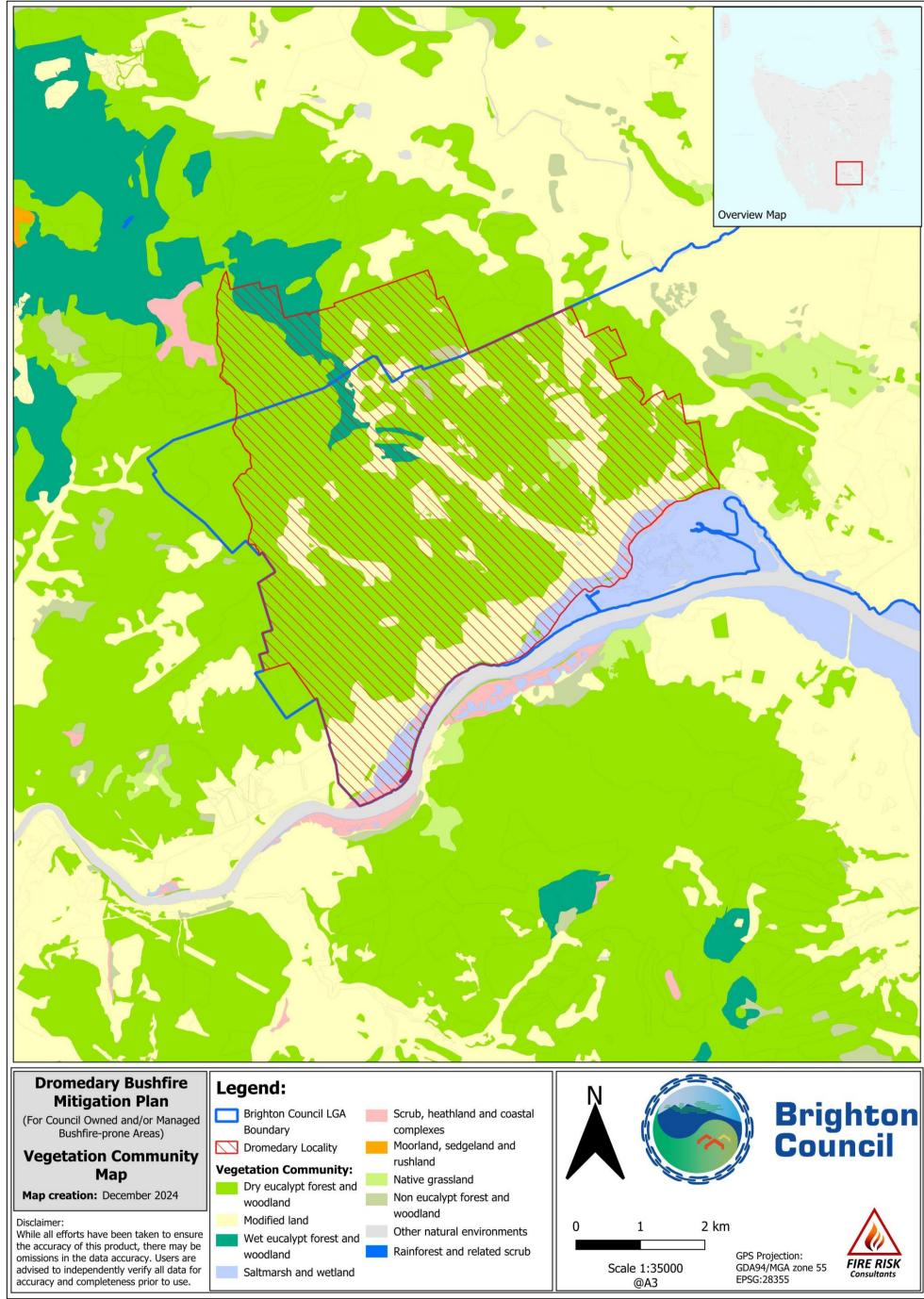
Fires that start under these conditions can be expected to move quickly downwind, and then move more or less at right angles on a broad front when the subsequent south-westerly sea breeze wind change arrives. These fires can reach a very high intensity in a short time, even in areas with relatively low fuel loads, and are very difficult to control until the weather conditions abate. These were the conditions that produced the 1967, 1998, 2006 and 2013 bushfires around Hobart.

The Derwent Valley and southeast of Tasmania can experience Extreme to Catastrophic fire danger ratings. The Hobart FMA is also one of the driest parts of Tasmania (State Fire Management Council, 2023).

Under a changing climate, Tasmania is expected to experience increased storm events and changes in rainfall patterns, which are likely to result in increased temperatures and longer fire seasons, with more frequent and intense bushfire events (Tasmania's Draft Climate Change Action Plan, 2023-25 2023). Noting this, the

likelihood and frequency of bushfire continuing to impact the Brighton LGA (including Dromedary) is expected to increase.

Figure 7: Dromedary Locality and Surrounds Vegetation Communities Map



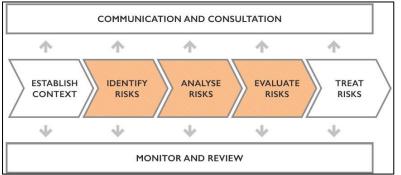
# 3 Identifying bushfire risks

# 3.1 General methodology

A standard risk assessment process was used to determine bushfire risk levels and identify actions that are strongly recommended to be implemented to support Council reduce bushfire risk (Section 6). The risk assessment process followed decision support principals from the Tasmanian Emergency Risk Assessment Guidelines (TERAG) available at <u>www.ses.tas.gov.au</u> and the State Government's Bushfire Risk Management Planning Guidelines available at <u>www.sfmc.tas.gov.au</u>.

TERAG provides risk management methodology tailored to the Tasmanian context and is built around ISO 31000:2018 - Risk Management — Guidelines.

Figure 8: TERAG risk management framework (Source: Tasmanian Emergency Risk Assessment Guidelines TERAG 2017 VERSION 1.0 Department of Police, Fire and Emergency Management, n.d.)



The risk assessment process included both desktop and on-ground risk assessments of Dromedary and the broader Brighton LGA and included two key phases:

**PHASE 1:** Preliminary desktop assessment of Dromedary, initial assessment of bushfire risk indicators and mapping using available spatial and technical project data, specifically:

- Topography and vegetation composition of Dromedary and wider landscape;
- Fire and ignition history;
- Current road network and egress routes and the adequacy of these in relation to potential bushfire risk;
- Land tenure;
- Fire weather in the Brighton LGA and broader Hobart Fire Management Area;
- Identification of potential bushfire response capability within the Brighton LGA;
- Planning scheme overlays and relevant legislation; and
- Desktop landscape bushfire risk assessment.

**PHASE 2:** Detailed on-ground analysis of Dromedary and the surrounding landscape, including likely fire scenarios.

The on-ground site analysis was undertaken during September, October and December 2024 over multiple days with Fire Risk Consultants and Brighton Council staff. This involved driving and inspecting on foot the landscape within Dromedary to confirm information collated from the desktop assessment, including:

- Topography and vegetation composition and wider landscape;
- Asset distribution;
- Visual assessment of adjoining roadsides and their fuel load and management;
- Landscape scale land use;
- Emergency egress routes; and

• Human settlement area locations.

# 3.2 Drivers of bushfire risk

Bushfires can start in a variety of ways, but there are three factors that contribute to the behaviour of a bushfire; weather, the vegetation and the terrain. The risks associated with a bushfire is determined by a combination of three elements; the hazards that the fire generates, your level of exposure to these hazards, and your vulnerability to these hazards. Understanding and recognising each element will support preparing for bushfire (Bushfire Best Practice Guide, 2021).

#### 3.2.1 Bushfire attack mechanisms

Bushfire attack mechanisms are the characteristics of a bushfire that have potential to impact a building where it can no longer provide a safe haven for occupants.

The four major bushfire attack mechanisms are:

- 1. wind-blown burning debris (including ember attack);
- 2. radiant heat which can ignite flammable materials ahead of the fire front and shatter glass;
- 3. flame contact; and
- 4. Strong winds generated or intensified by the bushfire.

Ember attack is the most common cause of building damage or loss from bushfires.

#### 3.3 Australian Fire Danger Rating System & Australian Warning System

Council's understanding of the Australian Fire Danger Rating System (AFDRS) and separate Australian Warning System is important as they support Council's:

- Pre-emptive measures on days of elevated fire weather; and
- Decision making during a bushfire event.

The AFDRS uses fire danger ratings (Figure 9) to predict and describe the potential level of danger should a bushfire start. The higher the fire danger, the more dangerous the conditions and the greater the consequences if a fire starts.

Forecasted fire danger ratings for the Brighton LGA can be accessed from the Tasmania Fire Service website <u>www.fire.tas.gov.au</u> during the bushfire season.

# Figure 9: Australian Fire Danger Rating System (Source: https://afdrs.com.au/) The Australian Fire Danger Ratings (AFDRS) levels are: Image: mail of the system o

Take action now to

protect life and property

14

For your survival, leave

bushfire risk areas

The Australian Warning System is a national approach to providing clear, concise information and warnings during emergencies like bushfire. A warning provides point-in-time information about a hazard that is impacting or is expected to impact communities. It describes the impact and expected consequences for communities and includes advice on what people should do.

There are three warning levels within the Australian Warning System:

Advice (Yellow)
Advice warning indicate an incident has started. There is no immediate danger. Stay up to date in case the situation changes. (May also be used to advise that a threat has reduced).
Watch and Act (Orange)
There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family.
Emergency Warning (Red)
An Emergency Warning is the highest level of warning. You may be in danger and need to take action immediately. Any delay now puts your life at risk.

Current warnings relevant to the Brighton LGA can be accessed from the TasALERT website <u>www.alert.tas.gov.au</u>.

# 3.4 Documented bushfire history relative to Dromedary

Bushfire has been a natural feature of the Tasmanian landscape with a history of significant bushfires events since European settlement. Significant bushfire events include the Derwent and Huon Valleys bushfires (1933-34), Black Tuesday bushfires (1967), Broadmarsh-Bluff Road Bushfires (2003), Sugarloaf Road Bushfires (2006) and the most recent Pelham Road Bushfire (2019).

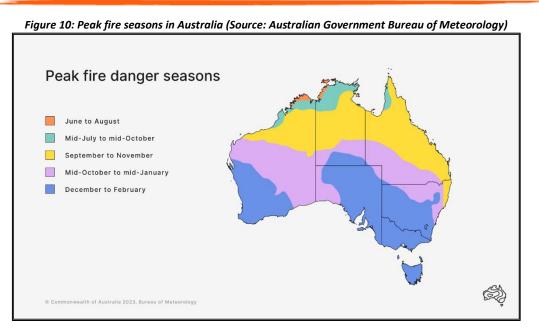
Tasmania's high bushfire risk is the result of factors that increase the likelihood and consequences of fire. These factors include large areas of the state comprising highly flammable dry eucalypt forest, protracted droughts and an increasing population density in bushfire-prone areas.

While bushfire is a significant risk facing Tasmania, it is also a natural part of the environment and many plant species rely on fire to regenerate.

A variety of causes can ignite a bushfire; some bushfires result from events that are natural, such as lightning (as did during the 2019/2020 Pelham Road Bushfires), while others result from human activity. Following ignition, the direction and speed of the fire's travel, and the height and intensity of the flames are determined by climatic and weather conditions, topography and fuel in the area.

The climate in Tasmania is generally characterised by mild, moist winters followed by hot dry summers. The Tasmanian bushfire season typically occurs between the end of October and the start of May with the peak bushfire season generally being December to February.

Days of elevated bushfire risk are often typified by the passage of a cold front, which causes fires to spread rapidly and then change direction. Coastal sea breezes can have a similar effect. Most of Tasmania's significant fires have been subject to this type of effect, with fatalities often resulting from people being trapped by these fires after they changed direction



The greater landscape within and surrounding Dromedary has historically experienced significant bushfires. Most documented bushfires have impacted Dromedary from the northwest direction.

Based on the frequency of bushfires relative to the Brighton LGA in recent years, it is clear Dromedary will continue to be impacted by bushfires in years to come and that Dromedary can be considered at risk from bushfire.

Documented fire history relative to the Brighton LGA (last impacted) was accessed via LISTmap during November 2024. LISTmap <u>www.thelist.tas.gov.au</u> is a publicly assessable State Government managed geographic information system (GIS) database that helps users find and use information about land and property in Tasmania.

Documented fire history relative to this plan is summarised in Table 2 and shown on Figur	e 11.
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Ignition Season:	Fire Name:	Fire Type:	Area Burnt (ha):	
1966/1967	1967 Fire	Bushfire	198,781	
1981/1982	Dromedary 2	Bushfire	108,888	
1986/1987	Boyer 1	Bushfire	1,446	
1992/1993	Unknown 1993 Bushfire	Bushfire	4,694	
2012/2013	Tea Tree Road	Bushfire	1,234	
2015/2016	Blackwells Road	Bushfire	128	
2018/2019	Midland Highway	Bushfire	209	
2019/2020	Pelham Road	Bushfire	2,114	

Table 2: Documented bushfire history relative to Briahton LGA

#### 3.5 Documented planned burning history relative to Dromedary

There are no documented broadscale planned burns to have occurred within Dromedary. Most of the vegetation within and adjacent to Dromedary can be classified as untreatable for fuel reduction burning due to the difficulty in undertaking planned burns safely due to terrain, fuel types and asset distribution.

The broader landscape's documented planned burning history relevant to Dromedary is shown on Figure 11.

## 3.5.1 Treatability of bushfire fuels relative to Dromedary

Vegetation (bushfire fuels) can be described as 'treatable vegetation' and 'untreatable vegetation'. Treatable vegetation are those that can be safely treated with planned burning, generally during the cooler spring and autumn months.

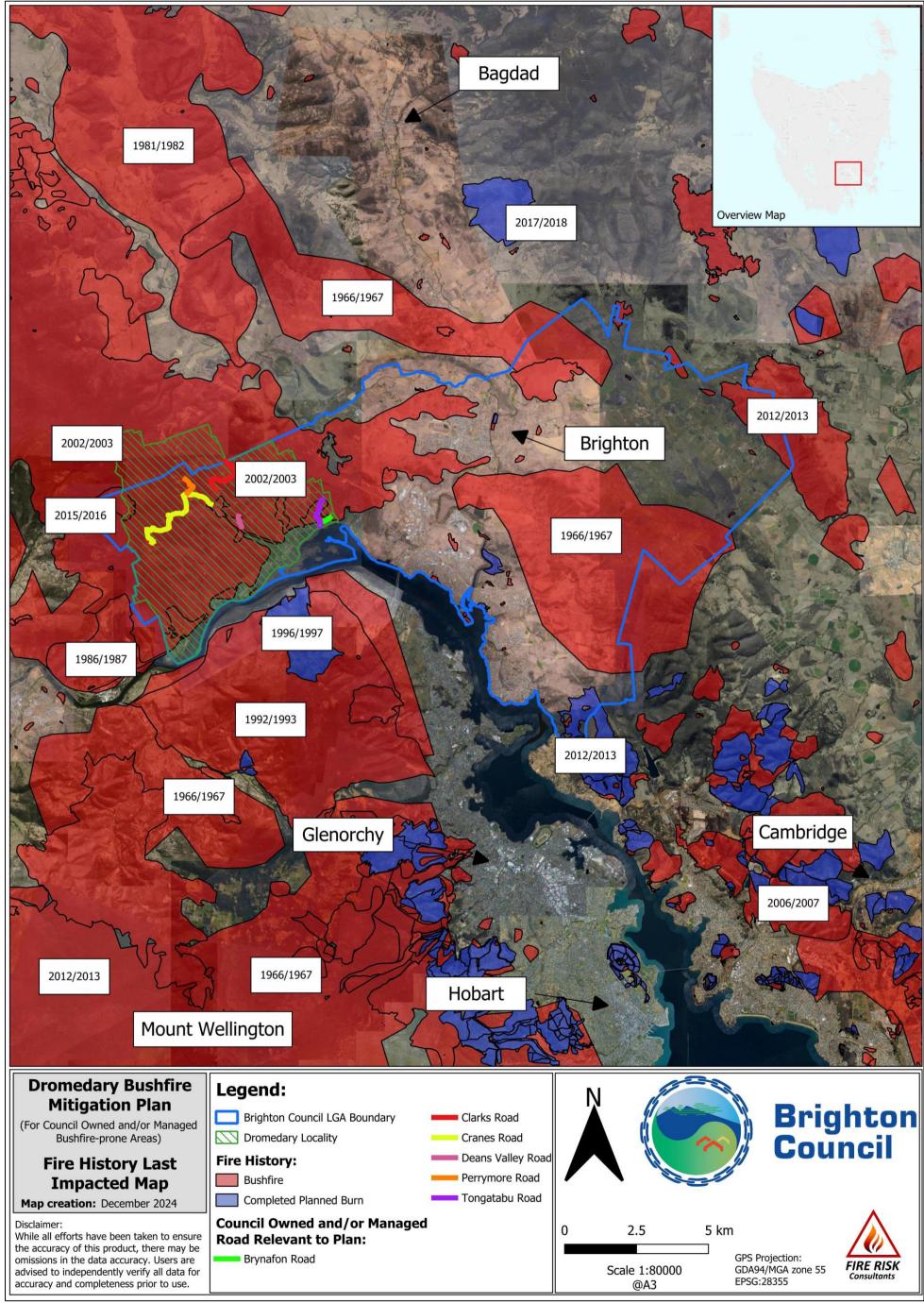
Treatable vegetation often includes dry eucalypt forest and woodland vegetation community groups where damp to wet understorey species are not present. Untreatable vegetation means that the vegetation is not appropriate or practical to undertake fuel reduction burning. This may be due to typical species composition within each vegetation type, their known sensitivity to fire or that the fuels are simply too wet to burn safely during the cooler planned burning weather windows of spring and autumn.

The damp to wet understorey species within much of Dromedary's dry eucalypt forest and woodland vegetation community groups combined with topography often inhibits sunlight from reaching the forest floor for extended periods of time. This inhibits surface and near surface fuels becoming dry enough to burn during the cooler planned burning weather windows.

Untreatable fuels will often be dry enough or 'available' to burn only during the warmer summer bushfire period when fuel reduction burning is generally not desired. This poses significant increased levels of bushfire risk to Dromedary.

When human settlement areas are located within areas of untreatable vegetation, active perpetual management of vegetation adjacent to assets, roadside vegetation (through means such as slashing), availability of water supply for firefighting, private property access maintained to industry best practices by the property owner, and community awareness through coordinated engagement programs are critical towards reducing bushfire risk.

Figure 11: Dromedary Locality and Surrounds Fire History Last Impacted Map





# 3.6 Tasmanian State Government bushfire risk registers

The State Government regularly undertakes bushfire risk assessments regarding human settlement areas.

A human settlement area is a term given for the dataset used to define where people live and work. The dataset was developed by the State Government for the purpose of risk modelling and was created using a combination of building locations, cadastral information, and Australian Bureau of Statistics data. Human settlement areas include seasonally populated areas and industrial areas.

Risk assessments are documented within the relevant Fire Management Area's BRMP Risk Register. The Hobart Fire Management Area's BRMP Risk Register identifies what values and assets are at risk from bushfire within the Brighton LGA. This includes risk levels for human settlement areas relative to Dromedary.

Bushfire risk levels for human settlement areas relevant to Dromedary are summarised in Table 3 of this plan. Risk levels have been collated from the Hobart Fire Management Area BRMP's Risk Register and are based on most current risk modelling at November 2024.

#### Table 3: Human settlement area risk levels

The bushfire risk level for the Dromedary, Mount Dromedary, Clark Stewart Road, McShane Hills, Upper Dromedary human settlement areas as identified within the Hobart Fire Management Area BRMP is:	MEDIUM
The bushfire risk level for the Mount Terra human settlement area as identified within the Hobart Fire Management Area BRMP is:	LOW

#### 3.7 Bushfire hazard identification

Both desktop and on-ground site assessments were undertaken by Fire Risk Consultants to support the identification of recommended actions to reduce bushfire risk levels within Dromedary. The bushfire hazard identification process acknowledges:

- A level of bushfire risk already exists within Dromedary and the surrounding landscape; and
- The limitation of areas where Council has the authority to undertake physical works.

Assessments considered potential bushfire scenarios during days of elevated bushfire risk.

On days of elevated bushfire risk, the combination of strong winds (generally northerly westerly or south westerly after the wind change), high temperatures and low humidity increase the likelihood of bushfires with significant fire intensity and potential unpredictable fire behaviour.

Bushfires burning on days of elevated bushfire risk will generally be very unpredictable and can be challenging to control.

Potential bushfire scenarios to impact Dromedary have been assessed as being:

**Potential Scenario A:** A bushfire impacting Dromedary from the surrounding landscape from the north through west;

**Potential Scenario B:** A bushfire impacting Dromedary from the surrounding landscape following the afternoon sea breeze wind change and impacting from the southwest including spotting from the Claremont, Molesworth and Granton localities;

**Potential Scenario C:** An accidental ignition resulting from plant and machinery undertaking works within a Council managed road casement resulting in a fire entering the external environment; and

**Potential Scenario D:** An accidental ignition on private property resulting in a fire entering the external environment.

The risk rating table below (Table 4) is used to combine likelihood and consequence to obtain a risk score. The risk score is used to aid decision making by Council. Actions can be prioritised using this method to determine where actions could be applied by Council to reduce bushfire risk.

CONSEQUENCE LEVEL						
LIKELIHOOD	INSIGNIFICANT	MINOR	MINOR MODERATE MAJOR		CATASTROPHIC	
Almost Certain	MEDIUM	MEDIUM	HIGH	EXTREME	EXTREME	
Likely	LOW	MEDIUM	HIGH	EXTREME	EXTREME	
Unlikely	LOW	LOW	MEDIUM	HIGH	EXTREME	
Rare	VERY LOW	LOW	MEDIUM	HIGH	HIGH	
Very Rare	VERY LOW	VERY LOW	LOW	MEDIUM	HIGH	
Extremely Rare	VERY LOW	VERY LOW	LOW	MEDIUM	HIGH	

# 4 Analysing and evaluating bushfire risk

# 4.1 Bushfire risks to Dromedary, Mount Dromedary, Clark Stewart Road, McShane Hills, Upper Dromedary human settlement areas

Key drivers influencing bushfire risk to human settlement areas relevant to this plan include the dry eucalypt forest and woodland vegetation community present, the topography, dead end roads, and many of the existing homes being built pre-contemporary bushfire construction standards. The level of understanding and case-by-case awareness by occupiers of land within Dromedary on what to do on days of, and days leading up to elevated bushfire risk, including pre-emptive triggers will also significantly drive risk levels.

Most of the vegetation within and adjacent to Dromedary can be classified as untreatable for fuel reduction burning due to the difficulty in undertaking planned burns safely due to terrain, fuel types and asset distribution (State Fire Management Council, 2023).

Much of the bushfire-prone areas relevant to this plan are not owned or managed by Council, but privately owned (Figure 4). However, the public road network is managed by Council. Public road networks play a key role in emergency management during bushfire events and contribute significantly towards community safety.

In relation to bushfire cause within the Hobart Fire Management Area, the majority of fires are either undetermined or unknown (44%), followed by Arson (29%) and fire from recreation activities (8%) (State Fire Management Council, 2023).

Table 6 of this plan identifies the key bushfire risks (and potential consequences) Council has some means of influencing through implementing this plan's Treatment Plan (Appendix A).

# 4.2 Areas under Council control

### 4.2.1 Existing public road network and Council priority roads

The desktop and on-ground risk assessments identified key factors which contributed to each priority road's bushfire risk profile. Factors are identified within Table 5.

#### Table 5: key factors contributing to priority road's bushfire risk profile

Risk Factor
Length/width of road
Is the road dead-end, if yes:
<ul> <li>Is there a suitable turning point/s meeting industry best practices for a firefighting appliance to</li> </ul>
safely turn around; and
Does the road provide access to habitable buildings.
Distribution of habitable buildings the road provides access to:
<ul> <li>Do the habitable buildings appear to meet contemporary bushfire design standards; and</li> </ul>
Level of mobile phone coverage available.
The roads location in the landscape
Adjacent vegetation:
• Fuel structure;
<ul> <li>Fuel treatability to planned burning;</li> </ul>
<ul> <li>Existing roadside vegetation management; and</li> </ul>
<ul> <li>Likelihood of tree fall blocking road during bushfire causing entrapment.</li> </ul>
Availability of water supply for firefighting purposes meeting industry best practices

The evaluation process identified Cranes Road at greatest risk followed by Perrymore Road. Cranes Road is a dead-end road with tall dense forest directly adjacent and limited mobile phone coverage. Much of the vegetation is untreatable for planned burning and highly susceptible to wind throw making the likelihood of entrapment occurring by occupants of Cranes Road during a bushfire event almost certain.

A comprehensive assessment of hazardous trees within the tree fall distance of Cranes Road was not conducted. Additionally, due to the high density of tall mature eucalypts within this distance and the presence of upslope trees that could potentially impact adjacent trees within the same range, an assessment is deemed non-viable. Consequently, the entire length of Cranes Road is considered to be at extreme risk of tree fall during a bushfire event.

At a landscape level Cranes Road sits on the southeasterly facing slope of Mount Dromedary, the likely direction of bushfire attack is from the northwest, bushfires impacting Cranes Road will most likely not be visible by Cranes Road occupants until it is too late to leave. It is highly probable much of Dromedary would be affected by ember attack prior to the actual fire front. Cranes Road holds significant bushfire risk levels.

Clarks Road, Deans Valley Road and Tongatabu Road all share similar risk factors to Cranes Road, although of a lesser degree. There is a high risk of tree fall resulting in entrapment during a bushfire event on the southwestern section of Clarks Road (the initial approx. 900m heading east from the junction of Church Road). This 900m section also includes vegetation which is untreatable for planned burning.

The Council managed section of Clarks Road is approx. 2km long, terminating at the LGA boundary. There is a private gate restricting public access past this point. There is an existing turning point (Image 1) approx. 30m prior to the gate within the Brighton Council managed road casement, however the turning area does not meet industry best practises. An upgrade to this turning point is strongly recommended within Section 6.2.2 of this plan.

The Council managed section of Deans Valley Road is approx. 400m long, terminating at a large privately owned dam which is highly suitable as a static water supply for firefighting. There is a high standard turning area for firefighting appliances at the dam that meets industry best practices. It is possible to continue driving on a privately managed section of Deans Valley Road past the dam for approx. 300m. A privately owned boom gate restricts public access past this point. The privately managed section of the road is gravel surfaced and narrow. There is no safe turning point at the boom gate resulting in a firefighting appliance needing to reverse back to the dam which is highly undesirable. Signage is strongly recommended within Section 6.2.3 of this plan indicating no safe turning point past the dam.

Brynafon Road's risk profile is on the lesser degree. Brynafon Road is approx. 150m north of the Derwent River (large saltwater water body). The road is approx. 400m long, good standard gravel construction with a turning point at the end meeting industry best practices. There is a good standard of active roadside vegetation management, several houses appear to have static water supplies dedicated for firefighting that meet industry best practices. There is a good standard of active vegetation management visible from Brynafon Road on the adjacent private properties.

It is strongly recommended that the occupants of Brynafon Road, Clarks Road, Cranes Road, Deans Valley Road, Perrymore Road and Tongatabu Road all prepare and review annually Bushfire Survival Plans based on their individual characteristics including pre-emptive triggers to leave early. Sheltering on-site during bushfire events is strongly not recommended.

It is strongly recommended that the occupants of Dromedary residing on land outside of this plan's scope prepare and review annually Bushfire Survival Plans.

The preparation and currency of Bushfire Survival Plans are the responsibility of private landowners, not Council.

# 4.3 Existing water supply for firefighting

Firefighting water supplies include fire hydrants connected to reticulated water infrastructure and in nonreticulated areas static water supplies such as a water tank, dam, or swimming pool. Reticulated water supplies are typically found in more urbanised areas; and in addition to providing potable water for domestic use, the reticulated system also provides pressurized water for firefighting.

Reticulated water supplies are generally managed by TasWater. With the exception of Boyer Road, and an isolated fire hydrant connected to reticulated water infrastructure on Millvale Road, Dromedary is reliant on static water supply for firefighting.

Many of the homes within Dromedary do not appear to meet contemporary bushfire design standards, predates the legislated bushfire requirements introduced in 2012. Many homes also do not appear to have dedicated water supplies for firefighting compliant with industry best practices.

The choice to install dedicated static water supplies firefighting on private property compliant with industry best practices is solely reliant on the property owner. However, specific requirements for firefighting water supply in bushfire-prone areas may be triggered for building or planning compliance purposes.

The risk analysis of Brynafon Road, Clarks Road, Cranes Road, Deans Valley Road, Perrymore Road and Tongatabu Road identified one location suitable for Council to install and perpetually maintain twonew static water supplies for firefighting for use by emergency services. The location is on Church Road and is discussed in Section 6.3 of this plan.

# 4.4 Contemporary bushfire design standards for habitable dwellings

The Australian Standard 3959 – 2018 Construction of Buildings in Bushfire-prone Areas is primarily concerned with improving the ability of buildings in designated bushfire-prone areas to better withstand attack from bushfire thus giving a measure of protection to the building occupants (until the fire front passes) as well as to the building itself (Standards Australia Limited, 2018).

Many of the built assets within the Dromedary locality do not appear to meet contemporary bushfire design standards, predates the legislated bushfire requirements introduced in 2012 and appears to have minimal resistance to bushfire attack mechanisms, particularly ember attack. The choice to retrofit an existing building to contemporary bushfire design standards is solely reliant on the property owner. However, specific requirements for building or demolition work in bushfire-prone areas may be triggered for building or planning compliance purposes.

#### Brighton Council - Dromedary Bushfire Mitigation Plan 2025-2030 for Council Owned and/or Managed Bushfire-prone Areas

Table 6 identifies key bushfire risks relevant to this plan. Each key risk includes a cause or comment that contextualises the risk and a possible result of the risk occurring. This plan's Treatment Plan (Appendix A) identifies actions that when implemented by Council should support reducing bushfire risk profiles.

Key bushfire risks relevant to plan - Cause/Comment	Likelihood	Possible Results	Consequences	Risk Rating
<ul> <li>Bushfire originating external to the Dromedary locality and directly impacting assets (both built, natural and cultural) within Dromedary.</li> <li>The accidental ignition of fire by Council or a Council Contractor within a Council managed road casement whilst undertaking works and spreading to the external environment. Potential ignition causes include: <ul> <li>Hot works;</li> <li>Plant &amp; machinery;</li> <li>Smoking; and</li> <li>Poor maintenance of infrastructure.</li> </ul> </li> <li>An unplanned ignition caused by a stolen vehicle being burnt within a Council managed road casement.</li> <li>An unplanned ignition on private property.</li> <li>Clarks Road, Cranes Road, Deans Valley Road, Perrymore Road and Tongatabu Road are dead- end roads providing access to multiple private houses in a highly forested area. Potential for these roads to be impacted during a fire event, making egress not possible and entrapment occurring.</li> </ul>	Likely	<ul> <li>Fire behaviour and intensity could be erratic if the fire occurs during elevated fire weather conditions.</li> <li>Under elevated fire weather conditions, bushfire could travel some distance with increased fire intensity before impacting Dromedary.</li> <li>Potential loss of built asset.</li> <li>Fire sensitive natural and/or cultural values are significantly impacted by unplanned fire.</li> <li>Potential loss of life/injury due to entrapment within Clarks Road, Cranes Road, Deans Valley Road, Perrymore Road and Tongatabu Road and surrounds during a bushfire event.</li> </ul>	Major	Extreme

Table 6: Key bushfire risks relevant to plan

# 5 Bushfire risk treatment

# 5.1 Bushfire response within Dromedary

Bushfire response responsibility within Dromedary is a combination of the Tasmania Fire Service and Parks and Wildlife Service. Land tenure may influence which fire suppression agency initially responds to a bushfire.

Tasmania Fire Service Fire Brigades likely to attend include:

- Bridgewater Fire Brigade;
- Brighton Volunteer Fire Brigade;
- Broadmarsh Volunteer Fire Brigade;
- Magra Volunteer Fire Brigade;
- New Norfolk Volunteer Fire Brigade;
- Old Beach Volunteer Fire Brigade; and
- Tea Tree Volunteer Fire Brigade.

It is probable, although not guaranteed, on a day of increased bushfire risk fire suppression agencies may have additional firefighting resources stood up at strategic locations within the Hobart Fire Management Area for rapid response.

Council's employees are not required to provide frontline firefighting capability as part of their Council employee duties, unless specifically requested. Specific requests should come from the Tasmania Fire Service to Brighton Council's Municipal Emergency Management Coordinator.

### 5.2 Tasmanian State Government bushfire risk reduction framework

The Tasmanian Vegetation Fire Management Policy guides Tasmania's bushfire risk reduction framework through articulating agreed principles and strategies to be used by all Tasmanians, enabling the safe and effective conduct of vegetation fire management activities.

This section of this plan briefly summarises the Tasmanian State Government's bushfire risk reduction framework and how this plan links in to ensure that the management of bushfire risk is a shared responsibility and that agreed principles and strategies are used by Brighton Council.

Table 7: Tasmanian bushfire risk reduction framework

	Tuble 7. Tushumun bushjire risk reduction jrumework
Tasmanian Vegetation Fire Management Policy	• Statutory policy prepared pursuant to the <i>Fire Service Act 1979</i> , prepared by the State Fire Management Council and provides overarching direction and principles (Appendix F) on how bushfire risk should be treated within Tasmania.
Bushfire Risk Management Planning Guidelines 2020	• State Government document that presents a framework and guide that facilitates Fire Management Area Committees and subject matter experts to consistently undertake and prepare bushfire risk assessments.
Tasmanian State Bushfire Risk Management Plan	<ul> <li>State Government document to identify state-wide strategies to assist Fire Management Area Committees treat bushfire risk in their areas.</li> </ul>
Hobart Fire Management Area Bushfire Risk Management Plan	• State Government document that identifies priorities for the treatment of bushfire risk in the Hobart Fire Management Area. Developed by the Hobart Fire Management Area Committee. This plan aims to coordinate and influence the treatment of bushfire risk in the Hobart Fire Management Area.
Brighton Council Bushfire Mitigation Strategy 2025- 2035	<ul> <li>Strategic level document managed by Brighton Council intended to provide a high-level framework for Brighton Council to support addressing bushfire risk levels for Brighton Council owned and/or managed bushfire-prone areas.</li> </ul>
Brighton Council - Dromedary Bushfire Mitigation Plan 2025-2030	• Tactical level planning document managed by Brighton Council to support Brighton Council enhance community resilience during and after bushfire events within the Dromedary locality.

#### 5.2.1 Hobart Fire Management Area Committee

There are 10 Fire Management Area Committees within Tasmania that are coordinated by the State Fire Management Council. The HFMAC provides a forum for effective bushfire risk management through a consistent, comprehensive, and collaborative approach. The principal aim of the HFMAC is to bring together various stakeholders that manage land use across the Hobart Fire Management Area and work together to effectively manage vegetation fuels to reduce bushfire risk.

Council is required under Section 18 of the Fire Service Act 1979 to have a representative sit on the HFMAC.

#### 5.2.2 Hobart Fire Management Area Bushfire Risk Management Plan

The Hobart Fire Management Area BRMP identifies priority areas for treating bushfire risk within the Hobart Fire Management Area (including Dromedary). The plan is developed by the HFMAC as required under Sections 18 and 20 of the *Fire Service Act 1979* and is reviewed three-yearly by the HFMAC.

The plan is strategic level and does not include all details of bushfire risk treatments but does identify which organisations or individuals are responsible for implementing them.

Council's HFMAC representative has the responsibility to report to the HFMAC twice yearly on the progress of implementing treatments identified both within the BRMP relevant to council and relevant outputs of this plan.

#### 5.2.3 Tasmania Fire Service Community Protection Planning

The Tasmania Fire Service has community protection planning documents prepared for the Brighton LGA that have been considered in this plan, however, there are no Community Bushfire Protection Plans relevant to Dromedary.

Community Bushfire Protection Plans provide information for the general public on what to do and where to go when threatened by bushfire. Community protection planning documents are available at the Tasmania Fire Service website <u>www.fire.tas.gov.au</u>.

# 5.3 Treatment Plan

A Treatment Plan has been included as Appendix A to this plan. The Treatment Plan identifies actions that when implemented should support reducing bushfire risk to Dromedary.

The Treatment Plan is a tactical level planning document and will require detailed operational planning by personnel who have appropriate skills, qualifications and experience. The Treatment Plan can be used to strategically forward plan actions to support both resourcing, budgeting, and effective asset management. It is strongly recommended all actions within the Treatment Plan are implemented by Council within identified timeframes.

Council's HFMAC Representative, or their delegate has the primary responsibility for overseeing the delivery of this plan's Treatment Plan and relevant reporting requirements both internal at Council and external.

# 5.3.1 Natural and cultural values assessments

Natural and cultural values assessments may be required for actions within the Treatment Plan to assess what impact the bushfire mitigation action is likely to have on the natural and cultural values within the area of works. Brighton Council must ensure that the personnel undertaking surveys and preparing plans for works have the appropriate skills, operational experience in the action, qualifications and experience in identification and documentation of all natural values of interest, including a knowledge of Tasmanian species, their habitat and other ecological requirements, and vegetation communities.

# 5.4 Fire hazard abatement

Brighton Council manages an annual Fire Hazard Abatement Program for the Brighton LGA which includes Dromedary. The program is governed by Council's Serving of an Abatement Notice Policy which sets out the steps to be followed for the service of an Abatement Notice under Section 200 of the *Local Government Act 1993*. The program provides direction to Council staff and landowners as to the measures that should be adopted to minimise the risk of the escape of fire to an adjacent property.

The program commences each year once the Tasmania Fire Service declare the Fire Permit Period within the Brighton LGA. A Council Abatement Officer oversees the program.

# 5.5 Planned burning

Most bushfire-prone areas in the Brighton LGA cannot be treated with broadscale fuel reduction burning due to difficult terrain, fuel types, and asset distribution, especially in high-risk areas like Dromedary (Section 3.5.1 of this plan). Although 90% of Brighton LGA is bushfire-prone, only 3% is managed by Brighton Council, primarily along road casements, which are generally unsuitable for planned burning. Where fuel reduction burning is not suitable, alternative measures such as vegetation thinning/slashing, community education, and/or Community Bushfire Response Plans (prepared by the Tasmania Fire Service) are more appropriate.

Alternative measures are strongly recommended within Section 6 of this plan.

# 6 Recommendations

Evaluation of bushfire risk by Fire Risk Consultants in alignment with State Government bushfire risk reduction framework and industry best practices has identified actions that should support Council reduce bushfire risk to Dromedary.

Recommendations are for Council owned and/or managed bushfire-prone areas only, it is acknowledged that significant bushfire risk levels are within the Dromedary locality on land outside of Brighton Council control. It is strongly recommended that landowners and land managers on land adjacent to Council owned and/or managed bushfire-prone areas take suitable measures to reduce bushfire risk to land that they occupy.

Pathways to implement the recommendations within this section of the plan are summarised into the Treatment Plan enclosed as Appendix A. It is strongly encouraged that Brighton Council implement these recommendations.

# 6.1 Community engagement

Effective stakeholder engagement enhances social, environmental, and economic outcomes, while fostering trust among key stakeholders. By Council raising awareness of this plan, stakeholders will gain a comprehensive understanding of what Council is doing to support reducing bushfire risk in Dromedary, as well as contributing to a collaborative approach to reducing landscape scale bushfire risk.

Key stakeholders relevant to this plan include:

- Hobart Fire Management Area Committee;
- Residents of Dromedary;
- Parks and Wildlife Service; and
- Tasmania Fire Service.

### **RECOMMENDATION 1**

- This Bushfire Mitigation Plan is noted by the Hobart Fire Management Area Committee before October 2025.
- Council undertakes four-yearly reviews of the Bushfire Mitigation Plan. Each review is noted by the Hobart Fire Management Area Committee.

### 6.1.1 Development of Community Engagement Plan

Community engagement about fire safety is fundamental to the success of minimising bushfire risk in Tasmanian communities. The level of understanding and case-by-case awareness by occupiers of land within Dromedary on what to do on days of, and days leading up to elevated bushfire risk including pre-emptive triggers, will significantly drive risk levels.

### **RECOMMENDATION 2**

Brighton Council prepares a Community Engagement Plan specifically for bushfire for the Dromedary locality. The Dromedary Community Engagement Plan – Bushfire must be structured using the below principles:

- Council's community engagement regarding bushfire safety is partnered with the Tasmania Fire Service Bushfire-Ready Neighbourhoods Program (when possible) using a structured and coordinated approach.
- Council will liaise with Tasmania Fire Service every year to discuss the need for an engagement/drop-in session for the public ahead of the bushfire season.

- Community engagement is delivered at an inform level. The inform level should provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.
- A blanket approach for engagement will be inadequate for the desired outcome. Engagement for occupants of Cranes Road and Perrymore Road should take priority. Key messaging must be based on unique risk factors.
- Engagement employs key messaging and language consistent with State Government terminology, topics must include:
  - Importance of land occupiers being responsible to;
    - Prepare their own Bushfire Survival Plans unique to their situation, leaving early is paramount.
    - Maintaining the vegetation adjacent to habitable buildings as a hazard management area in minimal fuel condition.
  - The likely potential for entrapment occurring within areas of Dromedary due to tree fall during a bushfire event;
  - Retro fitting existing buildings to enhance ember protection compliant with AS:3959-2018; and
  - Benefits of both dedicated static water supply for firefighting and property access complaint with State Government guidelines and industry best practices.
- Consideration of Council facilitating individual property assessments to residents by a suitably trained and experienced person.

### 6.2 Priority Council managed roads

### 6.2.1 Management of roadside vegetation

Public roadsides in Tasmania are managed by local and State Government authorities to maintain public safety. In bushfire-prone areas, good roadside vegetation management practices will support firefighter intervention, community safety as well as community recovery after bushfires.

### **RECOMMENDATION 3**

- State Government guidelines for roadside vegetation management in bushfire-prone areas available at <u>www.fire.tas.gov.au</u> (Appendix C of this plan) must be used by Council (where practically possible) when undertaking roadside vegetation management on Council managed roads in bushfire-prone areas by Council or Council's Contractors.
- State Government pre-emptive triggers available at <u>www.fire.tas.gov.au</u> (Appendix D of this plan) to cease works due to elevated fire weather conditions must be used by Council when undertaking roadside vegetation management on Council managed roads by Council or Council's Contractors.
- When procuring external services to undertake roadside vegetation management on Council managed roads in bushfire-prone areas Council must ensure:
  - The State Government guidelines for roadside vegetation management in bushfireprone areas forms part of the specifications for works (Appendix C).
  - The State Government's pre-emptive triggers to cease works due to elevated fire weather conditions forms part of the specifications for works (Appendix D).
- Council and its contractors adhere to Total Fire Ban Declaration conditions when undertaking roadside vegetation works.

### 6.2.2 Firefighting appliance turning areas within roads

Turning areas that meet industry best practices for firefighting appliances at the end of dead-end roads will increase firefighter (and general public) safety.

### **RECOMMENDATION 4**

**Clarks Road:** 

The existing turning area on Clarks Road located approx. 30m south of the existing private gate (Image 1) where the Brighton Council managed section terminates is upgraded by Brighton Council.

Upgrades to the turning area must meet industry best practices including raising the pavement height of the turning area to the same height (using the same material) as the pavement height of Clarks Road. The turning area must be provided with:

- a) all-weather construction;
- b) load capacity of at least 20 tonnes; and
- c) a turning circle with a minimum outer radius of 10 metres; or
- d) a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

Location I	O Grid Reference	Location Description
Clarks Roa	d 512511E / 527173	Western side of Clarks Road, approx. 30m south of the private gate where the Brighton Council managed section of Clarks Road terminates.

Image 1: Clarks Road - existing turning area recommended to be upgraded.



### 6.2.3 Signage

Suitably located signage informing firefighters (and general public) that there is no suitable turning area ahead past a certain point will increase firefighter (and general public) safety.

### **RECOMMENDATION 5**

**Deans Valley Road:** 

Brighton Council to install 'NO TURNING POINT AHEAD' signage (Image 3) at the end of the Council managed section of Deans Valley Road (Image 2).

Location ID	Grid Reference	Location Description
Deans Valley Road	521919E / 52698661N	Where Council managed section of road terminates (Image 2).

Image 2: Deans Valley Road - Recommended signage location

Image 3:Recommended 'No Turning Point Ahead Signage'



# 6.3 Water supply for firefighting

Dromedary is reliant on non-reticulated water supply. The installation of two new static water supplies dedicated for firefighting will provide valuable resources for emergency services use during bushfire events within Dromedary.

The Tasmanian State Government specifies requirements for dedicated static water supplies for firefighting in bushfire-prone areas. These are included in Appendix B of this plan and can be used as specifications for procuring static firefighting water supplies.

### **RECOMMENDATION 6**

Brighton Council installs and perpetually maintains two new 10,000L capacity metal static firefighting water supply tanks next to each other. This includes signage and hardstand as per Appendix B specifications. The identified location (Image 4) is on private property located at 373 Church Road and will require Council to develop and enter into an agreement with the landowner.

Location ID	Grid Reference	Location Description
Church Road	512458E / 5270333N	Cleared area on western side of Church Road within private property located at 373 Church Road, Dromedary (PID 3468506) (Image 4).

- Following installation of static firefighting water supply tanks, Council enters each tank into Council's Asset Management System and perpetually maintains each tank.
- Council's Hobart Fire Management Area Committee Representative to notify the Hobart Fire Management Area Committee in writing of both tank's location, specifications and intended use.
- Council's Hobart Fire Management Area Committee Representative to notify the Tasmania Fire Service in writing of each tank's location, specifications and intended use.
- Council inspects each tank's condition annually ensuring each tank is safe and fit for use.
- Council to ensure each tank is full of water all year-round.

Image 4: Clarks Road - Recommended static firefighting water supply tanks location



### 6.4 Summary of recommendations

### **Recommendation 1:**

- This Bushfire Mitigation Plan is noted by the Hobart Fire Management Area Committee before October 2025.
- Council undertakes four-yearly reviews of the Bushfire Mitigation Plan. Each review is noted by the Hobart Fire Management Area Committee.

### **Recommendation 2:**

Brighton Council prepares a Community Engagement Plan specifically for bushfire for the Dromedary locality. The Dromedary Community Engagement Plan – Bushfire must be structured using the below principles:

- Council's community engagement regarding bushfire safety is partnered with the Tasmania Fire Service Bushfire-Ready Neighbourhoods Program (when possible) using a structured and coordinated approach.
- Council will liaise with Tasmania Fire Service every year to discuss the need for an engagement/drop-in session for the public ahead of the bushfire season.
- Community engagement is delivered at an inform level. The inform level should provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.
- A blanket approach for engagement will be inadequate for the desired outcome. Engagement for occupants of Cranes Road and Perrymore Road should take priority. Key messaging must be based on unique risk factors.
- Engagement employs key messaging and language consistent with State Government terminology, topics must include:
  - Importance of land occupiers being responsible to;
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  - The likely potential for entrapment occurring within areas of Dromedary due to tree fall during a bushfire event;
  - o Retro fitting existing buildings to enhance ember protection compliant with AS:3959-2018; and
  - Benefits of both dedicated static water supply for firefighting and property access complaint with with State Government guidelines and industry best practices.
- Consideration of Council facilitating individual property assessments to residents by a suitably trained and experienced person.

### **Recommendation 3:**

- State Government guidelines for roadside vegetation management in bushfire-prone areas available at <u>www.fire.tas.gov.au</u> (Appendix C of this plan) must be used by Council (where practically possible) when undertaking roadside vegetation management on Council managed roads in bushfire-prone areas by Council or Council's Contractors.
- State Government pre-emptive triggers available at <u>www.fire.tas.gov.au</u> (Appendix D of this plan) to cease works due to elevated fire weather conditions must be used by Council when undertaking roadside vegetation management on Council managed roads by Council or Council's Contractors.
- When procuring external services to undertake roadside vegetation management on Council managed roads in bushfire-prone areas Council must ensure:
  - The State Government guidelines for roadside vegetation management in bushfire-prone areas forms part of the specifications for works.
  - The State Government's pre-emptive triggers to cease works due to elevated fire weather conditions forms part of the specifications for works.
- Council and its contractors adhere to Total Fire Ban Declaration conditions when undertaking roadside vegetation works.

### **Recommendation 4:**

### **Clarks Road:**

The existing turning area on Clarks Road located approx. 30m south of the existing private gate (Image 1) where the Brighton Council managed section terminates is upgraded by Brighton Council.

Upgrades to the turning area must meet industry best practices including raising the pavement height of the turning area to the same height (using the same material) as the pavement height of Clarks Road. The turning area must be provided with:

- a) all-weather construction;
- b) load capacity of at least 20 tonnes; and
- c) a turning circle with a minimum outer radius of 10 metres; or
- d) a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

Location ID	Grid Reference:	Location Description:
Clarks Road	512511E / 5271733N	Western side of Clarks Road, approx. 30m south of the private gate where the Brighton Council managed section of Clarks Road terminates.

### **Recommendation 5:**

### **Deans Valley Road:**

Brighton Council to install 'NO TURNING POINT AHEAD' signage (Image 3) at the end of the Council managed section of Deans Valley Road (Image 2).

Location ID	Grid Reference:	Location Description:
Deans Valley Road	521919E / 52698661N	Where Council managed section of road terminates (Image 2).

### **Recommendation 6:**

Brighton Council installs and perpetually maintains two new 10,000L capacity metal static firefighting water supply tanks next to each other. This includes signage and hardstand as per Appendix B specifications. The identified location (Image 4) is on private property located at 373 Church Road and will require Council to develop and enter into an agreement with the landowner.

Location ID	Grid Reference:	Location Description:
Church Road	512458E / 5270333N	Cleared area on western side of Church Road within private property located at 373 Church Road, Dromedary (PID 3468506) (Image 4).

- Following installation of static firefighting water supply tanks, Council enters each tank into Council's Asset Management System and perpetually maintains each tank.
- Council's Hobart Fire Management Area Committee Representative to notify the Hobart Fire Management Area Committee in writing of both tank's location, specifications and intended use.
- Council's Hobart Fire Management Area Committee Representative to notify the Tasmania Fire Service in writing of each tank's location, specifications and intended use.
- Council inspects each tank's condition annually ensuring each tank is safe and fit for use.
- Council to ensure each tank is full of water all year-round.

# 7 Importance of Stakeholder Engagement in Bushfire Mitigation Plan

### 7.1 Hobart Fire Management Area Committee

This plan and subsequent reviews must be submitted to the HFMAC for noting before adoption by Brighton Council. This process ensures that the agreed principles and strategies of the State Government, including those of the HFMAC, are being addressed collaboratively.

Council's HFMAC Representative has the primary responsibility for all engagement with the HFMAC.

### 8 Plan monitoring, reporting and review

### 8.1 Monitoring and reporting

Monitoring and reporting on the delivery of the Bushfire Mitigation Plan, including the Treatment Plan should be undertaken at a minimum once yearly during October. October monitoring and reporting should support Council's preparation for the upcoming bushfire season in additional to any other reporting requirements Council may have with the HFMAC.

Progress towards this Bushfire Mitigation Plan's implementation must be documented by Council's HFMAC Representative, or their delegate within the Treatment Plan.

Relevant monitoring and reporting information should be shared both internally within Council and as required with the HFMAC.

### 8.2 Plan review

This plan will function for a five-year period, with the first review to be undertaken by Council during 2029 (four years post initial 2025 plan adoption).

Four-yearly reviews of this plan by Council are essential to help ensure it continues to address the most current bushfire risk levels to the Dromedary locality, relevant human settlement areas, whilst complying with State Government bushfire risk reduction framework and industry best practices.

### References

About Us – Brighton Council (no date) GSBC. Available at: https://www.brighton.tas.gov.au/council/aboutus/ (Accessed: 06 August 2024).

Australian fire danger rating system (no date) AFDRS. Available at: https://afdrs.com.au/ (Accessed: November 4, 2024).

Bushfire best practice guide. (2021). *Bushfire risk environments - Bushfire best practice guide*. [online] Available at: https://research.csiro.au/bushfire/bushfire-basics/bushfire-risk-environments/ [Accessed 25 Sep. 2024].

Bushfire Planning & Policy (2016) *Fuel Break Guidelines, Guidelines for the design of fuel breaks in the urbanrural interface*. Hobart, Tasmania: Tasmania Fire Service.

Climate Council / 13 November 2019 (2021) *The facts about bushfires and climate change, Climate Council.* Available at: https://www.climatecouncil.org.au/not-normal-climate-change-bushfire-web/ (Accessed: November 19, 2022).

Determination, Director of Building Control –Bushfire Hazard Areas, version 1.2 16th July 2024. Consumer, Building and Occupational Services, Department of Justice, Tasmania.

Dromedary (tas.) (no date) 2021 Dromedary (Tas.), Census All persons QuickStats | Australian Bureau of Statistics. Available at: https://abs.gov.au/census/find-census-data/quickstats/2021/SAL60168 (Accessed: 10 December 2024).

Pyrke, A.F. and Marsden-Smedley, J.B. (2005) 'Fire-attributes categories, fire sensitivity, and flammability of Tasmanian vegetation communities', in *Tasforests*. Hobart, Tasmania: Forestry Tasmania, pp. 44–44.

Standards Australia Limited. (2018). AS 3959-2018 Construction of buildings in bushfire-prone areas (incorporating Amendments Nos 1, 2 and 3). Sydney: SAI Global Limited.

State Fire Management Council (2017) *Tasmanian Vegetation Fire Management Policy*. Hobart, Tasmania: Tasmanian Government.

State Fire Management Council (2023). *Hobart Fire Management Area Bushfire Risk Management Plan 2023*. State Fire Management Council.

Tasmanian Emergency Risk Assessment Guidelines TERAG 2017 VERSION 1.0 Department of Police, Fire and Emergency Management. (n.d.). Available at:

https://d2tv960yzi0spr.cloudfront.net/uploads/2018/10/TERAG-Guidelines-V-1.0-Web.pdf [Accessed 25 Sep. 2024].

# Appendices

# Appendix A: Treatment Plan

Action ID	Action Description	Priority Level	Target Completion Date	Implementation Responsibility	Comment	Progress
BC-BMP 001	Implement Recommendation 1	High	Prior to Council adoption of Bushfire Mitigation Plan	Brighton Council's HFMAC Representative	Fire Risk Consultant's support may be required on a need's basis.	
BC-BMP 002	Implement Recommendation 2	High	Prior to October 2026	Brighton Council's HFMAC Representative or their delegate	Fire Risk Consultant's support may be required on a need's basis.	
BC-BMP 003	Implement Recommendation 3	High	Prior to October 2025	Brighton Council's HFMAC Representative or their delegate	Fire Risk Consultant's support may be required on a need's basis.	
BC-BMP 004	Implement Recommendation 4	High	Prior to October 2025	Brighton Council's HFMAC Representative or their delegate	Fire Risk Consultant's support may be required on a need's basis.	
BC-BMP 005	Implement Recommendation 5	High	Prior to March 2025	Brighton Council's HFMAC Representative or their delegate	None.	
BC-BMP 006	Implement Recommendation 6	Moderate	Prior to October 2026	Brighton Council's HFMAC Representative or their delegate	Identified location (Image 4 of plan) is on private property and will require Council to develop and enter into an agreement with the landowner. Fire Risk Consultant's support may be required on a need's basis.	

	Appendix B: Recommended specifications for static water supplies for firefighting Recommendations for Static Water Supply for Firefighting				
	Element	Recommendation			
А.	Static water supplies	A static water supply: (a) may have a remotely located offtake connected to the static water supply; (b) must be used for firefighting use only; (c) minimum quantity must be 10,000 litres volume of water per tank; (d) must be metal, concrete or lagged by non-combustible			
в.	Fittings, pipework and accessories (including stands and tank supports)	<ul> <li>materials if above ground.</li> <li>Fittings and pipework associated with a firefighting water point for a static water supply must: <ul> <li>(a) have a minimum nominal internal diameter of 50mm;</li> <li>(b) be fitted with a valve with a minimum nominal internal diameter of 50mm;</li> <li>(c) be metal or lagged by non-combustible materials if above ground;</li> <li>(d) if buried, have a minimum depth of 300mm;</li> <li>(e) provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to firefighting equipment;</li> <li>(f) ensure the coupling is accessible and available for connection at all times;</li> <li>(g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length); and</li> <li>(h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and</li> <li>(i) where a remote offtake is installed, ensure the offtake is in a position that is:</li> <li>(i) visible;</li> <li>(ii) accessible to allow connection by firefighting equipment;</li> <li>(iii) at a working height of 450mm – 600mm above ground level; and</li> <li>(iv) protected from possible damage, including damage by vehicles.</li> </ul> </li> </ul>			
C.	Signage for static water connections	The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must: (a) comply with water tank signage requirements within AS 2304; or (b) comply with the Tasmania Fire Service (TFS) Water Supply Signage Guideline.			
D.	Hardstand (A clearly identifiable all-weather surface, providing access and support for a fire brigade pumping appliance during firefighting operations).	A hardstand area for fire appliances must be provided: (a) no more than three metres from the firefighting water point measured as a hose lay; and (b) a minimum width of three metres constructed to the same standard as the carriageway.			

# Appendix B: Recommended specifications for static water supplies for firefighting

Appendix C: Tasmanian State Government Roadside Vegetation Maintenance Guidelines for Bushfire-prone Areas

# BUILDING FOR BUSHFIRE

Roadside Management for Bushfire Risk Mitigation



Roadside management in bushfire-prone areas is an important aspect of community fire safety. Public roadsides in Tasmania are managed by local and state government authorities to maintain public safety. In bushfire-prone areas, good roadside management practices will support firefighter intervention, community safety as well as community recovery after bushfires.

### fire.tas.gov.au

Bushfire Risk Unit GPO Box 1526 Hobart Tasmania 7001 Phone (03) 6166 5544 | bfp@fire.tas.gov.au





# BUSHFIRE RISK MITIGATION OBJECTIVES

The following objectives are relevant considerations for roadside management in bushfire-prone areas.

### 1. Fire prevention

Many bushfires originate from roadside ignitions resulting from human activity. Examples include:

- Arson;
- Discarded cigarettes;
- Power infrastructure failure;
- Vehicles (e.g. exhausts, brakes or wheel bearings);
- The use of machinery; and
- Composting organic materials.

Vegetation management within roadsides can reduce the likelihood of ignitions occurring by reducing the amounts of fine fuels that are available to ignite, by increasing the separation between fuel layers and by increasing the separation between potential ignition sources and the vegetation.

### 2. Fire containment

By modifying the fuel arrangement and quantity within roadside areas, road reserves can function as fuel breaks that slow the spread of bushfire, thereby increasingly the success of suppression efforts.

The effectiveness of road reserves for fire containment depends on factors including fuel type and fire intensity. For example, local roads surrounded by forest are unlikely to be effective in containing fully developed bushfires, even under relatively mild conditions. By comparison, highways with well managed roadsides are more likely to be effective in containing grassfires.

### 3. Road user safety

Public roads facilitate community evacuation and firefighter intervention and are therefore critically important during bushfire emergencies.

Roads can be unsafe when used in smoky conditions and especially if used during the passage of a fire front. As people can only tolerate low levels of radiant heat, being caught on roads during anything other than extremely low intensity fires can have deadly implications. For this reason, public warnings, public education and emergency management all aim to reduce the likelihood of people travelling on roads during the passage of bushfires.

Increasing separation between roads and adjacent unmanaged vegetation will also improve safe emergency access. This is particularly important for places with limited access options.

Bushfires are typically accompanied with high winds that can cause trees or limbs to fall, blocking evacuation routes. Therefore, trees adjacent to and overhanging roads should be assessed for structural integrity, and trimming or felling undertaken where necessary.

### 4. Control lines

Well managed roads and roadside areas can provide a useful resource for fire suppression activities, including direct attack and backburning.

The usefulness of road reserves for this purpose depends on their position relative to the surrounding bush and the assets being protected, the surrounding topography and vegetation type, and the roadside management practices that are in place. For example, public roads along the urban-rural interface may be well placed to provide strategic advantage for firefighters in some contexts. The presence of unmanaged vegetation within the roadside however may be conducive to fire spotting across the road and may also compromise firefighter safety.



### 5. Recovery after fire

Restoring community infrastructure and services in a timely manner is important for recovery after bushfires. Road infrastructure again serves a critical function as it supports access to property and the provision of services. Additionally, there is often other infrastructure present within road reserves (e.g. electricity power poles) that will delay recovery if damaged.

Bushfires can result in some trees becoming unstable and therefore dangerous. Routine audits to identify and remove trees and limbs that are vulnerable to falling on road carriageways and other infrastructure will reduce disruption to road users following bushfire. Providing vegetation management around key infrastructure assets that are located within road reserves may also reduce disruption to the community following bushfire.

# DEVELOPMENT COMPLIANCE

The construction of new roads in bushfire-prone areas, such as new subdivisions, are required to comply with strict design standards for bushfire safety. This includes requirements for vegetation clearances as well as gradients, road width and other minimum criteria. Further information on development requirements can be found on the 'Building for Bushfire' section of the TFS website (www.fire.tas.gov.au).

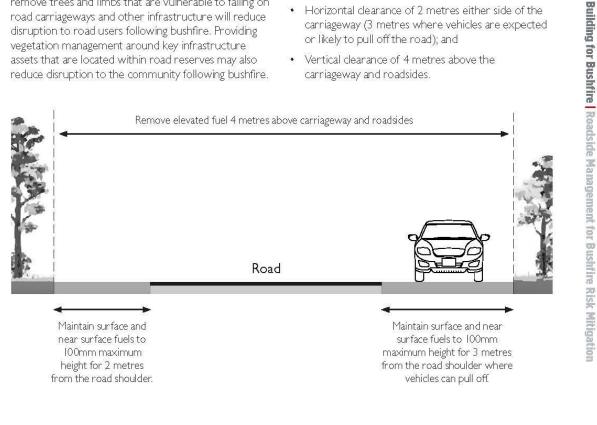
# RISK TREATMENT

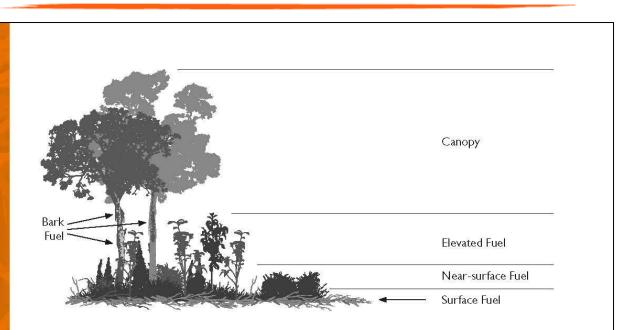
Road asset managers naturally have budget limitations and need to direct resources efficiently and in accordance with identified priorities. Tasmania Fire Service takes the view that road management prescriptions within bushfire-prone areas should be designed with consideration given to the above mentioned objectives, as relevant to the particular context. Importantly, the level of treatment should reflect the level of risk.

Management of roadside areas for the purposes of bushfire risk mitigation generally means reducing the overall fuel loads, breaking up continuity between fuel layers (vertically and horizontally) and increasing separation between the hazard and the road.

At a minimum, vegetation adjacent to roads should be managed to the following standards:

- Horizontal clearance of 2 metres either side of the carriageway (3 metres where vehicles are expected or likely to pull off the road); and
- Vertical clearance of 4 metres above the carriageway and roadsides.





Horizontal clearance is to be achieved by maintaining surface and near surface fuels (such as grasses) to a nominal maximum height of 100 millimetres. Vertical clearance is to be achieved by removing elevated fuels to a height of 4 metres. In some cases a reduced separation may be acceptable if required to retain significant trees, threatened vegetation or because of topographical or infrastructure constraints. In these situations, a horizontal clearance of 0.5 metres should be considered an absolute minimum.

In some contexts additional vegetation removal and maintenance may be warranted to achieve risk mitigation objectives. For example:

- Where access and egress options to a community are limited and evacuation would require travelling through bushland;
- Where a road has extensive vegetation downslope of the carriageway (of a type that is likely to burn);
- Where a road provides access to a nearby safer place or vulnerable use;
- Where there is other infrastructure within a road reserve that is critical to the functioning of a community.

Bushfire risk is of course not the only management objective that requires consideration by road managers. In some cases there may be overlapping benefits that can be achieved, for example where vegetation removal reduces bushfire risk whilst also improving sightlines and supporting weed management. In other cases there may be a need to tailor vegetation management prescriptions to reduce impacts on other values, such as natural values and scenic values.

# IMPLEMENTATION & MAINTENANCE

Vegetation management prescriptions (including minimum widths for managed areas) should be clearly documented with appropriate timeframes and budgets identified for ongoing maintenance.

Ideally roadsides identified for management will be maintained throughout Spring and Summer however seasonal weather variations will naturally affect the timing of works.

The use of machinery and equipment for roadside vegetation management works should comply with the Tasmania Fire Service Machinery Operations Guideline and Total Fire Ban restrictions. Refer to www.fire.tas.gov.au for further information.



4



### fire.tas.gov.au

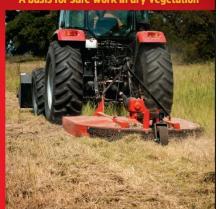
Bushfire Risk Unit GPO Box 1526 Hobart Tasmania 7001 Phone 1800 000 699 (option 5) | bfp@fire.tas.gov.au

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# Appendix D: Tasmania Fire Service - Machinery Operations Guideline, A Basis for Safe Work in Dry Vegetation







This Guideline provides fire safety measures for machinery operations in or near dry vegetation, and specifies criteria for when fire weather conditions warrant stopping machinery operations. This Guideline is endorsed by Tasmania Fire Service as suitable bushfire risk mitigation practices.

1800 000 699 fire.tas.gov.au



### MACHINERY OPERATIONS BAN

The use of certain machinery and practices can be restricted during the **Fire Permit Period** and on days of **Total Fire Ban**. When conditions warrant, Tasmania Fire Service will ban machinery operations with an explicitly worded Total Fire Ban declaration.

### RECOMMENDED MACHINERY OPERATING PRACTICES

IMPORTANT: The following practices should be adopted when using engines, vehicles, equipment or machinery in areas that are within, or in close proximity to dry vegetation and similar combustible materials. If you require further information contact TFS on 1800 000 699.



Plan

- Establish a fire prevention and emergency response strategy for staff, contractors and machinery operators.
- Be aware of potential ignition sources from the machinery being used.
- Adopt a regular maintenance program, both before and during operations, paying particular attention to wearing parts, bearings and engines.
- Aim to ensure machinery is free from faults and mechanical defects.
- Ensure combustible residues on machines are kept to a minimum, especially in areas of high fire risk, such as engines, exhausts and brakes.

### Prepare

- Prior to commencing operations, check the fire weather forecast on the Bureau of Meteorology App or website (born.gov.au).
- Have ready access to telephones and UHF radios.
   Machinery operators should have appropriate firefighting clothing and a plan for the protection of
- Have ready access to operational firefighting
- equipment, such as:
- Fire extinguisher,
- Knapsack, and ideally
- A 250 litre transportable firefighting unit.
- Drive on tracks and park in cleared areas to prevent fires starting from hot exhausts.
- Provide 3 metres clearance around and above stationary machinery or engines, or remain with the equipment while running.

Monitor

- Monitor current weather observations from the Bureau of Meteorology App or website (bom.gov.au).
- Suspend operations when weather reaches the thresholds shown in the Machinery Operations Table
- Monitor fire information and advice through TasALERT (alert.tas.gov.au).

Respond

- If a fire starts phone 000 immediately.
- Attempt to put the fire out if safe to do so.
- In the event of a fire, and if safe to do so without causing additional fires and endangering your own life, locate the machinery to a fuel reduced area, in an attempt to prevent fire spread.

THIS GUIDELINE DOES NOT APPLY TO FORESTRY OPERATIONS

### MACHINERY OPERATIONS TABLE

The table below uses the average wind speed (km/h) for a range of different temperature (°C) and relative humidity (RH%) combinations to decide when machinery operations should cease.

To use the table:

- Obtain the relative humidity (RH%), temperature (°C) and wind speed (km/h) values from the nearest suitable weather station.
- Use the temperature values (rounded up to nearest 5°C) and relative humidity (rounded down to nearest 5%), to work out which is the threshold wind speed in the table.

### If the local wind speed is above the threshold, suspend operations until conditions moderate.

EXAMPLE: Refer to the highlighted areas on the table.

Temperature: 25°C.

Relative Humidity: 17% rounded down to 15%. For this combination of Temperature and Relative Humidity operations should stop when the average wind speed goes above 33 km/h.

		-				
R	-1%	5	10	15	20	25
	15	31	35	38	40	4:
Ö	20	29	33	36	38	40
TEMPERATURE (°C)	25	27	30	33	36	:
MID	30	25	28	31	33	35
APEF	35	23	26	28	31	35
TEN	40	21	24	26	28	30
	45	19	22	24	26	2
RI	1%	5	10	15	20	2.

### Appendix F: Tasmanian Vegetation Fire Management Policy 2017

\*Note: Appendix F is a summary poster for the Tasmanian Vegetation Fire Management Policy, the full policy is available at the <u>www.sfmc.tas.gov.au</u>.



# Tasmanian Vegetation Fire Management Policy

The purpose of the Policy is to enable the safe and effective conduct of vegetation fire management activities on public and private land across Tasmania to achieve a range of community, cultural, agricultural, silvicultural and environmental objectives.



### The Principles and Strategies by which vegetation fire management will occur in Tasmania:

### **Principles**

All stakeholders acknowledge and accept that:

- P-1 Bushfire occurs and will continue to occur in the Tasmanian landscape.
- P-2 Bushfire can be a threat, not only to people and response agencies, but also to the landscape, Aboriginal and other Tasmanian cultural heritage and the Tasmanian economy.
- P-3 A risk management approach will be applied to vegetation fire management in Tasmania.
- P-4 The paramount priority is to protect human life.
- P-5 Other priorities reflect identified community values including the protection of assets, infrastructure, cultural, historical, ecological and environmental values. The order of priority for these other values will be determined in each case using a risk-based approach.
- P-6 Bushfire does not recognise tenure. Consequently, all land owners, occupiers and managers have a responsibility to work cooperatively to manage risk.
- P-7 Fire can be used as an effective tool for vegetation fire management, risk mitigation, ecological management, silvicultural burning and as part of Aboriginal cultural practices.

### Strategies

### All stakeholders agree that:

- S-1 Bushfire risk will be assessed and, where appropriate, managed by actions to reduce the risk of bushfire occurring and/or to reduce the intensity and impact of bushfires when they do occur.
- S-2 In a bushfire emergency, all stakeholders will unite in their efforts to protect human life and to protect other values.

### Vegetation fire management activities will:

S-3 Aim to achieve outcomes identified by a science-based, risk management approach.

S-4 Apply across tenures and jurisdictions and will take a landscape approach.

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#### Organisations conducting vegetation fire management activities will:

- S-5 Share responsibility by involving stakeholders in planning
- and decision-making processes. S-6 Ensure that communities play an active role in fuel magnetic and are ensured educated, and supports
- management and are engaged, educated, and supported to contribute to effective bushfire management activities 5-7 Actively engage with and consider the values of affected stakeholders.

#### Decisions about vegetation fire management will:

- S-8 Be process-based and undertaken in good faith.
- S-9 Apply a risk-based approach in accordance with AS/NZS ISO 31000:2009 Risk Management Principles and Guidelines, National Emergency Risk Assessment Guidelines (NERAG) and Tasmanian Emergency Risk Assessment Guidelines (TERAG).
- 5-10 Be informed by evidence, research and contemporary practices to promote adaptability and continuous improvement.
- S-11 Seek to preserve and/or strike a balance between identified community values.

### All stakeholders in vegetation fire management

- activities will: S-12 Collaborate and cooperate, including by appropriate sharing of information and resources.
- S-13 Act in good faith.

#### Responsibility

R-1 The organisation conducting a vegetation fire management activity is responsible for ensuring that the Principles and Strategies are applied and for determining how to apply the Principles and Strategies in the context of the activity.

