



Clarence City Council

**Bushfire Mitigation Strategy
2024 - 2034**



Clarence... a brighter place

Clarence City Council
Bushfire Mitigation Strategy 2024 - 2034

Version control

Version	Release date	Prepared by	Changes
1.0	1997	Rob Friend & Associates and Phoenix Fire Management	First strategy developed
2.0	July 2004	AVK Environmental Management and Renaissance Forestry (IFERM Pty Ltd)	Review of Strategy and Bushfire Management Plans
2.1	November 2005	AVK Environmental Management	Annual review of Strategy implementation
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Acknowledgement and endorsement

Strategy noted by Hobart Fire Management Area Committee (HFMAC):	{COUNCIL TO FILL IN ONCE NOTED BY FMAC}
Revised Strategy adopted by Council:	{COUNCIL TO FILL IN ONCE ADOPTED BY COUNCIL}

Acknowledgement of Country

Clarence City Council pays respect to all First Peoples, including the Mumirimina (mu mee ree mee nah) of the Oyster Bay Nation whose unceded lands, skies, and waterways we are privileged to conduct our business on. We pay respect to Elders past and present, and we acknowledge the survival and deep spiritual connection of the Tasmanian Aboriginal People to their Country, and culture; a connection that has endured since the beginning of time.

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Front cover: Hazard management area on the peri-urban interface – Glebe Hill Bushland Reserve, TAS (Source: Fire Risk Consultants)

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Glossary

To promote the use of common terminology, the Australasian Fire and Emergency Services Authority Council (AFAC) Bushfire Glossary will be used as reference in this strategy.

Term	Meaning
AS 3959 – 2018 Construction of building in bushfire-prone areas	This Standard 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).
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.
Asset Protection Zone (APZ)	An area adjacent to or near Asset Zones, the primary management purpose of which is to protect human life, property and highly valued assets and values. Treatment can include intensive fuel reduction, manipulation of fuel moisture or response plans.
Australasian Fire and Emergency Services Authorities Council (AFAC)	The peak representative body for fire, emergency services and land management agencies in the Australasian region. It develops and promotes national standards for the fire industry.
Bushfire	Unplanned vegetation fire. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.
Bushfire attack	Attack by wind, burning embers, radiant heat or flame generated by a bushfire.
Bushfire Attack level (BAL)	The BAL scale is that used within Australian Standard 3959-2018. The BAL determines the level of risk to life and potential for building loss or damage resulting from bushfire.
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	An area that is subject to, or likely to, bushfire attack.
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.
Control	A measure that modifies risk. This may be an existing process, policy, device, practice, or other action that acts to minimise negative risk or enhance positive opportunities.
Cultural fire	Fire deliberately put into the landscape authorised and led by Traditional Custodians 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.

Term	Meaning
Cultural heritage	Encompassing both Aboriginal and European heritage values both statutory and non-statutory.
Ecological burning	A specialised form of prescribed burning. that targets a particular vegetation community or species in a nominated area to achieve specified ecological objectives such as to maintain, regenerate and increase plant species diversity, as well as to manage habitat for native animals.
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.
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 building and the bushfire-prone vegetation that 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 that 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
BMP	Bushfire Mitigation Plan
BMS	Bushfire Mitigation Strategy
BRMP	Bushfire Risk Management Plan
FDR	Fire Danger Rating
FMA	Fire Management Area
FMAC	Fire Management Area Committee
LGA	Local Government Area
NRE	Department of Natural Resources and Environment Tasmania
PWS	Parks and Wildlife Service
SFMC	State Fire Management Council
TASVEG	Comprehensive digital map of Tasmania's vegetation
TERAG	Tasmanian Emergency Risk Assessment Guidelines

Acronyms

TFS	Tasmania Fire Service
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Executive Summary

Clarence City Council Bushfire Mitigation Strategy 2024-2034 Review

Bushfire Consultants were engaged to review council's bushfire planning framework, including council's Bushfire Mitigation Strategy, Reserve Bushfire Mitigation Plans, and develop a Bushfire Policy for council managed land. As approximately 78% of the city of Clarence is mapped as bushfire-prone, the likelihood is high for the municipality to be impacted by bushfire. A key purpose of the project was to ensure council's bushfire planning framework is aligned with regional priorities, the most up to date Tasmanian State Government bushfire risk policy and frameworks, and legislative requirements.

Reducing Bushfire Risk

The aim of council's bushfire planning framework is to reduce bushfire risk and impacts in priority bushfire-prone areas under council control whilst contributing to a coordinated approach centralised through the Hobart Fire Management Area Committee.

The two primary objectives of council's bushfire planning framework are:

1. 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, and
2. To maintain or improve the resilience of natural ecosystems and their ability to deliver services such as biodiversity, water, and carbon storage.

Council's Bushfire Policy

The new policy provides guidance and framework to assist council in reducing bushfire risk to human settlement areas whilst promoting and maintaining natural and cultural values. The policy applies to any bushfire-prone area managed by council as identified on a planning scheme code overlay.

Council's Bushfire Mitigation Strategy

This is the sixth review of council's Bushfire Mitigation Strategy which applies a risk-based approach to align with AS/NZS ISO 31000:2018 Risk Management Principles and Guidelines, and the Tasmanian Emergency Risk Assessment Guidelines (TERAG) as well as State and National bushfire risk policy and frameworks.

Council's Reserve Bushfire Mitigation Plans

Bushfire Mitigation Plans (BMP) focus on addressing bushfire hazards and improving the protection of communities, assets, and biodiversity. BMPs identify key areas for fuel management and provide tactical guidance regarding planned burning, fire trails, fuel breaks, hazard management areas, as well as built and green asset protection work. Fourteen BMPs were reviewed and four new BMPs were developed including Single Hill Bushland Reserve, Carbeen Bushland Reserve, Mays Point Coastal Reserve and Brinktop Bushland Reserve.

Each BMP uses both planned burning and mechanical treatments as tools to assist with reducing bushfire risk, Aboriginal cultural purposes, natural values conservation, and weed control.

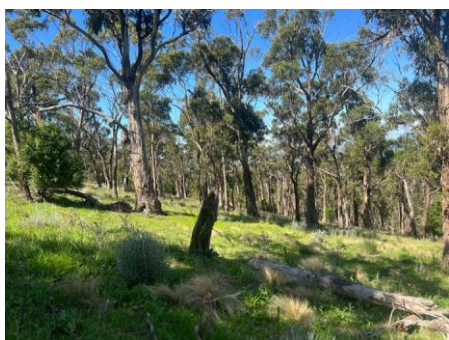
Engagement Process

Development of the Strategy included a series of face-to-face engagement sessions with key stakeholders, including a number of senior Tasmania Fire Service staff. As part of the council endorsement process, the draft strategy and BMPs will be released for community consultation and go to the Hobart Fire Management Area Committee (HFMAC) for review and noting.

Recommendations

Key recommendations of the Strategy include:

- Implementing a staged training program to provide core staff with recommended nationally accredited qualifications.
- Undertaking condition assessments of council's fire trails.
- Developing a fire specific vegetation monitoring program.
- Appointing a Bushfire Planner to deliver the Strategy.
- Implementing small scale Traditional burning through developing partnerships with Traditional Knowledge Holders.



1 Introduction

Bushfire has been a constant and natural phenomenon in Australia for many thousands of years. South-eastern 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 78% of the city of Clarence is identified as bushfire-prone under the Tasmanian Planning Scheme - Clarence, meaning the likelihood is high for the municipality to be impacted by bushfires 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.

1.1 Strategy objectives

In alignment with the Tasmanian Vegetation Fire Management Policy principles (Appendix C), the two primary objectives of this strategy are:

1. 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, and
2. To maintain or improve the resilience of natural ecosystems and their ability to deliver services such as biodiversity, water, and carbon storage.

1.2 Strategy implementation and responsibility

The primary responsibility for overseeing the implementation of the strategy sits with council's Hobart FMAC Representative (Section 2.2.2 & Section 2.4.1). This includes identifying and addressing barriers to the implementation of risk mitigation activities and associated engagement tasks (Section 4.5) within the strategy and reserve BMPs.

1.2.1 Strategy Implementation Plan

This strategy includes a detailed Implementation Plan (Table 4 in Section 5). The Implementation Plan contains recommendations detailing how council will implement the strategy throughout its ten-year lifecycle. To ensure successful implementation of the strategy all recommendations within the Implementation Plan should be actioned within the specified timeframes. The responsibility for each recommendation sits with council's Hobart FMAC Representative, or their delegate.

The Implementation Plan should be reviewed at three-yearly intervals in alignment with the strategies review cycle (Section 6). Regular reviews will allow both documents to be adaptively managed as intended.

2 Establishing the context

The city of Clarence sits within the Hobart Fire Management Area (FMA) which encompasses approximately 110,000^{ha} including the Local Government Areas (LGA) of Brighton, Glenorchy, Hobart, and parts of Kingborough and Derwent Valley. The Hobart FMA has two very distinct geographical features; firstly, the area is bisected by the river Derwent, and secondly the Wellington Range borders many Hobart suburbs to the west, creating a long urban/bush interface (State Fire Management Council, 2020).

2.1 Description of the city of Clarence

The city of Clarence is in southern Tasmania on Hobart's eastern shore, 5km east from the Hobart CBD. The city of Clarence covers 37,800^{ha} with an approximate population of 61,531 and 25,855 private dwellings (November 2022). The city is bounded to the west by the River Derwent, the north by the LGAs of Brighton, and Southern Midlands, to the east Frederick Henry Bay (water body) and the LGA of Sorell, and to the south

Storm Bay (water body). The city of Clarence includes dense built-up residential areas, and large areas of rural residential developments >1^{ha} with no residential/bushland boundary.

The city of Clarence has several distinctive geographical features including the South Arm Peninsula (approximately 5700^{ha}) which is bordered by water, and the Meehan Ranges which runs north to south from the suburbs of Brighton to Lauderdale with an elevation up to 540m above sea level.

2.1.1 Aboriginal cultural heritage

lutruwita is the country of Tasmanian Aboriginal people, Tasmania's Aboriginal cultural heritage provides a spiritual connection for Tasmanian Aboriginal people today and valuable information about one of the oldest living cultures in the world.

Aboriginal cultural heritage is the tangible and intangible legacy of Tasmania's Aboriginal people. It refers to those places, objects and traditions that have been passed down from past generations. It also includes intangible places where there may be no physical evidence of past cultural activities. These include places of spiritual or ceremonial significance or trade and travel routes (Aboriginal Heritage Tasmania, 2022).

Aboriginal Heritage Tasmania must be consulted during the planning stages of recommended treatments within BMPs (Section 4), and where applicable, consideration must be given to known Aboriginal cultural heritage sites.

2.1.2 European cultural heritage

Clarence Plains was an early and important settlement in Tasmania; its early history being intertwined with that of the Hobart region. It encompassed almost all the area of the present-day city of Clarence (first declared a municipality in October 1860) with the exception of Richmond (Andrew, 2008). When planning treatments to reduce bushfire risk, consideration must be given to known European heritage sites and managed accordingly.

2.1.3 Vegetation

Much of the city of Clarence has been cleared for urban development and agriculture. The remaining 40 per cent of native vegetation communities include dry eucalypt forests and woodlands, grasslands, saltmarsh, dry scrub, heathlands, wet sclerophyll and mixed forest. Much of the wet forest is small remnant patches on south facing slopes.



2.1.4 Biodiversity values

The rich biodiversity of the city of Clarence's bushland and coastal areas includes a wide range of habitat including coastal ranges, linked by narrow riparian habitat corridors to ribbons of coastal plains, dunes, salt marshes and foreshores. Biodiversity contributes significantly to the city of Clarence's ecosystem processes and forms the fabric of the community who hold a strong interest in protecting and managing the natural values of the city. Successful implementation of this strategy should assist with the maintenance and/or improve the resilience of the city of Clarence's important natural ecosystems.

2.1.5 Climate and rainfall

The Australian climate is generally hot, dry, and prone to drought. In the southeast, occasional strong winds often associated with summertime cold fronts can lead to elevated fire danger. The amount of rain in preceding months affects the amount of dry grasses. If good spring rains have resulted in abundant plant growth, late summer grass fires can be intense. Many of Australia's native plants burn easily, eucalypts high oil content makes them particularly fire prone (Bom.gov.au, 2018).

Rainfall varies considerably throughout Greater Hobart (1600mm per year on the summit of Mt Wellington to less than 500mm per year at the Hobart Airport) resulting in a highly variable fire season with some areas being able to sustain fire for many months of the year. Due to this, the length of the fire season can range from October through to April in areas of lower rainfall and from December to March in areas of higher rainfall and wetter vegetation types (State Fire Management Council, 2020).

2.1.6 Australian Fire Danger Rating System

Fire danger ratings (Figure 1) predict and describe the potential level of danger should a bushfire start. These are important because they provide the information to take action to protect yourself and others from the potentially dangerous impacts of bushfire. They also provide emergency services with information that supports decision making (Australian Fire Danger Rating System, 2022).

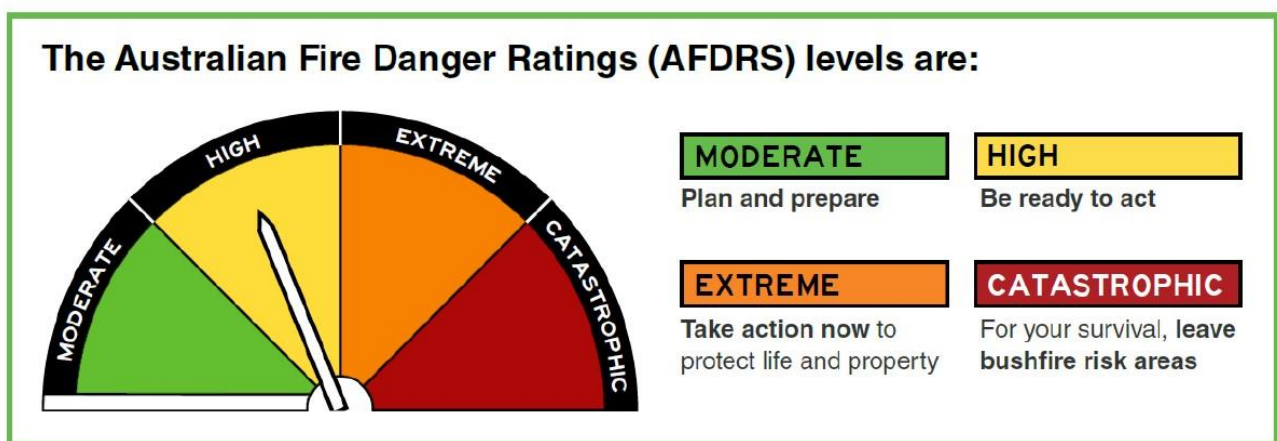


Figure 1: Australian Fire Danger Rating System
(Source: <https://afdrs.com.au/>)

2.2 Tasmanian bushfire risk reduction framework

Reducing the risk to life and property is the overriding priority in this strategy as it is in all bushfire plans. The Tasmanian Vegetation Fire Management Policy is a statutory policy, prepared by the State Fire Management Council and provides overarching direction and principles (Appendix C) on how bushfire risk should be treated within Tasmania. This sixth strategy revision further aligns the strategy with the current bushfire risk mitigation framework (Figure 2) used in Tasmania at time of review.

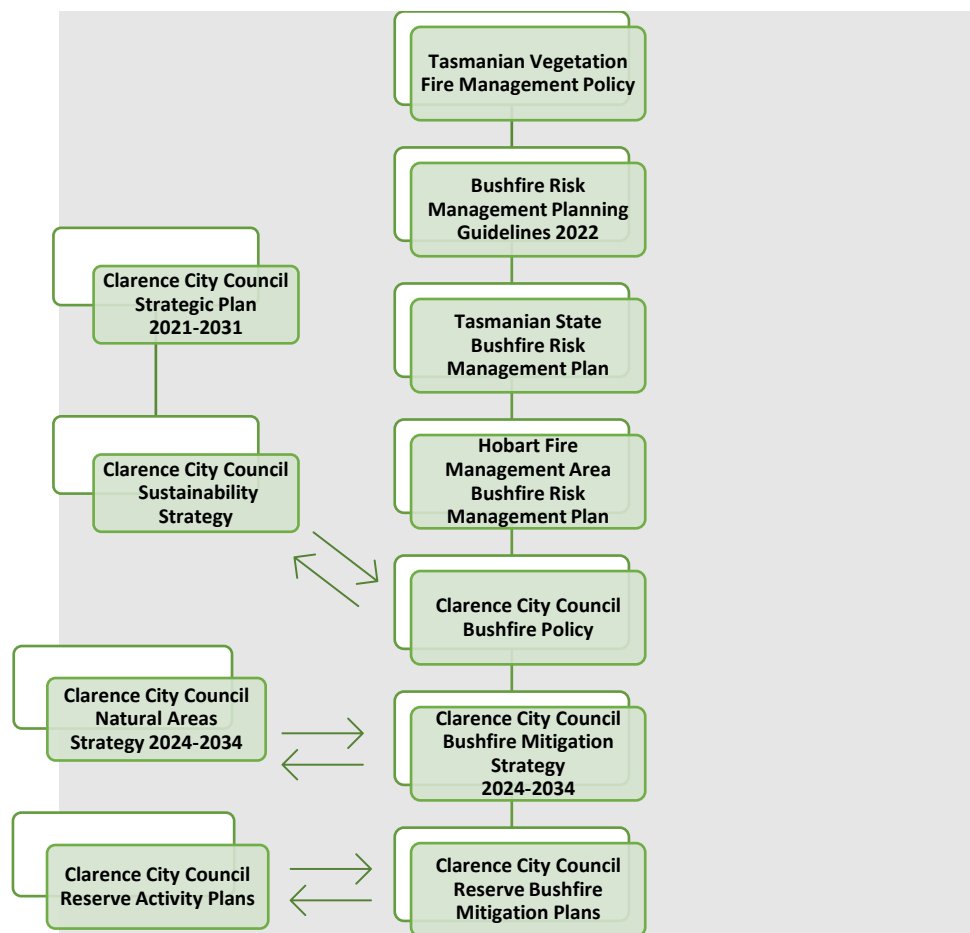


Figure 2: Council's bushfire risk reduction planning framework

2.2.1 Hobart Fire Management Area Bushfire Risk Management Plan

The [Hobart FMA Bushfire Risk Management Plan](#) identifies priority areas for treating bushfire risk within the Hobart FMA (including the city of Clarence). The plan is developed by the Hobart Fire Management Area Committees (FMAC) as required under Sections 18 and 20 of the *Fire Service Act 1979* and is reviewed three-yearly by the Hobart FMAC.

2.2.2 Hobart Fire Management Area Committee

There are ten FMACs within Tasmania that are coordinated by the State Fire Management Council. As with all FMACs, the Hobart FMAC provides a forum for effective bushfire risk management through a consistent, comprehensive, and collaborative approach. The principal aim of the Hobart FMAC is to bring together the various stakeholders that manage land use across the Hobart FMA and work together to effectively manage vegetation fuels for the mitigation of bushfire risk. Council is required under Section 18 of the *Fire Service Act 1979* to have a representative sit on the Hobart FMAC. Council's representative also has the responsibility to report to the Hobart FMAC twice yearly on the progress of implementing treatments identified within the Hobart FMA Bushfire Risk Management Plan relevant to council managed land.

2.3 Council's bushfire risk reduction planning framework

Council's bushfire risk reduction planning framework (Figure 2) includes a Bushfire Policy (Section 2.3.1), a Bushfire Mitigation Strategy, and a series of Bushfire Mitigation Plans (Section 2.3.2).

2.3.1 Council's Bushfire Policy

Council's Bushfire Policy provides guidance and framework for council's Bushfire Mitigation Strategy, Bushfire Mitigation Plans, and council's day-to-day bushfire risk mitigation actions. It provides guidance and framework for council to mitigate the impact of bushfire to human settlement areas, loss of life and natural ecosystems within the city of Clarence and subsequently the Hobart FMA. The policy must undergo regular reviews to ensure alignment with the most up to date Tasmanian State Government bushfire risk policy and frameworks.

2.3.2 Council's Bushfire Mitigation Plans

Bushfire Mitigation Plans (BMP) are tactical level planning documents that focus on addressing bushfire hazards and improving the survivability of communities and assets. Council's BMPs identify key areas for fuel management, and provide tactical guidance regarding planned burning, fuel management, fire trails, fuel breaks, hazard management areas, and asset protection work. BMPs function for a five-year period with a review to be implemented at year four. Triggers for reviews to take place less than this are noted in Section 6.

Council has eighteen individual BMP (Table 1) for bushfire-prone areas managed by council, this sixth Strategy review includes the addition of Carbeen Bushland Reserve BMP (Mornington), Mays Point Coastal Reserve (Lauderdale and Sandford), Single Hill Bushland Reserve (Acton Park, Roches Beach, and Seven Mile Beach), and Brinktop Bushland Reserve (Richmond):

Reserve	Locality	Size (ha)
Bedlam Walls Bushland Reserve	Geilston Bay	15
Brinktop Bushland Reserve	Richmond	2.6
Carbeen Bushland Reserve	Mornington	1.5
Canopus-Centauri Bushland Reserve	Mount Rumney	7
Glebe Hill Bushland Reserve	Howrah	19
Lauderdale Saltmarsh Reserve	Lauderdale	122
Mays Point Coastal Reserve	Lauderdale, Sandford	5
Mortimer Bay Coastal Reserve	Sandford	54
Natone Hill Bushland Reserve	Lindisfarne	42
Pilchers Hill Bushland Reserve	Geilston Bay	130
Roches Beach Coastal Reserve, Nowra Bushland Reserve & Single Hill Bushland Reserve	Acton Park, Roches Beach, Seven Mile Beach	54
Rokeby Hills Bushland Reserve	Howrah, Rokeby	40
Roscommon Reserve	Lauderdale	117
Rosny-Montagu Bay Coastal Reserve	Rosny	15
Rosny Hill Nature Recreation Area	Rosny	22
Seven Mile Beach Coastal Reserve	Seven Mile Beach	31
Waverley Flora Park	Bellerive, Mornington	82
Wiena Bushland Reserve	Lindisfarne	3

Table 1: Bushfire Mitigation Plans managed by Clarence City Council

2.3.3 Tasmania Fire Service Community Protection Planning

The Tasmania Fire Service (TFS) also has community protection planning documents for the city of Clarence that have been considered in this strategy. These include Bushfire Response Plans, Bushfire Protection Plans, and BMP which are all available through the TFS website www.fire.tas.gov.au.

2.4 Relationships with other planning - Tasmanian Planning Scheme – Clarence, Bushfire-prone Areas Code

Under the Tasmanian Planning Scheme – Clarence, the city of Clarence includes a Bushfire-prone Area Code that includes a Bushfire-prone Areas Overlay. 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.

2.4.1 Statutory responsibilities

As an occupier of land council has duties under the *Fire Service Act 1979* to take diligent steps to prevent any fire lit on its property during a fire permit period from spreading. Council is not a fire response agency and diligent steps may be considered as the formation of fuel breaks, hazard management areas, the provision of fire trails, and planned burning.

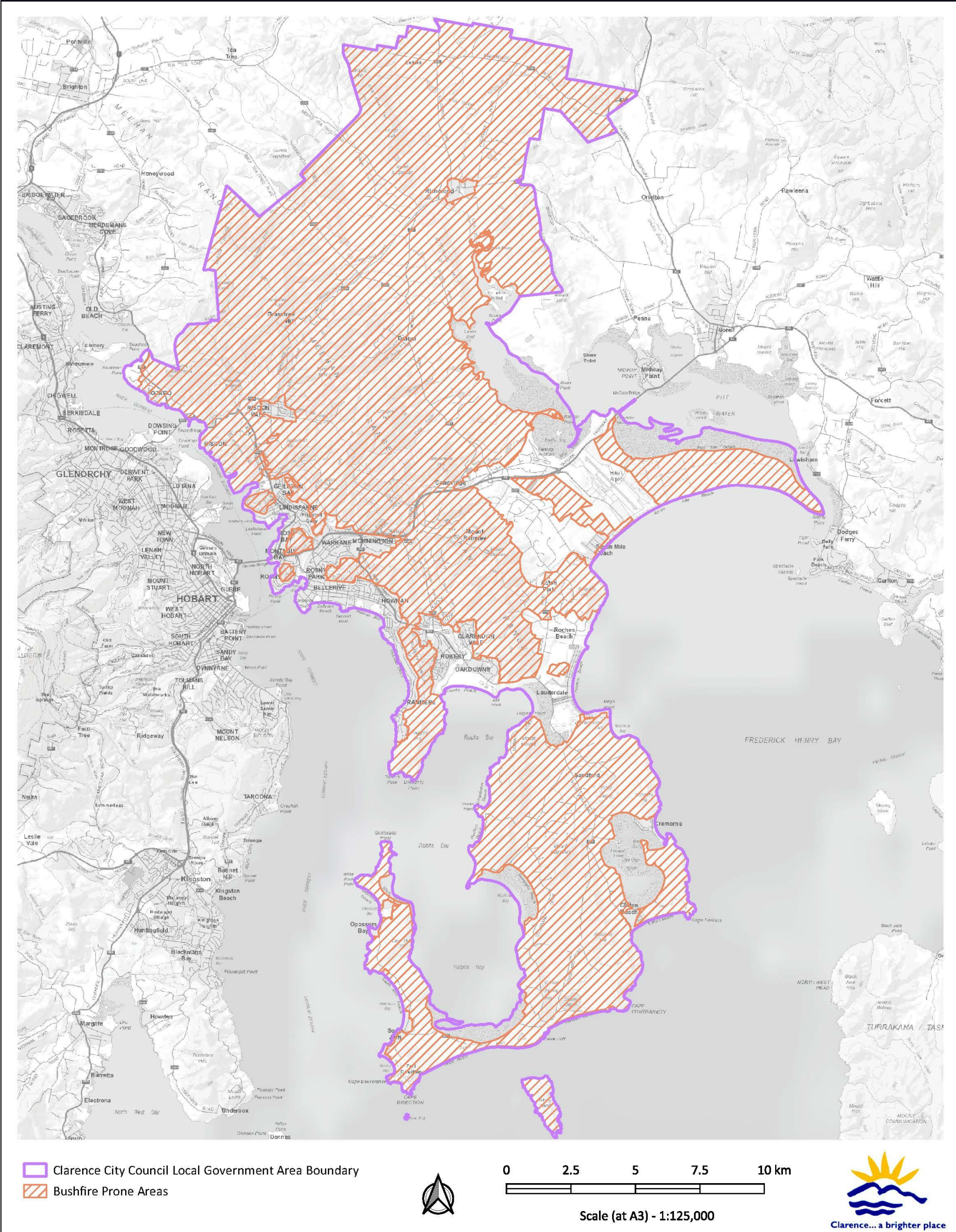
As well as the duties that apply to occupiers of land, council has several specific powers and obligations under the *Fire Service Act 1979*. These include, but not limited to:

- to nominate a representative to sit on the Hobart FMAC (Section 18)
- to cause the formation in its municipal area of such fire breaks as it considers necessary or desirable to arrest the spread, or to facilitate the suppression of fires (Section 56)
- to contribute towards the operating costs of fire brigades (Sections 77A to 95).

Council also has specific responsibilities under various Acts of Parliament for bushfire mitigation, bushfire hazard abatement, and the conservation and management of native flora and fauna. These Acts include, but not limited to:

- *Aboriginal Heritage Act 1975*
- *Biosecurity Act 2019*
- *Environmental Management and Pollution Control Act 1994*
- *Environmental Management and Pollution Control (Smoke) Regulations 2019*
- *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*
- *Environment Protection Policy (Air Quality) 2004*
- *Forest Practices Act 1985*
- *Forest Practices Regulations 2007*
- *Historical Cultural Heritage Act 1995*
- *Local Government Act 1993*
- *Local Government (Building and Miscellaneous Provisions) Act 1993*
- *Mineral Resources Development Act 1995*
- *Nature Conservation Act 2002*
- *State Policy on Water Quality Management 1997*
- *Threatened Species Protection Act 1995*
- *Work Health and Safety Act 2012*
- *Work Health and Safety Regulations 2012.*

Clarence City Council - Bushfire-Prone Areas



This map has been produced by Clarence City Council using data from a range of agencies, including base data from theLIST. CCC bears no responsibility for the overall accuracy of this information, and accepts no liability for its use by other parties.

19/5/2023

Figure 3: Bushfire-prone areas within the city of Clarence

3 Identifying, analysing, and evaluating bushfire risk

3.1 Risk statement

A bushfire impacting the city of Clarence will impact flora and fauna and may result in deaths or injuries/illness. This may require recovery works to be undertaken by council, impacting the ability to maintain core services and incur significant financial losses.

3.2 Identifying bushfire risk

3.2.1 *Bushfire weather*

High risk fire weather can be expected from time to time in southern Tasmania when dry winters and springs are followed by summers where fuels are very dry. The strong north-westerly winds that often precede cold fronts in summer can contain dry air from the interior of the Australian mainland.

These winds pick up some surface moisture crossing Bass Strait, but as the air stream descends from the Central Highlands dry air at a higher altitude descends to the surface resulting in extremely low humidity. This combination of strong winds and low humidity creates the ideal meteorological conditions for major bushfires in south-east Tasmania and particularly the Hobart FMA (State Fire Management Council, 2020).

3.2.2 *Climate change*

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, days suitable to undertake fuel reduction burning decreases significantly.

3.2.3 *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. These mechanisms are:

- Smoke
- wind
- embers
- radiant heat
- direct flame contact.

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

The Australian Standard 3959 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).

3.3 Analysing and evaluating bushfire risk

3.3.1 *Hobart Fire Management Area bushfire risk*

The Hobart FMA Bushfire Risk Management Plan uses a standard risk assessment process to determine priority areas to reduce bushfire risk in. This process follows the Tasmanian Emergency Risk Assessment Guidelines and the Bushfire Risk Management Planning Guidelines.

The Hobart FMA Bushfire Risk Management Plan includes a risk register identifying what values and assets are at risk from bushfire within the Hobart FMA, effectiveness of existing controls to reduce risk, a risk level, and a priority ranking for treatment to be put in place to reduce risk. Priority rankings are based on risk ratings and likelihood calculated across the entire state.

The three key factors that contribute to bushfire risk are weather, vegetation, and terrain.

3.3.2 City of Clarence bushfire risk

Bushfire risk levels for human settlement areas within the city of Clarence are summarised in Table 2. Risk levels have been collated from the Hobart FMA Bushfire Risk Management Plan's Risk Register and are based on most current risk modelling in November 2022.

Bushfire risk measures how bushfire impacts change in response to fuel reduction from planned burns and bushfires, therefore three-yearly reviews (Section 6) of this strategy are essential to ensure human settlement areas identified within Table 2 are ranked the most current and appropriate level of risk.

Human Settlement Area	Risk Level
Bellerive, Cambridge, Geilston Bay, Howrah, Lindisfarne, Mornington, Mount Rumney, Pilchers Hill, Risdon Vale, Rokeby, Warrane	High
Acton Park, Clarendon Vale, Clifton Beach, Downhams Hill, Dulcot, Grasstree Hill, Lauderdale, Opossum Bay, Roches Beach, Rosny, Sandford	Medium
Barwicks Rock, Beauvais Hill, Brinktop, Collins Springs Hill, Cremorne, Gathering Bush Hill, Hanslows Road, Honeywood Drive, Mount Mather, Mount Pleasant, Otago, Richmond, Seven Mile Beach, South Arm, Tranmere	Low
Calverts Hill, McKays Hill	Very low

Table 2: City of Clarence bushfire risk

3.3.3 City of Clarence bushfire history

Bushfire has and always will play a constant role within the city of Clarence's landscape and ecology. Table 3 identifies significant bushfires that have impacted the city over the last 50 years. Individual BMPs (Table 1) list and explain smaller scale more localised bushfire events relevant to each BMP.

The Hobart FMA has a long history of significant bushfires. Most notable of these were the Black Tuesday Bushfires of February 7th, 1967, which burned over a third of the Hobart FMA in a single day. More recently, the 1998 Ridgeway fire, 2006 Meehan Range fire and 2013 Glenlusk, Molesworth and Risdon Vale fires all burned significant areas.

In relation to fire cause in the Hobart FMA most fires are either undetermined or unknown (44%), followed by arson (29%) and fire from recreation activities (8%) (State Fire Management Council, 2020).

Bushfire events such as the 1967 Black Tuesday Bushfires and the 2013 Dunalley fires disrupt the social fabric that creates communities, the collective trauma from such events challenge community norms, values and rituals that create social order and unsettle ties that bind community members together.

After such events, mental health professionals and community organisations are needed, and play a crucial role in providing support. They can empower people to identify and meet their basic needs and promote a sense of safety and social connectedness. Psychological First Aid and Mental Health First Aid are often tools used to build resilience, enhancing empowerment, and breeding hope (AIFS, 2022).

Economically, the impacts from the 2013 Dunalley fires were very significant with an estimated 100 businesses directly affected and 150 indirectly affected. The two largest employers in the Dunalley region, a timber business and abalone business, experienced losses which caused significant impacts on the local region and economy. Electricity company, Aurora, reported approximately 300 electricity poles were destroyed on the Tasman Peninsula, causing power outages for a considerable time. A 2013 inquiry into the Dunalley bushfire and other bushfires in the area estimated their overall financial cost was

approximately \$100 million (*Bushfire - Dunalley, Tasmania 2013: Australian disaster resilience knowledge hub*).

The impact of climate change (Section 3.2.1 & 3.2.2) is contributing to longer, more intense fire seasons through an increase in the average number of days where fire behaviour can be dangerous to an unprecedented amount. For council, preparation to manage social recovery from future bushfires is critical to minimise risk, potential damage, financial loss and building community resilience.

Year	Location	Approximate Area Burnt (ha)	Deaths
1967	Greater Hobart	264,270	62
1993	Coal Valley/Richmond	2,400	0
2006	Meehan Range	800	0
2013	Risdon Vale/Meehan Ranges/Richmond/Cambridge	500	0

Table 3: City of Clarence significant bushfire history 1967 - 2022

4 Treating Council's bushfire risk

4.1 Treatment Plans - Reserve Bushfire Mitigation Plans

Each reserve BMP (Table 1 & Section 2.3.2) includes a Treatment Plan. Treatment Plans are tactical level planning documents that summarise recommended works specific for each BMP with the objective to reduce both localised bushfire risk (Table 2), Hobart FMA risk, or enhance biodiversity. Recommended works include, but are not limited to planned burning, fire trail maintenance/upgrade, fuel break installation/maintenance, and hazard management area installation/maintenance.

Recommended treatments within Treatment Plans require detailed operational planning by competent and accredited practitioners.

4.2 Planned burning

Planned burning has played an important role in the *lutruwita*/Tasmanian landscape for thousands of years by the Tasmanian Aboriginal people, the landscape today reflects their burning practices. Planned burning decreases bushfire risk by reducing fuel hazards and enhances ecosystem management. However, planned burning needs to be undertaken in conjunction with a wide range of risk management strategies, including public education, effective training of personnel (Appendix A), along with appropriate management of ecological values (Marsden-Smedley 2009).

Planned burning regimes within BMP Treatment Plans are based on tolerable fire intervals for TASVEG communities and should cater for the needs of most species within vegetation communities. Burning outside tolerable fire intervals may be required to reduce bushfire hazard, to achieve conservation outcomes or for Aboriginal cultural purposes. Minimum tolerable fire intervals should not be interpreted as the point at which vegetation communities require burning. Ideally the interval between a series of planned burns applied to an area should vary within the minimum-maximum tolerable fire intervals range for the vegetation communities present (Natural Resources and Environment Tasmania, 2021).



*Image 2: Fuel reduction burn located within Hobart Fire Management Area
(Source: Fire Risk Consultants)*

4.2.1 Traditional burning

Tasmanian Aboriginal people used fire as a tool for several purposes for thousands of years. Like today, fire was used as a heat source for cooking and keeping warm, but fire also played an important role in travel, hunting, communication, burial practices and land management.

At certain times of the year, Tasmanian Aboriginal people set fire to the bush to encourage new growth and prevent scrub from taking over. The fires they used were small-scale cool fires. Cool burning is a practice where the fire burns at a much lower heat intensity than a bushfire or a modern large scale fuel reduction burn. This practice was used to prevent bushfires and manage hunting grounds through clearing areas of the ground to enable smoother travel for people and make it easier to hunt animals (Aboriginal Heritage Tasmania, 2022).

4.2.2 Smoke management and council's planned burns

It is important that smoke generated from council's planned burns is managed in a manner that reduces potential impacts on public health and amenity. Low altitude smoke may reduce visibility, impact human health, and create a general nuisance.

Smoke from council's planned burns should be managed to minimise affecting population centres and other sensitive areas by a combination of strategies including, but not limited to:

- Scheduling burning in periods in which meteorological conditions will assist in the dispersion of smoke.
- modifying burn prescriptions to minimise smouldering of partly consumed fuels.
- strategic timing and location of burns when and where possible.

4.2.2.1 Smoke management and vineyards

Grapevines that are exposed to fresh smoke during fruit set may be at risk of producing a wine that is affected by smoke taint. The density of smoke, exposure time and proximity to the fire are critical factors

involved. The risk of smoke taint begins rising from fruit set (December) and increases to high risk after the grapes ripen (February) through to the end of harvest (usually May but varies by each season and location) (Wine Tasmania, 2018).

Council will use a proactive approach to planned burning activities around vineyards and consult early, consistently, and regularly with vineyards relating to autumn burns.

4.2.3 Weed management.

The *Biosecurity Act 2019* and the associated *Biosecurity Regulations 2022* are the principal legislation concerned with the management of declared weeds in Tasmania. The *Clarence Weed Strategy 2016-2030* provides the strategic direction for the prioritisation of weeds and objectives relating to strategic weed management.

Many weed species respond vigorously to disturbance including fire. Fire and ecological burning can be used as part of the integrated management of weeds in bushland reserves. Fire can be used to open dense stands of weeds to allow access, reduce weed biomass and to stimulate the germination of the weed seedbank. Any use of fire for ecological burning, hazard reduction and weed control needs to be integrated with monitoring and follow-up treatment (e.g. hand pulling, herbicide spraying, cut and paint) to ensure that it is effective and does not contribute to increased dominance and spread of weed species in those areas (Dewey et al 1995).

Good machinery, equipment and vehicle hygiene and appropriate timing of works is essential to ensure that bushfire mitigation treatments (burning, slashing, fire trail maintenance) do not introduce new weeds into a reserve or contribute to the spread of existing weeds within the reserve.

4.3 Mechanical risk reduction

4.3.1 Hazard management areas on Council land

A hazard management area (Figure 4) is an area of defendable space around a dwelling or other habitable building that provides access to a fire front for firefighting. Hazard management areas are maintained in a minimal fuel condition with no other hazards present that will significantly contribute to the spread of a bushfire.

Some hazard management areas on council land have historically been a requirement as part of the statutory planning process, however it is council's position now that for all developments adjoining council land or involving new public open space that bushfire management requirements (e.g. hazard management areas) are to be managed on the private property.

The size of a hazard management area and the distance to the bushfire-prone vegetation has a direct bearing on the Bushfire Attack Level (BAL) and must be determined by an Accredited Bushfire Hazard Practitioner.

Council will review and where reasonably practicable ensure that the prescribed minimum width of a hazard management area on Council land is no less than that required for BAL-29 rated development to be achieved on the lot once the owner of the lot has undertaken their best efforts.

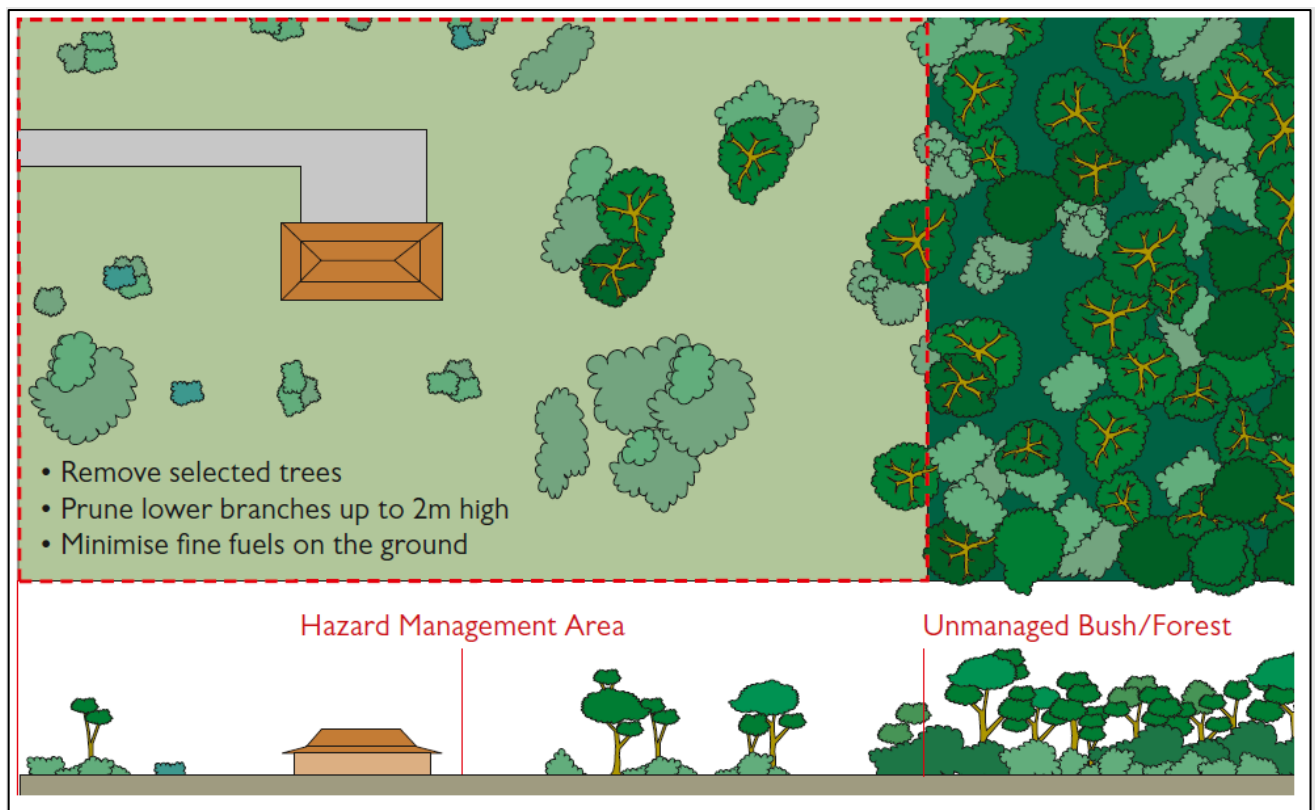


Figure 4: Vegetation controls in a hazard management area (Source: Tasmania Fire Service)

4.3.2 Fuel breaks on council land

A fuel break is a natural or man-made change in fuel characteristics which affects fire behaviour so that fires burning into them can be more readily controlled. The construction of fuel breaks in the urban-rural interface is a common bushfire risk reduction strategy. When appropriately designed fuel breaks can provide an effective means to access bushfire hazards for response and preparedness activities, as well as providing a level of protection to life and property. In the urban-rural interface a fuel break is an area or strip of land where bushfire fuel continuity has been substantially altered through the strategic removal or modification of vegetation (Tasmania Fire Service, *Fuel Breaks*).

To ensure a consistent and science-based approach is used for fuel breaks on council land, all designing, constructing and maintenance of fuel breaks in the urban-rural interface zone will be where reasonably practicable as per the Tasmanian Fire Service Fuel Break Guidelines and Tasmania Fire Service Fuel Break Width Calculator.

4.4 Fire trails

Fire trails are used for a broad range of recreational, asset management, and emergency response actions. They provide access that would normally be inaccessible by vehicle, limiting firefighting response. Fire trails managed by council within bushfire-prone areas are to be designed and maintained to the guidelines within Appendix B. This includes the construction, reinstatement or reconstruction of existing fire trail surfaces and associated drainage infrastructure and undertaking vegetation maintenance directly adjacent to existing fire trails.

Where reasonably practicable, a consistent approach is used for fire trails on council land, Appendix B derives from the Tasmania Parks and Wildlife Service Managed Vehicular Fire Trail Categories (V4, 2021) which is the fire trail categories preferred for use by the Tasmania Fire Service.



*Image 3: Class 3 fire trail in Hobart Fire Management Area
(Source: Fire Risk Consultants)*

4.5 Stakeholder engagement – Helping build bushfire resilient communities.

Effective stakeholder engagement improves social, environmental, and economic outcomes and increases trust amongst stakeholders. Increasing awareness of council’s Bushfire Mitigation Strategy, Bushfire Policy, and BMPs will help stakeholders understand what council is doing to reduce bushfire risk to their communities, and help residents understand what they can do to make their homes and communities more resilient to bushfire impacts.

To ensure successful implementation of the reviewed Strategy, and BMPs, council should develop and implement a specific Bushfire Engagement Plan to communicate what council are doing to manage bushfire risk in reserves. The engagement plan should be designed to work in with the community engagement actions within the Hobart FMA Bushfire Risk Management Plan.

Council’s Hobart FMAC Representative has the primary responsibility for overseeing the development and implementation of the Bushfire Engagement Plan.

4.5.1 Landcare groups

Landcare groups play a key role in enhancing biodiversity within the city of Clarence. There is a need to enhance Landcare group’s understandings of the Strategy, Bushfire Policy, and BMPs including the importance of fuel breaks and hazard management areas on council land. These areas are critical in reducing bushfire impacts to assets through being kept in minimal fuel condition and should not be revegetated.

Council’s Hobart FMAC Representative has the primary responsibility for ensuring Landcare groups have current and relevant information regarding the Strategy, Bushfire Policy, and reserve BMPs.

4.5.2 Volunteer fire brigades

Volunteer firefighters are a vital part of the Tasmania Fire Service, they come from all parts of the community from a range of backgrounds. The primary function of council’s fire trail network, fuel breaks,

and hazard management areas is reducing bushfire impacts. One of the several end users for these risk treatments are volunteer firefighters. There is a need for council to enhance volunteer firefighters' awareness of these treatments including communicating areas within reserves that have been burnt through planning burning.

Council's Hobart FMAC Representative has the primary responsibility for ensuring volunteer firefighters have current and relevant information regarding the Strategy, Bushfire Policy, BMPs, Council's fire trail network, fuel breaks, hazard management areas, and planned burning history.

4.6 Community responsibilities

The management of bushfire-related risk is a collective responsibility of the whole community, with contributions made by numerous individuals, landowners, and organisations.

The proactive management of individual properties by their owners is fundamental in reducing bushfire risk. Risk reduction treatments undertaken by council, on council-managed bushfire-prone areas will only be effective when fuel modification also occurs at the property/household level on adjoining private land.

5 Strategy Implementation Plan

5.1 Clarence City Council Bushfire Mitigation Strategy 2024 – 2034 Implementation Plan

This Implementation Plan contains recommendations detailing how Clarence City Council will implement its Bushfire Mitigation Strategy 2024-2034 throughout the Strategy's ten-year lifecycle. To ensure successful implementation of the strategy, all recommendations within this plan should be actioned within specified timeframes. The responsibility for each recommendation sits with council's Regional Fire Management Area Committee Representative, or their delegate.

This plan should be reviewed at three-yearly intervals in alignment with the Strategy's review cycle. Regular reviews will allow both documents to be adaptively managed as intended.

This plan includes recommendations that address the gaps that were identified through the gap analysis undertaken by Fire Risk Consultants as part of the review of council's previous Bushfire Management Strategy 2016-2021. The gap analysis analysed the bushfire risk framework used in the previous strategy, its linkages to regional and state bushfire risk mitigation objectives, the processes, priorities, and in turn highlighted any shortcomings and opportunities for improvement.

Recommendations have been grouped into four broad topics: **S** - Statutory and Strategic Alignments, **R** – Resources, **P** – Partnerships and Engagement, and **M** – Monitoring, Maintenance and Assessments.

Priority levels for each recommendation were set based on subject matter expert observations. Observations included but were not limited to alignment with State Government Policy, Guidelines, Principles and Directions.

Each priority level was assigned a timeframe for the respective recommendation to be implemented:

Priority Level	Timeframe
High	2024-2027
Medium	2028-2030
Low	2031-2034

Version Control

Version	Release date	Prepared by	Changes
1.0	June 2023	Fire Risk Consultants Pty Ltd	First Implementation Plan developed
1.1	July 2023	Clarence City Council	Amended Implementation Plan
1.2	June 2024	Clarence City Council	Reviewed and updated Implementation Plan

Recommendation ID	Recommendation	Where Recommendation is Identified in Strategy	Priority	Timeframe	Stakeholders
Topic: Statutory and Strategic Alignments					
S1	Implement and review at regular intervals council's Bushfire Policy to ensure alignment with State Government Policy, Guidelines, Frameworks and Directions regarding bushfire risk.	Section 2.3.1	High	Ongoing	Fire Planner
S2	Align fire trail specifications for fire trails on council-managed land with the Tasmania Parks and Wildlife Service Fire Management Infrastructure Categories and Standards 2021.	Section 4.4 Appendix B	High	Ongoing	Fire Planner
S3	Ensure tolerable fire intervals within reserve Bushfire Mitigation Plans align with the Department of Natural Resources and Environment Tasmania (NRE) tolerable fire intervals for Tasmanian vegetation communities.	Section 4.2	High	Ongoing	Fire Planner

Recommendation ID	Recommendation	Where Recommendation is Identified in Strategy	Priority	Timeframe	Stakeholders
S4	Ensure risk assessments used within strategy are based on the Tasmanian Bushfire Risk Management Planning Guidelines.	Section 3.3	High	Ongoing	Fire Planner
S5	a. Set a condition that the prescribed maximum width of a hazard management area on council-managed land is no less than that is required for a Bushfire Attack Level (BAL) BAL-29 rated development to be achieved on the lot once the owner of the lot has undertaken their best efforts. b. Assess current hazard management areas on council-managed land for compliance with the above condition. c. Communicate this condition to all internal and external stakeholders.	Section 4.3.1	High	2024-2027	Fire Planner, City Planning Staff, Tasmania Fire Service
S6	Prioritise works in Bushfire Mitigation Plans to those that have the highest level of bushfire risk.	Section 3.3.2 Section 4.1	High	2024-2027	Fire Planner
S7	Update and define hazard management area specifications to align with the Tasmanian State Government Guidelines.	Section 4.3.1	High	2024-2027	Fire Planner
S8	Adopt a policy to confirm councils' position on Bushfire Hazard Management Plans for new subdivisions	N/A	High	2024-2027	Fire Planner, City Planning Staff
S9	Support Traditional burning practices that meet Aboriginal cultural objectives while also reducing the risk of damaging bushfires.	Glossary Section 4.2.1	Medium	Ongoing	Fire Planner
S10	Support ecological burning practices that meet ecological objectives while also reducing the risk of damaging bushfires.	Glossary Section 4.1	Medium	Ongoing	Fire Planner

Recommendation ID	Recommendation	Where Recommendation is Identified in Strategy	Priority	Timeframe	Stakeholders
S11	Update strategy to include new data as it becomes available on climate change modelling and predictions regarding influence on bushfire risk when it becomes available.	Section 2.1.5 Section 3.2.1 Section 3.2.2	High	Ongoing	Fire Planner
S12	a. Align risk assessments where appropriate with AS 3959 Construction of buildings in bushfire-prone areas. b. Undertake gap analysis to identify training deficiencies, provide training in AS 3959 to identified staff.	Section 3.2.3 Section 4.3.1	High	2024-2027	Fire Planner
S13	Incorporate relevant weed management programs into council's Reserve Management Plans including weed management mapping, assessment, and works plans.	N/A	Medium	2028-2030	Fire Planner
S14	Develop and implement a Total Fire Ban Action Plan to provide a set of recommended actions for what council should do on days of Total Fire Ban regarding closure of key bushland areas under council control due to elevated bushfire risk.	N/A	High	2024-2027	Fire Planner
Topic: Resources					

Recommendation ID	Recommendation	Where Recommendation is Identified in Strategy	Priority	Timeframe	Stakeholders
R1	Recruit a Fire Planner position to coordinate and facilitate the implementation of council's Bushfire Mitigation Strategy, and associated Bushfire Mitigation Plans. The role will be responsible for the delivery of the Strategy and will include the following specific responsibilities: a. Authoring Operational Burn Plans b. Council's representative on the Regional Fire Management Area Committee c. Liaise with relevant stakeholders to ensure council's messaging regarding bushfire risk is consistent to that with the Tasmania Fire Service.	Requirement to implement strategy	High	2024-2027	Manager of Environment, Recreation and Facilities
R2	a. Undertake gap analysis of current staff qualifications for those undertaking fire planning and operational activities to ensure compliance with recommended nationally accredited qualifications. b. Develop and implement a staged training program to provide staff with recommended nationally accredited qualifications. c. Identify and train additional staff to support the implementation of Council's Planned Burning Program.	Appendix A	High	2024-2027	Fire Planner, Registered Training Organisation
R3	Undertake a review of both council staff and equipment to ensure council is appropriately resourced to implement the Strategy	N/A	High	2024-2027	Manager of Environment and Recreation, Fire Planner, Manager Depot Operations

Recommendation ID	Recommendation	Where Recommendation is Identified in Strategy	Priority	Timeframe	Stakeholders
R4	Develop a Capital Works Project Fire Trail Audit and Action Plan including fire trail signage to the preferred fire trail standard of the Tasmania Fire Service. Ongoing recurrent condition maintenance to be reviewed and costed to maintain the classification levels.	Section 4.4	Medium	2028-2030	Fire Planner
Topic: Partnerships and Engagement					
P1	Align any engagement activities council undertakes (regarding bushfire risk) with the Tasmania Fire Service Bushfire Ready Neighborhood Program.	Section 4.5	Medium	2028-2030	Fire Planner, Tasmania Fire Service
P2	Engage and, where appropriate, collaborate with the local Tasmania Fire Service brigades to foster strong relationships between council and the TFS	Section 4.5	Medium	2028-2030	Fire Planner, Tasmania Fire Service Volunteer Brigades
P3	Explore options to learn from and share resources and knowledge with neighbouring councils on planned burning activities	N/A	Medium	2028-2030	Fire Planner, neighbouring councils
P4	Establish partnerships with Traditional Custodians and, in collaboration with cultural fire practitioners, identify opportunities to undertake cultural burning practices in the city of Clarence	Glossary Section 4.2.1	Medium	2028-2030	Fire Planner, Traditional Custodians
P5	Engage with Wine Tasmania when planning autumn planned burns where smoke has potential to impact nearby vineyards.	Section 4.2.2 Section 4.2.2.1	Medium	Annual/ongoing	Fire Planner, Wine Tasmania
Topic: Maintenance, Monitoring and Assessment					

Recommendation ID		Recommendation	Where Recommendation is Identified in Strategy	Priority	Timeframe	Stakeholders
M1		Where reasonably practicable maintain fire trails under council control to the standards prescribed within Reserve Bushfire Mitigation Plans.	Section 4.4	High	Annual/ongoing	Fire Planner, Operational Fire Staff
M2		Where reasonably practicable maintain hazard management areas and fuel breaks under council control to the standards prescribed within Reserve Bushfire Mitigation Plans.	Section 4.3	High	Annual/ongoing	Fire Planner, Operational Fire Staff
M3		Where reasonably practicable conduct annual condition assessments of fire trails under council control identified within Reserve Bushfire Mitigation Plans.	Section 4.4	High	Annual/ongoing	Fire Planner
M4		Where reasonably practicable conduct annual inspections of council's hazard management areas, and fuel breaks to ensure compliance with Tasmania Fire Service guidelines.	Section 4.3	High	Annual/ongoing	Fire Planner
M5		Liaise with the TFS Bushfire Risk Unit to develop and undertake a vegetation monitoring program for post-burn vegetation response to fire in council-managed reserves that aligns with their data collection and monitoring program.	N/A	High	2024-2027	Fire Planner

Table 4: Clarence City Council Bushfire Mitigation Strategy 2024-2034 Implementation Plan

6 Strategy monitoring, evaluation, and review

This strategy will function for a ten-year period, with the first review to be undertaken at three years post adoption with following reviews at three-year intervals. Three-yearly reviews are essential to ensure human settlement areas identified within Table 2 are ranked the most current and appropriate level of risk as identified within the Hobart FMA Bushfire Risk Management Plan.

An objective of each review will be to work towards achieving common priorities within council by further imbedding bushfire mitigation treatments and risk principals into council's governance and operational framework.

This strategy will enter a review phase if any of the following occurs:

- significant bushfire event impacts the Hobart Fire Management Area
- significant changes to relevant state or federal legislation/policy
- significant change to the Tasmanian State Government's bushfire risk assessment framework (Section 2.2).

6.1 Measuring success

6.1.1 *Relative risk*

Relative risk is used to measure how bushfire impacts change in response to fuel reduction from planned burns and bushfires. Relative risk is identified when vegetation mapping, fire history mapping and vegetation fuel accumulation rates are modelled in a fire spread simulator. Relative risk is a useful tool to help with the identification of locations where targeted fuel reduction burning is likely to reduce bushfire risk, and to measure the effectiveness of fuel reduction burning.

Relative risk was analysed and evaluated for the City of Clarence as part of this review. At the next three-yearly review relative risk should be analysed and evaluated again to act as one of several methods to evaluate the success of the Strategy's implementation.

7 References

- Aboriginal Heritage Tasmania* (no date) *Aboriginal Cultural Heritage | Aboriginal Heritage Tasmania*. Available at: <https://www.aboriginalheritage.tas.gov.au/cultural-heritage> (Accessed: November 13, 2022).
- Andrew, W. (2008) *Footprints. The People and Places of Early Clarence Plains and Rokeby*. Howrah, Tasmania: Tranmere-Clarence Plains Land & Coastcare Inc.
- Australian fire danger rating system* (no date) *AFDRS*. Available at: <https://afdrs.com.au/> (Accessed: November 13, 2022).
- Bom.gov.au. (2018). *Bushfire Weather*. [online] Available at: <http://www.bom.gov.au/weather-services/bushfire/about-bushfire-weather.shtml> [Accessed 12 Sep. 2018].
- Bushfire - Dunalley, Tasmania (2013): Australian disaster resilience knowledge hub* (no date) *Dunalley bushfire, TAS, 2013 | Australian Disasters*. Available at: <https://knowledge.aidr.org.au/resources/bushfire-dunalley-tasmania-2013/> (Accessed: November 26, 2022).
- Clarence City Council (2016) *Clarence Weed Strategy 2016-2030*, CCC.
- 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).
- Collective trauma is real, and could hamper Australian Communities' bushfire recovery* (no date) *AIFS*. Available at: <https://aifs.gov.au/resources/short-articles/collective-trauma-real-and-could-hamper-australian-communities-bushfire> (Accessed: November 26, 2022).
- Department of Police, Fire and Emergency Management (2017) *Tasmanian Emergency Risk Assessment Guidelines*. Tasmanian Government [TERAG-Guidelines-V-1.0-Web.pdf \(d2kpbjo3hey01t.cloudfront.net\)](https://www.tas.gov.au/TERAG-Guidelines-V-1.0-Web.pdf)
- Dewey SA, Jenkins MJ and Tonioli RC (1995). Wildfire Suppression-A Paradigm for Noxious Weed Management. *Weed Technology* 9: 621-627.
- DiTomaso JM, Brooks ML, Allen ED, Minnich R, Rice PM and Kyser GB 2006. Control of invasive weeds with prescribed burning. *Weed Technology* 20: 535-548.
- Fuel Breaks* (no date) *Tasmania Fire Service*. Available at: <https://www.fire.tas.gov.au/Show?pageId=colFuelBreakCalculator> (Accessed: November 19, 2022).
- Leonard, S.W.J. (2021) Tolerable Fire Intervals for TASVEG communities. *Nature Conservation Report 2021/04*. Natural Resources and Environment Tasmania, Hobart.
- Marsden-Smedley J.B. (2009) Planned burning in Tasmania: operational guidelines and review of current knowledge. Fire Management Section, Parks and Wildlife Service, Department of Primary Industries, Parks, Water and the Environment, Hobart, Tasmania.
- 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 Bushfire Safety Policy. (2014). Tasmania: Tasmania Fire Service.
- State Fire Management Council (2020). *Hobart Fire Management Area Bushfire Risk Management Plan 2020*. State Fire Management Council, p.13.
- State Fire Management Council (2017) *Tasmanian Vegetation Fire Management Policy*. Hobart, Tasmania: Tasmanian Government.
- Bushfire Planning and Policy (no date) *Building for Bushfire - Hazard Management Area*. Hobart, Tasmania: Tasmania Fire Service.

Wine Tasmania. (2018). *Smoke Taint in Wine Grapes*. [ebook] Tasmania: Wine Tasmania. Available at: <http://winetasmania.com.au> [Accessed 19 Nov. 2022].

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Appendix A: Recommended training requirements for council staff involved in planned burning

Council staff involved or attending planned burns are recommended to have nationally recognised qualifications. Qualifications include the minimal units of competency recommended to safely perform a range of planned burning related activities.

Core Fire and Vegetation Management Staff	
Task:	Recommended Nationally Recognised Qualification:
Writing simple burn plans	PUAFIR406 - Develop simple prescribed burn plans
Writing complex burn plans	PUAFIR515 - Develop complex prescribed burn plans
Crew member on Council planned burns	PUA20719 - Certificate II in Public Safety (Firefighting Operations)

Office Based Staff/Non-core staff Attending Planned Burns	
Task:	Recommended Nationally Recognised Qualification:
Individuals who participate in lighting and undertaking planned burns under direct supervision. They exercise limited autonomy within established and well-known parameters, providing solutions to a limited range of predictable problems.	PUAFIR210 - Prevent injury
	AHCFIR202 - Assist with planned burning

Appendix B: Fire trail guidelines for fire trails on council land

To ensure a consistent approach is used for fire trails on council land, Appendix B derives from the Tasmania Parks and Wildlife Service Managed Vehicular Fire Trail Categories (V4, 2021) which are the recommended fire trail categories used within Tasmania.

Clarence City Council Managed Vehicular Fire Trail Categories					
These categories are for fire trails that are not for public vehicle use and are for management purposes only. Fire trails are created to provide access to buildings or natural value assets that would normally be inaccessible by vehicle, limiting firefighting response.					
Fire Trail Categories	Class 1	Class 3	Class 5	Substandard	Dormant
Summary	High standard access, (emergency egress roads) hardened all-weather surfaces	All weather 4x4 access suitable for larger vehicles	Dry weather 4x4 access, suitable for small agile vehicles in dry weather condition	Trails that fall below the minimum class 5 trail standards (trails to be upgraded or closed)	Rehabilitated or naturally rehabilitated trails, generally not to be re-opened unless for the control of wildfire
Vehicle suitability	Class 1-3-4-5-6	Class 3-4-5-6	Class 5-6	Nil vehicle access without upgrading	Nil vehicle access without upgrading
Vehicle type	2-wheel drive	4-wheel drive	4-wheel drive	See suitability	See suitability
Surface	Hardened all weather constructed surface	All weather with 4x4 capability	Dry weather with 4x4 capability	See suitability	Rehabilitated or naturally rehabilitating
Conditions	Surface may be gravel hardened	Subject to some wheel ruts that when wet may be boggy for short lengths	Subject to many wheel ruts that when wet may be boggy for extended lengths	Below class 5 minimum standards	See suitability
Minimum trafficable width	Min 6m may include hardened drained shoulders of < 3 degrees	Min 4m may include hardened drained shoulders of < 3 degrees	Min 4m may include hardened drained shoulders of < 3 degrees	Below class 5 minimum standards	See suitability
Track cleared width	Min. 10m	Min. 8m	Min. 6m	Below class 5 minimum standards	See suitability
Track cleared height	Min. 4m with non-continuous	Min. 4m with non-continuous	Min. 4m with non-continuous	Below class 5 minimum standards	See suitability

Clarence City Council Managed Vehicular Fire Trail Categories

These categories are for fire trails that are not for public vehicle use and are for management purposes only. Fire trails are created to provide access to buildings or natural value assets that would normally be inaccessible by vehicle, limiting firefighting response.

Fire Trail Categories	Class 1	Class 3	Class 5	Substandard	Dormant
	overhead vegetation	overhead vegetation	overhead vegetation		
Desirable max gradients	±7 degrees normally not exceeded	±7 degrees may be exceeded for short lengths	±10 degrees may be exceeded for short lengths	Below class 5 minimum standards	See suitability
Curves	Min. inner radius of 10m	Min. inner radius of 10m	Min. inner radius of 10m normally not exceeded	Below class 5 minimum standards	See suitability
Cross fall	±2 degrees normally not exceeded	±2 degrees normally not exceeded	±2 degrees may be exceeded for short lengths	Below class 5 minimum standards	See suitability
Vehicle passing	May be single or dual lane	Single lane with passing bays	Single lane with passing bays	Below class 5 minimum standards	See suitability
Max space between passing bays	Will have many opportunities for passing, 180m max space between bays	Provided to maintain visual contact where possible, 200m max space between bays	Provided to maintain visual contact where possible, 200m max space between bays, extras at intersections and steep terrain	Below class 5 minimum standards	See suitability
Vehicle passing bay carriageway widths	Min. 20m long 8m wide	Min. 20m long 8m wide	Min. 10m long 6m wide	Below class 5 minimum standards	See suitability

Appendix C: Tasmanian Vegetation Fire Management Policy Principles and Strategies

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



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.

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 management and are engaged, educated, and supported to contribute to effective bushfire management activities.
- S-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)*.
- S-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.

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