Bushfire Mitigation Strategy 2020-2030

1st 3-year review





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Version Control

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1.0	16/6/2020	Coordinator Bushfire Management	First complete working draft for review by Hobart Fire Management Area Committee and Subject Matter Experts.
1.1	22/12/2020	Coordinator Bushfire Management	Amendments included from review.
1.2	4/1/2023	Coordinator Bushfire Management	Revised to include new Australian Fire Danger Rating system
1.3	8/01/2025	Coordinator Bushfire Management	1 st 3-year review and update

Acknowledgment and Endorsement

Strategy noted by Hobart Fire Management Area Committee (HFMAC): 19th October 2020 Strategy adopted by GCC: 21st December 2020 Endorsement of 1st review: 28th January 2025

Disclaimer and Information Statement

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As part of the review process, some parts of the original strategy's text have been edited or rephrased to improve readability without altering the factual content.

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Glossary of terms

The Australasian Fire and Emergency Services Authority Council (AFAC) Bushfire Glossary will be used as refence in this strategy.

Term	Definition
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).
Assets	Anything valued by people which includes houses, crops, forests and, in many cases, the environment.
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 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	Unplanned vegetation fire. A generic term which includes, grass fires, forest fires and scrub fires both with and without a suppression objective.
Bushfire management	All those activities directed to prevention, detection, damage mitigation and suppression of bushfires. Includes relevant legislation, policy, administration, law enforcement, community education, training of firefighters, planning, communications systems, equipment, research, and the multitude of field operations undertaken by land managers and emergency services personnel relating to bushfire control.
Bushfire risk	Processes, occurrences or actions that increase the likelihood of fires occurring.
Climate	The atmospheric conditions of a place over an extended period of time.
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.
Fine fuel	Fuels that burn in the continuous flaming zone at the fire's edge. They contribute the most to fire's rate of spread and flame height. Typically, dead plant material, such as leaves, grass, bark and twigs thinner than 6mm thick, and live plant material thinner than 3mm thick.
Fire management	All activities associated with the management of fire prone land, including the use of fire or other means to meet land management goals and objectives.
Fire suppression	The activities connected with restricting the spread of a fire following its detection and before making it safe.

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 4 th ed. 2010 DSE.
Fuel management	Modification of fuels by prescribed burning, or other means.
Fuel modification	Manipulation or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control (e.g., lopping, chipping, crushing, piling and burning).
Fuel reduction	Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or lessen potential damage and resistance to control.
Fuel reduction burning	The planned application of fire to reduce hazardous fuel quantities; undertaken in prescribed environmental conditions within prescribed boundaries.
Hazard	A source of potential harm or a situation with potential to cause loss.
Legislation	A set of laws made by a State, Territory or Federal Government; includes acts and regulations.
National Emergency Risk Assessment Guidelines (NERAG)	A contextualised, emergency-related risk assessment method to enable consistent and rigorous emergency-related risk assessments, increase the quality and comparability of risk assessments and improve the national evidence base on emergency-related risks. The outputs from NERAG risk assessments are intended to improve decision making when allocating scarce resources for risk treatment and emergency prevention and preparedness measures.
Planning	The collective and collaborative efforts by which agreements are reached and documented between people and organisations to meet their communities' vegetation fire management needs. It is a sequence of steps which details how the process will take place.
Prescribed burn	A fire planned and lit to achieve a pre-determined outcome.
Prescribed burning	The controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity, and rate of spread required to attain planned resource management objectives. Also known as planned burning.
Prevention	All activities concerned with minimising the occurrence of incidents, particularly those of human origin.
Recovery	The coordinated process of supporting emergency affected communities in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing.
Response	Actions taken in anticipation of, during, and immediately after an incident to ensure that is effects are minimised, and that people affected are given immediate relief and support.
Risk	The exposure to the possibility of such things as economic or financial loss or gain, physical damage, injury or delay, as a consequence of pursuing a particular course of action. The concept of risk has two elements, i.e. the likelihood of something happening and the consequences if it happens. (AS4360).

State Fire Management Council (SFMC)	Appointed under Section 14 of the <i>Fire Service Act 1979</i> with the responsibility of developing a State vegetation fire management policy to be used as the basis for all fire management planning. And, to provide advice to both the Minister and the State Fire Commission on matters relating to the prevention or mitigation of vegetation fires.
Tasmania Fire Service (TFS)	The operational arm of the State Fire Commission, established by the <i>Fire Service Act</i> 1979.
Tasmanian Emergency Risk Assessment Guidelines (TERAG)	Guidelines produced by the State Emergency Management Committee to support Tasmanian emergency management committees and hazard management authorities to prepare emergency risk assessments in line with the National Emergency Risk Assessment Guidelines (NERAG).
Values at risk	The natural resources or improvements that may be jeopardised if a fire occurs.
Vegetation fire	Covers all fire in vegetation, both planned and unplanned. Unplanned vegetation fire is more specifically known as bushfire.

1. Introduction

South-eastern Australia, including Tasmania, is particularly prone to bushfire 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).

In June 2017 council adopted its first Bushfire Mitigation Policy. The policy provides direction on how council will prescribe mitigation treatments for low probability but high impact bushfire events which may impact the Greater Hobart area. This strategy is an output from the policy which will provide council with a framework to adaptively reduce bushfire risks when implemented and maintained.

Context statement

The Glenorchy City Council's Bushfire Mitigation Strategy (BMS) covers bushfire-prone native vegetation managed by GCC outside of Wellington Park. The strategy covers a ten-year period, with this iteration being the first review undertaken at three years post adoption.

Within Wellington Park, the Wellington Park Fire Management Strategy remains to provide a coordinated approach to bushfire mitigation within Wellington Park, supported by further risk management planning work being conducted through the Tasmania Fire Service.

Reducing the risk to life and property is the overriding priority in this strategy as it is in all bushfire plans. This strategy applies a risk-based planning approach based on principles from ISO 31000:2018 Risk Management – Guidelines, and the Tasmanian Emergency Risk Assessment Guidelines (TERAG). This approach allows council to manage bushfire risks efficiently, effectively and consistently by considering what council is currently doing to manage bushfire risks, determining if those works are adequate, and prioritising areas of improvement.



Figure 1: Risk management process (Department of Police, Fire and Emergency Management, 2017).

2. Location and Description

Overview

Glenorchy City is in southern Tasmania, approximately seven kilometres north of the Hobart CBD. The city covers an area of approximately 12,110 hectares. 2016 Census data reports a population of 46,253 with an average 2.3 people per household. The Department of Treasury and Finance have population projections for 2037 for Glenorchy City to reach 51,568 (Treasury.tas.gov.au, 2018).

The city is bounded by Mt Faulkner to the north, the Derwent River to the east, the City of Hobart to the south, and the Wellington Ranges to the west.



Figure 2: Map of GCC municipality.

Environment

Bushfire behaviour is influenced primarily by the environmental factors present at any given time. These include vegetation type, the amount of fine fuels available to burn, topography including elevation, aspect, slope; and climate including temperature, average rainfall, soil dryness index, relative humidity and windspeed.

Vegetation

The three predominant vegetation communities within council-managed bushfire-prone vegetation are dry eucalypt forest and woodland, wet eucalypt forest, and montane eucalypt forest and woodland. Dry eucalypt

forest and woodland communities are generally highly fire adapted, and fire is an essential part of regenerative cycles, wet eucalypt forests can be highly fire sensitive, however extended bushfire intervals are required to reach mature stand structure. Montane forest and woodland communities are highly fire sensitive, and a single bushfire will cause significant change to the community (Pyrke & Marsden-Smedley, 2005).

Topography

Urban settlements within Glenorchy range from sea level up to 450m above sea level (ASL) where the periurban interface is most prominent. The most significant topographical feature influencing bushfire behaviour to Glenorchy is the Wellington Ranges at 1271m ASL; the distribution of steep inaccessible terrain with tall forest canopies will allow fire to move freely whilst making aerial suppression of bushfires challenging.

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 greatly elevated fire danger. If good spring rains have resulted in abundant plant growth, late summer grass fires can be intense. Most loss of life and property damage occurs around the fringes of the cities where homes are sometimes surrounded by flammable vegetation (Bom.gov.au, 2018).

Rainfall varies considerably throughout Greater Hobart (1600mm per year on the summit of kunanyi Mount 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 across 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).

Cultural heritage

kunanyi Mount Wellington has significance for the Aboriginal community although little is yet known of the extent of Aboriginal occupation of the area. Since European settlement, kunanyi Mount Wellington has been utilised for its resources, including the supply of drinking water to Greater Hobart and other regional communities, and has provided substantial tourism and recreation opportunities, resulting in a range of historical sites and artefacts scattered throughout the area. The very presence of kunanyi Mount Wellington near Tasmania's largest population centre creates a strong element of 'place' (Wellington Park Management Plan, 2013).

This strategy acknowledges the importance of both the Aboriginal and historic cultural heritage of Wellington Park and reserves within Glenorchy. The consideration and management of cultural heritage values will be at the earliest possible stage during tactical and operational planning phases.

Aboriginal Heritage Tasmania has been consulted during the design of this strategy, and where applicable, consideration has been given to known Aboriginal and cultural heritage sites in respective BMPs which are an output of this strategy.

3. Strategy purpose and objectives

This strategy aims to mitigate the impact of bushfire to the municipality of Glenorchy, whilst contributing to a tenure blind bushfire mitigation approach to Greater Hobart. The principal used in guiding this strategy is that bushfire safety is a shared responsibility between government, agencies and other stakeholders. It explains GCC's responsibilities as a landowner to reduce bushfire risks from council managed bushfire-prone vegetation, the process used to determine the levels of risk, and when appropriate the fuel reduction actions to reduce the risk of bushfire occurring and/or to reduce the intensity and impact of bushfires when they do occur.

The two primary objectives of the strategy are:

- 1. To minimise the impact of major bushfires on human life, communities, essential and community infrastructure, industries, the economy 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, carbon storage.

The approach used to achieve the primary objectives will be guided by the following tenets:

- Comply with legislation
- Deliver a tenure-blind, integrated approach to mitigate bushfire risk, and
- Continuously improve bushfire risk mitigation methods, information and treatments

Strategic planning framework for Council's bushfire risk mitigation



Figure 3: Strategic planning framework for council's bushfire risk mitigation

Strategic directions

1. Enhance the provisions of hazard management areas, defendable spaces, and fuel breaks This direction aims to reduce risk at a Glenorchy Local Government Area (LGA) and property/household scale. For maximum effectiveness perpetual maintenance and reviews are required. This direction also includes the design of service levels for some Council managed treatments. Council will target that the prescribed maximum width of a hazard management area on Council managed 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.

Progress at the end of the 1st 3 year period:

The network of breaks and hazard management areas on GCC managed bushfire prone land are in place, and are subject to a cyclic annual program of audits and works. Alterations to existing areas, and the installation of new hazard management areas are assessed on a case-by-case basis.

Next steps

- Conduct reserve-by-reserve audits as part of ongoing management programs as advice or specifications are updated
- Document breaks and management regimes in Bushfire Mitigation Plans or Natural Area Management Plans as these plans are developed

2. Develop Fire Trail Construction and Maintenance Specifications

This includes specifications for the construction, reinstatement or reconstruction of existing fire trail surfaces and associated drainage infrastructure. Additionally, vegetation maintenance directly adjacent to existing fire trails.

Progress at the end of the 1st 3 year period:

In line with other local governments in the Hobart Fire Management Area and the Wellington Park Management Trust, GCC has adopted the Tasmanian Parks and Wildlife Service's Infrastructure specifications for fire trails. This allows for regional and state level consistency in fire trail specifications, classifying and management, and is in common use across the Tasmania Fire Service.

Next steps

- Maintain current practice
- Liaise with PWS via Fire Management Area Committee to ensure latest iteration of the specifications are being used.

3. Enhance the provisions of fire trail network to all weather access where required to meet future risk requirements

Stakeholders utilise Council managed fire trail networks for a broad range of recreational, asset management, and emergency response actions. This direction includes identifying each fire trails current access class and prioritising enhancements.

Progress at the end of the 1st 3 year period:

The GCC Fire Trail Network is now up to specifications and responding well to ongoing maintenance. Recent works focussing on trailside vegetation clearance buffers and the management of rainfall runoff have substantially increased the network's resilience to weather events

Next steps

- Continue regular inspections to inform annual works programs
- Review current fire trail classes and determine if current rating for each trail is still appropriate; commence planning to upgrade as necessary.

4.	Work with utility providers and lead the development of individual memorandum of understandings (MoU) for perpetual fire trail maintenance to targeted fire trails
	This will include examining current fire trail access/maintenance arrangements with utility
	providers then working in collaboration to realise opportunities to improve and formalise
	current arrangements.
	Progress at the end of the 1 st 3 year period:
	Approaches have been made directly and via Hobart Fire Management Area Committee, with
	varied levels of interest from the utility providers. Day-to-day officer-level connections and
	communication have been the most effective, but further work remains to be done at higher
	levels within those organisations. It is also noted their attendance at Hobart Fire Management
	Area Committee meetings has been inconsistent.
	Next steps
	 Continue to promote the formalising of working arrangements that have been put in place with TasNetworks
	 Look for opportunities to improve connections with TasWater, and the telecommunications sector more broadly

5. Ensure access is maintained for sections of fire trails on private property that have strategic importance to Greater Hobart bushfire risk reduction within Glenorchy LGA Several fire trails pass through multiple land tenures with different levels of maintenance and management standards. An opportunity exists to examine fire trails within Glenorchy LGA and establish terms of access.

Progress at the end of the 1st 3 year period:

As is to be expected when dealing with private landowners, there has been variable levels of success. Some have refused outright, with reasons including a distrust of Council, or a fear that the trail will become a public access or promote increased illegal access. Some landowners have been content to agree to an informal approach, and one landowner was happy to enter a formal agreement. Currently, Council has some sort of agreement in place for the highest priority trails adjacent or contiguous with GCC fire trails.

Next steps

- Maintain general contact and look for opportunities to initiate further discussion
- Assess private fire trails alongside TFS planners to determine future priorities

6. Design treatments to reduce bushfire risks deriving from vehicle fires in bushfire-prone areas including adjacent to Collinsvale Road and Glenlusk Road
 This treatment will reduce the likelihood of vehicle fires developing into large broadscale bushfires where the risk consequences can be severe.

 Progress at the end of the 1st 3 year period:

Scheduled to revisit works to date during 2025 as new risk profiling is being conducted by the Tasmania Fire Service

Next steps

- Access updated incident data and review vehicle fire trends to update risk profile
- Expected to be within scoping of new TFS Wellington Park risk management strategy

7. Develop a centralised Operations & Maintenance Vegetation Control Program and undertake gap analysis

This will identify opportunities for increased efficiency across Council's Operations & Maintenance Work Group, and Environment Section and will increase operational capacity to treat bushfire risks during each bushfire season.

Progress at the end of the 1st 3 year period:

Initial planning and scoping has been undertaken, with support from the key internal stakeholders. Within the Operations and Maintenance section, cross-coordinator works are now a normal part of operations.

Next steps

• With the recruitment of a new Environmental Officer, work can commence on integrating bushfire risk management and bushland reserve management, balancing amenity and ecological values with bushfire risk management.

8. Undertake gap analysis on existing roadside vegetation clearing specifications undertaken by Council in bushfire-prone areas

A key aspect of this direction is to improve current Council specifications with an outcome of reducing bushfire risk to communities during bushfires events. This direction should align where appropriate with the *Local Government (Highways) Act 1982*. Outputs will be incorporated into the centralised Operations & Maintenance Vegetation Control Program once developed.

Progress at the end of the 1st 3 year period:

The Sparking Conversations Igniting Action project (https://sparkingconversations.com.au/) included a major deliverable focussed on this exact issue. With the project expected to reach its conclusion soon the intent is to assess the results on completion and confer with the Tasmania Fire Service as to future aims in this space.

Next steps

- Kingborough Council's similar project is underway, and may inform GCC's approach.
- TFS have new risk analysis work underway that may contribute.
- SCIA project will be finalised soon; outcomes will be assessed and any useful learnings will be incorporated into future planning.

9. Further develop practices and lead the harmonisation of pre and post fire vegetation and fuel hazard re-accumulation rate assessments within Hobart Fire Management Area (HFMA)

Sharing information and training at the HFMA level will create the ability to more accurately model bushfire risk at the landscape level and understand accurate fuel hazard levels and potential fire behaviour during bushfire events.

Progress at the end of the 1st 3 year period:

Processes have been assessed and trialled, standardised formats and data proformas were discussed at length at TFS workshops held in June/July 2024

Next steps

- Work to date is being reviewed and aligned with current TFS practices.
- GCC programs will be upgraded to comply with TFS output to allow data-sharing across both agencies GIS platforms.

10. Undertake gap analysis and develop business case for specific skills acquisition for existing staff within Council to assist operational aspects of bushfire risk reduction treatments and emergency management

There are several benefits for Council in conducting this review and embarking on a skills enhancement program for staff. The ramping up of agencies and Council's response capability during times of critical need is now part of the landscape for emergencies in Australia. Being able to call on existing staff with an in-depth knowledge of Council policies and procedures, its communities and economic base is a proactive approach in dealing with emergencies.

Progress at the end of the 1st 3 year period:

The essential skills gap analysis was reviewed in early 2024. Currently investigating steps needed to conduct prescribed burns in-house including insurances, essential qualifications and processes.

Next steps

• Initiating staff training and developing GCC processes to support internal capacity to conduct planned burns, including options for recruitment.

11. Contribute to enhance resource sharing across Local Government for planned burning operations within the HFMA

This will allow for opportunities to increase available resources and expertise within the HFMA during planned burning operations whilst imparting knowledge and training opportunities.

Progress at the end of the 1st 3 year period:

Sharing resources for planned burning in the Hobart FMAC is now normal practice, allowing GCC staff to maintain skills and build experience

Next steps

• Continue building staff capacity and inter-agency collaboration.

12. Continue to identify, develop and apply best practice approaches and contribute to reducing bushfire risk within the HFMA

This includes strengthening partnerships with stakeholders at a statewide level. A key element is contributing to the development of a Tasmanian statewide bushfire risk assessment process and apply/implement outputs to the Glenorchy LGA.

Progress at the end of the 1st 3 year period:

Working with our established networks and key stakeholders has become part of normal work practices.

Next steps

• Ongoing, as part of a continual improvement approach

13. Develop bushland closure and communication procedures for days of elevated fire danger ratings, days of total fire bans and fire incidents within Council managed land.

Fires in bushland areas on days with an elevated fire danger rating will generally be uncontrollable and will move very quickly posing a great risk to anyone within the vicinity. The objectives of the closures are to mitigate the risk of:

- loss of life or injury
- Unplanned ignitions within bushland areas

These procedures will primarily relate to responsibilities and functions of the Council's Operations and Maintenance Workgroup, and Environment Workgroup for the management and use of Council managed bushland areas and will apply to GCC staff, authorised contractors and community volunteers operating within Council managed bushland areas, and the general public.

Progress at the end of the 1st 3 year period:

Completed and signed off as policy. Revisited to determine new trigger points on release of new Australian Fire Danger Rating System, consistent across WPMT and CoH.

Next steps

- Revisited to determine new trigger points on release of new Australian Fire Danger Rating System, consistent across WPMT and CoH.
- Adapting to the new AFDRS; updated version of procedure to be completed consistent with Wellington Park Management Trust policy.

Bushfire Mitigation Plans (BMPs)

BMPs are tactical level planning documents that focuses on addressing bushfire hazards and improving the survivability of communities and assets. BMPs identify key areas for fuel management, and provides tactical guidance regarding prescribed burning, fuel treatment, fire management infrastructure, and asset protection work.

BMPs will be prepared for the following bushfire-prone areas managed by council:

- Lowes Ridge & Arunta Crescent Reserve
- N.R. Pierce Reserve and Council surrounds
- Poimena Reserve & Roseneath Park.

The TFS also have community protection planning documents for Glenorchy such as Bushfire Response Plans, Bushfire Protection Plans, and Bushfire Mitigation Plans that have been considered in this strategy.

Three-year Bushfire Risk Treatment Schedule

This lists annual actions to be undertaken over a three-year period to reduce bushfire risk. Actions derive from risk registers developed by the Hobart Fire Management Area Committee, individual BMPs (section 5.1), the Wellington Park Fire Management Strategy, and associated Council asset maintenance schedules. For the 2024/5 to 2026/7 Schedule, please see Appendix 1.

4. Relationships with other planning

This strategy is designed to factor in the broader aims and objectives of the following documents:

- Glenorchy City Council Strategic Plan 2023 2032
 - Making Lives Better
 - Leading Our Community
 - Valuing Our Environment
- Glenorchy City Council Annual Plan 2024/25-2027/28
 - 2.1.1.2 Partner with government and community organisations to deliver programs that improve community safety and inclusion
 - 4.1.6.1 Implement the Bushfire Mitigation program to manage the risk of bushfire and undertake flood mitigation activities to mitigate flood impacts
- Glenorchy City Council Bushfire Mitigation Policy
- Glenorchy Municipal Emergency Management Plan
- Hobart Fire Management Area Bushfire Risk Management Plan
- Fire Management Strategy for Wellington Park 2006
- Greater Wellington Range Zone 1 Bushfire Mitigation Strategy (22 December 2017)
- City of Hobart Bushfire Management Strategy 2014, updated and expanded 2022
- Tasmanian Vegetation Fire Management Policy 2017.

Relationship with statutory planning – bushfire-prone area overlay

The Glenorchy Interim Planning Scheme 2015 does not include a bushfire-prone area overlay. It is anticipated a bushfire-prone area overlay for the Glenorchy LGA will be included when a statewide planning scheme is implemented.

Bushfire protection requirements apply to new building work through the building approvals process. The Bushfire-Prone Areas Code Applies to new subdivisions, hazardous uses and vulnerable uses through the planning approvals process.

Statutory responsibilities

As a landowner, council has an obligation under section 64 of the *Fire Service Act 1979* to take diligent steps to prevent any fire lit on its property during a fire permit period from spreading onto a neighbouring property causing personal injury, damage to adjoining property, or damage to items of natural or heritage value. Additionally, council is required to take diligent steps to extinguish or control any unauthorised fire on their property during a fire permit period, and to report that fire to the TFS or Police.

As well as the obligations that apply to all landowners/occupiers, Council has several specific powers and obligations under this Act. These are:

- to nominate a representative to sit on the local Special Fire Area Committee (Section 55)
- 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 79 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 Relics Act 1975
- Environmental Management and Pollution Control Act 1994
- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- Environment Protection Policy (Air Quality) 2004
- Forest Practices Act 1985
- Forest Practices Regulations 2007
- Local Government Act 1993
- Local Government (Building and Miscellaneous Provisions) Act 1993
- Nature Conservation Act 2002
- State Policy on Water Quality Management 1997
- Tasmanian Air Quality Strategy 2006
- Threatened Species Protection Act 1995
- Weed Management Act 1999
- Wellington Park Act 1993.

5. Identifying bushfire risk potential for Glenorchy LGA

Risk statement

A bushfire impacting Glenorchy under an Extreme or above fire danger rating (figure 4) will impact the health of people and can cause death(s) and will impact fauna, flora, cultural values, built assets, infrastructure and the local economy. By recognising and mitigating this risk Council can contribute to making a more resilient community.

Australian Fire Danger Rating (AFDRS)

The Australian Fire Danger Ratings (figure 4) were released in 2022. The new system is built on improved scientific accuracy and has four categories compared to the previous six. Each of the new categories has a nationally consistent colour and suite of messaging, as shown below in figure 4.

As at 2024, there remains a body of work to be done in correlating the trigger points under the previous system to the new categories and related Fire Behaviour Index.



Figure 4: Australian Fire Danger Rating system (AFDRS, 2022)

Bushfire weather

The Derwent Valley and southeast of Tasmania regularly experience elevated fire danger weather. The Hobart Fire Management Area is one of the driest parts of Tasmania.

Glenorchy regularly experiences periods of weather that produces elevated fire risk. These may occur any time, especially between October and March. Bushfires that occur on such days are typically difficult to control, unless contained quickly by initial attack, and often cause property and

environmental damage. When fires occur on days with a fire danger rating of Catastrophic it is likely to result in significant property losses and potentially loss of lives.

Climate Change

Fire danger has increased in recent decades and is projected to increase further with global warming (figure 5). There is an increase in both average and extreme (99th percentile) FFDI projected through the century (note these data are based on the superseded Fire Danger Index. Statistics based on the new Fire Behaviour Index are not yet available). The rates of change vary across Tasmania and are different in each season. Most notably there is an increase in elevated fire danger days projected to occur in spring. There is also a projected increase in the frequency of the weather systems associated with many of the highest risk fire weather events and increases to other large–scale drivers of fire risk, as well as projected increases in soil dryness. (Fox-Hughes *et al.*, 2015).



High Fire Danger' from 1961 to 2100. Forest Fire Danger Index values will increase into the future, with the majority of the increase after 2050.

Figure 5: Projected frequency of the 'Very High Fire Danger Days' for Tasmania from 1961 to 2100 (Fox-Hughes et al., 2015).

Bushfire attack mechanisms

Bushfire attack mechanisms that have the potential to impact a building can be categorised into five key types:

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

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, 2011). The 'design fire' used in Tasmania to determine the Bushfire Attack Level (BAL) for buildings that need to comply with this standard remains unchanged with the adoption of the new AFDRS.

Ignition history

The TFS database identified 3634 fire incidents within the Glenorchy LGA during the period August 1999 to February 2018. These have been summarised in table 1 and figure 6. Most incidents occurred within the urban landscape with few occurring within the Wellington Ranges or Mt Faulkner area. The data gives the impression bushfire ignitions deriving from passenger vehicle fires within the northern facing foothills of Goat Hills (within the suburbs of Berridale and Collinsvale) pose a significant risk for potential bushfire ignitions (figure 7).

Incident Type	Number of Incidents	% Total Incidents
Vegetation fire	1694	46%
Passenger vehicle fire	1158	32%
Other fire incident (i.e. burning of green waste heaps, malicious activity)	782	22%

Table 1: Ignition history GCC LGA August 1999 – February 2018.



Figure 6: Fire incident history by incident type and suburb August 1999 - February 2018.



Figure 7: Vegetation fire ignition points within Greater Hobart during August 1999 - February 2018.



Figure 8: Passenger vehicle fire ignition points relative to Collinsvale Road and Glenlusk Road August 1999 - February 2018.

Glenorchy LGA Bushfire history

In Tasmania geographic information system (GIS) mapping of bushfire and planned burn boundaries only became regular practice during the 1990s. Before this bushfire history was word of mouth, or sometimes in the form of a loosely hand drawn boundary on a paper map (L. Suhr, personal communication, August 27, 2018). Figure 9 shows the fire history within Greater Hobart during the period 1967 to 2016. The most destructive bushfire to impact the city of Glenorchy was the 1967 Black Tuesday Bushfires impacting approximately 182,109^{ha} (approximately 5900^{ha} within the GCC LGA) and costing the lives of 55 people (4 within GCC LGA) with another 9-people dying during the fires by natural causes, most likely due to fire trauma (McNiece, 2016). The 1967 fires impacted Upper Merton, reaching the Derwent River in some parts of Glenorchy. 11 houses were destroyed at the upper end of Tolosa Street (Haygarth and Hendrick, n.d.). This fire event led to significant changes to the regulation, arrangements and management of fire in Tasmania.



Figure 9: Fire history Greater Hobart 1967 to 2016.

Year	Location	Documented Notes	
1887	Lower slopes kunanyi Mount Wellington	Played havoc with the 'native shrubs'	
January 1898	Between Lower Glenorchy Reservoir and Collinsvale		
1906	Slopes of kunanyi Mount Wellington reaching as low as Barossa Road		
March 1910	Reached as far as Mt Hull, Glenlusk and the top of the Goat Hills		
February 1914	Slopes of kunanyi Mount Wellington	Reported to rage the slopes of kunanyi Mount Wellington and said to be the biggest since the summer of 1897–98	
1927	Started near Merton and burned into Lenah Valley	Destroying hundreds of acres of bushland and orchard	
February 1934	'Behind the Glenorchy Reservoir'	Several fires reported to burn	
April 1937	Started at the top of the Glenorchy Reservoir and burned down towards Lenah Valley		
February 1967	'Black Tuesday' fires	See https://knowledge.aidr.org.au/resources/bushfire- black-tuesday-tasmania-1967/	

Table 2: Documented historical bushfires impacting Glenorchy LGA (Haygarth and Hendrick, n.d.)

6. Analysing bushfire risk potential for Glenorchy LGA

The Tasmanian State Natural Disaster Risk Assessment identifies the likelihood of bushfire being unlikely, however the consequence being high, and the risks associated with bushfire being high.

Bushfire risk assessment analysis for areas covered by Bushfire Mitigation Plans

The bushfire risk to assets within and surrounding bushfire-prone areas covered by BMPs (section 5.1) was assessed with the objective to rank the appropriate level of risk so that mitigation treatments can be prioritised and are appropriate to the level of risk. The risk assessment process derives from a process previously undertaken within the HFMA by AVK Environmental Management.

All Council managed bushfire-prone areas with specific BMPs have been impacted by bushfire within the last twenty years. There have been no reports of any significant damage to adjoining properties during this period. However, there is sufficient fuel in these areas to sustain high intensity fires on days of Extreme or higher fire weather.

The bushfire risk assessment used in BMPs is only for bushfires burning within Council managed bushfireprone vegetation or approaching an adjoining asset being impacted by fire leaving council managed bushfireprone vegetation. Some assets may face a greater bushfire risk from bushfire-prone vegetation that is not under Council control. The assessment is based on three main factors:

- 1. Bushfire threat in terms of fuel loads/hazard levels and fire approach
- 2. vulnerability to damage of the asset
- 3. potential consequences of a fire damaging or destroying the asset.

The limitation of the assessment approach used is that it fails to identify bushfire risk and treatments at the larger landscape level. Bushfire risk treatments within this strategy at a landscape level have been identified utilising Phoenix Rapidfire and the Bushfire Risk Assessment Model (BRAM) and includes priority area risk profiling with identification or priority assets. These are addressed regionally through the HFMAC and documented in the Hobart Fire Management Area Bushfire Risk Management Plan. Risk treatments from the Hobart Fire Management Area Bushfire Risk Management Plan will be included in the GCC Three-year Bushfire Risk Treatment Schedule.

Phoenix RapidFire analysis

Phoenix RapidFire is a research tool developed by the University of Melbourne (Kevin Tolhurst and Derek Chong). It is used for both incident prediction through capturing the nature of a fire as it spreads across the landscape, and as a key tool for bushfire risk assessment and strategic bushfire management planning at a landscape level.

During April 2019 the Bushfire Risk Unit (BRU) of the TFS ran a series of bushfire simulator modelling within Greater Hobart to assist in the strategic outputs for this strategy. Phoenix RapidFire simulations used six scenarios (table 3) and were based on an incremental fire risk analysis which allowed to identify the potential outcomes of one alternative compared to another. A complete listing of assumptions and limitations is contained in a separate report (Tasmania Fire Service, 2019).

Scenario ID		Description	
1)	Pre-program	Where all fire history up until 1st July 2013 was included	
2) Current additi		All fire history up until 31st December 2018 was included. The Idditional fire history beyond 31st June 2018 was included from the BRU's Fire Management Unit database	
3)	Max	Where no fire history was used (fuel loads at maximum)	
4) Min		Where all treatable fuels set to burnt (treatable fuel loads at minimum)	
5) No Fuel Treatment		Where 2013 fuel loads are accumulated to 2019 without any bushfires or planned burning in the landscape	
6) Planned Burning Only		Where 'Current' fuel conditions are used with the absence of bushfire in the 2013-2019 period	

Table 3: Phoenix RapidFire modelling scenarios

Bushfire Risk Assessment Model (BRAM) analysis

BRAM is a model developed by the Fire Management Section of the Tasmanian Parks and Wildlife Service. BRAM identifies bushfire risk at a strategic level as well as to identify the elements driving actual bushfire risk. A BRAM analysis of the Glenorchy LGA was completed during April 2019 by the Tasmanian Parks and Wildlife Service on behalf of Council which included overall bushfire risk, values at risk, predicted fire behaviour, and ignition potential. Section 10.3 discusses the modelling outputs.

7. Evaluating bushfire risk potential for Glenorchy LGA

Evaluating bushfire risk potential helps determine assessment options and priorities within the LGA. These will inform Council's Three-year Bushfire Risk Treatment Schedule.

Bushfire risk assessment for areas covered by Bushfire Mitigation Plans

evaluation

This assessment identified four key findings:

- 1. The requirement for Council to reinstate/install hazard management areas on Council managed land to reduce bushfire risk to human settlements and the vulnerability to damage of critical community infrastructure
- 2. Develop a maintenance program for fire trails under Council control to ensure fire trails are trafficable during bushfire seasons
- 3. Develop a planned burning program based on the two primary objectives of this strategy
- 4. Redevelop the existing Bushfire Mitigation Vegetation Monitoring Program to assist in the adaptive management approach to this strategy.

Phoenix RapidFire evaluation

The simulations identified clear risk reductions on the urban fringe, with a general trend for minor risk accumulation the further you move away from the urban interface. Modelling provided evidence to suggest the main driver for this reduction is planned burning that has occurred between 2013 and 2018 within Greater Hobart and not bushfire. Modelling also indicated areas where planned burning has helped hold the risk levels steady or slowed the rate of its incline.

Modelling additionally highlighted just how much of the area is sitting on or near the maximum risk, and the areas that are likely to accumulate further over time without additional fuel reduction by planned burning or bushfire, and that a sizeable amount of area will still carry fire at greater than 3000 kW/m even if all treatable fuels have been burnt (Tasmania Fire Service, 2019).

Results of this evaluation have emphasised that Council's current planned burning and mechanical treatment practices will contribute to mitigating bushfire risk at a landscape level whilst contributing to a tenure blind approach to the HFMA.

Evaluation results have influenced Council's bushfire risk mitigation treatments that will be included in Council's Three-year Bushfire Risk Treatment Schedule including but not limited to; planned burning, mechanical treatments, hazard management areas, fuel breaks and fire trails.

BRAM evaluation

The outputs of the modelling showed the bushfire risk profile of the LGA varying, the overall ignition potential is in the high to very high category. Likelihood of bushfire occurring may be reduced if an aggressive prevention program was undertaken. Fire behaviour potential could also be reduced by fuel reduction burning occurring in the areas of treatable vegetation types identified as high flammability with high head fire intensity (HFI) (older Dry Forest stands with high fuel loads). Note the areas identified as extreme HFI with moderate flammability is in Wet Forest stand types. Wet forest vegetation is generally untreatable by fuel reduction burning due to when conditions are safe to burn the vegetation is too wet, when the vegetation can carry fire it is generally unsafe during summer months.

8. Treating bushfire risk potential

Treatment statement

The size and intensity of each bushfire relates directly to the presence or effectiveness of bushfire risk reduction treatments, and the treatments perpetual maintenance. These treatments may affect the likelihood of fire occurring or the likelihood of the risk statement being fully materialised. Treatments include:

- Community education and engagement coordinated through the TFS
- planned burning
- hazard management areas/defendable spaces consistent with AS 3959 2018 Construction of building in bushfire-prone areas. Council will 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
- fuel breaks consistent with the TFS Fuel Break Guidelines
- fire trails
- mechanical vegetation thinning.

Greater Hobart bushfire risk reduction

Bushfire risk reduction at a Greater Hobart landscape scale is based on the guiding principle that bushfire does not stop at cadastral boundaries. Within Greater Hobart the predominant fuel age is 1967 regeneration with very high or extreme overall fuel hazard scores (Hines *et al.* 2010) however other significant bushfires have occurred within the Hobart Fire Management Area in 1983, 1998, 2001, 2006 and 2013.

At a landscape scale, the guiding principle to risk reduction is having a mosaic of uneven aged fuels, thus altering fire behaviour through reducing bushfire rate of spread, flame height, spotting and headfire intensity, giving agencies an upper hand in bushfire management.

Hobart Fire Management Area Committee (HFMAC)

The Hobart Fire Management Area is comprised of the local government areas of Hobart, Glenorchy, Clarence, Brighton, and parts of Kingborough and Derwent Valley. The principal aim of the HFMAC is to bring together the various stakeholders that manage land use across the HFMA, to work together to effectively manage vegetation fuels for the mitigation of bushfires. GCC is required under Section 55 of the *Fire Service Act* 1979 to have a representative sit on the HFMAC.

Hobart Fire Management Area Bushfire Risk Management Plan

The Hobart Fire Management Area Bushfire Risk Management Plan is an output of the HFMAC taking a risk management approach including a range of measures that will reduce the bushfire risk within the HFMA. The plan includes information on strategic emergency vehicle access routes (fire trails) and fuel breaks. The aim is to identify existing strategic access routes, note their current condition and identify where new vehicle access is required for fire management. Similarly, information on existing fuel breaks on public land has been gathered and the need for additional breaks identified, particularly to protect high value assets (State Fire Management Council, 2018).

Council's treatments at a Greater Hobart level that are outputs from this strategy include:

• GCC Coordinator Bushfire Management (or delegate) representing GCC on the HFMAC

• Council's perpetual commitment to continuously improve its bushfire risk mitigation treatments/capabilities.

Glenorchy LGA scale bushfire risk reduction

The context of this strategy is bushfire-prone vegetation managed by council. The TFS facilitate numerous programs throughout the LGA including Bushfire Ready Neighbourhoods, Bushfire Ready Schools, and Fuel Reduction Program to contribute to Glenorchy LGA scale bushfire risk reduction.

Council's treatments at an LGA level that are outputs from this strategy include:

- Community education and engagement coordinated through the TFS
- implementation of BMPs for areas identified in section 5.1
- planned burning
- hazard management areas/defendable spaces consistent with AS 3959 2018 Construction of building in bushfire-prone areas. Council will 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
- fuel breaks consistent with the TFS Fuel Break Guidelines
- fire trails
- mechanical vegetation thinning.

Property/household scale bushfire risk reduction

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 vegetation will only be effective when fuel modification also occurs at the property/household level on adjoining private land.

Council's treatments at a property scale that are outputs from this strategy include:

- Community education and engagement coordinated through the TFS
- annual Fire Hazard Abatement Program
- annual Vegetation Control Program
- application of planning and building regulations to proposed use and development in bushfireprone areas
- fuel breaks consistent with the TFS Fuel Break Guidelines
- hazard management areas/defendable spaces consistent with AS 3959 2018 Construction of building in bushfire-prone areas
- annual Bushland Weed and Vegetation Management Program.

Smoke taint in wine and grapes

Grapevines that are exposed to smoke may be at risk of producing a wine that is affected by smoke taint, therefore unpalatable and unsaleable. The density of smoke, exposure time and smoke age are critical factors involved. The risk of smoke taint begins rising from fruit set (December), and increases to high risk after the grapes ripening (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 including:

- Early and often consultation directly with vineyards
- provide facilitation for contact details with vineyard managers
- Advocate for planned burns to proceed in spring if possible and investigate alternative risk management options.

9. Monitoring, evaluation and review

Strategy monitoring

For ongoing effectiveness this strategy will require regular checks to ensure that information is relevant, up to date and that the most suitable bushfire risk mitigation treatments are in place. These checks must be ongoing to account for any changes either in the risk assessment process used, legislative changes, and the adequacy of controls or elements of the risk.

GCC Bushfire Mitigation Vegetation Monitoring Program

During 2017 Council established a Bushfire Mitigation Vegetation Monitoring Program (VMP). This program aimed to capture forest health data and fuel hazard accumulation rates annually at permanent bushland locations targeted to be treated with planned burning, or untreatable fuels that have potential to be impacted by high intensity bushfire resulting in long term/permanent changes in forest structure. The Program is being reviewed and aligned to TFS Bushfire Risk Unit methodologies to inform risk mitigation works by both agencies.

Strategy evaluation

During each strategy review an evaluation process will occur which will assist determining the effectiveness of the strategy in achieving the objectives and assist prescribing corrective actions if required.

The evaluation process will include but not limited to:

- Effectiveness of bushfire risk reduction treatments prescribed
- changes to Council's operational ability to implement required treatments
- changes to legislation
- changes to statutory planning
- changes to TFS guidelines.

Strategy 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. An objective of each review will be to work towards achieving common priorities within Council by further imbedding bushfire mitigation treatments and 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 HFMA
- significant changes to relevant state or federal legislation/policy
- significant change to Tasmanian bushfire risk assessment.

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11. Appendix 1: Three-year schedule, 2024-25 to 2026-27

Assumptions: Consistent staffing and budget across the three-year period.

2024-25	Responsive, cyclic and seasonal works	Projects	Staff, resources, strategy and planning
Winter	Post- weather event inspections and remedial works	Scoping and preparation of RFQs for project works	Complete BMS 1 st 3-year review
winter	Vandalism/misuse response	Planned burn preliminary works for Spring season	Update BMS
			Complex Burn Planning training for BMWO
			Progress GCC internal planned burn capacity
Spring	Post- weather event inspections and remedial works	Planned burn preparation for Spring/Autumn	Fuel Hazard Assessments- vegetation monitoring sites
Spring	Vandalism/misuse response	Participation in Spring burning program	Post-burn assessments (Spring program)
	Fire Trail inspections, verge vegetation management	Fire trail/HMA project works	FMAC action items
	Firebreak and HMA veg works		Progress GCC internal planned burn capacity
	Collinsvale NSP veg works		
	Incident preparation- plant and vehicles		
Summer	Post- weather event inspections and remedial works	Planned burn preparation for Autumn	Bushfire season situational awareness
Summer	Vandalism/misuse response	Fire trail/HMA project works	NSP, Firebreak and HMA auditing
	Firebreak and HMA regrowth inspections, works as required		Progress GCC internal planned burn capacity
	Collinsvale NSP regrowth inspections, works as required		Review Fire trail Natural and Cultural Values Assessments
	Bushfire response preparedness- vehicles and plant		
Autumn	Post- weather event inspections and remedial works	Planned burn preparation for Autumn, next Spring	Post-burn assessments (Autumn program)
Autunni	Vandalism/misuse response	Participation in Autumn program	Post-season after-action review and inspections
	Collinsvale NSP regrowth inspections, works as required	Fire trail/HMA project works (completion for FY)	FMAC action items
	Pre-winter Fire Trail surface and drainage check and clear	Renew threatened species permits	Progress GCC internal planned burn capacity
2025-26	Responsive, cyclic and seasonal works	Projects	Staff, resources, strategy and planning
	Post- weather event inspections and remedial works	Scoping and preparation of RFQs for project works	Develop Bushfire Management Plans/burn schedules
Winter	Vandalism/misuse response	Planned burn preliminary works for Spring season	Progress GCC internal planned burn capacity
0	Post- weather event inspections and remedial works	Planned burn preparation for Spring/Autumn	Fuel Hazard Assessments- vegetation monitoring sites
Spring	Vandalism/misuse response	Participation in Spring burning program	Post-burn assessments (Spring program)
	Fire Trail inspections, verge vegetation management	Fire trail/HMA project works	FMAC action items
	Firebreak and HMA veg works		Progress GCC internal planned burn capacity
	Collinsvale NSP veg works		Progress GOC internal planned burn capacity
	Incident preparation- plant and vehicles		
Summer	Post- weather event inspections and remedial works	Planned burn preparation for Autumn	Bushfire season situational awareness
Summer	Vandalism/misuse response	Fire trail/HMA project works	NSP, Firebreak and HMA auditing
	Firebreak and HMA regrowth inspections, works as required	·····	Progress GCC internal planned burn capacity
	Collinsvale NSP regrowth inspections, works as required		Review Fire trail Natural and Cultural Values Assessments
	Bushfire response preparedness- vehicles and plant		
Autumn	Post- weather event inspections and remedial works	Planned burn preparation for Autumn, next Spring	Post-burn assessments (Autumn program)
Autumn	Vandalism/misuse response	Participation in Autumn program	Post-season after-action review and inspections
	Collinsvale NSP regrowth inspections, works as required	Fire trail/HMA project works (completion for FY)	FMAC action items
	Pre-winter Fire Trail surface and drainage check and clear	Renew threatened species permits	Progress GCC internal planned burn capacity
2026-27	Pre-winter Fire Trail surface and drainage check and clear Responsive, cyclic and seasonal works	Renew threatened species permits Projects	Progress GCC internal planned burn capacity Staff resources strategy and planning
2026-27	Responsive, cyclic and seasonal works	Projects	Staff, resources, strategy and planning
2026-27 Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works	Projects Scoping and preparation of RFQs for project works	
Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season	Staff, resources, strategy and planning Progress GCC internal planned burn capacity
	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites
Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program)
Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items
Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program)
Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items
Winter Spring	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity
Winter	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness
Winter Spring	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing
Winter Spring	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing Progress GCC internal planned burn capacity
Winter Spring	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required Collinsvale NSP regrowth inspections, works as required	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing
Winter Spring Summer	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required Collinsvale NSP regrowth inspections, works as required Bushfire response preparedness- vehicles and plant	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing Progress GCC internal planned burn capacity Review Fire trail Natural and Cultural Values Assessments
Winter Spring	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required Collinsvale NSP regrowth inspections, works as required Bushfire response preparedness- vehicles and plant Post- weather event inspections and remedial works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing Progress GCC internal planned burn capacity Review Fire trail Natural and Cultural Values Assessments Post-burn assessments (Autumn program)
Winter Spring Summer	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required Collinsvale NSP regrowth inspections, works as required Bushfire response preparedness- vehicles and plant Post- weather event inspections and remedial works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing Progress GCC internal planned burn capacity Review Fire trail Natural and Cultural Values Assessments
Winter Spring Summer	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required Collinsvale NSP regrowth inspections, works as required Bushfire response preparedness- vehicles and plant Post- weather event inspections and remedial works Collinsvale NSP regrowth inspections, works as required Bushfire response preparedness- vehicles and plant Post- weather event inspections and remedial works Vandalism/misuse response Collinsvale NSP regrowth inspections, works as required	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn, next Spring Participation in Autumn program Fire trail/HMA project works (completion for FY)	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing Progress GCC internal planned burn capacity Review Fire trail Natural and Cultural Values Assessments Post-burn assessments (Autumn program) Post-season after-action review and inspections FMAC action items
Winter Spring Summer	Responsive, cyclic and seasonal works Post- weather event inspections and remedial works Vandalism/misuse response Post- weather event inspections and remedial works Vandalism/misuse response Fire Trail inspections, verge vegetation management Firebreak and HMA veg works Collinsvale NSP veg works Incident preparation- plant and vehicles Post- weather event inspections and remedial works Vandalism/misuse response Firebreak and HMA regrowth inspections, works as required Collinsvale NSP regrowth inspections, works as required Bushfire response preparedness- vehicles and plant Post- weather event inspections and remedial works	Projects Scoping and preparation of RFQs for project works Planned burn preliminary works for Spring season Planned burn preparation for Spring/Autumn Participation in Spring burning program Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works Planned burn preparation for Autumn Fire trail/HMA project works	Staff, resources, strategy and planning Progress GCC internal planned burn capacity Fuel Hazard Assessments- vegetation monitoring sites Post-burn assessments (Spring program) FMAC action items Progress GCC internal planned burn capacity Bushfire season situational awareness NSP, Firebreak and HMA auditing Progress GCC internal planned burn capacity Review Fire trail Natural and Cultural Values Assessments Post-burn assessments (Autumn program) Post-season after-action review and inspections