



CITY OF HOBART

AGENDA

Parks and Recreation Committee Meeting

Open Portion

Thursday, 22 April 2021

**at 5:15 pm
via Zoom**

THE MISSION

Working together to make Hobart a better place for the community.

THE VALUES

The Council is:

People	We care about people – our community, our customers and colleagues.
Teamwork	We collaborate both within the organisation and with external stakeholders drawing on skills and expertise for the benefit of our community.
Focus and Direction	We have clear goals and plans to achieve sustainable social, environmental and economic outcomes for the Hobart community.
Creativity and Innovation	We embrace new approaches and continuously improve to achieve better outcomes for our community.
Accountability	We are transparent, work to high ethical and professional standards and are accountable for delivering outcomes for our community.

ORDER OF BUSINESS

Business listed on the agenda is to be conducted in the order in which it is set out, unless the committee by simple majority determines otherwise.

APOLOGIES AND LEAVE OF ABSENCE

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Parks and Recreation Committee Meeting (Open Portion) held Thursday, 22 April 2021 at 5:15 pm.

This meeting of the Parks and Recreation Committee is held in accordance with a Notice issued by the Premier on 3 April 2020 under section 18 of the *COVID-19 Disease Emergency (Miscellaneous Provisions) Act 2020*.

COMMITTEE MEMBERS

Briscoe (Chairman)
Deputy Lord Mayor Burnet
Thomas
Ewin
Sherlock

Apologies:

Leave of Absence: Nil.

NON-MEMBERS

Lord Mayor Reynolds
Zucco
Sexton
Harvey
Behrakis
Dutta
Coats

1. CO-OPTION OF A COMMITTEE MEMBER IN THE EVENT OF A VACANCY

2. CONFIRMATION OF MINUTES

The minutes of the Open Portion of the Parks and Recreation Committee meeting held on [Thursday, 11 February 2021](#), are submitted for confirming as an accurate record.

3. CONSIDERATION OF SUPPLEMENTARY ITEMS

Ref: Part 2, Regulation 8(6) of the *Local Government (Meeting Procedures) Regulations 2015*.

Recommendation

That the Committee resolve to deal with any supplementary items not appearing on the agenda, as reported by the Acting General Manager.

4. INDICATIONS OF PECUNIARY AND CONFLICTS OF INTEREST

Ref: Part 2, Regulation 8(7) of the *Local Government (Meeting Procedures) Regulations 2015*.

Members of the Committee are requested to indicate where they may have any pecuniary or conflict of interest in respect to any matter appearing on the agenda, or any supplementary item to the agenda, which the Committee has resolved to deal with.

5. TRANSFER OF AGENDA ITEMS

Regulation 15 of the *Local Government (Meeting Procedures) Regulations 2015*.

A Committee may close a part of a meeting to the public where a matter to be discussed falls within 15(2) of the above regulations.

In the event that the Committee transfer an item to the closed portion, the reasons for doing so should be stated.

Are there any items which should be transferred from this agenda to the closed portion of the agenda, or from the closed to the open portion of the agenda?

6. REPORTS

6.1 Maritime Museum of Tasmania - Proposal to Display Aurora Australis II - Workboat of the Aurora Australis Antarctic Vessel - Deputation File Ref: F21/30663

Memorandum of the Director City Amenity of 16 April 2021 and
attachment.

Delegation: Committee



City of **HOBART**

MEMORANDUM: PARKS AND RECREATION COMMITTEE

Maritime Museum of Tasmania - Proposal to Display Aurora Australis II - Workboat of the Aurora Australis Antarctic Vessel - Deputation

Introduction

As outlined in the attached correspondence from the Maritime Museum of Tasmania, the Museum is seeking an opportunity to publicly display a former workboat of Australia's former Antarctic vessel *Aurora Australis*, known as *Aurora Australis II*, at a location in Hobart.

Background

The *Aurora Australis* is Australia's former primary Antarctic Research and Supply Vessel that was retired in 2020, and since on-sold by its owner P&O.

P&O have since indicated their intention to donate the workboat *Aurora Australis II* to a worthy cause.

The Maritime Museum of Tasmania is subsequently exploring opportunities to publicly display the workboat in Hobart.



Aurora Australis II

9.81m in length, 3.6m wide, ~6.0m high (from ground), 23 tonnes

It is the Officers view that it does not hold vacant land suitable for such a display, however recognising the strong maritime history of the boat, the Museum is encouraged to engage with the Macquarie Point Development Corporation, TasPorts, the State Government and the Australian Antarctic Division to explore display and funding opportunities for the proposal.

Proposal

It is proposed that the Committee receive and note the deputation from the Maritime Museum of Tasmania

It is proposed that the City support the Museum to engage with the Macquarie Point Development Corporation, TasPorts, the State Government and the Australian Antarctic Division to explore opportunities to display and fund the proposal.

It is noted that the City's short-medium term financial challenges arising from the impact of COVID-19 is likely to prevent the Council providing funding for the proposal.

RECOMMENDATION

That:

- 1. The deputation from the Maritime Museum of Tasmania in respect to opportunities to publicly display a former workboat 'Aurora Australis II' of Australia's former primary Antarctic Research and Supply Vessel 'Aurora Australis' be received and noted.***
- 2. The City support the Museum to engage with the Macquarie Point Development Corporation, TasPorts, the State Government and the Australian Antarctic Division to explore opportunities to display and fund the proposal.***

As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.



Glenn Doyle
DIRECTOR CITY AMENITY

Date: 16 April 2021
File Reference: F21/30663

Attachment A: Maritime Museum of Tasmania - Letter of Proposal ↓ 



Ald. Jeff Briscoe
Chair, Parks and Recreation Committee
Hobart City Council
Ald.briscoe@hobartcity.com.au

April 5th 2021

Dear Ald. Briscoe

Jeff

The Maritime Museum of Tasmania was, like many of Hobart's institutions and citizens, sad when the Antarctic Research and Supply Vessel *Aurora Australis* left port for the last time, for the ship had become very much part of our everyday lives, particularly during the winter months when its familiar profile filled Princes Wharf. The Museum is soon to start a redevelopment of its main Gallery which will focus on Hobart as a port city, and in the displays we will showcase the City's role as a gateway to Antarctica.

P+O, the owners of the *Aurora Australis*, have said they would be happy to donate the ship's workboat that accompanied it to the Antarctic on numerous occasions, named *Aurora Australis II*, to a worthy cause. The Maritime Museum, together with Offshore and Specialist Ships Australia—a body dedicated to preserving the history of Australia's specialist ships—would like to put the workboat on display in a location where it could be viewed by Hobart's citizen's, ideally near the waterfront but otherwise where people gather for recreation. *Aurora Australis II*'s name, bright orange colour and its special design for working in ice-strewn waters would stand as a permanent reminder of Hobart's link with not only a fine, much-loved ship, but with Hobart's important role in Antarctic shipping.

I am writing to you to gauge the City Council's interest in joining this initiative through the provision of a suitable spot where the boat could be put on display. The little boat has been recently repainted and is in excellent condition. I have appended its dimensions below to give the Parks and Recreation Committee an idea of the footprint it would require. I assume other groups in the City would need to have input and may need technical, or other information additional to that below. If that is the case, I would be pleased to provide it.

Thank you for your consideration, and I look forward to hearing from you.

Yours sincerely

Michael Stoddart
Vice-President



*Aurora Australis II Specifications*

Length overall	9.81 metres
Beam	3.6 metres
Total height from ground	about 6 metres
Weight	23 tonnes

The boat's design is such that it requires only a concrete slab for display. No special cradle or other supports are needed. It would need to have a cage or some other device around it to stop people from climbing on it.



**6.2 Draft City of Hobart Bushfire Management Strategy - Endorsement
for Community Engagement
File Ref: F20/114361**

Report of the Program Leader Fire and Biodiversity, the Manager
Bushland / Manager Parks & Recreation and the Director City Amenity of
16 April 2021 and attachment.

Delegation: Council

REPORT TITLE: DRAFT CITY OF HOBART BUSHFIRE MANAGEMENT STRATEGY - ENDORSEMENT FOR COMMUNITY ENGAGEMENT

REPORT PROVIDED BY: Program Leader Fire and Biodiversity
Manager Bushland / Manager Parks & Recreation
Director City Amenity

1. Report Purpose and Community Benefit

- 1.1. The purpose of this report is to seek approval of Council for the release for public consultation the Draft City of Hobart Bushfire Management Strategy.
 - 1.1.1. The draft Bushfire Management Strategy outlines the operational and strategic plans for the protection of the City of Hobart from the impact of bushfire and defines how this work will be undertaken to achieve the required bushfire mitigation measures.

2. Report Summary

- 2.1. The Draft Bushfire Management Strategy comprises a number of components that when considered together, outline the theory, principles and assessment of the bushfire risk in the City of Hobart and identifies the range of operational actions that need to occur to mitigate that risk.
- 2.2. The first component is an overarching policy document defining the principles and the analysis of risk which is then translated into the actions required to effectively reduce the risk of bushfire to the City of Hobart.
- 2.3. The second component is a product of the assessment, detailing the operational plans required to implement the required risk reduction works with a timeframe for implementation and location of the works.
- 2.4. It is proposed to release the draft document for community engagement, after which a further report will be provided to the Council, seeking approval of the final document, reflecting amendments identified as part of the engagement process.

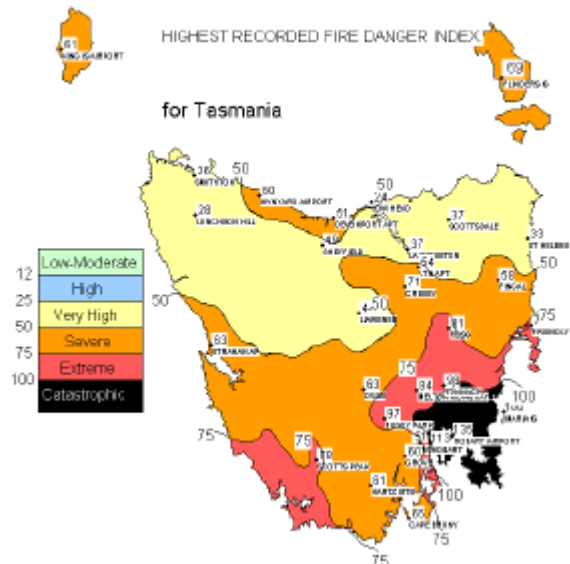
3. Recommendation

That:

- 1. The Draft City of Hobart Bushfire Management Strategy (version 6, April 2021) be endorsed for public release for community engagement.***
- 2. A further report be provided to the Council following the community engagement for approval of the Strategy.***

4. Background

- 4.1. Bushfire is considered the greatest single threat to the City of Hobart. Previous events have amply demonstrated the impact a major bushfire will have on life, property and society with these impacts echoing through time to the present day.



- 4.2. The Draft Bushfire Management strategy reflects the importance the City places on the management of risk.

It reflects the consequence this hazard has for the community and the critical importance of managing that risk in line with the other values the community values in living in the City of Hobart.

- 4.3. The Draft plan aligns with the Hobart Community Vision in a number of important areas, in a physical, social and environmental sense.

It plans to increase the resilience of the City to the impact of bushfire and accepts that there is a cost to living in the bush and therefore of living with bushfire risk.

The strategy for managing bushfire risk and preparing the community for the inevitable incidence of bushfire is part of our desire to learn to live with and in the bush and makes us value this environment more.

- 4.4. The strategy explains elements that drive fire and determine fire behaviour in the Hobart context and outlines what action can be taken to affect these elements and reduce risk.
- 4.5. The process of operational planning is described so that the use of asset protection, strategic fire management and land management zoning in managing risk is explained.

- 4.6. The program for implanting operational programs to achieve risk reduction is detailed including the various methods employed to treat fuel and improve access and suppression.
- 4.7. The prescribed burning program is detailed along with the considerations the City undertakes to manage biodiversity values, impact upon visual amenity, smoke management and neighbour protection.
- 4.8. The planning and strategic context are defined along with the role of local government in the planning for bushfire and the regulatory role of the City and fire agencies.
- 4.9. The draft strategy defines the goals of the City on the management of the values of the land we manage and how this services the Hobart City Vision including articulation with other strategies such as the Biodiversity Action Plan and the Municipal Emergency Plan.
- 4.10. The plan also outlines the City's goals in improving community resilience and education to enable the community to prepare their own properties for bushfires and ensure that people understand the importance of preparing themselves and their property to respond in a timely manner.

5. Proposal and Implementation

- 5.1. It is proposed that the Draft Strategy be endorsed to allow for community consultation to be undertaken.
- 5.2. It is proposed that a further report be provided to the Council on the outcomes of the engagement process, any refinements to the Strategy and to seek approval of the final document.

6. Strategic Planning and Policy Considerations

- 6.1. The Bushfire Management Strategy forms a subordinate plan of the Municipal Emergency Management Plan and will be submitted to the Hobart Fire Management Advisory Committee for endorsement.
- 6.2. The Bushfire Management Strategy addresses specific bushfire risk in the City of Hobart Risk Register and address responsibilities as a land owner and meets the duty of care obligations the City has as a neighbour.
- 6.3. The Draft plan aligns with the Hobart Community Vision as listed below:

Pillar 1. Sense of Place

1.1 Our Spirit of Place is Strong

- 1.1.4 We recognise that some of what we value is beyond words and not easy to quantify—we embrace rather than fight this complexity.***

- 1.1.5 *Our spirit of place fills us with pride and inspiration. If we had to leave Hobart, our sense of place is what it would break our hearts to lose.*

1.2 *Our Place is Our Identity*

- 1.2.5 *We don't take our sense of place for granted. We learn and apply lessons from elsewhere at the same time that we avoid changes that weaken it.*
- 1.2.6 *Our sense of place supports growth and progress that is consistent with our vision. The strength of our connection to our current way of life does not encourage us to stagnate but rather provides guidance for us to move forward.*

By involving and engaging the community in our strategy and our preparations we can develop a partnership that benefits everyone and reduces the impact of loss we will endure when an incident occurs.

The resilience of the City relates to its people, community and infrastructure and can only be enhanced by greater co-operation and knowledge sharing of the actions required.

Pillar 2. Community Inclusion, Participation and Belonging

2.4 *We Are Informed and Always Learning*

- 2.4.1 *We are informed about our community and the services and opportunities that are open to us.*

The threat of bushfire and the works required to mitigate risk affect the visual landscape and the environment in which we live.

These works affect how this character is maintained and protected as well as influencing the perception of the City and its surrounds by visitors and residents.

Pillar 6. Natural Environment

6.1 *Our City is a Part of Nature and Nature is a Part of Our City*

- 6.1.1 *Hobart is defined by its natural environment and relies on it to exist. We cherish the mountain and the river.*

6.2 *We are Ecologically Conscious, Aware and Empowered*

- 6.2.2 *We are aware of the impacts of our individual and collective actions.*
- 6.2.3 *We feel and are empowered to make good environmental decisions.*

6.5 We are Prepared for and Resilient to Natural Disasters

6.5.1 We have designed and maintained our city's infrastructure so it can handle extreme weather events.

6.5.2 Our city is prepared to prevent and confront bushfires, floods and other natural disasters. We have effective systems in place, where community members are aware of how to protect themselves and their homes and where to go for help.

7. Financial Implications

7.1. Funding Source and Impact on Current Year Operating Result

7.1.1. The Strategy guides the continuation of the City's existing bushfire management programs, with no additional funding for the implementation of the Strategy required, beyond the recent level of annual commitments of funds.

7.2. Impact on Future Years' Financial Result

7.2.1. Operational funding for bushfire risk management is identified in the forward budget based on the extension of fuel breaks in reserves to the Tasmania Fire Service Fuel Break standard and the access standard and the creation of new fire trails where the strategic risk analysis identifies that access is required.

7.3. Asset Related Implications

7.3.1. Capital funding for fire trails is identified in the forward budget based on the improvement of fire trails to Tasmania Fire Service access standard and the creation of new fire trails where the strategic risk analysis identifies that access is required.

8. Legal, Risk and Legislative Considerations

8.1. The City and other landowners of bushland in the greater Hobart region have a general legal responsibility to take all reasonable steps to minimise the risk of fires originating on their property from causing personal injury, damage to adjoining property, or damage to items of natural or heritage value protected by government legislation.

8.2. The City has specific responsibilities under various state and federal government legislation covering areas such as fire management, fire hazard abatement and the conservation and management of native flora and fauna (refer Appendix 1 in the Draft Strategy attached).

9. Community and Stakeholder Engagement

- 9.1. With the endorsement of the Council, community and stakeholder engagement will be undertaken, including the following:
- 9.1.1. Use of the City's *YourSayHobart* platform, for a 3-week period.
 - 9.1.2. Promotion via the City's website and social media platforms.
 - 9.1.3. Direct referral to key stakeholder and community groups.
 - 9.1.4. Public meetings with key community/interest groups.

10. Delegation

- 10.1. The matter is delegated to the Council.

As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.



Elise Jeffery
**PROGRAM LEADER FIRE AND
BIODIVERSITY**



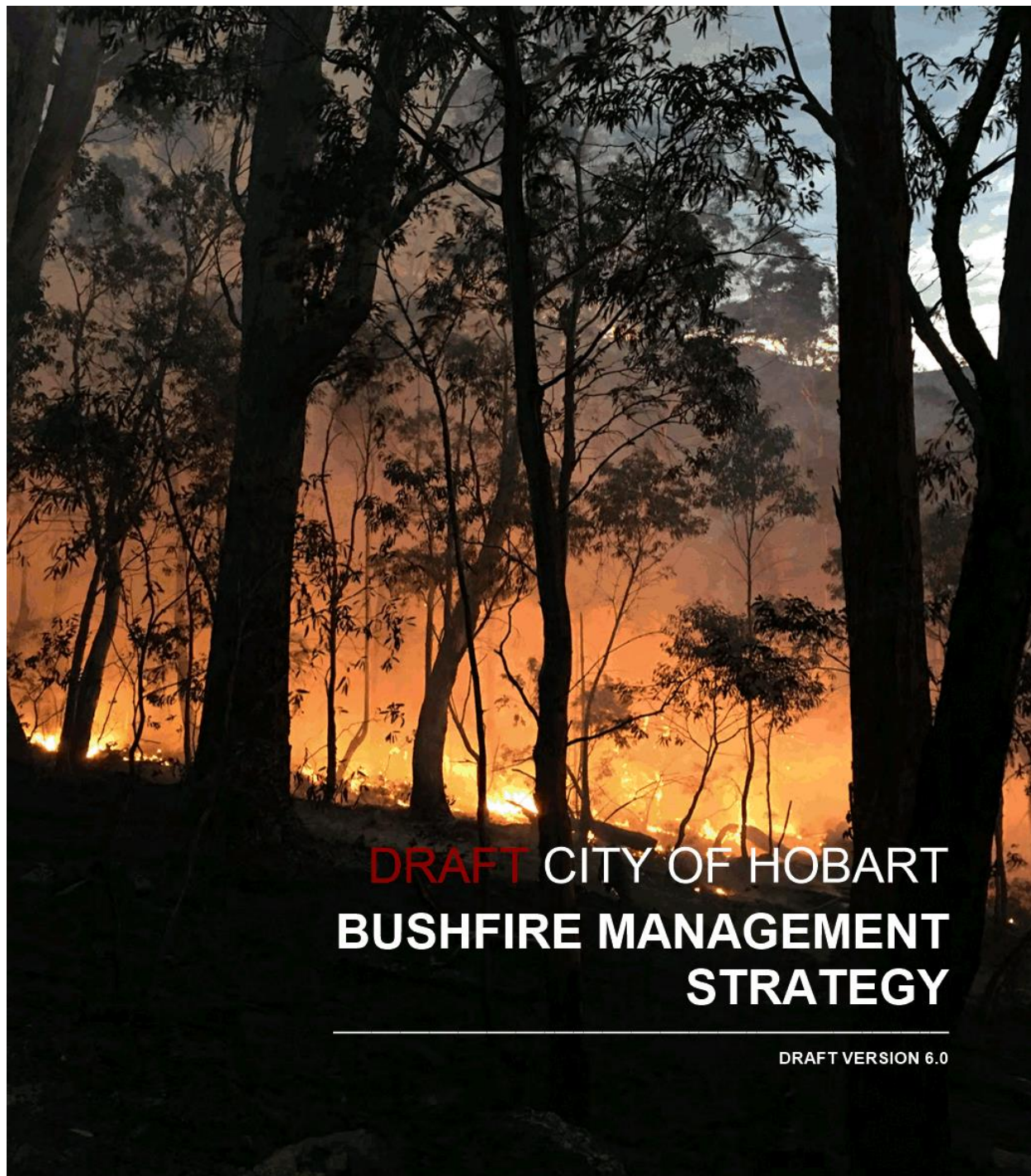
John Fisher
**MANAGER BUSHLAND / MANAGER
PARKS & RECREATION**



Glenn Doyle
DIRECTOR CITY AMENITY

Date: 16 April 2021
File Reference: F20/114361

Attachment A: Draft Bushfire Management Strategy ↓ 



City of Hobart Bushfire Management Strategy 2021
Version 6.0 not yet ready for public release

Acknowledgment of Country

The City of Hobart acknowledges and pays respect to the Tasmanian Aboriginal Community, past and present, as the traditional and original owners, and continuing custodians of this land.

Prior to European colonisation, Aboriginal people actively used fire as a sophisticated tool to continually manage and modify the landscape. The detailed knowledge of the patterns of burning and fire regimes applied by Aboriginal people is incomplete, however, there is good evidence that the patterns of vegetation observed in the landscape today are strongly influenced by past Aboriginal burning.

The broad patterns of vegetation in the Tasmanian landscape shaped by Aboriginal fire regimes over thousands of years are still significant to Aboriginal people.

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Bushfire Management Strategy 2021

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Glossary

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 construction and /or maintenance of the asset to reduce the risk of ignition, or response plans.
Bushfire	Unplanned vegetation fire. A generic term that includes grass fires, forest fires and scrub fires both with and without a suppression objective.
Bushfire hazard	The potential negative consequence 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 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.
Community Bushfire Protection Plan	A bushfire plan for community members that provides local, community-specific information to assist with bushfire preparation and survival. The focus of the Bushfire Protection Plan is on bushfire safety options, and the intent of the plan is to support the development of personal Bushfire Survival Plans.
Community Bushfire Response Plan	An Emergency Management Plan for emergency managers and responders. The Bushfire Response Plan aims to better protect communities and community assets during bushfire emergencies through the identification of protection priorities and operational information.
Consequence	Impact(s) of an event on 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.
Fire management zoning	Classification system for areas to be managed. The zoning system indicates the primary purposes for fire management for an area of land.
Fuel break	A natural or constructed change in fuel characteristics that affect fire behaviour so that fires burning into them can be more readily controlled.
Hazard management area	The area between a building and bushfire-prone vegetation that provides access to a firefront for firefighting. These areas are maintained with minimal fuel loads and with 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. It includes seasonally populated areas

	and industrial areas.
Land Management Zone (LMZ)	An area managed to meet the objectives of the relevant land manager such as: Traditional Owner practices, biodiversity conservation, production forestry, farming or recreation. Management can include planned burning, experimental treatments, fire exclusion or no planned action.
Likelihood	Chance of an event happening. It is used as a general description of probability and may be expressed qualitatively or quantitatively.
Prescribed burn	A form of land management in which fire is intentionally applied to bushland vegetation. Prescribed fires are conducted under desired conditions to meet specific objectives, such as to restore fire regimes in adapted ecosystems or to reduce the available fuel. Sometimes called 'Fuel Reduction Burn', 'Hazard Reduction Burn', 'Planned Burn' or 'Controlled Burn'.
Risk register	A document usually presented in a tabular form that lists concisely the following information for each risk: the risk statement, source, hazard, impact area, prevention/preparedness controls, recovery/response controls, level of existing controls, likelihood level, risk level, confidence level, treatment strategy.
Risk treatment	Process of selection and implementation of controls to modify risk. The term 'risk treatment' can be used for the controls themselves.
Strategic Fire Management Zone (SFMZ)	An area close to or a distance away from assets (e.g. the urban–rural interface), the primary management purpose of which is to provide a mosaic of areas of reduced fuel loads in strategic locations to minimise the speed and intensity of bushfires, potential for spot-fire development, and size of bushfires. Fuel reduction is generally achieved by mechanical treatment, burning and other bushfire protection measures such as fire trails, water points, detection measures and response plans.
Treatable vegetation	Types of vegetation suitable for fuel reduction burning, for example, dry eucalypt forest, scrub, heathland and buttongrass.
Treatment plan	A document related to the risk register presented in a tabular form that lists concisely the following information for each risk: the agreed strategies to manage the risk (i.e. treatments), responsibility, proposed completion date and comments.

Acronyms

APZ	Asset Protection Zone
AS 3959	AS 3959 Construction of buildings in bushfire-prone areas
BAL	Bushfire Attack Level
BHMP	Bushfire Hazard Management Plan
BNHCRC	Bushfire and Natural Hazard Cooperative Research Centre
BoM	Bureau of Meteorology
BRMP	Bushfire Risk Management Plan
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSMS	Co-ordinated Smoke Management Strategy
DPIPWE	Department of Primary Industries, Parks, Water and Environment
EPA	Environment Protection Agency
FFDI	Forest Fire Danger Index
FMA	Fire Management Area
FMAC	Fire Management Area Committee
HCC	Hobart City Council
IPCC	Intergovernmental Panel on Climate Change
LGA	Local Government Area
LMZ	Land Management Zone
masl	Metres above sea level
MEMP	City of Hobart Municipal Emergency Management Plan
NERAG	National Emergency Risk Assessment Guidelines
PPRR	Prevention-Preparedness-Response-Recovery
PWS	Parks and Wildlife Service
SFMC	State Fire Management Council
SFMZ	Strategic Fire Management Zone
STT	Sustainable Timber Tasmania
TERAG	Tasmania Emergency Risk Assessment Guidelines
TSNDRA	Tasmanian State Natural Disaster Risk Assessment
TFS	Tasmania Fire Service

Introduction

Bushland and the urban fringe

The protected bushland reserves in and around Hobart are a hallmark of the city and one of the reasons people love living here. They are intrinsic to our sense of place and wellbeing. However, if not managed properly they also represent a clear bushfire threat. That is why Hobart's bushland reserves must be managed in a way that minimises the bushfire risk to our homes, infrastructure and the people of Hobart while also protecting their natural values.

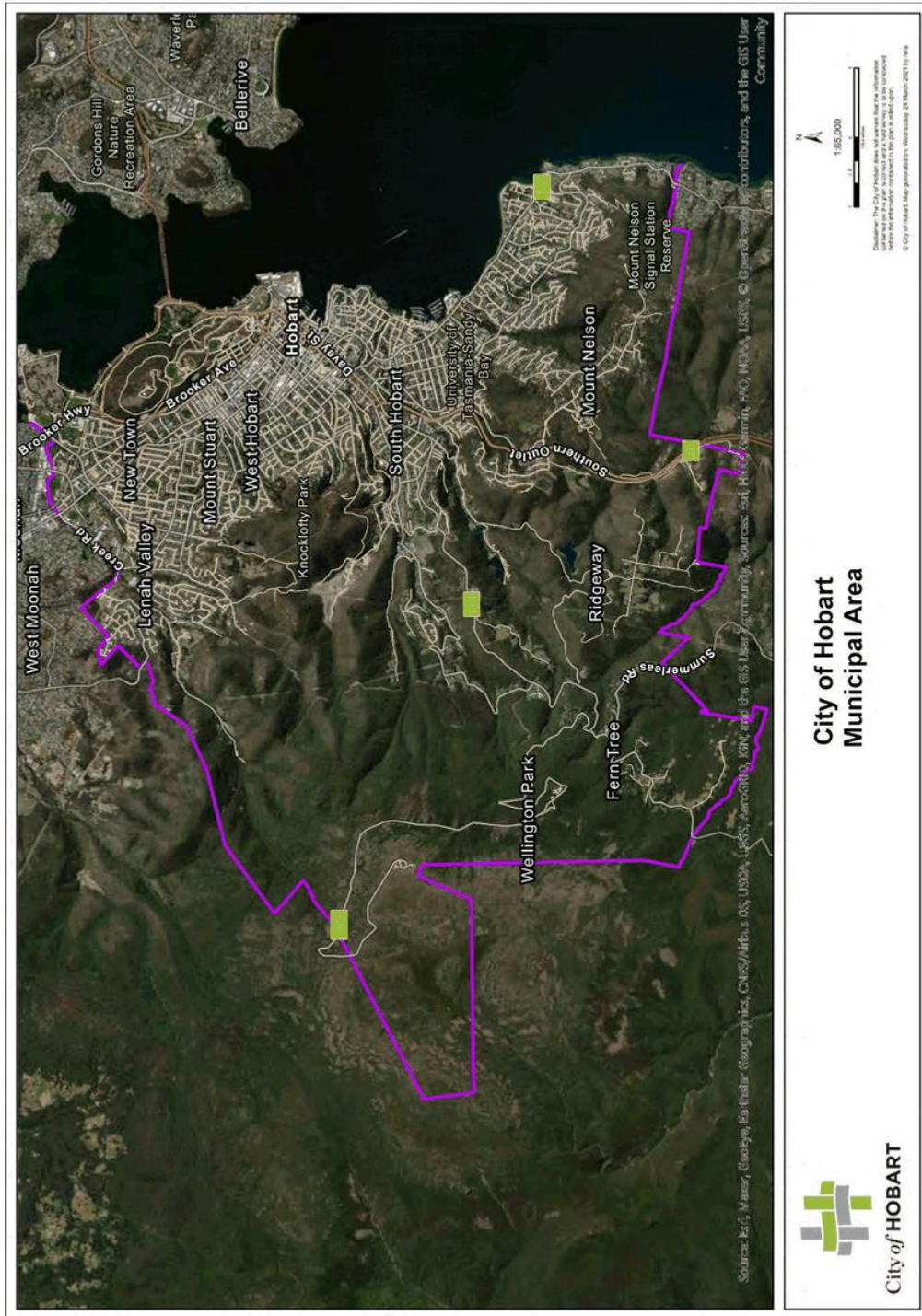
The City's urban fringe cuts into the steep valleys and ridges of Mt Nelson, Knocklofty Reserve and the foothills of kunanyi / Mt Wellington. Most of these areas were developed when there were few, if any, planning controls requiring the consideration of bushfire risk as a factor in design, location and construction of new homes, subdivisions and infrastructure.

The Building Code of Australia has enforced provisions on the construction of buildings in bushfire-prone areas under the planning scheme since 2009.

Bushfire prone areas are defined as land that is within 100 metres of bushfire-prone vegetation equal to or greater than 1 hectare.

There is no doubt that in the future fire will occur in areas of bushland within and on the fringe of Hobart. This bushfire risk cannot be completely removed but, with careful thought and the cooperation of our whole community working together, it can be reduced.

The City of Hobart's most recent bushfire management strategy was developed in 2014 and incorporated findings from both the 2009 Victorian Bushfires Royal Commission and the 2013 Tasmanian Bushfires Inquiry.



The City of Hobart's new 2021 Bushfire Management Strategy builds on the strengths of previous strategies and incorporates new knowledge, experience, legislation, policy, science and community expectations together with what we have learnt from Tasmanian fires in 2016, 2018-19 and from the 2020 Royal Commission into National Natural Disaster Arrangements.

Above all the City of Hobart should ensure that every member of society is prepared for the next bushfire event and that all of us make the changes needed to reduce the risk of fire impacting our lives by protecting our homes and our community.

In the final report from the 2009 Victorian Bushfires Royal Commission, chapter 9 in volume 2 was entirely devoted to the concept of shared responsibility.

"...responsibility for community safety during bushfires is shared by the State, municipal councils, individuals, household members and the broader community. A fundamental aspect of the Commission's recommendations is the notion that each of these groups must accept increased responsibility for bushfire safety in the future and that many of these responsibilities must be shared."

- Victorian Bushfires Royal Commission Final Report

Hobart Community Vision

The Hobart Community Vision describes what people love and value about Hobart and how they want Hobart to evolve.

Its purpose is to guide all of the City's work, so that Council decisions help create the Hobart our communities want, for current and future generations.

The Vision has eight pillars that represent the major parts of city life. Each pillar helps guide strategic thinking about Hobart - reflecting on what the city is now and what Hobart communities want it to become.

This Fire Management Strategy, one of many strategies and policy documents for the City, fulfils elements in a number of the Pillars. In particular Pillars 1, 2 and 6:

Pillar 1. Sense of Place

1.1 Our Spirit of Place is Strong

1.1.4 We recognise that what we value is beyond words and not easy to quantify—we embrace rather than fight this complexity.

1.1.5 Our spirit of place fills us with pride and inspiration. If we had to leave Hobart, our sense of place is what it would break our hearts to lose.

1.2 Our Place is Our Identity

1.2.5 We don't take our sense of place for granted. We learn and apply lessons from elsewhere at the same time that we avoid changes that weaken it.

1.2.6 Our sense of place supports growth and progress that is consistent with our vision. The strength of our connection to our current way of life does not encourage

us to stagnate but rather provides guidance for us to move forward.

Pillar 2. Community Inclusion, Participation and Belonging

2.4 *We Are Informed and Always Learning*

2.4.1 We are informed about our community and the services and opportunities that are open to us.

Pillar 6. Natural Environment

6.1 *Our City is a Part of Nature and Nature is a Part of Our City*

6.1.1 Hobart is defined by its natural environment and relies on it to exist. We cherish the mountain and the river.

6.2 *We are Ecologically Conscious, Aware and Empowered*

6.2.2 We are aware of the impacts of our individual and collective actions.

6.2.3 We feel and are empowered to make good environmental decisions.

6.5 *We are Prepared for and Resilient to Natural Disasters*

6.5.1 We have designed and maintained our city's infrastructure so it can handle extreme weather events.

6.5.2 Our city is prepared to prevent and confront bushfires, floods and other natural disasters. We have effective systems in place, where community members are aware of how to protect themselves and their homes and where to go for help.

The objectives of this strategy

This strategy outlines the bushfire threat to the City of Hobart and outlines actions that have and will be undertaken by the City to reduce bushfire-related risks.

The guiding principal of this strategy is that any reduction in bushfire risk is a shared responsibility between all spheres of government, other agencies and all members of the community.

To mitigate the bushfire risk to the Hobart community the primary objectives of this strategy are to:

1. Outline the City of Hobart fire management practices and operational procedures that minimise the fire threat to:
 - life and property
 - ecological diversity
 - sustainability of natural systems
 - cultural and Aboriginal values
 - essential and community services and infrastructure
 - industries and the economy.

People's lives, including firefighters' lives, will be afforded priority over all other considerations.

2. Maintain or improve the resilience of natural ecosystems.

3. Identify actions the City of Hobart is undertaking or will undertake in each of its five major areas of responsibility to reduce bushfire risk:
 - land management
 - building community resilience
 - statutory planning
 - regulatory responsibilities (legislative compliance and enforcement)
 - emergency management.
4. Operate in accordance with relevant federal and state legislation and policies as well as City of Hobart policies and management practice.

Why we need a Bushfire Management Strategy

Bushfire has long been recognised as the most likely and significant natural disaster risk to Hobart and changes to the planet's climate means bushfires are increasing in frequency, intensity and extent around the world, including here in Tasmania.

The City of Hobart has a relatively long history of proactive bushfire planning and management. As both the owner and manager of Hobart's extensive bushland reserve system the City plays a critical role in managing and mitigating the bushfire risk.

The City's abilities to manage and control the bushfire threat are continually evolving, as is the capability and capacity of its bushfire response teams, who plan and carry out planned burns and are trained to respond to any bushfire emergency within our bushland reserves. This work is managed with the City's Fire and Biodiversity Program Area, part of the City Amenity Division.

Managing the bushfire risk is a balancing act between keeping the threat of bushfire under control while maintaining the significant social, recreational, aesthetic and economic values the City's bushland reserve system provides. Our bushfire management strategy must help ensure ongoing community support and involvement in enhanced bushfire planning and management.

A brief history of bushfire in and around Hobart

Fire has been part of Tasmania and Australia for a very long time, certainly before Europeans arrived. A core sample containing pollen and charcoal taken from deep sediment in a lake on Flinders Island off the coast of Tasmania showed Aboriginal people were actively using fire as a management tool at least 12,000 years ago¹.

The first reference to bushfires in Australia by European explorers was in Abel Tasman's diary entry on December 2, 1642 during his exploration of Tasmania's east coast:

A short time before we got sight of our boats returning to the ships, we now and then saw clouds of dense smoke rising up from the land, which was nearly west by north of us, and surmised this might be a signal given by our men, because they were so long coming back, for we had ordered them to return speedily, partly in order to be made acquainted with what they had seen, and partly that we might be able to send them to other points if they should find no profit there, to the end that no precious time might be wasted. When our men had come on board again we inquired of them whether they had been there and made a fire, to which they returned a negative answer, adding however that at various times and points in the wood they also had seen clouds of smoke ascending. So there can be no doubt there must be men here of extraordinary stature. This day we had variable winds

from the eastward, but for the greater part of the day a stiff, steady breeze from the south-east.

Before European colonisation of Australia Aboriginal people actively used fire as a sophisticated tool to manage and modify the landscape. The detailed knowledge of the patterns of burning and fire regimes applied by Aboriginal people is incomplete - especially in Tasmania - however, there is good evidence that the patterns of vegetation observed in the landscape today are strongly influenced by past Aboriginal burning practices.

An example of this fire-shaped landscape can be seen in the open buttongrass moorlands found throughout the Tasmanian highlands. The broad patterns of vegetation shaped by Aboriginal fire regimes over thousands of years are still significant to Aboriginal people.

Relatively frequent Aboriginal burning was noted by early visitors and settlers². It is highly likely that the grassy woodland vegetation covering much of the Queens Domain is a remnant of a more extensive land system along the Derwent Valley that Aboriginal people maintained by frequent burning.

Aboriginal fire practices across Australia were severely disrupted by the arrival of Europeans and as a nation we did not take the time to learn with Aboriginal people to manage fire across the landscape.

How often do we have major bushfires?

This is not an easy question to answer. Fire records from the very recent past are limited and almost non-existent from the early days of European occupation.

However, we do know Tasmania has seen considerable fire activity across the landscape and it appears to be increasing in frequency, intensity and extent. Records kept since the early 1800s show significant fires in Tasmania across a number of years.



Major Fires in Tasmania's Recent History

In 1954 a new Bushfires Act was legislated in Tasmania which was designed to limit the damage caused by fires lit inappropriately and escaping onto other properties.

It was not until the 1967 bushfires that the Rural Fires Board was established, leading to the formation of the Tasmania Fire Service.

1967 - Black Tuesday

The 1967 Hobart bushfire remains a defining event in Tasmanian history. It moved so fast that many people had very little time to prepare for the catastrophic impact it had on the capital city.

On 7 February 1967 it took just five hours for 110 separate fire fronts to burn through approximately 2640 square kilometres of land in Southern Tasmania, including a large part of Hobart. This was a national tragedy that claimed 62 lives in a single day and became known as the Black Tuesday bushfire.

Property loss was extensive, with 1293 homes and more than 1700 other buildings destroyed.

In Hobart more than 500 houses were lost. The fires destroyed 80 bridges, 4800 sections of power lines, 1500 motor vehicles and over 100 other structures. An estimated 62,000 farm animals were killed. The total damage bill was put at \$40 million in 1967 Australian dollar values³.

But a bushfire does not have to be as intense or widespread as the 1967 Hobart fire to have significant impacts on people's lives.

A changing landscape

Over time, the memories and experiences from major bushfires fade. People are continually moving to Hobart from elsewhere in Tasmania, Australia and the world. Many new residents have little knowledge of the landscape's fire history.

Increased residential development, particularly on the urban fringe, means more people than ever now live close to fire-prone bushland. Houses have been built on the edge of steep bushland valleys and ridges at places like Mt Nelson, Knocklofty Reserve, Ridgeway Park and on the edges and in the foothills of kunanyi/Mt Wellington. Most of these areas were developed at a time when there were few, if any, planning laws requiring new houses be built to withstand bushfire.

The bushland in and around Hobart is extremely important to the health and identity of the city and the people who live here. We are intimately connected with nature and wilderness. Whether it is a quiet afternoon spent in one of our many parks, riding or walking to work along the Hobart Rivulet, or a day spent walking on kunanyi/Mount Wellington, these are among our best and most cherished times.

Research^{4 5} shows that the distance of a house from bushland is the single major factor in determining if a home will be burnt during a bushfire. Research undertaken for the Royal



*Charles Roberts and his dog, Elsa, survey the ruins of the Fern Tree store.
Photo: Stuart Roberts*

Commission into the 2009 Victorian fires shows that, historically, about 85% or more of the properties lost since the 1967 Hobart bushfires were within 100 metres of bushland.

“The likelihood of a property being destroyed in a fire if located within 50 metres of bushland under extreme fire weather conditions is around 50-60%. For homes within 10 metres of bushland in Marysville and Kinglake during the 2009 Victoria Black Saturday fires, it was around 80 to 90%. Some 60% of all homes destroyed in these two towns fell within this distance category (less than 10 metres)...”⁶.

There is a cost and increased risks in building our homes so close to native bushland. If we are to live so close to nature we must manage the bushfire risk to minimise the threat to people, homes and infrastructure.

Eventually a bushfire will occur in bushland in and surrounding Hobart. And while the bushfire risk cannot be completely removed, with careful thought, hard work and the cooperation of our entire community, it can be reduced.

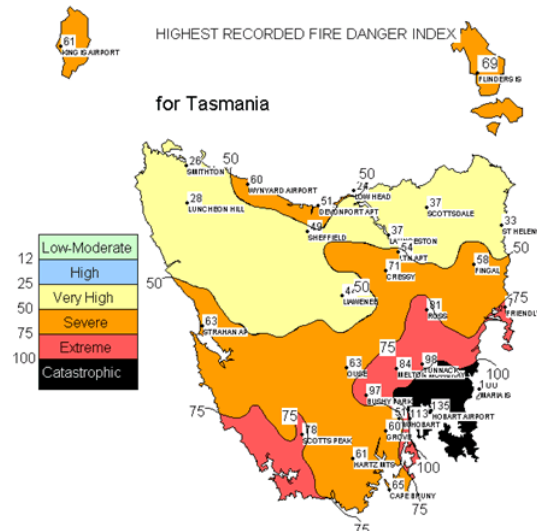
City of Hobart - the bushfire risk

It is now widely accepted that bushfires are an inevitable occurrence in Australia and that Australian vegetation is dominated by fire-adapted eucalypts.

Hobart is surrounded by bushland dominated by flammable plants, especially *Eucalypt* and *Acacia* species.

In 2010 a report by the Antarctic Climate & Ecosystems Cooperative Research Centre⁷ warned that it is “generally recognised that southeast Tasmania, including the Hobart area, is subject to the highest fire danger in the state”.

To support this statement a map of Tasmania was generated showing the calculated fire danger rating based on data collected over ten years between approximately 2000 and 2009.



Quantifying risk

An analysis of bushfire risk considers the following:

- Likelihood – based on factors such as weather, topography, fuels and ignition potential, what is the realistic potential for a bushfire event to occur?
- Consequences – given the bushfire scenario under consideration, what values and assets are at risk?
- Existing controls – given a range of existing controls, how effective will they be at reducing the risk?
- Confidence level – how certain are we about the evidence and data used?

Risks from bushfire arise from the interaction between hazard (bushfire), vulnerability (susceptibility to harm) and exposure (people, assets or ecosystems at risk). Hazards include processes that range from brief events, such as small, localised fires in spring or autumn, to slow trends, such as increased severe fire frequencies in summer including the effects of climate change.

Vulnerability and exposure are both sensitive to a wide range of social and economic processes, with possible increases or decreases depending on matters such as location, mobility, knowledge and experience.

Risk is often represented as the probability of occurrence (likelihood) of hazardous events or trends multiplied by the magnitude of the outcomes (consequences) if these events occur.

There are four possible outcomes for ‘likelihood’ used in this document: unlikely, possible,

likely and almost certain. To determine the likelihood rating we would use a matrix such as the following:

		If a bushfire occurs, is it likely to spread & reach assets?	
		No	Yes
Do bushfires occur frequently?	No	Unlikely	Likely
	Yes	Possible	Almost certain

The answer to the question of 'likelihood' is not always straight forward. It depends on factors such as location, weather, season, fuel levels, terrain, etc. The table below provides a general description of each likelihood rating in relation to bushfires on the urban fringe:

Likelihood rating	Characterisation of Likelihood
Almost certain (sure to happen)	<ul style="list-style-type: none"> is expected to occur in most circumstances high level of recorded incidents and/or strong anecdotal evidence; and/or strong likelihood the event will reoccur; and/or great opportunity, reason or means to occur; and/or may occur more than once in five years.
Likely (probable)	<ul style="list-style-type: none"> regular recorded incidents and strong anecdotal evidence; and/or considerable opportunity, reason or means to occur; and/or may occur at least once in five years.
Possible (feasible but < probable)	<ul style="list-style-type: none"> should/might occur at eventually; and/or few, infrequent, random recorded incidents or little anecdotal evidence; and/or an opportunity, reason or means to occur.
Unlikely (improbable, not likely)	<ul style="list-style-type: none"> would only occur under exceptional circumstances.

Consequence is the outcome or the result of, in this context, any bushfire event. The consequences may be quite different for different categories of assets. There are four possible consequences used in this strategy: minor, moderate, major and catastrophic.

Consequence rating	Characterisation of Consequence
Minor	<ul style="list-style-type: none"> no fatalities near misses or minor injuries with first aid treatment only no people displaced little or no physical, mental or emotions support required inconsequential or no damage to assets little or no specific recovery required inconsequential or no disruption to the community inconsequential or short-term failure of infrastructure or services inconsequential or no financial loss.
Moderate	<ul style="list-style-type: none"> isolated serious injuries, no fatalities, possible hospitalisation isolated cases of displaced people physical, mental or emotional support provided locally localised damage, basic repair or routine maintenance

Consequence rating	Characterisation of Consequence
	<ul style="list-style-type: none"> ▪ little inconvenience to broader community. ▪ isolated or short-term failure of infrastructure ▪ local personal economic impact ▪ isolated damage to cultural or environmental assets.
Major	<ul style="list-style-type: none"> ▪ isolated cases of fatalities ▪ multiple serious injuries leading to hospitalisation. ▪ local health services stretched ▪ large number of people displaced possibly for greater than 24 hours ▪ significant out of area resources required for physical, mental or emotional support ▪ significant damage to infrastructure, considerable repair needed ▪ community functioning significantly disrupted ▪ mid to long-term failure of services and infrastructure ▪ local or regional economy impacted for considerable time ▪ financial assistance required ▪ significant damage to cultural or environmental assets ▪ localised extinction of native species ▪ loss of significant cultural resources and sites.
Catastrophic	<ul style="list-style-type: none"> ▪ multiple fatalities ▪ extensive severe injuries ▪ extended use of hospital resources by a large number of people ▪ local health services possibly overwhelmed ▪ extensive displacement of people for a considerable time ▪ extensive external resources needed for personal support ▪ extensive damage to assets ▪ community unable to function without significant support ▪ long-term failure of significant services and infrastructure ▪ regional or state economy impacted ▪ extinction of native species ▪ extensive loss of significant cultural resources and sites.

As previously stated, risk is often represented as the probability or likelihood of an occurrence of an event multiplied by the magnitude of the consequences if this event occurs. We often use a table similar to the following to assess the level of risk:

Risk matrix used to guide this risk assessment				
Consequences	Likelihood			
	Unlikely	Possible	Likely	Almost Certain
Minor	Low	Low	Medium	High
Moderate	Low	Medium	High	Very High
Major	Medium	High	Very High	Extreme
Catastrophic	High	Very High	Extreme	Extreme

Therefore, heightened risk can result not only from high probability events but also from low probability events with potentially severe consequences. This makes it important to assess the full range of possible outcomes, from low probability through to very likely

events.

While risk cannot always be removed or eliminated, it can often be reduced. Risk can be reduced and managed using a wide range of treatments that can be ongoing such as some forms of annual maintenance eg. fuel reduction.

National Emergency Risk Assessment Guidelines

Understanding and reducing risk, and communicating with and educating the community about risks, are key drivers for action under the National Strategy for Disaster Resilience. The nationally consistent approach to risk assessment and prioritisation embodied in the National Emergency Risk Assessment Guidelines (NERAG) support the implementation of the City of Hobart Bushfire Management Strategy 2021.

NERAG provides a contextualised, emergency-related risk assessment method consistent with the Australian Standard AS/NZS ISO 31000:2018 Risk management – principles and guidelines.

The National Emergency Risk Assessment Guidelines focus on risks from emergency events, this includes both actual and imminent events that endanger or threaten to endanger life, property or the environment, and which require a significant and coordinated response.

The guidelines provide a method to assess risks from all hazards and help prioritise risk management and mitigation activities. They consider nationally significant risks and the methodology is localised to Tasmania through the Tasmanian Emergency Risk Assessment Guidelines (TERAG).

Tasmania Emergency Risk Assessment Guidelines

The Tasmania Emergency Risk Assessment Guidelines (TERAG) were developed from the National Emergency Risk Assessment Guidelines as a state-level assessment tool.

The Tasmanian guidelines help maintain controls, identify treatments, and manage existing and emerging risks from natural and human-induced hazards to Tasmania's people, economy, environment, social setting and administration.

The Tasmanian State Natural Disaster Risk Assessment (TSNDRA) was developed through the TERAG process.

Tasmanian State Natural Disaster Risk Assessment

The Tasmanian State Natural Disaster Risk Assessment 2016 reassessed the risk of bushfire, earthquake, flood, landslide, severe storm and tsunami to Tasmania and incorporated the first assessments of coastal inundation, heatwave and pandemic influenza. The relative likelihood of each hazard occurring and the impacts on various sectors of society in a worst-case scenario were assessed. The overall findings were identified across all hazards.



Summary of the risk posed by major hazards in Tasmania.

The 2016 Tasmanian State Natural Disaster Risk Assessment report warned that:

"Bushfire remains the greatest aggregated risk to Tasmania. It is a 'High' or 'Extreme' risk across all sectors of society, often with catastrophic consequences expected every 30 years (i.e. 'Unlikely' likelihood). This likelihood is expected to become more frequent with climate change, based on anecdotal evidence from experts and the most recent climate projections."

The report concluded that the likelihood of a catastrophic bushfire event is increasing, changing from 'Unlikely' to 'Likely' in future assessments, most likely due to climate change.

Hobart Bushfire Risk Management Plan

In March 2020 the Hobart Fire Management Area Committee prepared the Hobart Bushfire Risk Management Plan under sections 18 and 20 of the *Fire Service Act 1979*. The plan was then endorsed by the State Fire Management Council.

The Hobart Bushfire Risk Assessment Plan covers a much larger area than just the City of Hobart and includes the local government areas of Glenorchy, Clarence, Brighton, parts of Kingborough, Huon Valley and the Derwent Valley as well as Hobart. It aims to coordinate and influence the treatment of bushfire risk across all jurisdictions by identifying priorities for the treatment of bushfire risk in the Hobart Fire Management Area, not specific responsibilities.

The plan identifies a number of high bushfire risk areas within the Hobart local government area:

- the Wellington Range, particularly the eastern slopes of kunanyi/Mount Wellington (including Fern Tree, Strickland & Old Farm Roads)
- Mount Nelson/Tolmans Hill areas
- Ridgeway and Summerleas Road areas.

City of Hobart Municipal Emergency Management Plan

The City of Hobart has developed its own [Municipal Emergency Management Plan 2020](#).

The plan details arrangements that have been put in place to reduce emergency related risks to the community and the mechanisms aimed at mitigating and countering the impacts of an emergency that may arise within the Hobart municipal area.

The plan identifies the following risks, treatments and responsibilities in relation to bushfire:

Risk statement	Treatment/s	Responsibility for treatment	Status
There is a risk to residential and commercial properties on the urban fringe of Hobart from the effects of bushfire.	Maintain fire management strategy, and specific fire management plans.	City of Hobart, Tasmania Fire Service, Wellington Park Trust.	Ongoing
	Ensure adequate water supplies.	TasWater.	Ongoing
	Community education and awareness program to be implemented as required.	Tasmania Fire Service, City of Hobart, Wellington Park Management Trust.	Ongoing
	Maintain planning scheme	City of Hobart,	Ongoing

Risk statement	Treatment/s	Responsibility for treatment	Status
	provisions, including: <ul style="list-style-type: none"> access/egress vegetation clearance defendable space. 	Whole of Government.	
There is a risk of environmental damage to reserve areas, particularly Wellington Park, from the effects of bushfire.	Maintain fire management plans for Wellington Park, and other large council bushland reserves.	Wellington Park Trust, City of Hobart.	Ongoing
	Ensure adequate water supplies.	TasWater, TFS.	Ongoing
	Community education and awareness program to be implemented as required.	Tasmania Fire Service, City of Hobart, Wellington Park Management Trust.	Ongoing
There is a risk bushfire will damage water and sewage infrastructure.	Develop and implement fire management strategies.	TasWater.	Ongoing

Specifying the bushfire risk to the Hobart community

Bushfires pose very real risks to the Hobart community, both socially and physically, with at least three high-risk locations:

- the Wellington Range, particularly the eastern slopes of kunanyi/Mount Wellington including the mountain village Fern Tree, Strickland & Old Farm roads
- Mount Nelson/Tolmans Hill areas
- Ridgeway and Summerleas Road areas.

Under extreme to catastrophic fire conditions, the risk may extend across the entire City.

The risk statements tell us that:

- There is a risk to residential and commercial properties on the urban fringe of Hobart from the effects of bushfire.
- There is a risk of environmental damage to reserve areas, particularly Wellington Park, from the effects of bushfire.
- There is a risk bushfire will damage water and sewage infrastructure.

Specifically, the risk is that fire will proceed from or across bushland and directly impinge

on people, houses, animals and plants – both native animals and pets, cultural and historic sites, buildings, services and infrastructure.

There are five elements of a bushfire that impact people and infrastructure:

- smoke
- wind - fire induced
- direct contact with fire
- radiant heat
- embers and ember attack.

Each element can vary widely in how it impacts individuals, the community and infrastructure.

Smoke might be a nuisance to one person but debilitating for another. Weather conditions on one day might keep bushfire smoke low, on another conditions might disperse smoke higher into the atmosphere.

Fire-induced wind has the potential for catastrophic impacts. However, the level of risk would depend on where the subject at risk is located in the landscape, and with respect to a building the risk would also depend on engineering considerations such as construction materials and building methods.

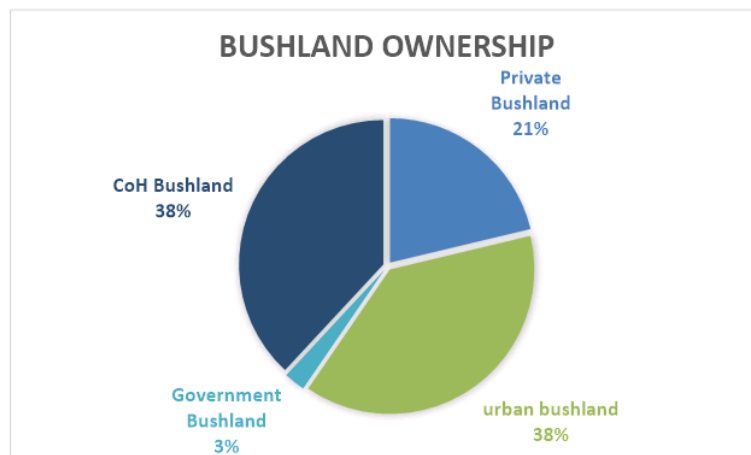
The impacts of direct contact with fire would depend on the location of the subject at risk in the landscape, its proximity to bushland, how nearby fuel has been managed - have flammable materials been stored next to a house, etc.

Clearly, to assess the level of bushfire risk for every object in Hobart under every conceivable circumstance would be impossible. Instead this strategy specifies broad actions the City of Hobart will take to reduce the risk on the people, infrastructure and services of Hobart from the impacts that could result from a bushfire.

City of Hobart – the physical and social context

Managing the urban/bushland interface

The City of Hobart manages 4600 ha of bushland, including 1600 ha outside the local government area boundary, primarily within Wellington Park.



Almost 60 per cent of Hobart land managed by the City of Hobart is comprised of bushland, including 1650 ha of private property.

The City of Hobart managed Bushland Reserve System consists of five major blocks:

- Queens Domain
- Knocklofty Reserve and McRobies Gully
- Ridgeway Park, Waterworks Reserve and Proctors Road Reserve
- Bicentennial Park, Porter Hill & Lamberts Gully
- Wellington Park (part)

The reserves system also includes a number of linear reserves, such as Hobart Rivulet and numerous, small bushland remnants.

Climate

Hobart's climate is typical of the world's temperate zones, with mild to warm summers and cool winters. It is changeable, with sudden showers interspersed with hours of sunshine and alternate warm and cool days, particularly in spring and autumn.

In summer the maximum temperature average is 21°C, the minimum average is 11°C. In winter the maximum average temperature is 11°C, the minimum is 4°C with occasional frosts. However, summer conditions can fluctuate wildly, with highs in excess of 40°C being recorded in Hobart and minimums as low as -8°C recorded on kunanyi/Mount Wellington.

The average annual rainfall for Hobart is 627mm, kunanyi/Mount Wellington experiences more than 1400mm. The rainfall is distributed throughout the year with a variation in the monthly average of approximately 17mm. Extreme rainfall events may occur as a result of easterly weather conditions, sometimes bringing several days of autumn rainfall that can become concentrated by the orographic effect of kunanyi/Mount Wellington. Periods of intense rainfall can produce extreme flood flows in the rivulets.

Snow has settled in the City on approximately ten occasions during the past 100 years. When these falls reach 400m or lower, traffic is disrupted, especially on the Southern Outlet. Hail storms occur on average three to four times a year.

Thunderstorms occur on average five times a year, mainly in the summer months. In the past the accompanying lightning has rarely caused a bushfire in Tasmania - most electrical storms in Tasmania include rain that usually quenches any fires lit in this manner. However, the system appears to be changing, and occasionally lightning has ignited a number of recent fires.

Winds have reached velocities of 150km/h in Hobart and can cause minor to severe property damage.

Climate change

The global climate is changing. Findings from the Intergovernmental Panel on Climate Change (IPCC)⁸ include:

- average temperature of the Earth's surface warmed 0.85°C [range 0.65°C to 1.06°C] over the period 1880 to 2012
- over the period 1901–2010, global mean sea level rose by 0.19m [range 0.17m to 0.21m] and has been rising at 3 mm a year since 1993
- the upper 3000m of ocean has warmed, as has the lower atmosphere
- the incidence of extremely high temperatures has increased and that of extremely low temperatures has decreased
- water vapour content of the atmosphere has increased since at least 1980, consistent with the theory that warmer air can hold more moisture
- about half of the cumulative anthropogenic CO₂ emissions between 1750 and 2011 have occurred in the past 40 years to 2014
- the ocean has absorbed about 30% of the emitted anthropogenic CO₂, causing increased ocean acidification.

A report⁹ on the climate change impacts on bushfire weather in south-east Australia by the CSIRO and the Bureau of Meteorology modelled likely changes in bushfire weather due to global warming using both high and low rates of global warming as predicted by the IPCC.

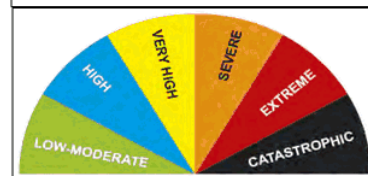
The results for Hobart broadly predicted very little, if any, change in the average number of days when the (Forest) Fire Danger Rating (and a slight increase in the average number of days the Grassland Fire Danger Index) is 'Very High' or greater over the next 50 years. This calculation was on the basis that projected increases in temperature will be offset by predicted increases in rainfall and humidity.

On average, there are 3.4 days when the Forest Fire Rating is 'Very High' or greater in Hobart. There are generally 67.5 days when the Grassland Fire Danger Rating is 'Very High' or greater - this could increase to 68.1 – 71.5 days by 2050¹⁰. Subsequent modelling has predicted the average number of days a year when the Fire Danger Rating would exceed 25 (Very High) will increase to 5.5 by the end of the century.

One possible effect of climate change that could influence the occurrence rather than the severity of bushfires is the incidence of thunderstorms. Currently there are no predictions available on the effect of climate change on the incidence of thunderstorms around Hobart. However, as was noted earlier, in Tasmania, thunderstorms are generally accompanied by rain and until recently, few fires were started by lightning in Tasmania. This appears to be changing.

The Forest Fire Danger Index (FFDI) is an indicator of how easy it will be for a fire to start, and how intense and fast moving the fire is likely to be once it gets going. This measure is based on a combination of temperature, humidity, wind speed and a calculated drought factor.

This measure is used to indicate the Fire Danger Rating (FDR):



Topography

The City of Hobart sits below the towering backdrop of kunanyi/Mt Wellington on the Derwent River. The change in elevation from the Derwent foreshore to the summit of kunanyi/Mt Wellington is 1271 metres in just over eight kilometres. Hobart is defined by the river and the mountains and hills behind it.



Small water courses start in Hobart's foothills and flow easterly, developing into fast-flowing rivulets as they pass through densely-populated areas before entering the Derwent estuary. Due to the steep slopes of kunanyi/Mt Wellington's foothills, stream flows are

rapid, roads are seldom cut, and the duration of inundation during floods is mostly short.

Once out of the Hobart CBD the landform changes into incised valleys and slopes with rivulets and gullies. The amount of vegetation in the landscape also increases further out from the CBD, with large tracts of bushland, the edges of which are, in places, heavily interspersed with houses.

Biodiversity

Fire plays an important role in maintaining ecosystems as well as native plant and animal populations in Australia. Changes in fire regimes (season, frequency and fire intensity) can cause progressive changes to plant communities. Frequent fire and long-term exclusion of fire have both been shown to lead to progressive changes in plant community structure, and a reduction in biodiversity. Failure to use fire properly as a management tool can be considered a threat to native plant and animal habitats in and around Hobart.

Inappropriate fire regimes can cause progressive and possibly irreversible changes in indigenous plant communities, including the loss of indigenous plants, and even localised plant species extinctions. On the other hand, identification, prescription and implementation of an appropriate fire regime can be used to:

- manage native plant and animal habitats in a sustainable manner
- maintain biodiversity
- control selected weed species and promote natural regeneration in dry forest communities.

The potential risks to native habitat from bushfire can be managed by minimising the risk of unplanned ignitions, maintaining adequate emergency vehicle access routes and other control lines, and by burning suitable areas of vegetation at different times to create a mosaic of vegetation at different stages of recovery from fire. Adoption of a mosaic burning pattern has the following advantages:

- increases habitat diversity
- reduces overall fuel loads
- provides control lines to help in the suppression of bushfires
- reduces risk of a single, high-intensity bushfire burning large areas.

Within these mosaics controlled fuel reduction burns can be used to achieve most or all of the following objectives:

- removal of woody and herbaceous weeds, and weed seeds from mid-storey, leaf litter, and soil surface
- reduction in the levels of plant nutrients, such as phosphorus and nitrogen, which may be contributing to weed invasion
- manipulation of ecological processes such as species composition (via the promotion of selected species or communities), regeneration of senescent vegetation, and the creation of suitable conditions for native seed germination
- protection of species of conservation value by maintaining habitat elements are critical to their survival.

Forest litter, such as fallen leaves, twigs and branches, has been found to support larger

and more diverse invertebrate fauna than sites where fire has reduced the litter¹¹. If a wide range of invertebrate species, such as native bugs, worms and spiders, is to be maintained throughout our bushland areas, it is important to keep small habitat islands unburnt. These sites provide essential safe havens from which invertebrate species can recolonise nearby bushland once adjacent areas have been burnt¹².

In bushland areas fire can be used to stimulate the germination of indigenous plant seeds. She-oaks, most *Eucalypts*, *Acacias*, members of the pea family (*Fabaceae*) and many species from other plant families frequently germinate prolifically in areas that have been burnt. However, the burnt area will also be open to weed invasion and must be carefully monitored.

Frequent burning of native forests is known to reduce species diversity and make them more vulnerable to weed invasion¹³. A high fire frequency (less than five years) will usually favour grasses in the understorey at the expense of shrubs, and severely restrict the re-establishment of canopy species.

In rural areas frequent burning is used to control woody weeds. However, in native bushland fire will generally increase an existing weed problem. Many woody weeds re-sprout rapidly from rootstock after fire, often coppicing densely (hawthorn, gorse). Herbaceous species (including many grasses) respond in a similar way, regenerating from growth buds on a network of robust underground rhizomes (pampas grass, bracken). Seed germination is usually prolific after fire, a response that necessitates prompt weed control measures, ongoing monitoring, and site maintenance (gorse, boneseed, broom). Where weeds are already a problem, planned burning should only be carried out after weeds have been treated, and follow-up weed control can be carried out.

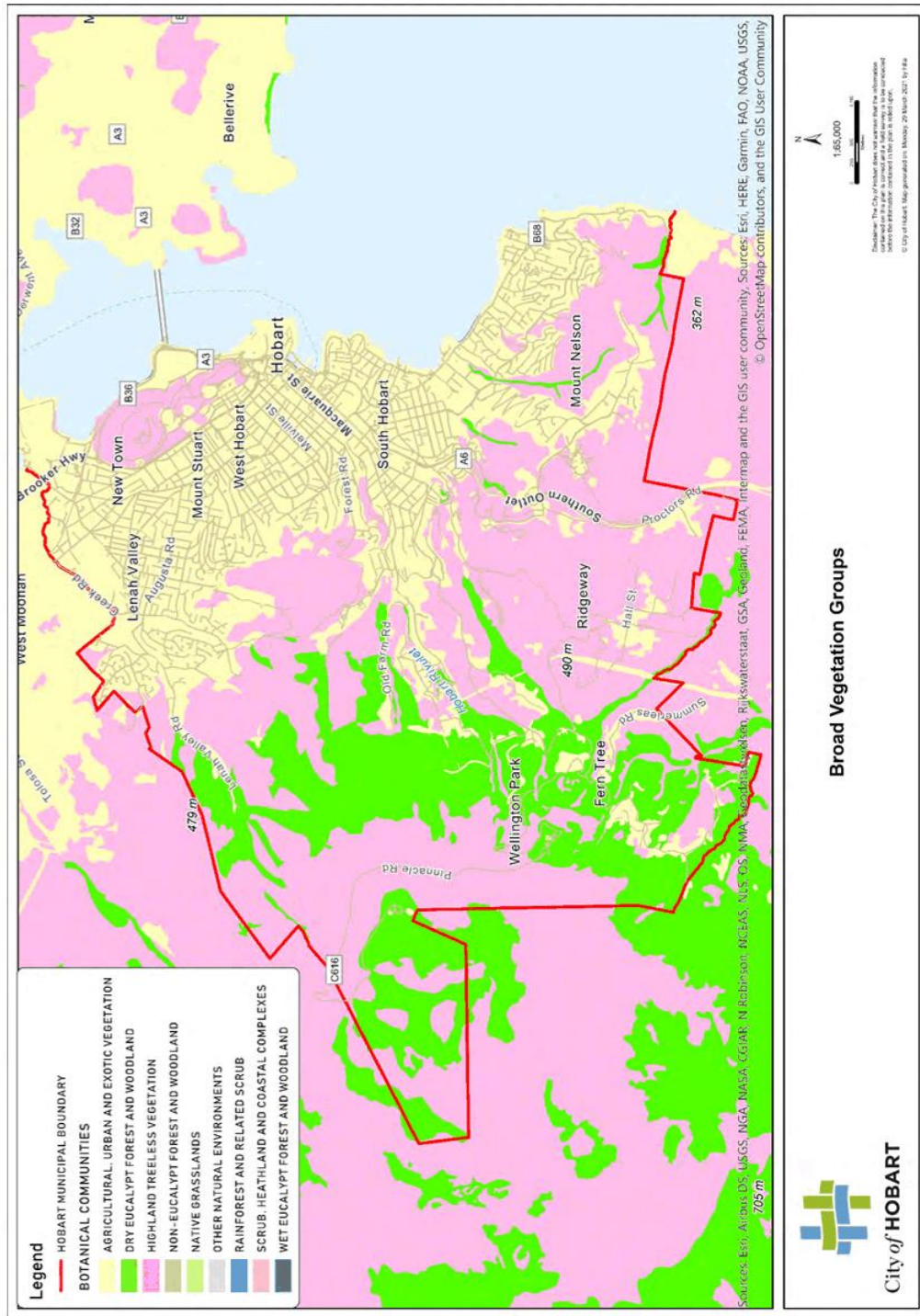
Fire, its frequency or its absence, has directly influenced the evolution of the Australian landscape and the native plants and animals it supports. Many native plant species, including eucalypts and wattles, have evolved in fire-prone environments. They are therefore dependent to various degrees on fire events to maintain regenerative cycles. In contrast, ecosystems developed in the absence of fire are highly vulnerable when changed conditions such as prolonged drought increase their susceptibility to fire.

Climate change will alter the nature of fire risk and increase the need to have effective fire management regimes in place to protect people and property in a way that recognises the role of fire in biodiversity management. To address this threat, our understanding of fire regimes will need to increase and be incorporated into land management decisions¹⁴.

The City of Hobart Biodiversity Objectives

The City of Hobart's objectives for biodiversity management in relation to fire are:

- Ensure biodiversity information is incorporated into fire management plans to maintain ecological values, recognising the strategy of burning for ecological purposes (as opposed to asset protection) is to mitigate the impact of high-intensity bushfire.
- Use fire to manipulate peri-urban vegetation into a low fuel state or a type that can be more easily managed using fire.



- Ensure an appropriate fire interval thresholds are applied. Fire interval thresholds are based on a general knowledge of the ecology of the plants in the reserves but in reality there is little detailed underpinning evidence at the local scale. For example, burning thresholds of 15 and 25 years for dry eucalypt grassy woodland may be too high or too low for maintaining biodiversity. Site specific scientific data collation should be employed in the determination of the best burning regime for maintaining the site's biodiversity values together with objectives for asset protection.
- Establish flora monitoring protocol for management units subject to planned burning. The flora monitoring protocols for planned burning developed by the Victorian Department of Sustainability and Environment provide a good basis for a monitoring program.
- Review burning schedule if it is shown that rare and significant species are not persisting with the frequency of burns.

Following the development of the City's Biodiversity Action Plan in 2017, the City of Hobart has embarked on a program of assessment, monitoring and review to improve our understanding of the effect fire has on the biodiversity of our bushland areas. To this end, formal Vegetation Condition Assessments (VCAs) are conducted by suitably qualified practitioners in every burn unit prior to the conduct of a planned burn. These assessments will be repeated at intervals - generally 10-15 years or prior to the area being reburnt.

Photo monitoring points are also being established in each vegetation community prior to a burn being undertaken so that a visual record is maintained showing regeneration within an area after fire.

Principles of fire behaviour

Fire and climate

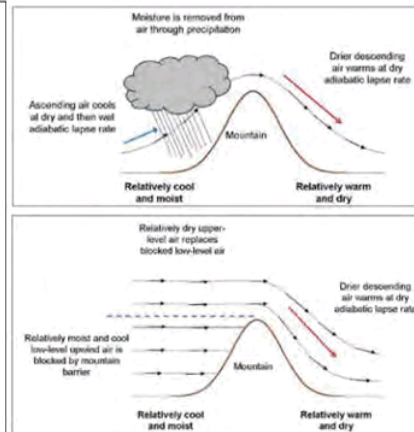
High risk fire weather can be expected in southern Tasmania when dry winters and springs are followed by summers where fuels are very dry. The strong north-westerly winds that often precede cold fronts in summer can contain dry air from the interior of the Australian mainland.

Generally a high pressure system sits in the Tasman Sea with an approaching cold front or trough of low pressure pushing a north-westerly wind across Tasmania^{15,16}. These winds pick up surface moisture as they cross Bass Strait, but after the air stream crosses the Central Highlands, dry air at a higher altitude descends to the surface where it is further warmed (foehn effect) resulting in extremely low humidity¹⁷.

The occurrence of the Foehn effect has been linked with increased wildfire risk and is attributed to two main mechanisms.

1. Thermodynamic Foehn (figure 1): Moist air is lifted over a mountain barrier. The moist air cools as it rises. At some point this results in condensation and precipitation. Precipitation results in the removal of moisture from the air mass. In turn, the latent heat of condensation raises the temperature of the air. This drier air warms as it descends the lee slopes.

2. Blocking Foehn (figure 2): Moist lower-level air is blocked by a barrier such as a mountain. Upper-level drier air flows over the top of this trapped air mass and down the lee of the mountain barrier. This drier air warms as it descends the lee slopes.



Either mechanism results in relatively moist and cool air on the upwind side of the mountain barrier, while in the lee the air will be relatively warm and dry.

This combination of strong winds and low humidity creates ideal meteorological conditions for major bushfires in south-east Tasmania and particularly in and around Hobart.

Fires that start under these conditions can be expected to move quickly downwind, and then move more or less at right angles on a broad front when and if a subsequent south-westerly wind change arrives.

If a high pressure system is blocked in the Tasman Sea, strong, dry northerly winds can persist for days. Fires under these conditions can reach a very high intensity in a short time, even in areas with relatively low fuel loads, and are very difficult to control until the

weather conditions abate. These were the conditions that produced the 1967, 1998, 2006 and 2013 bushfires around Hobart.

Unlike the rest of Tasmania, the Derwent Valley and south east of Tasmania regularly experience extreme to catastrophic Fire Danger Rating. The Hobart region is also one of the driest parts of Tasmania. Climate is changing in Tasmania and it is evident from bushfire climate indicators¹⁸ that we can expect destructive bushfires to become more frequent.

Weather and prescribed burning

Weather is a key driver of the bushfire risk facing the City of Hobart. Weather is also a key component in the City's planning to mitigate the effects of bushfires on the Hobart community and the environment. High fire danger periods traditionally commence in October and extend through the hotter months to March. Late January and February are traditionally periods of extreme bushfire events in southern Tasmania.

The City of Hobart's bushfire management strategy takes into consideration the more typical weather patterns that occur throughout the year in the management of bushfire risk and mitigation programs in bushland areas. Weather is a critical factor in determining when an area can be burnt in a prescribed burn. The sequencing of prescribed burns is determined by a range of factors, not least of which is the time of year a prescribed burn is undertaken. Timing in relation to weather such as the possibility of rain in the day(s) before or after the proposed time of the burn is also important.

Also accounted for is the potential impact smoke generated by a prescribed burn could have on communities. For prescribed burns, the preferred weather is when the smoke will climb well into the air column to be dispersed broadly outside of the populated area. This is generally indicated by a 'mixing height' for the day that is calculated by the Bureau of Meteorology for every three hours each day. Mixing height is an indicator of whether smoke will be trapped on a particular day. When there is low mixing height (less than 1000m), smoke will stay near the ground. When the mixing height is higher (greater than 2000m), smoke will disperse higher into the atmosphere and air quality will improve at the ground¹⁹.

The City voluntarily participates in the Co-ordinated Smoke Management Strategy, which is a Tasmanian State Government process designed to coordinate the timing and location of prescribed burns across all agencies in an attempt to reduce smoke pollution levels in each air shed near populated areas²⁰.

Considerable planning goes into preparing and then carrying out a prescribed burn. The weather is continually monitored to identify a window when conditions are suitable. This is done ahead of time (within the seven day Bureau of Meteorology prediction cycle) to allow for advice to the community and stakeholders. However, predicted weather is often not reflected in the weather that occurs local where the fire is to take place, especially for the hills and slopes around kunanyi/Mt Wellington and the bushland reserves exposed to the influence of the Derwent River. At the very least, the topography in these areas often

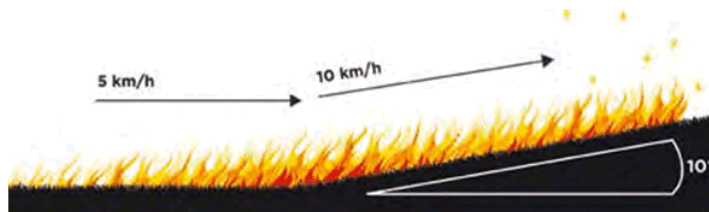
means wind does not behave as predicted, resulting in localised microclimates.

The weather on and around the time of any proposed prescribed burn needs to assist with achieving the objectives of the burn, especially in terms of the effects of weather on fire intensity, flame height and fire duration. Too little soil and fuel moisture can mean a prescribed burn might be far more intense, burn far more fuel and be harder to manage than proposed in the burn plan. Too much moisture might mean the prescribed burn is not effective, does not reduce the fuel sufficiently or cannot be initiated. Similarly, wind speed and direction can have a range of effects, including drying fuels before a prescribed burn, or making the burn too intense and possibly assisting in carrying fire beyond the area of the proposed prescribed burn.

Topography

The other key factor that effects prescribed burns and bushfires is topography. Factors such as slope angle, slope height, valleys, altitude and the arrangement of these features across the landscape have a major effect on fire behaviour and on fire intensity in particular. Valleys and peaks can direct wind in ways that are quite unpredictable ahead of the event. Slope is a critical factor in fire behaviour, especially the rate at which fire travels (rate of spread) and the intensity and behaviour of the fire. This influences the likelihood of achieving the desired intensity and impact on vegetation but also threatens effective control of the burn.

For example, a fire travelling in a straight line across flat land might move at 2km/h. When it reaches an upward slope of 10 degrees, the speed at which it is travelling will double almost immediately to 4 km/h, and for each additional 10 degree increase in slope the speed at which the fire travels doubles each time. So if the slope was 20 degrees the fire speed would increase almost immediately to 8km/h and on a 30 degree slope the fire speed increases to 16km/h.



All of these environmental factors - including temperature, dryness, wind speed, slope, the location of hills and valleys – which are beyond our control, influence the decision to proceed with a burn in bushland reserves on any given day.

Fire ignition and fire behaviour

There are two principles that must be considered by those managing bushfires. These principles are simple and often conveyed as triangles. The first is the fire ignition or combustion triangle.

The concept is that there are three factors involved in any fire. There needs to be fuel, oxygen and heat or source of ignition. When it comes to bushfires, the only one of these three factors fire managers can realistically change is the availability of fuel.



The other concept is fire behaviour, which can also be conveyed as a behaviour triangle. We cannot really change weather or landscape topography, but we can often change the fuel component. In this triangle, fuel is taken further than in the fire ignition triangle. Because we are looking at fire behaviour, fuel in this instance is more concerned with the size and type of fuel and the arrangement of that fuel. The questions posed are:



- Is there a lot of litter on the ground?
- Are there a lot of shrubs - we call these ladder fuels - that can help the fire reach the tree canopy?
- Is there a lot of dead material?
- Are there lots of trees with fibrous bark?
- Are there lots of ferns and other very flammable shrubs?
- Are the fuels continuous and consistent?

The answers to these questions are considered in each prescribed burn plan.

What can we change?

We cannot remove oxygen from the atmosphere and we cannot stop all ignitions. We cannot remove all topographic features or readily influence the weather. But we can change or alter elements in the landscape that fuel bushfires, and this, to a limited extent, is what the City of Hobart does to mitigate bushfire risk.

Bushfire risk mitigation taken by the City includes reducing the build-up of bushland fuel in our forests through fuel reduction burns and the establishment of fuel breaks in areas adjacent to houses (Asset Protection Zones). These actions reduce the impacts of bushfire by removing on-ground and lower elevated fuels from an area between a dwelling and nearby bushland. How often these areas are maintained depends on annual inspections of the site conditions and is driven by the rate of vegetation regrowth. Many areas are treated at least once a year.

There are also areas that cannot be treated through prescribed burning because of the vegetation type. In these areas the vegetation is often quite dense and usually too wet to burn. These areas are often only susceptible to bushfire under extreme or catastrophic fire conditions.



It is not possible to safely burn all bushland at the same time. This would result in an uncontrollable bushfire. Instead the City's prescribed burn program aims to create a mix of fuel loads across the landscape from normal fuel levels through to areas with significantly reduced fuel. This patchwork of mixed fuel loads helps moderate the development and rate of spread of potential bushfires.

The City also maintains a fire trail network that helps break up bushland areas into sections more easily managed with respect to fire, and which provide clearly defined and safe access and escape routes for firefighting agencies.

On top of these actions the City employs a well-trained, experienced and equipped firefighting force of more than 30 staff.

These people are trained to Certificate II in Public Safety (Firefighting Operations). This training gives them the knowledge and skills they need to respond to wildfire, carry out prescribed burning operations and ensure community safety during times of high bushfire danger. The training is backed up by field experience.

The exploration of ways in which the City of Hobart can reduce the impact of bushfire on the community while protecting infrastructure and maintaining the high conservation values of our bushland reserves is an ongoing challenge, but one we must persist in if we are to provide ready access to the City's wonderful bushland reserves.

By reducing the risk of bushfire to its community, the City tries to ensure that:

- there is increased time and opportunity for residents to leave early when a bushfire threatens
- improved access for response by fire authorities to suppress bushfire ignitions
- moderate fire behaviour and improve success of fire suppression activities
- improve and support asset protection for people living adjacent to our bushland reserves.

It is important to remember that reducing risk does not equate to eliminating risk.

Ember Attack

The threat of bushfires on life, property and the environment is driven by a simple equation involving the availability of flammable fuel, conditions conducive to the spread of a fire and the presence of a source of ignition.

People, assets and infrastructure in the path of the fire are then at risk.

Buildings in areas exposed to higher levels of bushfire risk, such as those closer to bushland, are more exposed to significant consequences once a bushfire starts, including damage to infrastructure and injury or loss of life.

The three elements that damage assets or threaten life in a bushfire are:

- the effect of direct flame on an asset or person
- the effect of radiant heat on a structure, surface or person
- the potential for an ember to ignite material in close contact with (or part of the construction) of an asset or building.

House-to-house ignition is the greatest cause of housing loss in major bushfires. This has been detailed in reports by the Bushfire and Natural Hazard Cooperative Research Centre

and the CSIRO Bushfire Urban Design Unit²¹.

Bushfires in Canberra, Melbourne and California have dramatically demonstrated how a fire can penetrate a suburb or city through house-to-house ignition in the absence of natural fuels such as grasses or forest.

Importantly, the loss of houses and the loss of life rapidly escalates once the Fire Danger Rating exceeds 75 (extreme).

The preparation of individual houses by landowners is the only way to effectively reduce the potential for property loss and the loss of life in urban areas during a major bushfire.

What is the City of Hobart doing?

The City reduces these risks by removing fuel on our land by cutting back flammable vegetation or conducting fuel reduction burns within the strategic fire management zone immediately adjacent to houses.

The City can reduce the likelihood of ember attack in moderate fire danger conditions by reducing the fuel load and the potential for embers to be generated by fire in our bushland reserves.

However, when Fire Danger Rating conditions exceed 50 (severe) the impacts of fuel breaks and prescribed burns do very little to dampen the production of embers in a bushfire. And in severe, extreme or catastrophic bushfire conditions embers can be carried as far away as 15 kilometres from the bushfire front.

The effects of ember attack on a house or property can be mitigated by how that building has been designed, maintained and prepared for bushfire conditions. Embers landing well away from a firefront can spark a new fire that engulfs nearby properties if there are local sources of ignition such as dry timber on the ground or leaves in open gutters.

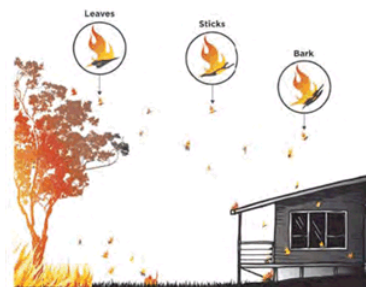
The chances of a house or property surviving an ember attack is dependent on how well it has been prepared for a bushfire, and is the responsibility of the owner. This is overwhelmingly private householders.

Risk

The Tasmania Fire Service has analysed the risk of ember attack on Hobart during a major bushfire under severe fire weather conditions using the Phoenix Rapid Fire model²².

The analysis shows embers could reach the city, leaping over the current bushfire risk prone area. The exact location of any exposure is completely dependent on the location of the ignition point and prevailing fire weather.

The random nature of where embers could land in Hobart during a bushfire attack makes it impossible to define an exposure area for an ember attack in the Hobart Planning Scheme.



In the event of a bushfire under severe, extreme or catastrophic fire conditions, the potential impact of embers is not likely to be significantly moderated by current landscape level fuel treatments such as fuel breaks and prescribed burns.

Fuel management programs are not an effective tool in mitigating the risk to individual properties from ember attack.

What can be done?

The current Australian Standard AS3959 2018 provides guidance for the construction of buildings in a bushfire-prone area and can also help guide the retrofitting of existing houses stock to improve resilience to fire and ember attack.

All Australian fire agencies have developed information to help land owners prepare their properties for ember attack and in doing so reduce the most common cause of house loss during a bushfire – house-to-house ignition.

The Victorian Country Fire Authority has an excellent guide to retrofitting existing houses with bushfire protection modifications²³.

Community engagement and information sharing is the most effective tool in encouraging residents to take action on their own property to protect themselves and their assets from fires generated by ember storms.

Key documents for mitigating the risk to structures in bushfire-prone areas include:

- AS 3959:2018 Construction of buildings in bushfire-prone areas
- AS 5414—2012 Bushfire water spray systems
- Australian Building Codes Board, Private Bushfire Shelters Performance Standard 2014
- NASH Standard Steel Framed Construction in Bushfire Areas 2014.

The current Australian Standard AS3959 2018 defines the requirements for buildings in bushfire-prone areas. When combined with other standards and research by Bushfire and Natural Hazards CRC and CSIRO provides, it a comprehensive suite of actions for landholders to use when safeguarding their property against bushfire.

Fire management - operational planning

Overview

The City of Hobart has developed a detailed approach to fire management planning for bushland in the greater Hobart area. The first action has been to zone all of the bushland into one of three fire management zones as defined by the Tasmanian State Fire Management Council (see Appendix 2 for zone descriptions):

1. Asset Protection Zones (fuel breaks)
2. Strategic Fire Management Zones
3. Land Management Zones

The three fire management zones have been identified based on the level of potential risk to life, property and infrastructure from any bushfire coming through adjoining bushland. The identification of these zones also included an analysis of the potential for reduced risk that could be achieved through vegetation management.

A number of smaller bushland reserves come under a fourth management zone that covers vegetated or semi-vegetated land offering recreational or visual amenity, but given fire plays little to no role in the management of these areas this fourth management zone has been omitted from this strategy.

Management Units

While smaller areas are managed separately, for fire management purposes, the majority of Hobart's bushland reserves are clustered into five major management units:

- Queens Domain
- Ridgeway Park, Waterworks Reserve and Proctors Road reserve
- Knocklofty Reserve and McRobies Gully
- Bicentennial Park, Porters Hill and Lamberts Gully
- Kunanyi/Wellington Park

These five units are then divided into smaller management cells, often bounded by roads, trails, creek lines, and even specific vegetation boundaries such as wet forests, to allow for detailed and very localised fire management treatments. These smaller cells range in size from less than a hectare to as large as 65 hectares.

Vegetation communities and fire thresholds

Management units also map one or more vegetation communities. Even within the same management unit, different vegetation communities might require different forms of fire management, depending on their ecological needs (see Appendix III for vegetation community fire thresholds).

Fire Management Zones

Asset Protection Zones

Asset Protection Zones have been created to help protect houses and other private property in close proximity to bushland from the impacts of bushfire. These areas are often referred to as fuel breaks and are managed under the [Tasmanian Fire Service Fuel Break Guidelines](#).²⁴

The bushfire risk is reduced by removing on-ground and elevated fuels from adjacent bushland within the Asset Protection Zone. The width of each Asset Protection Zone is calculated using the [Tasmania Fire Service Fuel Break Width Calculator](#).

Bushfire fuel in these zones is reduced by limiting the amount of vegetation available to a bushfire and is generally calculated to a Bushfire Attack Level rating of 29. This does not mean the total removal of all vegetation - most trees remain in these areas. An Asset Protection Zone alone may not provide complete protection for a home or property from bushfire. Individual properties should meet appropriate bushfire building and maintenance standards, and include the maintenance of surrounding private land.

The City of Hobart began creating Asset Protection Zones in 2016/17 and will largely complete this process by 2022 with ongoing annual maintenance.

It is important to note that Asset Protection Zones – or fuel breaks as they are also known – often extend from nearby bushland on to private property. The City reduces the build-up of bushfire fuels within the Asset Protection Zone on council land, but not on private property. It is up to individual property owners to manage the fuel load on their land, especially in relation to protecting their house and associated buildings from bushfire and ember attack.

It is incumbent on all property owners to implement their Property Protection or Bushfire Hazard Management Plan where one exists, and to take notice of fuel break management guidelines provided by the Tasmania Fire Service.

The City of Hobart does everything it can to protect life and property from bushfire by managing the fire risk within the land it manages, but for this work to be successful individual property owners must also manage the fire risk on their land.

Strategic Fire Management Zones

Strategic Fire Management Zones are designed to reduce the potential of fire to spread unhindered through bushland areas by:

- providing open space from which firefighters can protect private property during a bushfire, especially in the absence of fuel breaks
- complementing asset protection zones where these do not provide sufficient protection
- providing strategically placed open areas to reduce the potential for large bushfires to develop
- creating areas where fire can more easily be suppressed
- providing strategically located open spaces that reduce the vulnerability of assets susceptible to fire.

Strategic Fire Management Zones are not managed as intensively as Asset Protection Zones and are generally areas within which prescribed burns are carried out. Where possible fuel loads in these areas are reduced to a moderate level, and provide a mosaic of fuel-reduced areas across the landscape.

The increased accumulation of fuel loads in Strategic Fire Management Zones can lead to the need for more frequent fuel reduction burns than recommended under accepted thresholds, but the burn conditions remain very considerate of ecological objectives in these areas.

Land Management Zones

Land Management Zones are managed more for biodiversity and broad-scale fire path management than for specific fire hazard reduction to any given assets.

Prescribed burning in these areas is designed to complement existing fire mosaics within Strategic Fire Management Zones, helping to create varying fuel loads across the landscape.

Reducing fire risk in bushland areas

The City of Hobart uses three bushfire management mechanisms to reduce bushfire risk:

1. fuel breaks
2. fuel reduction
3. fire trails.

In 2017 a Tasmanian Vegetation Fire Management Policy²⁵ was developed by the State Fire Management Council to provide guidance in the use and control of fire to reduce bushfire risk. The City of Hobart has based its bushfire management plans on this policy, and encourages a shared approach to bushfire management, one that includes the local community.

The policy reinforces the City's strategy of using fire to reduce the build-up of bushfire fuels in fire-prone areas as a primary means of reducing bushfire risk. The policy also highlights the importance of treating bushfire fuel in zones close to assets such as houses, and the need to take a landscape approach to risk assessment. The City does this through an annual program of prescribed burns and an extensive fuel break program.

Fuel breaks, prescribed burns and mechanical thinning are all directed at reducing the ferocity and forward momentum of any bushfire threatening Hobart.

Fuel breaks

Fuel breaks help reduce bushfire risk in a number of ways. They provide access for firefighters, create containment lines for prescribed burns and potential bushfires, and they reduce the impacts of radiant heat on houses by creating a buffer between bushland and nearby properties.

Fuel breaks are usually a cleared or semi-cleared strip of land created between nearby bushland and homes, buildings or infrastructure. They are designed to protect people and property from fire coming out of a bushland area by substantially reducing bushfire fuels

such as tall grasses, shrubs and smaller trees, and by creating an open, clear and defensible space.

When the Fire Danger Rating is less than severe fuel breaks can change the behaviour of a fire, including slowing it down and making it easier to control.

The City of Hobart creates and manages an extensive network of fuel breaks across its bushland reserve network and uses the Tasmania Fire Service Fuel Break Calculator²⁶ to determine the width of each fuel break. The width of every fuel break is measured from each house (generally the rear wall), across the fence and into the bushland beside each property.

It is important that everyone who lives adjacent to bushland in Hobart understands that the City of Hobart only manages that part of the fuel break that is on council land. It is up to residents to manage the component of the fuel break that is on their land – usually the space from your house to your property's boundary with the bushland reserve.

This means householders should minimise bushfire fuel on their property in the same way the City minimises bushfire fuel on its side of the fence. This includes keeping fire-prone vegetation to a minimum and any other flammable material such as wood piles away from houses and other buildings.

Every year, before the bushfire season starts, residents living adjacent to bushland reserves are advised to cut back fire-prone vegetation between their property and reserve boundaries and to check for fire hazards.

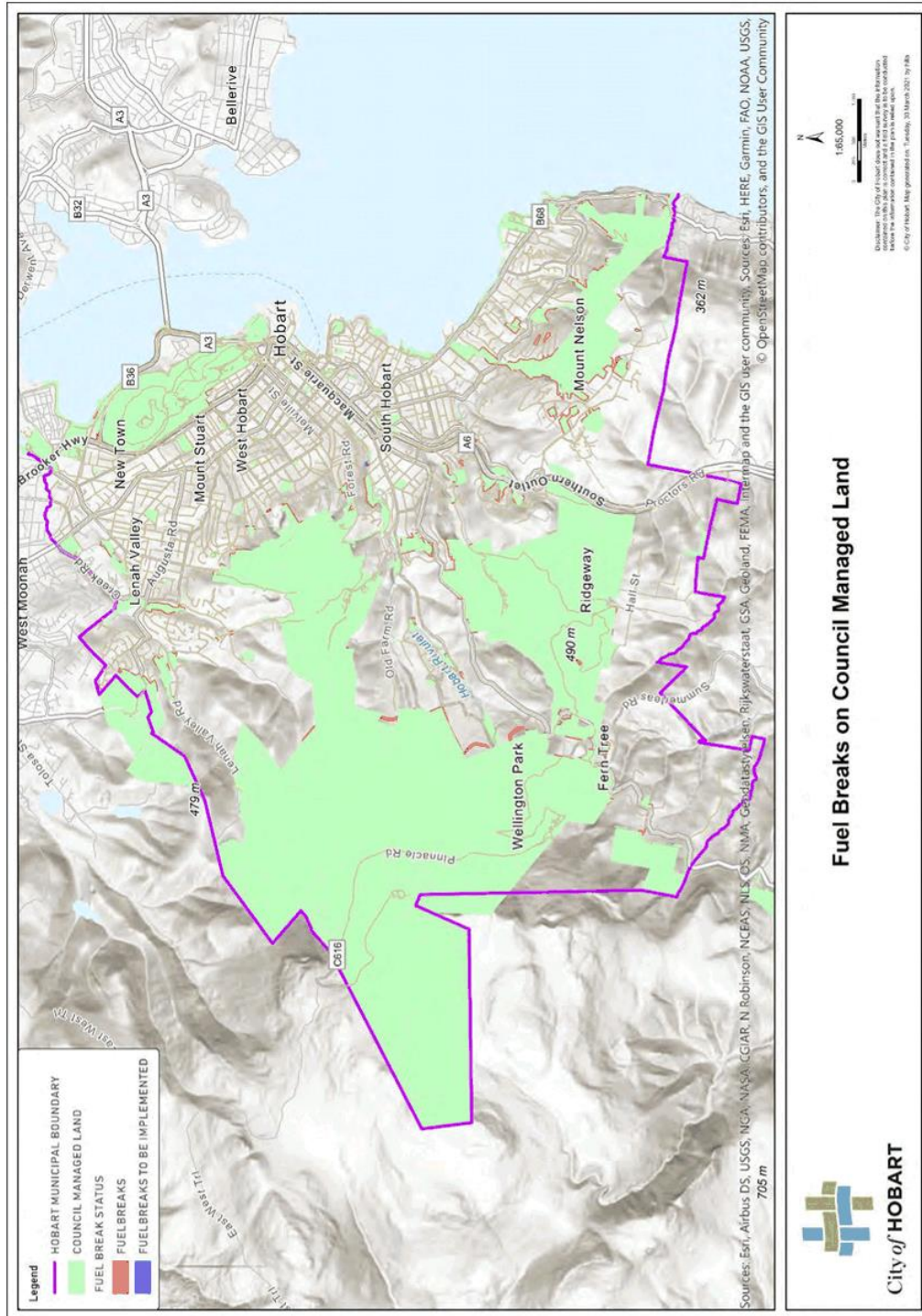
To comply with Tasmania Fire Service guidelines²⁷, all residents should:

- reduce bushfire fuel levels around homes and buildings, particularly adjacent to bushland
- not dispose of garden cuttings in nearby bushland – this increases the bushfire risk
- not plant vegetation in, or adjacent to, an existing fuel break - plantings hinder the effectiveness of the fuel break and will be removed.

Fuel breaks are an effective fire prevention and firefighting tool, but they cannot stop all fires all of the time. During severe and catastrophic fires, fuel breaks can help reduce the intensity of bushfire, but once a fire has escalated to an intensity where there are significant ember attacks, spotting well ahead of the fire front and/or crowning through the top of the forest canopy, it is unlikely a fuel break will stop a fire of this magnitude.

During lower intensity fires, fuel breaks provide significant advantages. They provide safe access for firefighters and create a buffer zone between firefighters and the firefront, reducing exposure to radiant heat and other fire-related dangers such as falling trees and branches. Property owners creating a similar open space on their property, can be used to defend the property from bushfire.





Prescribed burns

Every year the City of Hobart undertakes a program of prescribed burns across its bushland reserves. These burns significantly reduce the build-up of bushfire fuel such as dry leaf litter and grass and can be effective for at least three to five years, occasionally longer.

It is not possible or desirable to safely burn all of Hobart's bushland every year. Burning native forest, woodland and grasslands too much can have adverse impacts on both native plants and animals.



Carrying out prescribed burns over a longer period of time creates a mix of fuel loads across the landscape and leaves sanctuaries and habitat strongholds for animals and plants.

Reducing the amount of flammable material in Hobart's bushland reserves can lower the severity of future bushfires and the movement of bushfire through the landscape.

Just like fuel breaks, prescribed burns cannot stop all fires all of the time. However, when combined with fuel breaks they can help reduce the intensity of bushfires. Once a bushfire escalates to a Fire Danger Rating of severe, extreme or catastrophic and there is significant ember attack, spotting well ahead of the fire front and/or crowning through the top of the forest canopy, it is unlikely that previous fuel reduction burns or maintained fuel breaks will stop fires of this magnitude.

When fire conditions reach extreme or catastrophic levels the amount of fuel on the forest floor makes little to no difference to a fire's intensity. In one study following Victoria's 2009 Black Saturday bushfires,²⁸ where the Fire Danger Rating exceeded 100, it was found that even in areas where prescribed burns had been carried out less than five years before the event, there was no measurable effect on the intensity of the fires. This is the result of such conditions allowing a fire to operate at the upper canopy level and not be reliant on surface or elevated fuels to continue to spread.

During a forest fire, once the Fire Danger Rating exceeds about 50, the fire switches from being fuel-dominated to weather-dominated.²⁹ So while fuel availability continues to have an effect, fire behaviour is determined to a much greater extent by weather conditions.

During the bushfire season, both the Bureau of Meteorology and the Tasmania Fire Service regularly release local Fire Danger Ratings. In Hobart, once this rating enters the severe category (50-74) a number of actions are triggered to reduce the impacts on people of any bushfire that could ignite under these conditions.

Many of Hobart's reserves are classified as bushfire-prone areas - an area of bushfire-prone vegetation equal to or greater than 1 hectare. While they are great places to visit and enjoy, on days of elevated fire danger they may not be safe places. The City of Hobart may close selected reserves in the interests of public safety when the Fire Danger Rating is severe or higher.

Planning prescribed burns

The City of Hobart takes prescribed burning very seriously and has invested heavily in equipment and training staff to undertake prescribed burns, predominantly between autumn and spring.

It would be financially impossible and environmentally catastrophic to burn every patch of bushland in Hobart every year in the hope that razing nature to the ground would rule out any bushfire risk. Instead, the City works within a number of parameters - environmental considerations, resource limitations and community needs.

A number of factors are also considered in determining when and where prescribed burns can safely take place, including:

- vegetation communities
- threatened plant and animal species
- Aboriginal heritage sites
- European heritage sites
- smoke management
- traffic management
- presence of utilities such as power and telephone infrastructure
- vegetation thresholds and the time since an area was last burnt.

The Australian bush is fire adapted, but that doesn't mean all native plants and animals can survive regular prescribed burns. There are animals and plants that will not survive even a small amount of fire, while others, especially many plants, rely on frequent burning as part of their life cycles.

The City has an ongoing program to map flora and to assess the relative condition of vegetation prior to a prescribed burn being conducted. These assessments are considered in all fire management planning. Threatened plants and animals and historic heritage are considered through the [Tasmanian Natural Values Atlas](#). [Aboriginal Heritage Tasmania](#) is consulted with respect to Aboriginal sites and other cultural considerations as part of the prescribed burn planning process.

Every plan takes these matters into account and plans are modified appropriately. Site preparation also takes these matters into account. Any statutory approvals required for a prescribed burn are obtained prior to the plan being endorsed. 'Dial Before You Dig' is also consulted prior to the burn commencing to ensure that all in-ground services are protected both from the preparation works and the burn.

Tasmania's grasslands were once extensive throughout the state's midlands – a landscape most likely created and maintained through regular burning by Aboriginal people. Areas of native grasslands still exist in Hobart and they require fire every three to five years. This is known as the fire interval or fire threshold, and varies for different vegetation. Drier woodland forests in Tasmania generally should not be burnt at less than five year intervals and no greater than about 20 years.

Wet forests should not be burnt at intervals of less than 30 years, if at all. However, under most conditions wet forests will not burn and often only burn during a major bushfire, so prescribed burns are rarely an option in this type of forest. At the same time, with noticeable changes in climate, wet forests and rainforests in other parts of Australia have

burnt in recent years when this had not previously occurred.³⁰

When taking into account the needs of the community we look at which bushland areas are close to houses. Will smoke impact the local community? How can we reduce impacts? We also factor in activities planned for the area. The grasslands in the Queens Domain are an obvious case. The Domain often plays host to sporting events and people use it every day for walking and jogging, it is close to houses and businesses, bounded by major roads and there are even commercial grape vines nearby!

Evaluating other factors is also critical to a safe and successful prescribed burn. This includes understanding what the wind will do on the day, how well the smoke will rise and disperse high into the atmosphere and of course knowing that the vegetation is dry enough to take on a cool burn, but not so dry that it becomes a fire hazard in its own right.

All of these conditions, and more, are taken into account for each individual burn, and form what is termed the prescription, hence prescribed burn. Every time we carry out a prescribed burn in Hobart's bushland reserves it has behind it a detailed burn plan setting out weather conditions, any limitations on burn intensity and constraints such as threatened plant or animal species, or Aboriginal and European heritage values that should be protected.

Preparing for each burn can be quite complex and includes removing fuel from fire trails, raking around flammable trees and larger habitat trees as well as any threatened assets or sites.

The City of Hobart has developed a decision matrix that looks at all of these factors:

- Fire Management Zoning – meet the management objectives for each zone.
- Management Units – boundaries and options to manage/contain the fire.
- Vegetation Communities management objectives.
- Species management objectives, especially for threatened and vulnerable species.
- Vegetation thresholds and time since last burnt - not wanting to under or over burn any area.
- Seasonal fire conditions – consider the need to change the timetable to suit seasonal conditions.
- Separation of burnt areas to achieve a matrix and create a spread of fuel-reduced areas while having separation in time between when neighbouring management units are burnt.

These factors must be accounted for together with other matters such as access, the need for smoke and traffic management as well as managing conflicting issues like ongoing public access. This is particularly important for sporting and other events that would be significantly disrupted if prescribed burns were scheduled without due consideration.

The best time to conduct prescribed burns in Hobart is generally autumn or spring, although it can be at other times for specific vegetation units or specific desired outcomes.

All of this information is taken into account when planning and scheduling the City of Hobart's annual prescribed burning program.

It is very difficult to be precise about exactly when a management unit will be burnt. There are a range of factors that can prevent a prescribed burn from going ahead when scheduled. The most common factor is the weather. However, when it is too wet up on or

towards kunanyi/Mount Wellington, it might be sufficiently clear for a burn at the Queens Domain or another area. Other factors then come into play, such as other events taking place in those areas, the need for traffic management, neighbour notification and smoke management.

As a result, while every attempt is made to have a clear order of burning, this rarely happens exactly as planned.

Bushfire response capacity

The City of Hobart generally plans, prepares and conducts all prescribed burns carried out on City-owned land. It also manages the biodiversity values of these lands, especially through weed management. The [Tasmania Fire Service](#) can take a lead role in prescribed burns on City-owned land, generally for burns that cross multiple tenures.

The City of Hobart staffs a team of about 30 firefighters trained to industry standards. These staff members all have other responsibilities, but are available, generally at short notice, to assist with any prescribed burns or other fires on City-managed land.

The team includes experienced Incident Controllers as defined by the Australian Inter-service Incident Management System (AIIMS) as well as a number of experienced Divisional Commanders.

At the time this strategy was written the City had approximately 32 staff operating as firefighters, 16 of them trained to PUA20619 - Certificate II in Public Safety (Firefighting and Emergency Operations) standard.

The City's firefighters undertake annual health and fitness assessments as well as additional training as required. A number of them also bring considerable additional knowledge and experience to the team from their work as volunteers with the Tasmania Fire Service and other firefighting jurisdictions across Australia.



The City maintains a number of 4WD vehicles that have been specifically modified or prepared to support firefighting efforts. This includes vehicles with water tanks and pumps as well as larger tankers and tractors. The City also maintains a range of additional equipment such as spare hoses, pumps, etc.

Mechanical thinning

Past management practices have altered Hobart's bushland reserves over time. One of the best examples is on the Queens Domain. Much of the Domain was once grassland interspersed with eucalypts and wattles, however, many of these areas have become dominated by she-oak (*Allocasuarina verticillata*). While she-oak is a native plant, conditions on the Domain allow it to dominate and suppress native grasslands and outcompete other tree species such as eucalypts, especially for water. This can lead to many eucalypts becoming severely stressed or even dying.

Allocasuarina verticillata is a species that burns easily and burns hot. Grasslands require regular burning but do not respond well to extremely hot burns. Suppression of native grasses by she-oak also significantly reduces the amount of grass seed in the soil, which in turn has consequences for natural regeneration following any fire.

By thinning out the amount of she-oak on the Queens Domain we can help return the landscape to an open grassy woodland and help bring back more of the critically endangered lowland temperate grasslands, a federally listed vegetation community.

Fire trails

The City of Hobart manages more than 120 kms of fire trails and in 2016 adopted a fire trail design standard used by the Tasmanian Parks and Wildlife Service. The City's fire trails are predominantly classes 3 to 6 in the parks service's fire trail classification system. All of these classifications are suitable for access only by a 4WD vehicle or similar. Most are closed to public vehicle access.

The City's separate, "unclassified fire trail" standard applies to lesser maintained and dormant fire trails, which can be used as containment lines for prescribed burns or for occasional access to specific sites. A comprehensive trail maintenance and repair schedule is in place.

Fire trails serve a number of functions. They can act as a firebreak as well as a physical platform from which fire suppression and mitigation activities can be carried out by firefighting agencies. Fire trails can play a critical role in providing rapid response and close access to fires, allowing firefighting authorities the opportunity to undertake initial attack and early containment of bushfires.



Fire trails can play a critical role in suppressing a fire before it escalates into a major bushfire, saving significant costs and potentially lives.

An effective fire trail network increases the number of options available in implementing prescribed burns that protect communities and social, cultural, environmental and economic assets.

Smoke management

A range of matters need to be considered in a prescribed burn program, not the least of which is the effect smoke has on people's health and community amenity. Smoke most often causes breathing difficulties for people, especially those with underlying health conditions such as asthma. Smoke can also be a safety issue, especially when thick smoke blows across main arterial roads leading into and around Hobart.

The City takes the matter of smoke very seriously. Smoke from prescribed burns can disrupt business and traffic, taint crops such as grapes and, even more seriously, impact people's health.

To counteract these threats the City of Hobart gives people advanced notice of impending prescribed burns planned for their area. Alerts are sent to residents living close to upcoming burn areas, and special attention is paid to people registered as suffering breathing difficulties when there is increased smoke in the atmosphere. People with particular needs such as those with health conditions exacerbated by smoke and local businesses that could be impacted by smoke in the atmosphere, such as grape growers,

can be request 24 hours notice, by email, of proposed burns.

The City also voluntarily complies with the smoke management program managed by the EPA. This program assesses the amount of smoke in the atmosphere and if conditions will result in poor smoke dispersal, planned burns can be halted.

Specific guidance to manage or limit the effects of smoke on people's health have also been developed by the Tasmanian Department of Health

(www.dhhs.tas.gov.au/publichealth/alerts/air). Any member of the public requiring information about air quality can also download AirRater, a free smartphone app (airrater.org).

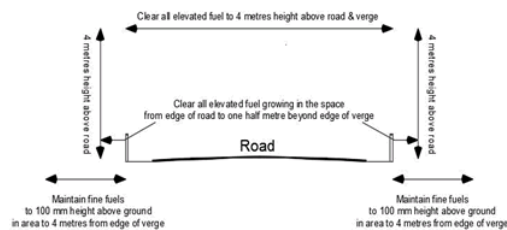
Smoke can also be a safety issue, especially when thick smoke blows across roads, including major roads such as the main arterial roads leading into and around Hobart.

The City of Hobart aims to do everything it can to reduce the impacts of fire and smoke on the people of Hobart and voluntarily participates in the Coordinated Smoke Management System managed by the Tasmanian Environment Protection Agency.³¹

This system is a smoke management tool for planned burns in Tasmania and provides guidelines for improved planning of smoke dispersal using data and methods developed by the Bureau of Meteorology. When these guidelines predict poor smoke dispersal, restrictions will be imposed as required to ban or limit the number of planned burns. In this way, the coordination of planned burns should minimise the risk of high concentrations of smoke in the atmosphere.

Safe access routes

When bushfire threatens a community clear exit routes can mean the difference between life and death. That is why the City of Hobart has started work making roads safer during bushfires through a new vegetation management process. In June 2019 the Tasmania Fire Service outlined the extent to which vegetation should be managed along road verges to reduce fire risk.



In February 2020 the City of Hobart carried out assessments of a number of major roads including Huon, Summerleas and Chimney Pot Hill roads and will act on the findings. Other roads will be assessed in the future.

Embers

One of the greatest causes of houses catching fire during bushfires is from falling embers. Embers can result from burning bark, twigs, leaves and pieces of debris that are carried by wind and land on or around houses, creating new fires that can quickly engulf a property.

Embers can land on top of debris in gutters, ignite mulch and drier plants in gardens beside houses and set fire to the house. They are glowing hot pieces of wind-borne plant material that can precede or even appear after a firefront has passed. This often depends on the strength and direction of the wind at the time. Embers can travel for short or long distances, even up to 40 kilometres or more, starting spot fires well ahead of a firefront –

often without warning.

Raising awareness of the threats posed by falling embers during a bushfire through local meetings and the news media has been an important way of encouraging people to prepare their property for bushfire and ember attacks.

Knowing what to do if a bushfire is threatening or is likely to threaten your household or home can be difficult for a lot of people. Having a plan to prepare and leave early, and practicing that plan, is key message conveyed to the people of Hobart through the City's bushfire awareness campaign.

Major bushland reserve plans

Queens Domain

The Queens Domain is on the edge of Hobart's central business district. It is approximately 230 hectares and encompasses native grassland and woodland, European and Aboriginal cultural heritage places and values. It is home to the historically significant Royal Tasmanian Botanical Gardens, the old Beaumaris Zoo, Government House Tasmania and important sporting facilities including the Domain Tennis Centre and the Hobart Aquatic Centre.

The Domain protects the last of Hobart's original endemic grasslands, a variety of native birds, including eastern rosellas, grey-breasted silvereyes and yellow wattlebirds.

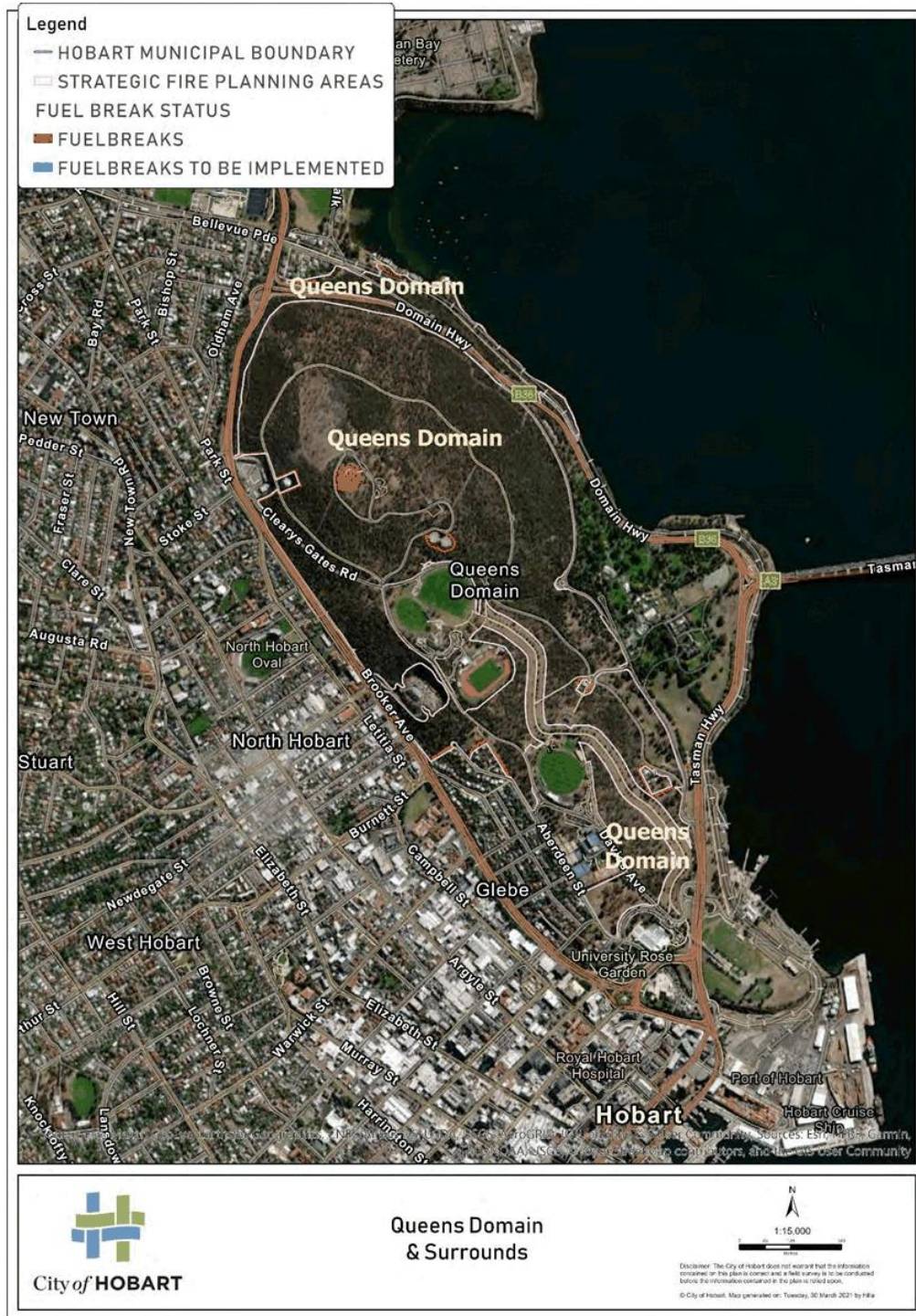
Bushfire management on the Domain needs to take into account:

- impacts on people living near the Queens Domain
- sporting and other recreational activities
- infrastructure
- activities that increase the risk of fires starting, such as picnicking and car dumping.

Recent bushfires

In 1971 and 1972 almost the entire Domain was burnt by a series of deliberately-lit fires. In 1974 much of it was burnt again to remove fire hazards. Since then only small areas of the Domain have been burnt and no large-scale prescribed burning has taken place.

There are no records of any damage to built assets from fires on the Queens Domain.



Knocklofty Reserve and McRobies Gully

Knocklofty Reserve is a ridge-top reserve bordered on three sides by public and private bushland. McRobies Gully sits between Knocklofty Reserve and Wellington Park, and includes Hobart's waste management centre. Both reserves are about 3km west of the Hobart CBD.

Both reserves have complex boundaries that make effective fire management difficult. To ensure vegetation management units within these reserves are practical and ecologically viable, the area covered by this Bushfire Management Strategy has been extended beyond the current reserve boundaries, where required, to include portions of contiguous private and City of Hobart owned properties.

Knocklofty Reserve is a large, 122 ha bushland reserve occupying timbered slopes and the summit of Knocklofty, a prominent hill to the west of the Hobart CBD. McRobies Gully (179 ha) includes most of the McRobies Gully catchment, a tributary of the Hobart Rivulet. Together the two reserves form a strip of bushland running from Wellington Park to the urban perimeter of Hobart. The Knocklofty summit is the highest point within these two reserves, at 374 m above sea level.

The Knocklofty ridgetop, and the ridges either side of McRobies Gully, are underlain by Jurassic dolerite. The lower slopes are formed on Triassic sandstones and Permian mudstones. Soils include stony black clay loams or clays on dolerite, gravelly grey-brown sandy loams on dolerite, and grey-brown loamy sands on sandstones.

The vegetation ranges from wet forests along the lower, south-facing slopes of McRobies Gully, to dry grassy woodlands and grasslands on the ridge tops.

Average annual rainfall in Knocklofty Reserve is around 650 mm. Winds are predominantly from the west throughout the year. Extreme fire weather conditions occur when strong, dry, north-westerly winds coincide with summer heatwaves.

Bushfire management of these areas needs to take into account:

- impacts on people living nearby
- recreational activities
- infrastructure
- activities that increase the risk of fires starting, such as picnicking and car dumping
- McRobies Gully Waste Management Centre.

Recent bushfires

Knocklofty Reserve and McRobies Gully were both burnt in the 1967 bushfire disaster. The fires destroyed 23 houses on the perimeter of Knocklofty Reserve and a large number of houses were also lost in the Strickland/Marlyn Road area south of McRobies Gully. This area was burnt by the main head fire after it had passed through the upper portion of McRobies Gully.

Records indicate that virtually all of Knocklofty Reserve was burnt by a series of prescribed burns between 1977 and 1983. However, the scale of the prescribed burning program

declined considerably after that.

A bushfire of moderate intensity burnt approximately 60% of Knocklofty Reserve in January 1983. There was also a practice at the time of burning forest strips adjacent to McRobies Gully each year to avoid the risk of bushfires igniting landfill. There have been further fires in Knocklofty Reserve since 1983, including a major fire in February 1993 that burnt approximately half the reserve.



Ridgeway Park, Waterworks Reserve and Proctors Road Reserve

Together Ridgeway Park, Waterworks Reserve and Proctors Road Reserve form a large (482 ha) regional bushland park, occupying forested slopes and the summit of Chimney Pot Hill, a prominent crest south-west of the Hobart CBD, and surrounding valleys. The topography is hilly with altitude ranging from 130 m at the Lower Reservoir, to 496 m at Chimney Pot Hill. The park is split between three main catchments, Dunns Creek to the south, Vincents Rivulet to the east, and Sandy Bay Rivulet to the north.

Rainfall is evenly distributed throughout the year and increases with altitude from around 900 mm on the eastern side of the park to 1000 mm in the west. Winds are predominantly from the west and north-west throughout the year. Extreme fire weather conditions occur when strong, dry, north-westerly winds coincide with summer heatwaves.

The geology is predominantly Jurassic dolerite with Permian-Triassic sediments (coarse-grained sandstone and mudstone) in the north-western portion on either side of the upper and lower reservoirs, and on the eastern margin along the Southern Outlet. Soils are generally clay-rich on dolerite and mudstone, but shallow, sandy and erodible on sandstone.

Bushfire management of these areas needs to take into account:

- impacts on people living nearby
- recreational activities
- infrastructure
- activities that increase the risk of fires starting, such as picnicking and car dumping.

Recent fires

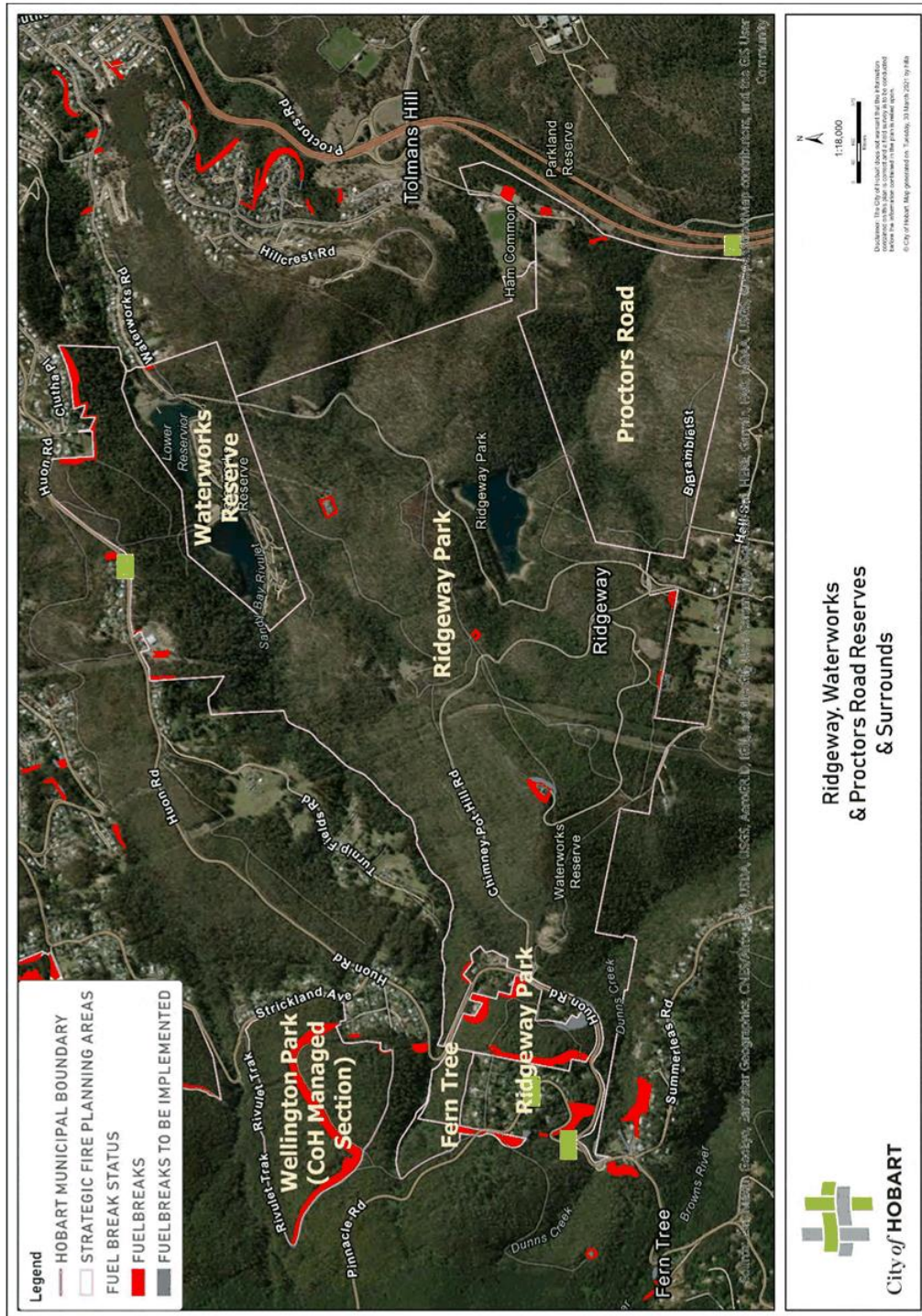
It took the bushfires that hit Hobart in 1967 just 30 minutes to burn through Ridgeway Park with high intensity. There was extensive loss of houses in the suburbs surrounding the park and anecdotal evidence indicates the park then remained free of major bushfires until the Ridgeway fire struck in January 1998.

There are no details of smaller fires in the park until the City of Hobart began maintaining records in the 1980s, when a substantial portion of the park was burnt by either prescribed burns or small bushfires. There were virtually no fires in the park during the 1990s prior to the 1998 Ridgeway fire in which almost 90% of the park was burnt, either by the bushfire itself or by backburns lit to control the fire. This fire did not originate in the park, but burnt into the park from the south, the opposite direction to the 1967 fire.

Since 1998 there have been a number of small grass and bushfires within and surrounding the park, but the individual areas burnt have been generally less than a hectare.

There has been no unplanned fire in Ridgeway Park or Waterworks Reserve since 2005. Areas of wet eucalypt forest appear not to have been burnt since 1980.

Prescribed burning has been undertaken since 2003.



Bicentennial Park and surrounds

The Bicentennial Park area includes a number of smaller, separate reserves in Mount Nelson and Sandy Bay. The total area, including all the smaller reserves, is about 230 hectares. This includes Bicentennial Park, Porter Hill Reserve, Lambert Park, Pierces Reserve, Cartwright Reserve, The Grange Picnic Area, Mount Nelson Oval and about 10 other unnamed reserves.

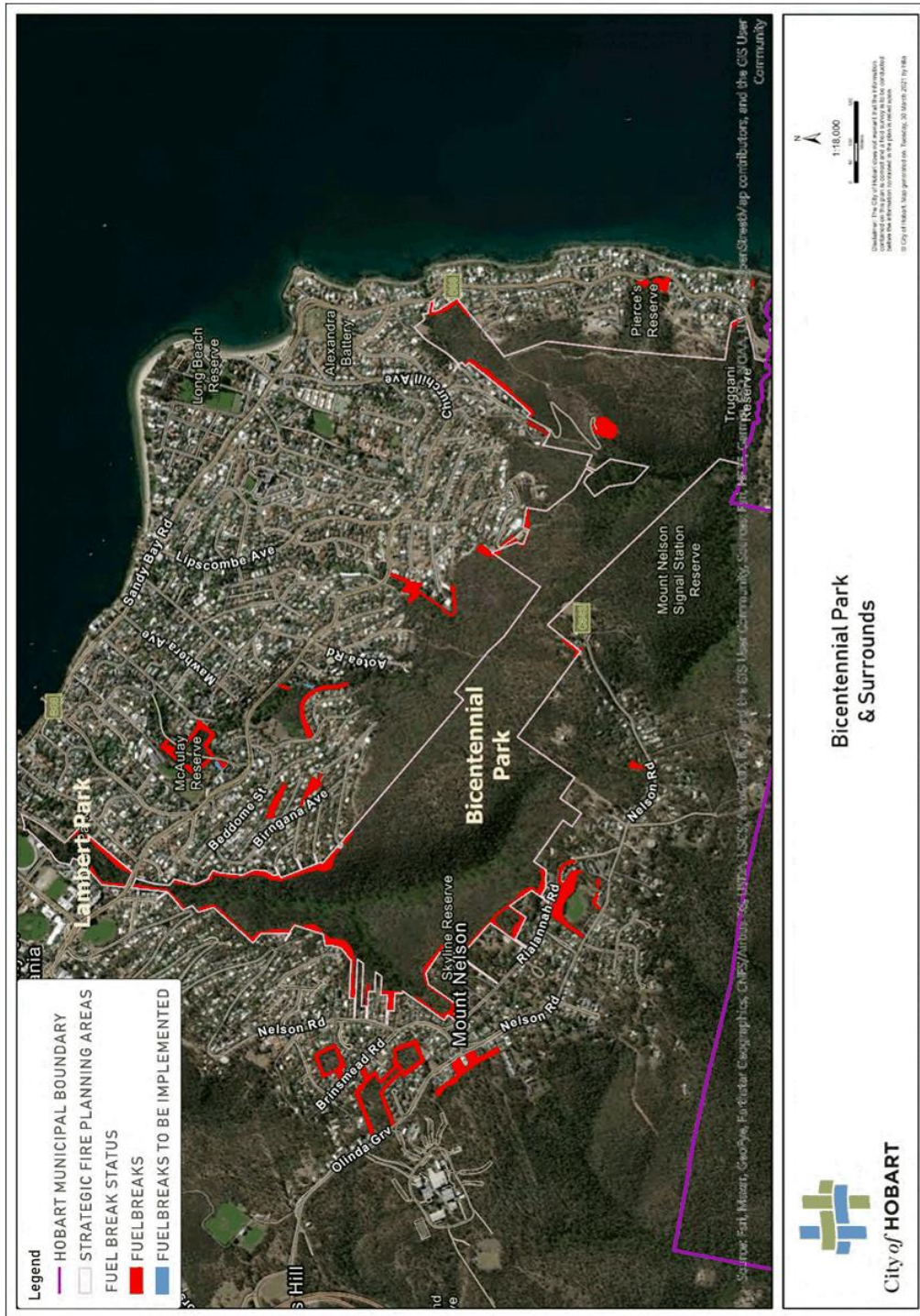
Bushfire management of these areas needs to take into account:

- impacts on people living nearby
- recreational activities
- infrastructure
- activities that increase the risk of fires starting, such as picnicking and car dumping.

Recent fires

In 1982 a fire burnt all but the eastern-most portion of Bicentennial Park (then called Skyline Reserve). A small bushfire burnt a portion of the slope below Bend 6 in 1995.

The last bushfire in the area was in January 1998. This fire started near Fern Tree and initially travelled in a south-easterly direction towards Kingston, but as the wind shifted with the passage of a cold front it moved first in an easterly direction towards Bonnet Hill and Tarooma and then in a northerly direction approaching Mount Nelson from the south. This is the opposite approach to the 1967 bushfire which burnt along the Mount Nelson ridge from the north-west to the south-east. The only major damage caused in the study area in the 1998 bushfire was the loss of one of the three buildings on Porter Hill, the "circular house", completed in 1949. A previous house on a nearby site on Porter Hill had been destroyed by a bushfire in 1978 and subsequently rebuilt. This house, and a smaller detached flat survived the 1998 bushfire. There are no records of the extent of the 1978 bushfire.



Wellington Park

The area of Wellington Park within the City of Hobart boundary is approximately 18,250 ha and is one of the largest areas of reserved land in Tasmania outside of the Tasmanian Wilderness World Heritage Area. The park has unique natural and cultural significance and includes iconic features such as the columnar face of kunanyi/Mount Wellington, which forms such a dramatic backdrop to Hobart.

The City of Hobart directly manages smaller sections of the Park including a small area on the northern side of Fern Tree. In total, the area managed directly by the City of Hobart is approximately 337 ha. The remainder of the Park within the City boundary is managed by the Mt Wellington Trust. Crown Lands and the Tasmania Parks and Wildlife Service also manage areas of the Park outside of the City boundary.

The City of Hobart takes the following into account for the areas it manages:

- impacts on people living nearby
- recreational activities
- infrastructure
- activities that increase the risk of fires starting, such as picnicking and car dumping.

Recent fires

Parts of Wellington Park (generally the dry forests and woodlands) have burnt nearly every year since European settlement began to influence the occurrence of bushfires towards the end of the 19th century, and there have been widespread fires in years when fuels in the wet forests within the park have been dry. Prior to the disastrous fires of 1967, large fires in the vicinity of kunanyi/Mount Wellington were reported in 1806, 1851, 1897, 1914, 1934 and 1945. The extent and intensity of these earlier fires is not known.

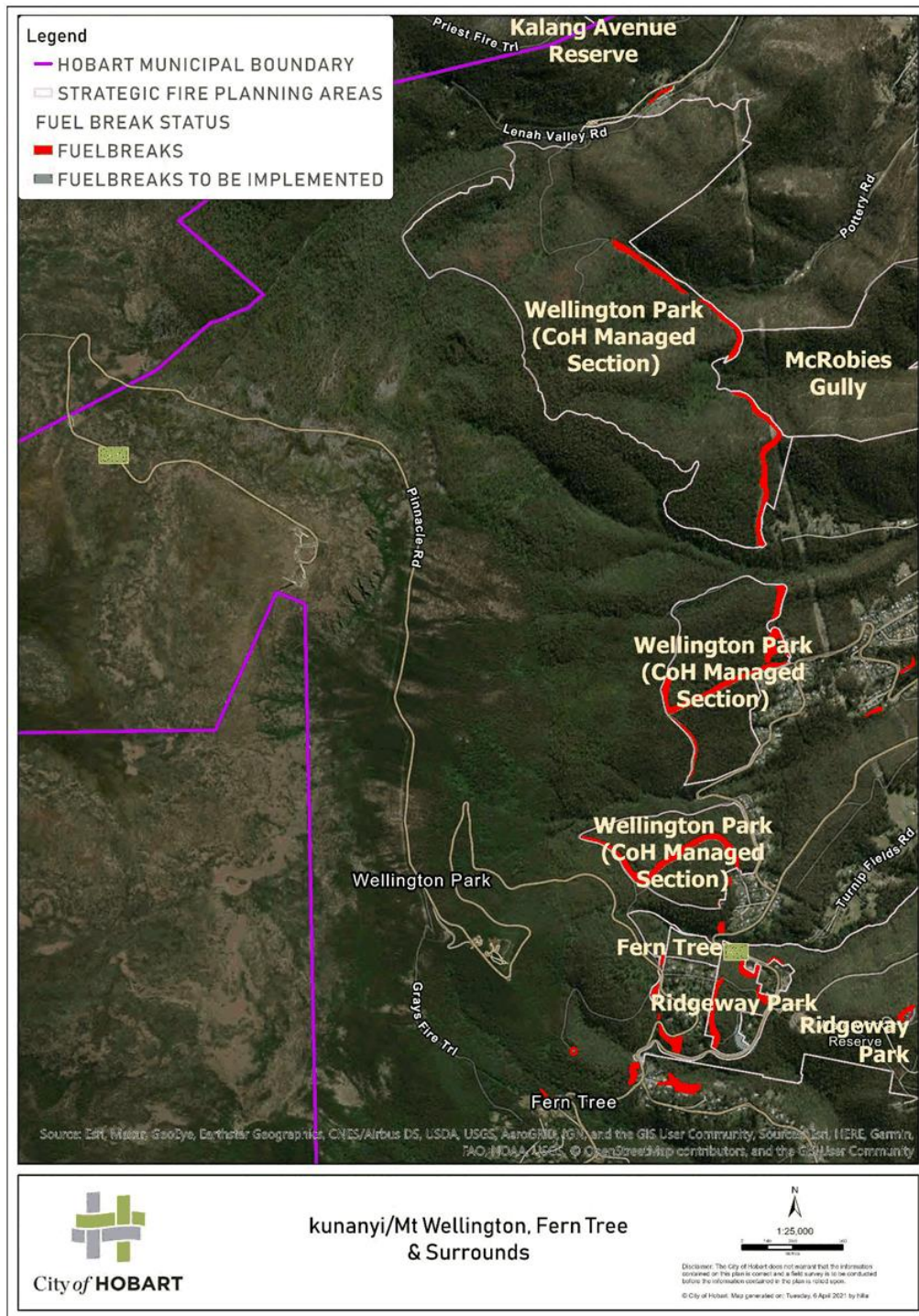
The author of a recent study of newspaper reports stated that:

*Significant fires occurred on the mountain in 1897, 1914, 1920, 1940, and 1967. Of these, the most significant in terms of loss of life and property was undoubtedly the 1967 fire. The fire of 1897, although not as devastating in terms of loss of life and property, may well have rivalled the 1967 fires in terms of its extent. It is not easy to be sure of this, as Hobart was quite small in 1897 and areas which were populated in 1967 were not populated in 1897...Apart from these significant fires, it seems that nearly every year at least one bushfire burned on the mountain, until recent times...*³²

Between 1980 and 1990, 27 fires were recorded in the Park. From 1983 to 1999, a large number of vegetation fires were reported by the Tasmania Fire Service from the urban/rural interface with the Park, the greatest concentration being in the peri-urban fringes to the west and north-west of Glenorchy, and to a lesser extent, Hobart.

Most of the dry forest along the eastern perimeter of the Park were burnt by a series of burns during the 1970s and 80s.

More recently, there was a major bushfire on the eastern side of kunanyi/Mount Wellington (February 2001) and a smaller fire between Mount Charles and Jefferys Track (November 2003). Both fires were deliberately lit though the Mount Charles fire originated on private property and moved into the Park. There are no reports of assets being damaged.



The City Of Hobart Fire Management Program

The City of Hobart is responsible for bushfire management, including prescribed burning, within City-owned or managed reserves. The Tasmania Fire Service is responsible for the suppression of any bushfires.

The purpose of this strategy is to ensure the City can meet its bushfire management responsibilities under current legislation, particularly protection of life and property, as well as allowing for the ongoing use of fire as a management tool to assist in reducing fire risk to the community and to help maintain the viability of native ecosystems in Hobart.

There are a number of national, state and regional policies, plans, strategies, regulations and legislation that have a bearing on the management of bushfire risk by the City of Hobart. The intent of this bushfire management strategy is not to examine the existing high-level documents (see Appendix 1 for list of current, relevant legislation and policies), but rather to connect the requirements and intent of these policy documents to the City of Hobart programs and projects that will deliver improved response and management of bushfire risk for the people of Hobart.

The City has five major areas of responsibility that define the scope of its operations to reduce bushfire risk:

- land management – managing bushland to reduce fire risk
- building community resilience – a shared responsibility between the State Government (Tasmania Fire Service), the City of Hobart and the Hobart community
- statutory planning – Planning Directive No. 5.1 Bushfire-Prone Areas Code 2017
- regulatory responsibilities – legislative compliance and enforcement
- emergency management – the City's roles and responsibilities.

Land management

The City of Hobart is responsible for managing more than 4700ha of native bushland. Almost 3000ha of this is within the municipal boundaries of Hobart, and the remaining 1600ha is owned by or vested in the City of Hobart, to the south and north of the municipal area. Most of this bushland is on the southern side of Wellington Park, urban fringes and the Kalang Reserve (in Glenorchy LGA).

The City's Fire Management Strategy continues to guide its approach to managing fire risk in public bushland for which it is responsible.

The City has the capacity to undertake all aspects of fire risk management, from high-level planning to carrying out prescribed burns. Time and experience has shown that developing and maintaining this capacity is critical to long-term success.

In 2017, the City of Hobart, in line with its statutory obligation, established a policy in relation to the provision and maintenance of managed areas (Bushfire Hazard

Management Areas) on City-owned land for private developments in bushfire-prone areas. This followed the release of AS3959:2018 (Australian Standard for Construction of Buildings in Bushfire-Prone Areas) and the incorporation of that standard into the National Construction Code and Planning Directive 5 (Bushfire-Prone Areas Code).

The purpose of this policy is to ensure that new bushfire hazard management areas for residential dwellings are contained within the property being developed, except in the exceptional circumstances that this is not entirely possible. This reduces the number and extent of any new bushfire hazard management areas needing to be established in the Hobart's bushland and reserves network for the benefit of adjoining dwellings.

Fire risk management requires specialised training and equipment, detailed planning, and an ongoing commitment to continue the work once begun. Meeting these needs with finite personnel and resources now and into the future will present a significant challenge to the City of Hobart.

It is becoming increasingly important for the City to better understand weather, especially in relation to fire, and the potential effects of climate change. For example, suitable weather and environmental conditions for conducting fuel reduction burns is becoming less common due to climate change.

As the nature of bushfire risk in Hobart is better understood, risk management programs can be adapted to keep pace.

Building community resilience

The intent of building community resilience to bushfire is to improve the awareness, knowledge and self-reliance of property owners in bushfire-prone areas. An informed and aware community is better able to prepare and respond to bushfire risk, and to a bushfire incident when it threatens their area.

The City of Hobart has a supporting role in building community resilience by helping property owners and residents access information, apply the best advice available to their individual situation, and determine how they will respond to the risks involved.

With the growth of communications technologies, it is now well understood that traditional methods of communication between local government and the city's residents is no longer sufficient. Understanding and utilising new media and communications tools will be a key part of building community resilience

The elderly, chronically unwell and socially isolated members of the community are often less able to access bushfire information, let alone act on bushfire advice, without extra support. While it is not solely the responsibility of councils to help this section of the community, it is an area of growing concern given the aging nature of Hobart's population.

Another area that needs attention is people with culturally and linguistically diverse backgrounds, who often lack knowledge of how bushfires behave, and can have difficulty accessing or understanding existing information. Again, this is not the sole responsibility of councils, but the City of Hobart does have a role to play in ensuring all members of society understand the bushfire threat and know how to prepare for bushfire.

The need to prepare the people of Hobart for future bushfires is a critical component of the City's bushfire strategy.

Guarding against the bushfire threat is a shared responsibility

Hobart is one of the most bushfire-prone cities in Australia. To lower the risk, the City of Hobart carries out extensive bushfire mitigation works to protect life, property and the conservation values of its bushland reserves.

The work is intensive, involves a large number of staff, and costly. The City does everything it can to minimise the risk of bushfire to the community, but if individual house owners fail to make their properties bushfire safe by cleaning gutters and minimising the amount of fire-prone vegetation on their property, they remain at risk from fire.

Since 2019 the City has run an extensive community awareness campaign with three key goals:

1. Raise awareness within the community of the extreme dangers bushfire poses to Hobart and the need for the entire community to work together to mitigate this threat.
2. Raise awareness in the community, and especially among people who live adjacent to bushland reserves, of the need for them to make their properties bushfire safe.
3. Encourage people to get rid of fire-prone vegetation by cleaning up their gardens and taking advantage of free tip days to dispose of garden refuse.

The City's website provides detailed, up-to-date information on how people can prepare their properties ahead of every bushfire season, report potential fire hazards, an explanation of Fire Danger Ratings and important links for what to do in an emergency.

Information about upcoming fuel reduction burns is widely disseminated on social media and our bushfire plans are widely covered in the media.

A strong Prepare Now for Bushfire advertising campaign is run with large format advertising, advertising in local newspapers and through the distribution of a Prepare Now brochure. Public information forums are held in suburbs most at risk from bushfire.

The key message the City conveys to the people of Hobart is that while the City of Hobart does everything it can to protect life, property and our environment from bushfire, we can't do it alone. Preparing for bushfire is everyone's responsibility.

Planning Directive No 5.1 Bushfire-Prone Areas Code 2017

As a planning authority, the City of Hobart is responsible for assessing applications for the use and development of land. Planning schemes are the key instruments that set out the requirements and restrictions that apply to new use and development. The Hobart Interim Planning Scheme 2015 includes specific provisions relating to the consideration of bushfire risk including a city-wide, bushfire-prone area overlay.

Planning Directive No 5.1 Bushfire-Prone Areas Code was issued by the Tasmanian Government in September 2017 and requires the Bushfire-Prone Areas Code to be

inserted into interim planning schemes and the future Tasmanian Planning Scheme. The code includes specific use and development provisions for subdivisions, vulnerable uses and hazardous uses in bushfire-prone areas. Bushfire risk mitigation measures set out in the code include:

- the provision of fuel-reduced hazard management areas between buildings and bushfire-prone vegetation
- the provision of safe access arrangements for firefighters and occupants
- the provision of adequate, accessible and reliable water supplies for firefighting
- special provisions for vulnerable and hazardous uses in bushfire-prone areas.

The main pathway for demonstrating compliance with the code is the submission of a Bushfire Hazard Management Plan, certified by a person accredited under the *Fire Service Act 1979*.

An important challenge for the City of Hobart with respect to the code is that it has limited ability to reject certified bushfire hazard management plans from accredited persons, even if the conclusions appear incorrect.

Regulatory responsibilities

The City of Hobart's three key regulatory responsibilities relating to fire risk are Fire hazard abatement notices, declared weeds notices and compliance with bushfire safety aspects of planning and building approvals (Part V Agreements). Smoke management also falls within the City's responsibilities through the Tasmanian Government's pollution laws.

Fire hazard abatement notices are one of a group of "nuisance provisions" covered in the *Local Government Act 1993*. However, these notices only apply to land designated as fire prone under the planning scheme. Notices can be issued when vegetation and/or other fire fuel conditions on a property pose a direct safety risk to assets on an adjoining property, such that it requires prompt removal. In cases where notices are not complied with before the given deadline, the City is required to conduct the works, and then recovers the cost of these works from the property owner.

Declared weeds notices are issued under the *Weed Management Act 1999*. This legislation is primarily for controlling a wide array of invasive plants, however, several of the weeds listed under this act often form a fire risk. In these cases, weed control works are also reducing fire risk.

Many subdivisions and new homes approved in the past 20 years are subject to bushfire risk mitigation requirements as conditions of approval. While primary responsibility for complying with these requirements rests with the property owner, the City has a role in ensuring property owners are aware of their legal responsibilities and are complying with them. However, if they are contained in a Part V agreement, then while theoretically the City can enforce the conditions, it can only be upheld through the Supreme Court of Tasmania and are therefore ineffective in general practice.

The City of Hobart needs to keep pace with the expanding nature of these regulatory responsibilities over time. One key area is ensuring inspectors and other officers are

properly trained and resourced, and have effective administration support to manage the process.

It is important the City develops the capacity to monitor compliance with the bushfire requirements of planning permits, building permits and Part V Agreements. This will require considerable resources into the future.

Emergency management

Emergency management arrangements in Tasmania are established by the *Emergency Management Act 2006*. The Act provides for the protection of life, property and the environment, and establishes emergency management arrangements and emergency powers.

The Act establishes the following governance structure for emergency management in Tasmania:

- State Emergency Management Committee, responsible for the Tasmanian Emergency Management Arrangements (TEMA).
- Three regional emergency management committees (North, North-West and South), each with their own Regional Emergency Management Plan.
- Municipal emergency management committees, one for each council area. The Hobart Emergency Management Committee is responsible for the City of Hobart Emergency Management Plan development and implementation.

At the local government level, the Emergency Management Planning process follows the model of Prevention-Preparedness-Response-Recovery (PPRR). The City of Hobart's emergency management plans and advice, including the Emergency Management Plan, can be found on the City's website: <https://www.hobartcity.com.au/Community/Emergency-management>.

In a bushfire emergency, the Tasmania Fire Service is the lead agency. The City's role is to enact the Municipal Emergency Management Plan. This may involve a number of activities, including:

- establishing an incident management team
- communications to the public and staff
- setting up and operating evacuation centres and other community recovery centres
- provision of resources, equipment and access to City of Hobart information
- road closures
- other assistance as required to emergency services.

Once the recovery phase begins the City will take the lead role, supported by state government agencies and non-government organisations.

Current management actions

There are a large number of actions being taken by the City of Hobart to fulfil its statutory responsibilities to the people of Hobart.

The following tables identify these actions, together with a number of proposed actions.

Item	Activity	Lead CoH Program Area to Action
1	Implementation of the Bushfire-Prone Areas Code.	Planning
2	Provision of advice on the building regulations for bushfire-prone areas to development proponents at the planning stage so that proponents are aware of the full range of bushfire requirements early in the process, and can therefore be addressed with a comprehensive, consistent and complementary approach.	Planning
3	Provision of advice and guidance to development proponents regarding the use of City of Hobart land for bushfire hazard management areas.	Planning
4	Ongoing response to fire hazard and weed enquiries and administering Abatement Notices.	Fire & Biodiversity
5	Continue to pursue the City of Hobart's capacity to administer, monitor and enforce compliance with the bushfire risk mitigation requirements of planning permits, building permits and Part V Agreements, including on-ground inspectorial and Geographic Information Systems resources.	Planning
6	Training staff in the assessment and application of Hazard Abatement notices.	Fire & Biodiversity
7	Continuation of fire risk management programs for all bushland in the greater Hobart area, including mechanical fuel reduction, prescribed burns for fuel reduction and ecological purposes, fuel break management in bushland adjacent to dwellings, and the City of Hobart fire trail network.	Fire & Biodiversity
8	All bushland in the greater Hobart area is covered by a detailed Fire Management Plan (this plan, plus associated map-based plans for each of the major bushland reserves).	Fire & Biodiversity
9	All City of Hobart bushland reserves (other than reserves classed as 'Amenity use') are managed within a fire planning process that schedules prescribed burns, fuel break maintenance and fire trail works.	Fire & Biodiversity
10	Operational 'Bushland Incident Procedures' for elevated fire danger weather responses are updated before each bushfire season.	Fire & Biodiversity

Item	Activity	Lead CoH Program Area to Action
11	The City of Hobart participates in the Greater Hobart Fire Management Area Committee and is closely involved in the development and future implementation of this committee's Greater Hobart Fire Mitigation Plan.	Fire & Biodiversity
12	City of Hobart officers remain in regular direct liaison with the Tasmania Fire Service to provide local and regional consistency in fire risk management.	Fire & Biodiversity
13	As part the City's bushfire risk management the road verges on Huon, Summerleas, Chimney Pot Hill and Waterworks roads, Strickland Avenue and Woodcutters Lane have been assessed in line with the Tasmania Fire Service Road Verge Management Guidelines for safe access.	Fire & Biodiversity
14	The link between the City of Hobart's emergency planning and fire risk management activities was strengthened in 2018 when the role of Manager Bushland was made a member of the City's Emergency Management Working Group.	Fire & Biodiversity
15	The Tasmania Fire Service identified Nearby Safer Places on City of Hobart land that are being managed to the service's specifications or better. These places are part of the Hobart Emergency Management Plan.	Fire & Biodiversity
16	Within the capacity of the City's fire-trained operational staff, assistance is given to the Tasmania Fire Service during post-fire mopping up and associated tasks.	Fire & Biodiversity
17	Continue to maintain adequately trained staff to fulfil fire management tasks and respond to bushfires, especially on City of Hobart managed land and where requested by the Tasmania Fire Service.	
18	Continue to represent the interests of all Tasmanian councils as the Local Government Association of Tasmania (LGAT) representative on the State Emergency Management Committee's risk and resilience sub-committee.	Fire & Biodiversity
19	Continue to build on the City of Hobart's community awareness "Prepare Now" campaign.	Fire & Biodiversity
20	Continue to support the Tasmania Fire Service's community protection plans, education programs and other resilience-building projects, and integrate them with City of Hobart programs.	Fire & Biodiversity
21	Continue to hold annual public bushfire awareness forums in fire-prone suburbs of Hobart. These forums are held in late spring or early summer on a three-year rotation in Fern Tree, Mount Nelson/Tolmans Hill and Lenah Valley.	Fire & Biodiversity
22	Directly support residents' enquiries on bushfire risk	Fire &

Item	Activity	Lead CoH Program Area to Action
	management.	Biodiversity
23	Engage with Bushfire Ready Neighbourhood groups in key risk areas of the City of Hobart.	Fire & Biodiversity

Proposed additional management actions

This strategy has identified a number of actions that, if undertaken by the City of Hobart, will better help protect Hobart and its people from future bushfire events. Some of these actions require implementation immediately. Others are annual and ongoing but no less important. While individual teams within the City of Hobart have been identified for each action, it will be incumbent on the entire organisation to help play a role where appropriate to ensure each action is implemented.

Item	Activity	Leader	Time frame
1	Proactively liaise with the Tasmanian Planning Commission to improve the Bushfire-Prone Areas Code and clarify areas of ambiguity in interpretation.	Planning	2021-22
2	Review Part V Agreements in place across the City of Hobart.	Planning	2021-22
3	Regularly audit a selection of building permit applications to determine the average level of compliance with building regulations for bushfire-prone areas, and ensure the results are conveyed to the City of Hobart and the Tasmania Fire Service.	Planning	Ongoing
4	Continue to improve the City of Hobart's capacity to plan, manage and conduct all aspects of fire risk management safely and effectively.	Fire & Biodiversity	Ongoing
5	Review City of Hobart overall operational response to bushfire management.	Fire & Biodiversity	Annually
6	Continue with the assessment of the bushfire risk component of the road verge management program and implement recommendations.	Fire & Biodiversity	Ongoing
7	Open discussions with the Tasmania Fire Service to investigate potential ways to integrate planning, activities and training in fire risk management and establish a Memorandum of Understanding between the City of Hobart and the Tasmania Fire Service regarding the manner in which the service can request the involvement of the Council's Firefighting team and resources in any fire which extends outside Council managed bushland areas.	Fire & Biodiversity	2021-23

Item	Activity	Leader	Time frame
8	Develop information for residents, especially those who live in or adjacent to bushland, on the importance of prescribed burning by the City of Hobart as a risk management tool.	Fire & Biodiversity	Ongoing
9	Improve the City of Hobart's knowledge and ability to respond to extreme fire weather events and climate change through staff training and stronger connection with academic and policy institutions working in these areas.	CoH	Ongoing
10	Investigate ways to increase the City of Hobart's knowledge and capacity to understand and adapt to changes in emergency management theory and forecasting, incident control and community recovery.	CoH	Ongoing
11	Investigate closer links with academic and operational research agencies to better connect on-ground planning to current and emerging research and to support this research where it shows value to the City of Hobart's management of bushland to reduce fire risk to the community.	Fire & Biodiversity	Ongoing
12	Develop an information-sharing process with the Tasmania Fire Service and other emergency responders to allow for rapid access to City of Hobart assets, such as vehicles, firefighting equipment and any other items needed in a fire emergency.	Fire & Biodiversity	2021-23
13	Undertake annual bushfire emergency exercises to plan and prepare for bushfire events.	Fire & Biodiversity	Annually
14	Maintain training levels for all staff involved in fire management duties. This includes ensuring the City of Hobart employs: <ul style="list-style-type: none"> at least one staff member with incident control experience at least one, but preferably two, divisional commanders at least six people with crew leader training all other staff to be trained as crew members to PUA20619 - Certificate II in Public Safety (Firefighting and Emergency Operations) standard. 	Fire & Biodiversity	Ongoing
15	Ensure sufficient appropriately trained staff are available to respond to a bushfire emergency.	CoH	Annually
16	Explore the City of Hobart's role in supporting the Tasmania Fire Service's community protection plans, Bushfire-Ready Neighbourhoods and other resilience-building programs.	Fire & Biodiversity	2021-23
17	Develop a public report written in plain English and other languages that will help all members of the Hobart	Fire & Biodiversity	Ongoing

Item	Activity	Leader	Time frame
	community better understand the bushfire risk and how to prepare themselves and their homes for every bushfire season.	Communications	
18	Ensure information pamphlets intended for the public are in plain English and other languages that will help all members of the Hobart community better understand the bushfire risk being addressed in that pamphlet	Fire & Biodiversity Communications	Ongoing
19	Investigate the use of new media technologies to improve the accessibility of fire risk management information to the community, for both property preparation and emergency responses.	Fire & Biodiversity Communications	Ongoing
20	Update and expand bushfire-related information on the City of Hobart website, including risk mitigation programs, advice to landowners and emergency response arrangements.	Fire & Biodiversity Communications	Ongoing

Measuring how well this strategy is implemented

Quarterly progress reports on the implementation of this strategy will be produced four times a year and the Hobart City Council – the City of Hobart's elected Aldermen and Councillors - will receive a full report once a year.

There will also be regular reports on the progress of implementing the 19 proposed actions.

An annual audit measuring the success of implementing this strategy will also be produced.

Not all of the new or proposed actions will be completed in the first year following the adoption of this strategy. The timeframe provides some indication of the importance of these actions as perceived by the City of Hobart. The annual audit will ensure that they are not forgotten.

This strategy will be formerly reviewed once every five years to ensure it remains relevant and meets the ongoing needs of managing the bushfire risk to Hobart and its community.

How to have your say on this strategy

This draft bushfire management strategy for the City of Hobart is open for public discussion and feedback. The City welcomes all input into the proposed strategic directions contained in this document and the City's role in bushfire risk management.

Bushfire management is complex and benefits from the interest and involvement of everyone.

Written feedback can be given through the Your Say Hobart website:
yoursay.hobartcity.com.au

Submissions are requested by **x date** 2021.

In considering your submission you may find the following questions useful:

- Does the strategy address key bushfire risk management issues for the City of Hobart as you see them?
- Is there anything you think is missing?

If you would like more information about making a written submission, or have any queries regarding the project, please email: parks@hobartcity.com.au or phone (03) 6238 2886.

Where to from here?

Once the consultation period closes all submissions will be collated, analysed and then reported to the Hobart City Council. The draft strategy will then be revised before it is presented to the Council for discussion and endorsement.

Appendix I: Statutory responsibilities

The City of Hobart and other landowners of bushland in the greater Hobart region have a general legal responsibility to take all reasonable steps to minimise the risk of fires originating on their property from causing personal injury, damage to adjoining property, or damage to items of natural or heritage value protected by government legislation.

The City of Hobart has specific responsibilities under various state and federal government legislation covering areas such as fire management, fire hazard abatement and the conservation and management of native flora and fauna. The most important of these are listed below:

Australian Government Legislation

- *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*

Australian Government Policies

- National Bushfire Management Policy Statement for Forests and Rangelands 2012

Tasmanian Government Legislation

- *Aboriginal Relics Act 1975*
- *Building Act 2016*
- *Climate Change (State Action) Act 2008*
- *Crown Lands Act 1976*
- *Electricity Supply Industry Act 1995*
- *Emergency Management Act 2006*
- *Environmental Management and Pollution Control Act 1994*
- *Fire Service Act 1979*
- *Forest Management Act 2013*
- *Forest Practices Act 1985*
- *Forest Practices Regulations 2007*
- *Historic Cultural Heritage Act*
- *Land Use Planning and Approvals Act 1993*
- *Local Government Act 1993*
- *National Parks and Reserves Management Act 2002*
- *Nature Conservation Act 2002*
- *State Policies and Projects Act 1993*
- *The Emergency Management Act 2006*
- *Threatened Species Protection Act 1995*
- *Water Management Act 1999*
- *Weed Management Act 1999*
- *Wellington Park Act 1993*

Tasmanian Government Policies

- Climate Smart Tasmania- 2020 Climate Change Strategy

- Community Bushfire Preparedness in a Changing Climate - Action Plan 2013- 2015 (Community Bushfire Preparedness Plan)
- Environment Protection Policy (Air Quality) 2004
- Planning Directive No 5 Bushfire Prone Areas Code 2017
- Regional Climate Change Adaptation Strategy (Regional Strategy) Southern Tasmania, 2013 – 2020
- Southern Tasmania Regional Land Use Strategy 2010-2035 (revised 2018)
- State Bushfire Safety Policy 2014
- State Fire Management Council Vegetation Fire Policy
- State Policy on Water Quality Management 1997
- Tasmanian Air Quality Strategy 2006
- Tasmanian Emergency Management Plan (reviewed every 2 years)

City of Hobart Policies and Operational Procedures

- Biodiversity Action Plan
- Bushland Management Strategy
- Capital City Strategic Plan 2019 – 2029
- Municipal Emergency Management Plan 2020
- Climate Change Adaptation
- Climate Change an Issue for Everybody 2008 – 2013 (2009)
- Establishment of Bushfire Management Areas in Bushland Reserves

Appendix II - Definition of Fire Management Zones

Asset Protection Zones: Fuel breaks

Description	An area of land surrounding or in very close proximity to an asset or group of assets that is managed in a way that keeps the amount of bushfire fuel – native vegetation and other fire-prone materials – to a minimum. Asset Protection Zones, also known as fuel breaks, create a buffer between nearby assets, such as homes, and fire approaching from bushland. They also provide a defensible space for firefighting operations.
Purpose	Protect life (residents, community members and firefighters), property and public assets (human settlement, economic, environmental and cultural items) from direct impact from any bushfire.
Community education	<ul style="list-style-type: none"> Increasing community awareness and understanding of bushfire risks as well as levels of vulnerability with the community. Promoting an understanding of the role Asset Protection Zones have in protecting people and property from bushfire and the importance of not using these areas to dump unwanted materials, including garden clippings and prunings. Also promoting the understanding that Asset Protection Zones are only effective if bushfire risks are mitigated not just on council-owned land, but also on private property adjoining fuel breaks by managing levels of vegetation and other fire-prone materials such as wood stacks.
Locations	Asset Protection Zones are generally located immediately adjacent to assets considered at risk of direct impact by bushfire emanating from adjoining bushland and to provide an area with a substantially lower amount of bushfire fuel than nearby bushland.
Possible tactics	<ul style="list-style-type: none"> slashing/mowing/triterring edges grading application of herbicide appropriate frequency of prescribed burning selective clearing weed management.
Management intensity	Vegetation within an Asset Protection Zone is managed to a much higher degree than vegetation in other zones. It is fundamentally managed to reduce bushfire risk to neighbouring people and

	assets. Asset Protection Zones might be treated annually or more regularly if that is required to maintain the desired low fuel load.
	Asset Protection Zones are not managed to achieve improved conservation outcomes and have the potential to negatively impact the conservation and cultural values of a specific area. Where negative impacts are identified they will be minimised as much as possible.
Ecological Values	Asset Protection Zones contain native habitat and have conservation value. They provide significant increases in the amount of foraging areas available to native animals, especially macropods and marsupials. All large trees are retained within these zones, as are most other trees. Only smaller trees and shrubs are completely removed and ground cover maintained to approximately 100mm in height. All hollow logs on the ground are also retained. Asset Protection Zones are not overly wide and are generally bounded on at least one side by unmodified vegetation that continues to provide shelter and habitat for native animals.
Strategic Fire Management Zone	
Description	An area managed to provide a strategic advantage for the management of fires.
Purpose	Strategic Fire Management Zones are not managed as intensively as Asset Protection Zones. A balance is sought between providing reduced fuel loads across the landscape while maintaining or enhancing conservation values. Together, the two zones provide a patchwork landscape of alternating, reduced bushfire fuel levels, especially across probable fire paths, and greatly aid in the protection of people and property from bushfire.
Community education	Increase community awareness and understanding of the need for strategic prescribed burning to create areas that will slow the progress of a bushfire and help reduce the impacts of bushfire on life and property.
Locations	These areas are often created to enhance the effectiveness of fuel breaks between bushland and urban areas. They can also be placed at strategic places within the landscape to reduce the rapid progression of a bushfire across a particular area.
Possible tactics	<ul style="list-style-type: none"> ▪ slashing/mowing/mulching edges ▪ grading tracks and trails ▪ appropriate frequency of prescribed burning
Management intensity	Two factors are considered in the management of Strategic Fire Management Zones. The first is the extent of fuel build up within an area. The second is the threshold or time interval between

	burns and how that interval impacts the ecological values of a particular area. Some forests and grasslands can be burnt too frequently and for others long intervals between burns can have adverse impacts on ecological values. The recommended intervals for burning different vegetation types have been determined by experts.
Ecological Values	<p>Strategic Fire Management Zones are managed to improve ecological values, and, provided appropriate burning intervals are followed for each vegetation type, should have limited detrimental impacts on conservation values. In some cases they can even improve conservation outcomes. Where negative impacts are identified, they will be minimised as much as possible and information gathered on the negative impacts of burning specific areas will be incorporated into future management.</p> <p>The City of Hobart puts in a great deal of work to protect the ecological values of an area before it carries out a prescribed burn. Fire-prone vegetation is cleared from around old logs and hollows on the ground, and important habitat trees and trees with highly flammable bark are protected by raking away fuel loads from their base.</p>

Land Management Zone

Description	Areas of bushland managed more for biodiversity and broad-scale fire path management than for specific fire hazard reduction to any given assets.
Purpose	Where the area is bushland, the predominant objective will generally be to maintain and where possible improve conservation values.
Community education	Increase community awareness and understanding of how bushfire management contributes to maintaining and improving the ecological and cultural values of protected bushland reserves within the City of Hobart.
Locations	In the context of this strategy, areas which are mostly bushland, that are not either an Asset Protection Zone or Strategic Fire Management Zone.
Possible tactics	As appropriate to achieve land management objectives with a greater emphasis, where possible, on maintaining or improving ecological values.
Management intensity	Very low. These areas will only be burnt when they reach the upper threshold or recommended intervals between burns.
Ecological	The strategies implemented in any Land Management Zone

Values	should be consistent with maintaining or enhancing ecological values.
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Appendix III – Vegetation Fire Thresholds

TasVeg 4 Code	Veg Name	Thresholds (yrs)	
		Lower	Upper
AUS	Saltmarsh (undifferentiated)	-	-
DAD	<i>Eucalyptus amygdalina</i> forest and woodland on dolerite	15	25
DAM	<i>Eucalyptus amygdalina</i> forest on mudstone	15	25
DAS	<i>Eucalyptus amygdalina</i> forest and woodland on sandstone	15	25
DCO	<i>Eucalyptus coccifera</i> forest and woodland	exclude	
DDE	<i>Eucalyptus delegatensis</i> dry forest and woodland	exclude	
DGL	<i>Eucalyptus globulus</i> dry forest and woodland	15	25
DOB	<i>Eucalyptus obliqua</i> dry forest	15	25
DOV	<i>Eucalyptus ovata</i> forest and woodland	15	25
DPU	<i>Eucalyptus pulchella</i> forest and woodland	15	25
DTD	<i>Eucalyptus tenuiramus</i> forest and woodland on dolerite	15	25
DTO	<i>Eucalyptus tenuiramus</i> forest and woodland on sediments	15	25
DVG	<i>Eucalyptus viminalis</i> grassy forest and woodland	15	25
FAG	Agricultural land	-	-
FPE	Permanent easements	-	-
FPL	Plantations or Silviculture	-	-
FPU	Unverified Plantations or Silviculture	-	-
FRG	Regenerating cleared land	-	-
FUM	Extra-urban miscellaneous	-	-
FUR	Urban areas	-	-
FWU	Weed infestation	-	-
GCL	Lowland grassland complex	3	3
GTL	Lowland <i>Themeda triandra</i> grassland	3	3
HHE	Eastern alpine heathland	exclude	
HSE	Eastern alpine sedgeland	exclude	
NAD	<i>Acacia dealbata</i> forest	exclude	
NAV	<i>Allocasuarina verticillata</i> forest	15	25
NBA	<i>Bursaria</i> - <i>Acacia</i> woodland and scrub	15	25
OAQ	Water, sea	-	-
ORO	Lichen lithosere	-	-
SBR	Broad-leaf scrub		
SHS	Subalpine Heathland	-	-
SLL	<i>Leptospermum lanigerum</i> scrub		
WDB	<i>Eucalyptus delegatensis</i> forest with broad-leaf shrubs	80	80
WDU	<i>Eucalyptus delegatensis</i> wet forest (undifferentiated)	80	80
WGL	<i>Eucalyptus globulus</i> wet forest	80	80
WOB	<i>Eucalyptus obliqua</i> wet forest with broad-leaf shrubs	80	80
WOU	<i>Eucalyptus obliqua</i> wet forest (undifferentiated)	80	80
WRE	<i>Eucalyptus regnans</i> forest	80	80
WSU	<i>Eucalyptus subcrenulata</i> forest and woodland	80	80

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- ²⁶ Tasmanian Fire Service Fuel Break Calculator -
<http://www.fire.tas.gov.au/Show?pagelid=colFuelBreakCalculator>
- ²⁷ The Tasmania Fire Service's fuel break guidelines can be downloaded from www.fire.tas.gov.au. The guidelines are designed to be used in conjunction with the Fuel Width Break Calculator, which can also be found on the Tasmania Fire Service website.
- ²⁸ Price, Owen F. and Bradstock, Ross A. (2012) The efficacy of fuel treatment in mitigating property loss during wildfires: Insights from analysis of the severity of the catastrophic fires in 2009 in Victoria, Australia. *Journal of Environmental Management*, 113:146-157
- ²⁹ Filkov, A, Duff, T, Penman, T (2019) *Determining the threshold conditions for extreme fire behaviour*, Bushfire and Natural Hazards CRC, Melbourne, VIC.
- ³⁰ Penman, Trent (2019) Why are Our Rainforests Burning? *Pursuit*, University of Melbourne. Accessed from <https://pursuit.unimelb.edu.au/articles/why-are-our-rainforests-burning> on March 24, 2021.
- ³¹ For further information visit the Environment Protection Authority website:
<https://epa.tas.gov.au/epa>
- ³² Grist, M. (2019) *A timeline for Bushfires on kunanyi/Mount Wellington*. Unpublished report. Accessed on November 4, 2020 from: <https://drive.google.com/file/d/1y-OtHpVZdizmESxgTBKR-HFWM1BASodz/view>

**6.3 284 Elizabeth Street, North Hobart (Hobart Baptist Church) - Velvet
Ash Tree Street Tree - Proposed Maintenance Agreement
File Ref: F20/114882**

Report of the Program Leader Arboriculture & Nursery, the Manager
Bushland / Manager Parks & Recreation and the Director City Amenity of
16 April 2021 and attachment.

Delegation: Committee

REPORT TITLE: 284 ELIZABETH STREET, NORTH HOBART (HOBART BAPTIST CHURCH) - VELVET ASH TREE STREET TREE - PROPOSED MAINTENANCE AGREEMENT

REPORT PROVIDED BY: Program Leader Arboriculture & Nursery
Manager Bushland / Manager Parks & Recreation
Director City Amenity

1. Report Purpose and Community Benefit

- 1.1. The purpose of this report is to seek approval to enter into a formal maintenance agreement with the Hobart Baptist Church, in respect to a 40-year-old Velvet Ash (*Fraxinus velutina*) planted by the City, and subsequently maintained over the years.

Recent investigations identified that the tree rests within the boundary of the Church property at 284 Elizabeth Street, North Hobart.

2. Report Summary

- 2.1. The Velvet Ash (*Fraxinus velutina*) that was planted and has been maintained by the City for 40 years, is resting within the boundary of the Hobart Baptist Church property at 284 Elizabeth Street, North Hobart.
- 2.2. It is proposed that the City enter into a formal maintenance agreement with the Church, for the City to continue to maintain the tree, given both the City's long existing maintenance regime and the high public amenity and streetscape benefit the tree provides in that location.

3. Recommendation

That the City enter into a formal agreement with the Hobart Baptist Church for the ongoing maintenance of the Velvet Ash Tree (*Fraxinus velutina*) located at 284 Elizabeth Street, North Hobart, noting the City planted the tree, has been undertaking its maintenance over 40 years and the high public amenity and streetscape benefit the tree provides in that location.

4. Background

- 4.1. The 40-year-old Velvet Ash (*Fraxinus velutina*) located at 284 Elizabeth Street, North Hobart was planted by and has been maintained by the City over that period
- 4.2. The tree rests within the boundary of the Hobart Baptist Church property at 284 Elizabeth Street, North Hobart and therefore is not formally a City-owned tree.
- 4.3. It is proposed that the City enter into a formal maintenance agreement with the Church, for the City to continue to maintain the tree, given both the City's long existing maintenance regime and the high public amenity and streetscape benefit the tree provides in that location.

- 4.3.1. The City has been in discussions with the Church to formalise the long-standing maintenance arrangements of the tree.



- 4.4. The Tree is generally healthy, though recent damage caused by construction on the Church's land is likely to impact the future longevity of the tree, which will be monitored by the City under the agreement.



5. Proposal and Implementation

- 5.1. It is proposed that the City enter into a formal agreement with the Hobart Baptist Church for the ongoing maintenance of the Velvet Ash Tree (*Fraxinus velutina*) located at 284 Elizabeth Street, North Hobart, noting the City planted the tree, has been undertaking its maintenance over 40 years and the high public amenity and streetscape benefit the tree provides in that location.

6. Strategic Planning and Policy Considerations

- 6.1. Maintaining and improving the City's street tree network remains a core priority of the City's Street Tree Strategy.

7. Financial Implications**7.1. Funding Source and Impact on Current Year Operating Result**

7.1.1. The City's historical costs in maintaining the tree has been in the order of approximately \$2,000 every 2-3 years.

7.2. Impact on Future Years' Financial Result

7.2.1. Costs in the order of \$3,000-\$4,000 per annum would be anticipated as the tree ages, noting the recent damage incurred.

8. Delegation

8.1. As normally an operational matter, the delegation can rest with the Director.

However, as the Director has elected to refer the matter to Committee, the matter is Committee delegated.

As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.

Ruby Wilson
**PROGRAM LEADER
ARBORICULTURE & NURSERY**

John Fisher
**MANAGER BUSHLAND / MANAGER
PARKS & RECREATION**

Glenn Doyle
DIRECTOR CITY AMENITY

Date: 16 April 2021
File Reference: F20/114882

Attachment A: Tree Condition and Evaluation Report ↴ 

TO : Ruby Wilson
Program Leader Arboriculture and Nursery

FROM : Jerry Romanski
Tree Inspector Contract

DATE : 6/10/2020

SUBJECT : TREE CONDITION EVALUATION AND MANAGEMENT
CONSIDERATIONS – ASH 220941

FILE :

1. BACKGROUND

Ash 220941 (*Fraxinus velutina*) is growing within the Hobart Baptist Church property at 284-290 Elizabeth St, North Hobart (Figure 1). The ash provides considerable amenity and contributes to the general streetscape along Elizabeth St. The tree is currently listed within the CoH asset register and has in the past been maintained by CoH arborists.

Significant development of this property, including renewal of the driveway and cross over from Elizabeth St, installation of below ground drainage infrastructure, as well as removal of hard surfaces from the front of this property may have potentially impacted on the root system of the ash, with immediate and long-term consequences on tree stability, vitality and longevity.

1.1 Scope

- i) This report briefly describes the situation and current condition of a mature ash tree (220941) growing by the eastern boundary of 284-290 Elizabeth St, North Hobart.
- ii) The report also provides an assessment of risk of injury associated with the ash based on a visual inspection completed on 5/10/2020 and discussed potential management options.



Figure 1. Ash 220941 at early leaf-out stage, view to south-west, October 2020.

2. SITUATION AND CONDITION DESCRIPTION

The ash is growing immediately by the eastern boundary of 284-290 Elizabeth St. Its trunk (approximately 0.8m in diameter) stands immediately beside the bitumen sealed footpath along Elizabeth St and the recently completed kerb and channel edged bitumen driveway and concrete crossover (Figure 2). The tree is approximately 15 m high and its crown extends deeply over 284-290 Elizabeth St, as well as the footpath and northbound lane of Elizabeth St.



Figure 2. Recently completed hard surfaces immediately beside the ash trunk. Grate of a substantial stormwater infrastructure below the driveway is visible in the left image.

AS 4970-2009 Protection of trees on development sites dictates the minimum radius for structural root zones (SRZ) - includes roots essential for maintenance of tree stability – and wider tree protection zones (TPZ) considered necessary for conservation of roots to ensure tree vitality. The SRZ and TPZ radii for the ash are 3.2 m and 9.6 m respectively¹.

Recent surface finishing works and removal of the old surface to the south of the ash have occurred within the tree's structural root zone (roots within 3.2 m of trunk centre). These works, as well as installation of underground infrastructure are likely to have impacted on large, structurally important roots (>100 mm in diameter) and substantial more distant roots channelling soil moisture toward the trunk (Figure 3).

¹ Based on estimated diameter above base of 0.9m and trunk diameter at 1.4 m of 0.8 m. Access to the trunk was blocked by site fencing preventing direct measurement of trunk dimensions.



Figure 3. Large shallow roots (in excess of 100 mm in diameter) within the tree's structural root zone to the west and south have been broken and many others debarked reducing their functionality.

3. ANALYSIS

- This tree has historically exhibited high vitality. It is difficult to estimate its current condition as the tree is still in the leaf-out stage.
- It is clear that the nearby works have had some detrimental impact on structurally important roots and the root system in general. However, the extent of the damage is not readily apparent.
- Some decline in vitality and / or crown die-back can be expected. The impact of the root damage may not become fully apparent for another 24 – 36 months. It is likely that this tree will need annual inspection and maintenance for the next 3 – 5 years.
- Given the uncertainty about the extent of damage, I estimate that the current risk of harm associated with this tree is 1 in 40,000 – upper tolerable range².

² The most significant risk of harm scenario is tree failure at ground level (QTRA input ranges 2, 1, 5) .

4. RECOMMENDATIONS

4.1. Further investigation

As the tree leafs-out, the trunk and root plate will experience increased dynamic loading imposed by strong winds. Measurement of root plate tilt under wind loading would provide valuable insight into the tree's stability and likelihood of wind throw.

- Measurement of root plate tilt under high wind loading is recommended to determine the suitability of the ash for retention as part of this high target streetscape.
- Root plate tilt assessment will also allow for a more educated assessment of likely risk associated with the ash over the coming 12 months.

7. COMMITTEE ACTION STATUS REPORT

7.1 Committee Actions - Status Report

A report indicating the status of current decisions is attached for the information of Elected Members.

RECOMMENDATION

That the information be received and noted.

Delegation: Committee

Attachment A: Committee Action Status Report

PARKS AND RECREATION COMMITTEE - STATUS REPORT

OPEN PORTION OF THE MEETING

November 2014 to April 2021

Ref.	Detail	Report / Action	Action Officer	Comments
1	HARRINGTON STREET, HOBERT - FORMER PUBLIC TOILET SITE Open Council 25/5/2015, Item 15 Open Council 21/9/2020, item 13	<p>That the site of the former toilets located in Harrington Street, Hobart (being a remnant concrete slab) not be pursued for development as public open space or a leased area.</p> <p>An allocation in the order of \$75,000 be considered in a future capital works program for the demolition of the remnant slab and installation of an improved barrier at the heritage wall to allow public viewing of the open rivulet, and if appropriate, be reviewed in 12 months' time.</p> <p>The neighbouring property owners be advised of this decision.</p>	Director City Amenity	The proposal to be reviewed September 2021
2	SOLDIERS MEMORIAL AVENUE – MANAGEMENT PLAN REVIEW Open Council 25/1/2016, item 13 Open Council 23/5/2016, item 18	<p>A review of the Soldiers Memorial Avenue Management Plan 2004 be undertaken with the development of a new management plan, at an estimated cost \$15,000 to be funded from the Open Space Planning Function.</p> <p>(i) The management plan consider the utilisation of the 'Tree Widows' material for the interpretation and promotion of the Soldiers Memorial Avenue.</p> <p>The Friends of Soldiers Memorial Avenue be advised of the Council's decision.</p>	Director City Amenity	Progressing

Ref.	Detail	Report / Action	Action Officer	Comments
3	BATTERY POINT SHARED ACCESSWAY Open Council 25/1/2016, item 17	<p>That a report be prepared that details options available as a means of facilitating movement in and around Battery Point and its foreshore, and addresses the following:</p> <ol style="list-style-type: none"> 1. The implementation, in the short term, of the formalisation of an existing road route through Battery Point. 2. Analysis of the options include detail on the following: <ol style="list-style-type: none"> (i) estimated financial implications; (ii) planning and legal implications; and (iii) how the proposal relates to the City of Hobart Strategic Plan 2015-2025. 3. Analysis of any opportunity costs in respect to proceeding or not proceeding with a shared access way, including its impact with other planned projects. 4. Details on engaging the local and wider community in respect to the options. 	Director City Planning	A review of the City's Capital Works Program is underway in light of the impact COVID-19 on the City's financial position
4	kunanyi/Mount Wellington - Organ Pipes Open Council 19/12/2018, item 12 Open Council 19/3/2019, item	<p>The below report was deferred at the Council meeting on 19 March 2019 to allow an opportunity to discuss with the State Government its level of support for the proposed listing of the eastern face of kunanyi / Mount Wellington onto the National Heritage Register.</p> <p><i>That a report be prepared to consider the merits or otherwise;</i></p> <ol style="list-style-type: none"> (i) <i>Of seeking national heritage listing for the Organ Pipes of kunanyi/Mount Wellington and/or</i> (ii) <i>An extension of the South West World Heritage area to include the Wellington Park; and</i> (iii) <i>The report to also investigate and ascertain who is the correct party to formally make the nomination to seek</i> 	Director City Amenity	The Council decision is being actioned with advice sought from the Minister to confirm the State government position on a nomination.

Ref.	Detail	Report / Action	Action Officer	Comments
		<i>a national heritage listing or inclusion in the South West World Heritage area.</i>		
5	Review of the Dog Management Strategy 2014-2018 Open Council 19/9/2019, item	<p>Further discussions be undertaken between Council officers and the Hobart Dog Training Club into the possible promotion of the free dog training classes for new dog ownership in certain circumstances.</p> <p>A review of the dog walking area maps, currently available on the City of Hobart website be undertaken and ascertain if improvements can be implemented to provide a more interactive and user friendly resource for dog owners.</p>	Director City Planning	The Council decision is being actioned.
6	Bicycle and Pedestrian Bridge over Brooker Avenue - Proposed Name 'Rose Garden Bridge' Open Council 18/3/2019, item 18 Open Council 19/8/2019, item 16	<p>That 'Rose Garden Bridge' be submitted as the Council's recommended name for the new bicycle and pedestrian bridge across Brooker Avenue, located between Bathurst Street and the University Rose Gardens on the Queens Domain, to the Nomenclature Board of Tasmania, pursuant to the Survey Co-ordination Act 1944 (Tasmania).</p> <p>The City explore ways to commemorate persons and groups of significance with strong connections to the development of the University Rose Gardens, including Kitty Henry and TT Flynn.</p>	Director City Planning Director City Amenity	The Nomenclature Board has accepted the name for the Bridge
7	Franklin Square Amenities Building - Proposal to Install Luggage Lockers Open Council 17/6/2019, item 28	<p>That the proposal to provide luggage lockers for the travelling public be endorsed.</p> <p>Approval be provided for the General Manager to enter negotiations with 'ezy Lockers' for a partnership facilitating the provision of lockers at Franklin Square on a revenue sharing arrangement.</p>	Director City Innovation	<p>Safe secure storage would help commuters, shoppers, visitors, tourists and students spend more time in the city, bringing vibrancy and economic benefit to the CBD.</p> <p>Product / Result:</p> <p>Facilities for commuters, including CPTED-compliant smart lockers and services.</p>

Ref.	Detail	Report / Action	Action Officer	Comments
				Enhanced national and international reputation as an inviting and convenient place to spend time. The project aligns with the Connected Hobart Action Plan Initiative: CVI05 Smart Locker Trials.
8	Waterworks Reserve - Master Plan Development Open Council 19/8/2019, item 17	That the draft Waterworks Reserve Master Plan be reviewed to guide future development and asset replacement in the Waterworks Reserve. A community engagement process and collation and review of relevant survey and user data be undertaken to determine the values and user experiences of the Waterworks Reserve. The draft Waterworks Reserve Master Plan be presented back to the Council in 2021 for endorsement to release for public exhibition and feedback.	Director City Amenity	Planning is underway to undertake the review, however develop of the master plan will be subject to identification of future internal or external funding opportunities.
9	Tolmans Hill Park - Concept Plans for Public Toilets and Barbecue Facilities - Community Engagement Open Council 16/12/2019, item 23 Open Council 26/10/2020 item 18 Open Council 27/1/2021, item 14	That: 1. The concept plans for the development of new public toilets and barbecue facilities at Tolmans Hill Park, Tolmans Hill, marked as Attachment A to item 6.5 of the Open Parks and Recreation Committee agenda of 15 October 2020, be approved. 2. The General Manager be authorised to secure any statutory approvals required for the project. 3. The City seek to secure external grant funding for the project to proceed. 4. Should the development works proceed, an increase of \$10,000 per annum be included in the Parks and Reserves operating budget to cover associated cleaning, maintenance and operational costs for the facilities.	Director City Amenity	The Council resolved on 27 January 2021 that the 2nd round of the Australian Government's Local Roads and Community Infrastructure Program grant funding be utilised for this project (\$685,000) Planning approval for the development is being progressed.

Ref.	Detail	Report / Action	Action Officer	Comments
		5. Residents and stakeholders be advised of the Council's decision.		
10	Review of the Merits of Developing an Ember Attack Strategy for the City of Hobart Open Council 28/1/2020, item 11 Open Council 17/12/2020, item 22	<p>That the City engage with the Local Government Association of Tasmania, the Tasmania Fire Service and the Bushfire and Natural Hazards Co-operative Research Centre to jointly produce a guide for residents on how to cost effectively retrofit bushfire protection to existing houses.</p> <p>The City incorporate a new section into the City's Bushfire Management Strategy in respect to ember attack defence as part of the review of the Strategy and undertake a community engagement program to promote the information when available.</p>	Director City Amenity	<p>Engagement is underway, with the outcome to advised to Elected Members in due course.</p> <p>A report on the Fire Management Strategy is attached to the Agenda</p>
11	Petition - Closure of Pinnacle Road to allow safe access for walkers, cyclists and others Open Council 6/7/2020, item 6.1	<p>A report be prepared in response to the Petition calling for the Council to regularly close Pinnacle Road to motor vehicles, allowing walkers, cyclists and others safe enjoyable use of the road.</p> <p>There were 1320 signatories to the petition.</p>	Director City Amenity	A report on the matter is attached to the agenda

Ref.	Detail	Report / Action	Action Officer	Comments
12	Consumption / Sale of Alcohol in Wellington Park Open Council 26/10/2020, item 15	<p>That the Council write to the Fern Tree Community Association and provide the following advice in respect to the consumption and sale of alcohol in Wellington Park:</p> <ul style="list-style-type: none"> (i) The sale of alcohol is more appropriately considered through the assessment process when any development application that would include the supply and/or sale of alcohol in Wellington Park, is made. (ii) The sale of alcohol is a permitted use under the Wellington Park Management Plan at specified precincts including the Pinnacle and the Springs. <p>An Elected Member briefing be convened at the appropriate time to discuss the consumption of alcohol in Council's public open spaces.</p> <ul style="list-style-type: none"> (i) An invitation be extended to Dr Adrian Reynolds together with Alison Lai to provide this briefing in the first instance. 	Director City Amenity	The Fern Tree Community Association has been advised of the Council's decision.
13	Regatta Grounds Buildings - Request for Lease Open Council 17/12/2020, item 21	<p>That: 1. A lease to the Royal Hobart Regatta Association over two buildings located on the Domain Regatta Ground foreshore (as indicated in paragraph 4.3 of the report marked as item 6.2 of the Open Parks and Recreation Committee agenda of 10 December 2020) for a period of ten (10) years, be approved, subject to no objections being received during the statutory community engagement process required under Sections 178 and 179 of the Local Government Act 1993.</p> <ul style="list-style-type: none"> (i) Should any objections be received during the community engagement period, a further report will be provided to the Council. <p>2. The leased area be provided at a nominal annual rent (\$50 per annum)</p>	Director City Amenity	The Council decision is being actioned.

Ref.	Detail	Report / Action	Action Officer	Comments
		<ol style="list-style-type: none"> 3. The General Manager be authorised to finalise the terms and conditions of the lease. 4. In accordance with the Council Policy 'Grants and Benefits Disclosure' the benefit recognised to the Royal Hobart Regatta Association by way of reduced rental as part of the new lease be disclosed in the City's Annual Report. 5. The lease include a clause that allows the City to re-negotiate the terms and conditions of the lease between the City and the Royal Hobart Regatta Association in relation to the two buildings located on the Domain Regatta Ground foreshore in the event that any development should proceed in that vicinity of the foreshore. 		
14	<p>TCA Ground, Queens Domain - Clubrooms, Changerooms, Kiosk - Lease Renewal - Hobart Football Club</p> <p>Open Council 22/2/2021 Item 16</p>	<p>That:</p> <ol style="list-style-type: none"> 1. A lease to the Hobart Football Club over the clubrooms, changerooms and kiosk at TCA Ground, 2 Davies Avenue, Queens Domain for a period of five (5) years, with an option for a further five (5) years, be approved, subject to no objections being received during the statutory community engagement process required under Sections 178 and 179 of the <i>Local Government Act 1993</i>. <ol style="list-style-type: none"> (i) Should any objections be received during the community engagement period, a further report will be provided to the Council. 2. The leased area, as indicated in paragraph 4.1.2 of item 6.1 of the Open Parks and Recreation Committee agenda of 11 February 2021, be provided at a nominal annual rent (\$50 per annum) 3. The General Manager be authorised to finalise the terms and conditions of the lease. 	Director City Amenity	The Council decision is being actioned

Ref.	Detail	Report / Action	Action Officer	Comments
		<ul style="list-style-type: none">4. In accordance with the Council Policy 'Grants and Benefits Disclosure' the benefit recognised to the Hobart Football Club by way of reduced rental as part of the new lease be disclosed in the City's Annual Report.5. Council officers engage with the Hobart Football Club, and other kiosk lessees, to promote healthy kiosk food options.		
15	410 Elizabeth Street, North Hobart – naming of park Open Council 15/3/2021, item	That in consultation with the property owner, consideration be given to naming the park (currently known as Swan Street Park)	Director City Amenity	The Council decision is being actioned

8. RESPONSES TO QUESTIONS WITHOUT NOTICE

Regulation 29(3) *Local Government (Meeting Procedures) Regulations 2015*.
File Ref: 13-1-10

The Acting General Manager reports:-

"In accordance with the procedures approved in respect to Questions Without Notice, the following responses to questions taken on notice are provided to the Committee for information.

The Committee is reminded that in accordance with Regulation 29(3) of the *Local Government (Meeting Procedures) Regulations 2015*, the Chairman is not to allow discussion or debate on either the question or the response."

8.1 Queens Domain Masterplan
File Ref: F20/113543; 13-1-10

Memorandum of the Manager Bushland / Manager Parks & Recreation and the Director City Amenity of 15 April 2021.

8.2 Soldiers Memorial Avenue - Review of Trees Near Facilities
File Ref: F21/16731

Memorandum of the Manager Bushland / Manager Parks & Recreation and the Director City Amenity of 30 March 2021.

Delegation: Committee

That the information be received and noted.



City of **HOBART**

Memorandum: **Acting Lord Mayor**
 Elected Members

Response to Question Without Notice

QUEENS DOMAIN MASTERPLAN

Meeting: Parks and Recreation Committee

Meeting date: 15 October 2020

Raised by: Alderman Behrakis

Question:

- a). Could the Director please advise how the COVID-19 pandemic has impacted the implementation of the Queens Domain Masterplan?
- b). In regards to the current tenancies located on the Queens Domain such as the Domain Tennis Centre and the TCA ground, has the current pandemic impacted on the potential creation of masterplans in relation to the footprints of these sites?
- c). Furthermore, does the Council contribute towards the upgrading of infrastructure in relation to these sites and if so, what is the return to Council?

Response:

The following information is provided in response to the questions:

Question A

The City has invested significantly in the Queen Domain, guided by the Queens Domain Master Plan 2013 – 2033.

The implementation of the **Queens Domain Master Plan 2013 - 2033** has been progressing consistently since its endorsement in 2013.

Information on the Plan can be found via the below link:

<https://www.hobartcity.com.au/Community/Parks-reserves-and-sporting-facilities/Queens-Domain#section-2>

Key works completed to date include:

- Development and implementation of the **Soldiers Memorial Ovals Precinct Plan**, including:
 - Ground levelling and resurfacing, improved irrigation and the upgrade and installation of new ground lighting to Australian Standards.
 - Development of the William Keith Eltham Pavilion
A multi- purpose sporting pavilion at the Soldiers Memorial Ovals.
 - Completion of the Soldiers Memorial Avenue
Reinstatement of 36 trees around the Ovals completing the Soldiers Memorial Avenue.
 - Upgrade of the car parking to service the precinct and the Domain Athletic Centre.
 - Development of Legacy Park
A regional playground including public toilets, barbecue pavilions and wood fired community pizza ovens.
- Realignment and upgrade to the Queens Domain Summit Track to provide entry level shared use mountain bike track extending from the Domain lower to the upper summit.
- Upgrade and resurfacing of the Max's Infinity Loop, a 2 kilometre shared use, dual surface, jogging and walking track encircling the lower summit of the Domain.
- Construction of 2 of the 6 bridges conceptualised in the Master Plan
 - Bridge of Remembrance
Connecting the Cenotaph to the Lower Domain.
 - Rose Garden Bridge
Connecting Bathurst Street to the University Rose Garden and University health campuses.
- Development and Council-approval of the **Queens Domain Summit Plan**.
Implementation of the plan is currently on pending the City securing external funding for the stage implementation of the Summit Plan.
- The City was anticipating being able to substantively self-fund the capital works program to implement this Plan, however the impact of the COVID-19 pandemic on the City's income and financial position currently sees the City reliant in external funding to progress the plan.
- The **City to Gardens Way (CTGW)** Plan was endorsed by the Council in October 2020 that seeks to improve the connection between the City to the Royal Tasmanian Botanical Gardens (RTBG).
- The overall plan has been divided into smaller projects with the option of sourcing external funds for implementation.

- The key recommendations are:
 - To establish a looped shared path between the Bridge of Remembrance and the RTBG.
 - The loop will have two route options that can be travelled separately or as part of a loop.
 - To upgrade an existing path that links the DKHAC to the TCA Oval along Davies Avenue.
 - To establish or improve six pedestrian crossings across Davies Avenue, Lower Domain Road and Upper Carriage Drive.
 - To develop and implement a lighting strategy for Davies Avenue to promote safe pedestrian access during all hours.
- Development of improved pedestrian access and public parking between Clearys Gates and the Soldiers Memorial Oval precinct that will improve public parking to service the high use of the area.
- Upgrade to the **Regatta Grounds Car Park**, including stormwater connections. Construction is scheduled to commenced in early May 2021.
- Development of the **TCA Ground Master Plan** has seen the following key elements implemented:
 - Ground releveling and resurfacing, improved drainage and irrigation and the upgrade and installation of new ground lighting to Australian Standards.
 - Replacement of oval fencing, retaining white picket fence style.
 - Major upgrade to the player and umpire changerooms within the H C Smith Stand
 - Installation of a lift is scheduled to commence April 2021.
 - Upgrade to visitors changerooms.
 - Upgrade to public toilets.
 - Installation of a new scoreboard.

- Conceptual designs for a new replacement building on the south-western section of the ground to potentially allow for additional/improve public toilets, change rooms, kiosk, meeting and function rooms, storage and external spectator seating.
 - The Hobart Football Club, in partnership with stakeholders and the City is seeking refinement of the concept design is being undertaken to allow for the Club to secure external funding for the proposed re-development with the City never anticipating self-funding this development.
- The TCA Ground site also accommodates an indoor cricket facility, leased under commercial terms to an external operator that has undertaken its own improvement works over the years, at no cost to the City.
 - The operator will be undertaking another major upgrade from April 2021.
- The City's ongoing investment in the **Domain Athletics Centre** has seen the following upgrades to the Centre in recent years:
 - Refurbishment of public toilets.
 - Replacement of the running track, to continue to meet national standards.
 - Replacement of spectator seating.
 - Refurbishment of changerooms is scheduled for 2021-22.
- The City's has invested significantly in the refurbishment and redevelopment of the **Doone Kennedy Hobart Aquatic Centre** including:
 - Development of the DKHAC Redevelopment Master Plan.
 - Replacement and upgrade of major pool plant room equipment and building systems.
 - Installation of a new solar energy system.
 - Upgrade the Centre's kiosk, spa and scoreboard.
 - Leisure pool refurbishment including soft-fall floor surfacing and new kids water play zone.
 - New pool deck concourse tiles to the 25m pool and leisure pool areas.
 - Replacement of pool deck concourse tiles to the cafe and 50m pool areas – completion due in December 2021.
 - Changeroom upgrade design is underway - completion of construction stage due in December 2022.
 - Further major development in accordance with the Redevelopment Master Plan will be subject to the City securing external funding.

COVID-19

As indicated above, the impact that COVID-19 has had on the City's financial position now sees future major new or upgrade infrastructure to requiring external funding.

Question B

In regards to the current tenancies located on the Queens Domain such as the Domain Tennis Centre and the TCA ground, has the current pandemic impacted on the potential creation of masterplans in relation to the footprints of these sites?

TCA Ground

In respect to the **TCA Ground**, the North Hobart Cricket Club lease the upper floor of the **H C Smith building**.

- All other spaces within the building are available to ground hirers and users.
- The Club has sourced external funding, and its own reserves to undertake internal improvements to its leased area, including the installation of a lift.
- The Club is running this project under the City's supervision.

The **Hobart Football Club** leases several sections of the building located on the south-western side of the ground, as mentioned above, and is undertaking refinement of the concept design developed in 2017 to allow the Club to seek to secure external funding for the redevelopment.

Domain Tennis Centre

The land occupied by the **Domain Tennis Centre** is leased from the City on nominal terms with the Domain Tennis Centre Inc having developed the facilities on the site.

The Centre, as the long established and secured lessee is considering developing a Master Plan for the site, with the City to be involved as development of the plan progresses.

Domain Athletic Centre – Athletics Tasmania

The DAC is wholly owned by the City, and leases the offices to Athletics Tasmania and the first floor function facility to on commercial terms.

The formal use of the track and stand requires hired use through the City.

However, given the nature of the site, Athletics Tasmania are a key stakeholder and user of the site.

The Council, at its meeting held on 23 September 2019, endorsed the Draft Domain Athletic Centre Master Plan, as prepared by Athletics Tasmania, to allow it to engage with key user groups and wider community engagement.

It is understood the feedback received by Athletic Tasmania has warranted it to revise its ambitions for the master plan, however no further submission has been provided to the City at this time.

Despite closures during March/April 2020 the COVID pandemic does not seem to have significantly impacted the tenancies seeking implementation or development of master plans.

Question C

Furthermore, does the Council contribute towards the upgrading of infrastructure in relation to these sites and if so, what is the return to Council?

The **TCA Ground** is owned and managed by the City, with several buildings (or parts thereof) leased to third parties, as indicated below:

- Indoor Cricket Centre – commercial tenancy arrangement.
- Sections of south-western building - Hobart Football Club.
- Hobart City Band.
- Sections of the H C Smith Stand - North Hobart Cricket Club.
- TCA Cottage - residential tenancy arrangement.

The City is responsible for maintenance of the assets outside of the lease agreements.

The **Domain Tennis Centre** rests on City-owned land, however the site has been wholly developed by the Centre and is responsible for maintenance and upgrade of the site.

In accordance with similar annual Council-approved maintenance grants provided to other major sporting facilities located on City-owned land, but wholly developed by its long-term tenancies (being the Hobart Netball and Sports Centre/Southern Tasmanian Netball Association and the Tasmanian Hockey Centre), the City provides an annual maintenance grant of ~\$50,000 pa to the Domain Tennis Centre.

As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.



John Fisher
**MANAGER BUSHLAND / MANAGER
PARKS & RECREATION**



Glenn Doyle
DIRECTOR CITY AMENITY

Date: 15 April 2021
File Reference: F20/113543; 13-1-10

City of **HOBART**

Memorandum: Lord Mayor
Deputy Lord Mayor
Elected Members

Response to Question Without Notice

SOLDIERS MEMORIAL AVENUE - REVIEW OF TREES NEAR FACILITIES

Meeting: Parks and Recreation Committee

Meeting date: 11 February 2021

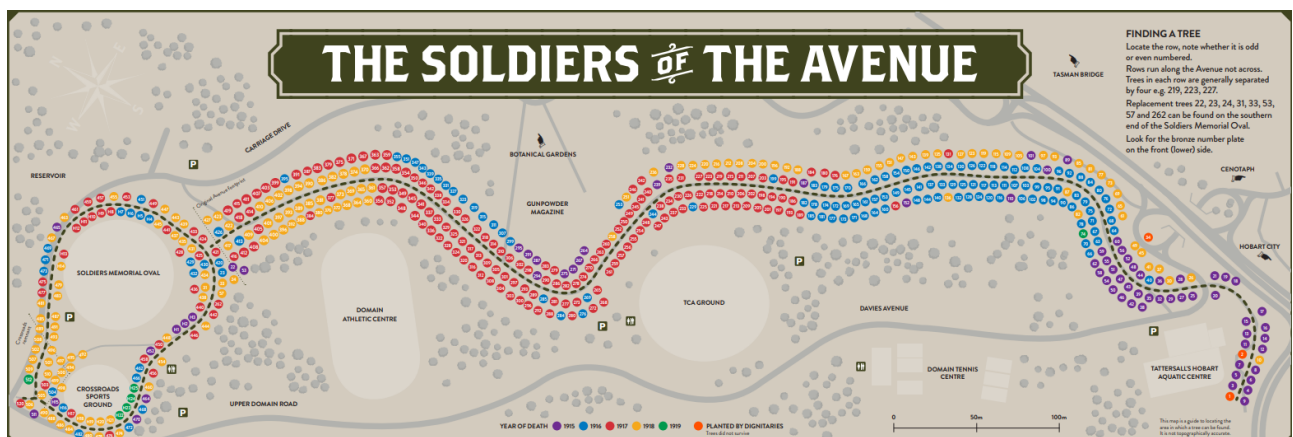
Raised by: Councillor Coats

Question:

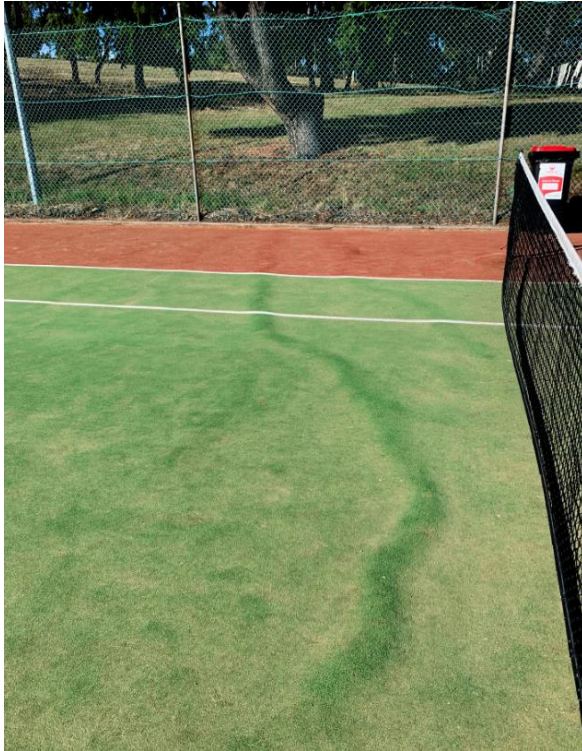
Can a review be done on the trees in the Soldiers Memorial Avenue that may be close to facilities in use and may be an issue to those tenancies either currently or in the future?

Response:

In respect to the formal Soldiers Memorial Avenue alignment of trees, none of those trees are in close proximity to facilities that would present a risk to the operation, structure or integrity of any facilities.



However, the City is aware of concerns raised by the Domain Tennis Centre in respect to well established trees, pre-dating the development of the Centre, impacting on a tennis court surfaces on the boundary of its leased site.



The City has provided advice to the Centre on how to mitigate the impact of the tree roots and offered a small financial contribution towards costs of the installation of a root barrier, as a good will gesture.

Other trees are known to create some minor inconvenience issues to the Centre with leaf drop, however the City is not aware of any other tree issues.

As signatory to this report, I certify that, pursuant to Section 55(1) of the Local Government Act 1993, I hold no interest, as referred to in Section 49 of the Local Government Act 1993, in matters contained in this report.



John Fisher
**MANAGER BUSHLAND / MANAGER
PARKS & RECREATION**



Glenn Doyle
DIRECTOR CITY AMENITY

Date: 30 March 2021
File Reference: F21/16731

9. QUESTIONS WITHOUT NOTICE

Section 29 of the *Local Government (Meeting Procedures) Regulations 2015*.
File Ref: 13-1-10

An Elected Member may ask a question without notice of the Chairman, another Elected Member, the Acting General Manager or the General Manager's representative, in line with the following procedures:

1. The Chairman will refuse to accept a question without notice if it does not relate to the Terms of Reference of the Council committee at which it is asked.
2. In putting a question without notice, an Elected Member must not:
 - (i) offer an argument or opinion; or
 - (ii) draw any inferences or make any imputations – except so far as may be necessary to explain the question.
3. The Chairman must not permit any debate of a question without notice or its answer.
4. The Chairman, Elected Members, Acting General Manager or General Manager's representative who is asked a question may decline to answer the question, if in the opinion of the respondent it is considered inappropriate due to its being unclear, insulting or improper.
5. The Chairman may require a question to be put in writing.
6. Where a question without notice is asked and answered at a meeting, both the question and the response will be recorded in the minutes of that meeting.
7. Where a response is not able to be provided at the meeting, the question will be taken on notice and
 - (i) the minutes of the meeting at which the question is asked will record the question and the fact that it has been taken on notice.
 - (ii) a written response will be provided to all Elected Members, at the appropriate time.
 - (iii) upon the answer to the question being circulated to Elected Members, both the question and the answer will be listed on the agenda for the next available ordinary meeting of the committee at which it was asked, where it will be listed for noting purposes only.

10. CLOSED PORTION OF THE MEETING

RECOMMENDATION

That the Committee resolve by majority that the meeting be closed to the public pursuant to regulation 15(1) of the *Local Government (Meeting Procedures) Regulations 2015* because the items included on the closed agenda contain the following matters:

- Proposals for the council to acquire land or an interest in land or for the disposal of land; and
- Information of a confidential nature.

The following items are listed for discussion:-

Item No. 1	Minutes of the last meeting of the Closed Portion of the Committee Meeting
Item No. 2	Consideration of supplementary items to the agenda
Item No. 3	Indications of pecuniary and conflicts of interest
Item No. 4	Reports
Item No. 4.1	24 Gregson Avenue, New Town - Proposed Transfer of Additional Crown Land LG(MP)R 15(2)(f)
Item No. 5	Committee Action Status Report
Item No. 5.1	Committee Actions - Status Report LG(MP)R 15(2)(c)(i), (d) and (f)
Item No. 6	Responses to Questions Without Notice
Item No. 6.1	Naming of Parks and Reserves LG(MP)R 15(2)(g)
Item No. 7	Questions Without Notice