

# Forests (Fire Protection) Regulations 2025

Regulatory Impact Statement



We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

DEECA is committed to genuinely partnering with Victorian Traditional Owners and Victoria's Aboriginal community to progress their aspirations.



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# Glossary

Term	Description
AS	Australian Standard
BEA	Break-even analysis
BoM	Bureau of Meteorology
CFA	Country Fire Authority
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEECA	Department of Energy, Environment and Climate Action
FFDI	Forest Fire Danger Index
FFMVic	Forest Fire Management Victoria
FRV	Fire Rescue Victoria
MCA	Multi-criteria analysis
PV	Present Value
RIS	Regulatory Impact Statement
SLA	<i>Subordinate Legislation Act 1994</i>
The Act	<i>Forests Act 1958</i>
The current Regulations	Forests (Fire Protection) Regulations 2014
The department	Department of Energy, Environment and Climate Action
The Minister	Minister for Environment
The proposed Regulations	Forests (Fire Protection) Regulations 2025

# Executive Summary

## Context (Chapter 2)

The Victorian Government through the Department of Energy, Environment and Climate Action (DEECA) is proposing to make the Forests (Fire Protection) Regulations 2025, which will replace the sunseting Forests (Fire Protection) Regulations 2014<sup>1</sup> and make some minor changes.

## Problem and Objectives (Chapters 2 & 3)

Victoria is one of the world's most fire-prone regions. The effects of fire are far-reaching and have consequences across many spheres of Victorians' lives. Bushfire can result in serious negative impacts. The objectives of the proposed Regulations are to:

- protect the safety of Victorians
- prevent loss of private and public property
- support resilience of Victorian ecosystems
- provide assurance that commercial activities are conducted in a safe manner.

The proposed Regulations deal with residual risks not addressed by other legislation or behaviours. Specifically, the Regulations seek to manage risks in certain areas during certain times of the year, associated with:

- campfires and barbeques
- commercial operations (for example beekeeping activities, sawmill operations), and
- certain high risk activities, such as welding, grinding or use of chainsaws.

## Options considered (Chapter 4)

A Regulatory Impact Statement (RIS) must consider practicable means of achieving the regulatory objectives, including other regulatory options as well as non-regulatory options.<sup>2</sup> This section considers which approaches could achieve the policy objectives, and why other options were considered and rejected.

Options considered in this RIS are:

- Option 1: remake the current Regulations with minor amendments (the proposed Regulations)
- Option 2: less prescriptive, more performance-based or principles-based regulations
- Option 3: non-regulatory option involving providing education and information about fire use and safety, guidance notes, with more reliance on markets and other permit conditions.

## Costs and benefits of the options (Chapter 5)

In assessing the costs and benefits of the options, two main methods were used. Where costs could be quantified, this was done. Quantifiable costs for each option are summarised in the table below.

### Summary of regulatory and government costs, 10-year period (\$PV)

Option	Description	Regulatory Costs (\$)	Government Costs (\$)	Total Costs (\$)
1	Proposed Regulations – current regulations with minor amendments	425,791	1,335,032	1,760,824
2	Performance-based regulations	383,650	1,335,032	1,718,682
3	Non-regulatory approach	36,762	615,029	651,755

<sup>1</sup> The operation of the Forests (Fire Protection) Regulations 2014 was extended by 12 months under the SLA by the Subordinate Legislation (Forests (Fire Protection) Regulations 2014) Extension Regulations 2024 and will expire on 8 June 2025.

<sup>2</sup> Section 10(1)(c) of the SLA.

Benefits proved more difficult to assess, so the Multi-criteria Analysis (MCA) decision making tool was used.

While each of the options assessed in the sections above are likely to provide some benefits, the preferred option should be based on the option that provides the greatest benefit to the community as a whole. This tool requires judgements about how options would perform against a series of criteria that are chosen to reflect the benefits and costs associated with the options. If the MCA received a positive net score, it represents an improvement over the base case. The option with the highest net score is preferred. The MCA assessment scores are summarised below.

**Summary of MCA assessment – cost ratio to probability of effectively reducing risks**

Option	Description	MCA Criteria	Weighted score
1	Proposed Regulations – current regulations with amendments	Protection of life	1.4
		Protection of environment	1.4
		Business assurance	0.6
		Business costs	-0.6
		Individual costs	-0.4
		Government costs	-0.6
		<b>Total</b>	<b>+1.8</b>
2	Performance-based regulations	Protection of life	0.8
		Protection of environment	0.8
		Business assurance	0.65
		Business costs	-0.4
		Individual costs	-0.2
		Government costs	-0.65
<b>Total</b>	<b>+1.00</b>		
3	Non-regulatory approach	Protection of life	0.4
		Protection of environment	0.4
		Business assurance	0.0
		Business costs	-0.05
		Individual costs	-0.1
		Government costs	-0.3
<b>Total</b>	<b>+0.35</b>		

Although Option 1 has the highest costs, it also has the highest overall MCA benefit score and likelihood of reducing fire risk to justify the costs. Although Options 2 and 3 may still result in benefits that outweigh costs, the likelihood that they achieve the government’s objectives is lower, as they do not adequately manage the risks associated with campfires.

The proposed Regulations prescribe certain requirements for all campfires that have been proven to reduce the risks of fire spreading. They are also supported by significant penalties, at 50 penalty units or \$9,879.50<sup>3</sup> to reflect that bushfires caused by campfires pose a significant risk to the Victorian community. The proposed Regulations provide certainty, are easy to comply with, and impose a relatively low regulatory burden.

Option 3 is the lowest-cost option, noting however that the scale of information provision costs could be higher than the other options if the information campaign was more extensive. As with the other options, it could be reasonably effective because most people ‘do the right thing’. However, without statutory enforcement tools to regulate behaviour (especially in relation to campfires and barbecues), there is little incentive for those who engage in risky or irresponsible activities to modify their behaviour. Statutory enforcement tools play an important role in regulating the use of fire, as even a single fire can result in high-consequence events.

Therefore, Option 1, the Proposed Regulations, is assessed as the preferred option.

## Preferred Option – proposed Regulations (Chapter 6)

The proposed Regulations largely remake the current 2014 Regulations, but there are some amendments, namely:

<sup>3</sup> The Treasurer of Victoria sets penalty units in accordance with the *Monetary Units Act 2004*. In Financial Year 2024-25, one penalty unit is worth \$197.59.



- a person must not be outside the line of sight of the campfire or barbeque or be more than 50 metres from the perimeter of the campfire or barbeque (to align the requirements for the entire fire protected area with those in section 66A of the Act).
- the requirements for fires used for bee smokers would now apply for the declared prohibited period, not only “if the weather conditions in the area are such that there is a danger of the spread of fire”. This amendment is also being applied to welding, grinding, soldering and gas-cutting activities. Given the declaration of the prohibited period in each area is aimed at identifying the times of the year when there is a higher risk of fire spread, this will improve certainty for beekeepers by removing the subjectivity around whether ‘there is a danger’ that the fire could spread.
- the proposed Regulations include a new regulation that exempts (with some exceptions) a Traditional Owner group entity that has an agreement under Part 6 of the *Traditional Owner Settlement Act 2010*, from the Regulations in certain circumstances.

Trenches are no longer referenced as a campfire or barbeque risk reduction option to ensure consistency with the prohibition on digging in the Forest (Recreation) Regulations and provide clarity for community and enforcement. It will also reduce the risk of damage to environmental and Aboriginal Cultural Heritage values. The Regulations will continue to allow properly constructed fireplaces and barbeque appliances to be used, as they effectively reduce fire risk with minimal impact to Aboriginal Cultural Heritage and environmental values. There have also been some minor drafting changes to update references and improve clarity (see Appendix B).

The proposed Regulations are made under section 99 of the *Forests Act 1958*.

## Small business and competition impacts (Chapter 6.2 and 6.3)

Most of the businesses covered by the proposed Regulations would be considered small business. However, compliance with the regulations is generally straightforward, and does not require large capital outlays or onerous reporting requirements. Stakeholder consultation with small businesses subject to the regulations confirmed that the Regulations did not impose a disproportionate burden on them.

It is assessed that the competition impacts of the proposed Regulations, if any, are expected to be immaterial. The proposed Regulations do impose an additional cost on some activities of businesses (around 5 sawmills and 165 beekeepers), but these costs are small compared to overall business costs, and unlikely to be reflected in any competitive disadvantage. Even so, if there is any minor impact on competition, given the risks and extent of damage done by fires in forest areas, the impact on competition would be justified, given the overall small costs, as demonstrated by the analysis in this RIS.

## Consultation (Chapter 7)

During the development of this RIS, Registered Aboriginal Parties and a number of stakeholders including beekeepers, sawmill operators and industry bodies, were contacted seeking preliminary views on how the current Regulations could be improved. Preliminary consultation also sought data and general views on the effectiveness of the current Regulations and how they might be improved.

## Implementation and Evaluation (Chapter 9)

Given that the proposed Regulations are substantially similar to the current arrangements, no implementation issues are expected to arise for the proposed Regulations. However, in relation to minor changes, DEECA and the Conservation Regulator will work with affected parties to communicate these changes.

Consistent with the Victorian Government’s commitment to better regulation and a culture of continuous improvement, agencies must evaluate all regulations. Evaluation involves improving knowledge about the problem to improve regulatory effectiveness over time.

DEECA’s evaluation of the proposed Regulations will include collecting information from compliance operations and activities, which may identify regulatory breaches that result in warnings and infringement notices being issued, and court proceedings being commenced. The effectiveness of these activities will be measured in the number of breaches against the regulations.

Given that the proposed Regulations are similar to those which have been in place for more than three decades, a formal mid-term review is not considered necessary. However, DEECA will monitor the operation

of new provisions and changes closely, and will evaluate the regulations in 8 or 9 years' time prior to their sunseting.

# 1. Purpose of this RIS

## 1.1 Requirements for making Regulations

Before making regulations, the *Subordinate Legislation Act 1994* (SLA) requires the preparation of a Regulatory Impact Statement (RIS).<sup>4</sup> A RIS is intended to assist in public consultation on proposed Regulations by setting out the basis on which the Government believes the proposed Regulations are necessary, likely to result in benefits that outweigh the costs, and are preferred over other means of achieving the policy objectives. A RIS provides the Government and the Victorian community with evidence and analysis about proposed regulations and opportunities for the community to provide input into their design. This improves the quality of regulations.<sup>5</sup>

Under the SLA, a RIS must include:<sup>6</sup>

- a statement of the objectives of the proposed regulations
- a statement explaining the effect of the proposed regulations<sup>7</sup>
- a statement of other practicable means of achieving those objectives, including other regulatory as well as non-regulatory options
- an assessment of the costs and benefits of the proposed statutory rule and of any other practicable means of achieving the same objectives – the assessment of the costs and benefits must include an assessment of the economic, environmental and social impact and the likely administration and compliance costs including resource allocation costs
- the reasons why the other means are not appropriate
- an assessment of the impacts on competition<sup>8</sup>
- a statement on how the proposed regulations will be implemented and evaluated<sup>9</sup>
- an explanation of how the views of stakeholders consulted to date informed the impact assessment and how future consultation will be undertaken.

Prior to publication of the RIS, independent advice is received from the Commissioner for Better Regulation as to the adequacy of the RIS and of the assessment included in the RIS.<sup>10</sup>

Following publication of the RIS with the proposed Regulations, all comments and submissions must be considered before the Regulations are made.<sup>11</sup> A Statement of Reasons is published following the making of the Regulations, explaining how the comments and submissions have been addressed in the final version of the Regulations.<sup>12</sup>

## 1.2 The Government's approach to regulation

The Victorian Government is committed to delivering better regulation. Better regulation is:

- *effective* in protecting the community from harm and *efficient* in terms of limiting burden on businesses and the community
- *clear* to stakeholders, *consistent* with other regulatory obligations

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<sup>4</sup> SLA s. 7.

<sup>5</sup> Victorian Guide to Regulation (2024).

<sup>6</sup> SLA s. 10.

<sup>7</sup> Including in the case of proposed Regulations which amend existing Regulations, the effect on the operation of the existing Regulations.

<sup>8</sup> Required in order to meet the requirements of the Competition Principles Agreement.

<sup>9</sup> SLA s. 10(1)(f) requires a RIS to contain any other information required by the SLA Guidelines. The SLA Guidelines in turn reference (at para. 171) the Victorian Guide to Regulation as a source of further detail on the preparation of RISs.

<sup>10</sup> SLA s. 10(3) and the SLA Guidelines (2023) paragraph 174-179.

<sup>11</sup> SLA s. 11.

<sup>12</sup> SLA Guidelines (2023) para. 196.

- *proportionate* to the scale of the problem and *flexible* to changes in technology and society.<sup>13</sup>

The following summary of the principles for regulation in Victoria is taken from the Victorian Guide to Regulation.<sup>14</sup>

### **Principles for regulation in Victoria**

The Government is committed to the following best practice regulatory principles to guide the design, implementation and review of all regulatory proposals and changes to existing regulations in Victoria.

The Government requires regulation to be:

- effective in addressing the underlying causes of harm
- cost effective
- proportionate to the harm or risk to the community
- flexible to accommodate changes in technology, markets, risks and community views
- consistent with the Government's priorities to enhance Victoria's liveability and inclusive economic growth
- consistent and streamlined across government to avoid unnecessary overlap and duplication
- clear and easily understood by businesses and the community
- appropriately administered and implemented
- regularly reviewed to understand changes in harms.

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<sup>13</sup> Victorian Guide to Regulation (2024)

<sup>14</sup> 2024, page i.

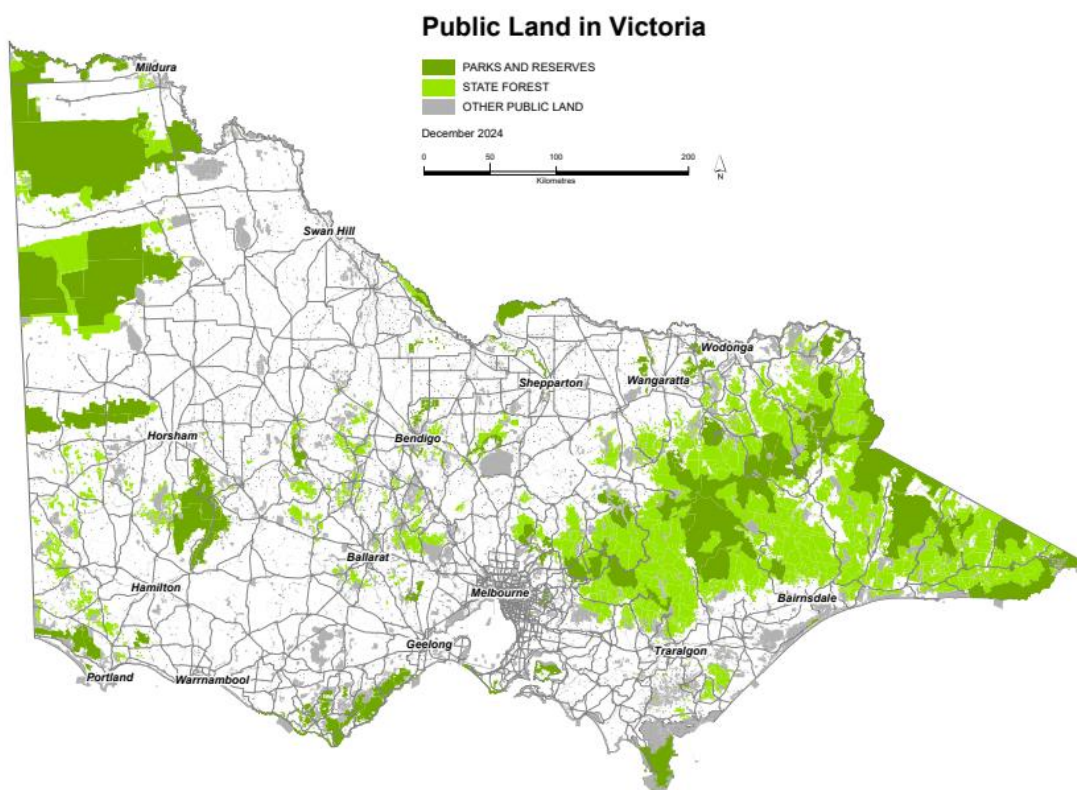
## 2. Problem analysis: Why is the Government considering action?

### 2.1 Context

#### 2.1.1 Victoria's forests

Public land in Victoria covers approximately 8 million hectares in area, which is about one third of the State. It is made up of over 110,000 land parcels which form parks, reserves and areas of State forest. The 8 million hectares include the following: National parks and other conservation parks managed by Parks Victoria (4 million hectares); State forests, managed by DEECA (3.2 million hectares); and over 1,200 public land reserves with a broad range of purposes (550,000 hectares). Figure 1 below shows the public land areas in Victoria.

**Figure 1: Public land in Victoria**



Victorian forests protect and provide a number of important values. These encompass protecting and conserving the natural environment, the social and cultural benefits of conserving cultural heritage, providing opportunities to enjoy and understand Victoria's environment, and providing economic activity.

A key benefit provided by forests is the protection of Victoria's biodiversity. A benefit provided and protected by forests are 'ecosystem services'. These services are the vital inputs for community well-being that ecosystems provide. Ecosystem services include high quality air, clean water, carbon storage, pollination, pest insect control, healthy soil and the prevention of soil erosion.

Social and cultural benefits of forests include the preservation and protection of the physical cultural heritage and connection to Country of Traditional Owners. Parks and other reserves provide people with the opportunity to connect with the environment, socialise in open spaces, be inspired, seek solitude or participate in sporting or recreational pursuits.

Visiting parks can generate a variety of social and economic benefits. Recreational activities involving individuals, families and clubs can improve health and increase social capital. Parks also have educational value, providing opportunities for visitors to understand and experience the natural environment.

In 2022-23, there were 90.9 million visits to National, State, urban and other terrestrial parks managed by Parks Victoria.<sup>15</sup> Many park visitors enjoy barbeques and campfires in Victoria's parks.<sup>16</sup>

Victoria's parks also contribute to the economy through local industries providing goods and services, which in turn generate jobs and income. It is estimated that visitors spend \$1.4 billion per year associated with their visits to parks, which generate \$1 billion gross value added and 14,000 jobs in the local economies.<sup>17</sup>

Over one million hectares of water supply catchments are located within Victoria's parks. These catchments capture and naturally filter water and for drinking, food production and other industries. The State's forests provide an estimated 6,432 gigalitres of water provision to Victorian communities.<sup>18</sup>

In addition, forests have a significant role in improving the quality of Victoria's waterways. In non-metropolitan areas, parks reduce soil sediment entering regulated rivers by 92 per cent compared to an alternative land use, such as cleared grazing land. The reduced sediment load from nine of the highest water yielding national and state parks is valued at \$50 million per year based on the avoided costs of additional water storage required under an alternative land use.<sup>19</sup>

The Victorian parks network includes 177 places of State heritage significance such as historic buildings, lighthouses and gold mining sites. More than half of the Victorian population had visited a heritage place managed by Parks Victoria within the previous year. The value of heritage conservation in Victoria's parks is estimated to be up to \$23 million per year.<sup>20</sup>

There are also a number of businesses that operate in or near Victoria's national and State parks. These activities include sawmilling, mining, quarrying, brick making, eucalyptus oil distilling or charcoal burning. The agricultural industry also engages in cropping and farm maintenance activities (for example welding, grinding, soldering or gas-cutting equipment) near Victoria's national and State parks.

Honey production is also permitted in some forests where honeybees access floral resources; the apiary sector attributable to parks produces honey and related products worth \$3.4–\$4.6 million per year and payments to beekeepers for pollination services are in the range of \$0.6–\$1 million per year.<sup>21</sup>

**Table 1: Sawmills and other operations in Fire Protected Areas**

Description	Number
Sawmills <sup>22</sup>	<5
Apiarists	265
Extractive licences (mining, quarrying)	80
Eucalypt distillers	4

The dollar values of the benefits from the various activities that occur in or near forest areas are not necessarily additive, given that allowing some activities to occur may displace other benefits or values that might be obtained from the same area, although often different values can exist together. Some benefits, such as quantifying the protection of biodiversity, are extremely difficult to estimate (many benefits are in the non-market sector). Nevertheless, the magnitude of these benefits of forests to Victorians are significant.

<sup>15</sup> Parks Victoria Annual Report 2023–24, p. 33: <https://www.parks.vic.gov.au/-/media/project/pv/main/parks/documents/about-us/annual-reports/parks-victoria-annual-report-2023-24.pdf?rev=753a5fc2705249439f4a2733e5c62164>

<sup>16</sup> Commissioner for Environmental Sustainability, Victoria, State of the Forests 2018 Report, p. 178: <https://www.ces.vic.gov.au/sites/default/files/publication-documents/State%20of%20the%20Forests%202018%20Report.pdf>

<sup>17</sup> Parks Victoria, 2015, *Valuing Victoria's Parks*. This study was conducted in 2015; therefore, the values today are likely to be much greater.

<sup>18</sup> Assessment of Ecosystem services from forests in Victoria 2019.

<sup>19</sup> *Valuing Victoria's Parks.*, p. 77.

<sup>20</sup> *Valuing Victoria's Parks.*, p. 9.

<sup>21</sup> *Valuing Victoria's Parks.*, p. 4.

<sup>22</sup> Commercial timber harvesting has ceased in Victorian forests.



## 2.1.2 Forests Act

The *Forests Act 1958* (the Act) is the primary piece of legislation that regulates activities in forests in Victoria.

The Act aims to protect public land from fire and maintain and improve State forests. It also provides for licensed occupations including grazing, beekeeping and the sale of forest produce. It establishes the compliance and enforcement framework for managing offences related to the taking of timber from State forests.

In relation to fire prevention and protection, the Act defines a number of areas:

**Table 2: Areas covered by the Forests Act**

Area	Definition
State forest	States forests include all 'reserved forests' and 'protected forests' under the Forests Act. Reserved forests are any unoccupied Crown land within the areas listed in the Act as reserved forests areas (in Schedule 2), all land regarded as permanent forests or as timber reserves under any legislation prior to 1962, and any land declared to be a reserved forest under section 45 of the Forests Act. Protected forests are all unoccupied Crown land proclaimed as a protected forest under the Forests Act or any corresponding previous enactment and every unused road and every water frontage as defined in the <i>Land Act 1958</i> .
National park	Land that is or is part of a park within the meaning of the <i>National Parks Act 1975</i> .
Protected public land	Any lands of the Crown (other than a State forest or a national park) declared or deemed to be protected public land under section 62 of the Forests Act. Deemed protected public land includes land managed by Parks Victoria, the Great Ocean Road Coast and Parks Authority, and Alpine Resorts Victoria.
Fire protected area	Any land that is within a State forest, national park, protected public land, and any other land that is within 1.5 kilometres of a reserved forest, protected forest, national park or protected public land. <sup>23</sup>

The Forests Act works with other legislation, including the *Land Act 1958*, the *National Parks Act 1975*, the *Crown Land (Reserves) Act 1978*, *Safety on Public Land Act 2004* and the *Traditional Owner Settlement Act 2010*. These other Acts are relevant for defining certain land types, and also for where some specific provisions of the Forests Act apply. For example, relevant to this RIS, the Forests Act does not authorise the use of fire in any forest that would be prohibited under another Act. The table below illustrates how this legislation interacts with the Forests Act.

**Table 3: Other legislation managing fire risk**

Other legislation	Interaction with the Forests Act
<i>Land Act 1958</i>	Section 413 provides a regulatory making power to make statutory rules with respect to the management of campfires on regulated watercourse land, except in relation to matters covered by sections 66A, 66B and 66C of the Forests Act
<i>National Parks Act 1975</i>	Contains a number of provisions related to fire protection, including section 21D(4A), which permits the Secretary to do 'anything which the Secretary considers necessary for the prevention and control of fire'. The National Parks Regulations 2024 also regulate campfires
<i>Crown Land (Reserves) Act 1978</i>	Principally deals with firewood collection, but also permits the Secretary to vary the firewood collection season in times of fire danger in accordance with section 21O.
<i>Safety on Public Land Act 2004</i>	Is primarily responsible for public safety and permits the Secretary to declare an area of State forest to be a public safety zone during fire operations
<i>Traditional Owner Settlement Act 2010</i>	Recognises traditional owner groups based on their traditional and cultural associations to certain land in Victoria. This legislation provides for recognition and settlement agreements which may include a land use activity agreement

<sup>23</sup> The Act allows some areas within 1.5 kilometres to be excised from the definition of fire protected area. This occurs where responsibility for fire management has been allocated to the Country Fire Authority.

Other legislation	Interaction with the Forests Act
	with the traditional owner group entity in relation to land that is the subject of the agreement. Such activities may include cultural fire.

The *Conservation, Forests and Lands Act 1987* includes overarching provisions relating to the conservation and productive use of the State's lands, waters, flora and fauna. This Act also specifically sets out a number of enforcement arrangements that also apply to the Forests Act, including the appointment and powers of authorised officers and the issuing of infringement notices for offences.

The *Country Fire Authority Act 1958* and regulations contains provisions to prevent fire on all Victorian land outside the fire protected area, including for the agricultural, forestry (for example requirements for Forestry Industry Brigades), and other industries by regulating the use of activities and engines that can cause fires. The Country Fire Authority (CFA) also has a volunteer force of more than 50,000 persons trained and equipped with fire suppression resources.

The *Fire Rescue Victoria Act 1958* establishes Fire Rescue Victoria, whose purpose includes to provide for fire safety, fire suppression and fire prevention services and emergency response services in the Fire Rescue Victoria fire district. Under the Act, it is an offence to cause fire in the Fire Rescue Victoria fire district in extreme conditions of weather or with the intent to cause damage.

Deliberately lit fires (arson) are not covered by the Forests Act but are covered under section 201A of the *Crimes Act 1958*, which makes it is an offence to intentionally or recklessly cause a bushfire anywhere in the state (including within forests).

## 2.2 Problem

### 2.2.1 Potential harms and risks from unregulated fires and fire hazards in forests

Victoria is one of the world's most fire-prone regions.<sup>24</sup> The effects of fire are far-reaching and have consequences across many spheres of Victorians' lives. While periodic fire is essential to biodiversity health in Victoria, fire frequency beyond 'tolerable fire intervals'<sup>25</sup> of the state's varied ecosystems can result in serious negative impacts.

Fires can destroy the values of those forests, as well as causing risk to life. Fire affects the quality of air, water and soil. It can destroy habitats, food sources and threaten the sustainability of wildlife and plants. Plant communities that have not adapted to fire, like alpine or rainforest areas, can take hundreds of years to recover. Many of Victoria's native species are vulnerable to increasing extinction risk and severe impacts of bushfire.<sup>26</sup>

Economically, fire can impose significant costs to individuals, to communities and to the state. It can affect people's health, their assets, and their ability to work. It can have broad impacts to regional and international tourism and hospitality as well as local businesses.

The Insurance Council of Australia estimates that the incurred losses from the Black Summer Bushfires to be \$5.47 billion and reported that the total insurance damage from these fires totalled \$2.32 billion with close to 39,000 claims lodged (average claims were \$60,000). Of the claims, around one third by value were from commercial customers, and two thirds from residential customers.<sup>27</sup> The economic cost of bushfires is expected to double by 2050.<sup>28</sup>

<sup>24</sup> Victorian Government, Victoria's Bushfire Risk Management Report 2022–23, p. 7: <https://www.vic.gov.au/victorias-bushfire-risk-management-report-2022-2023/introduction>

<sup>25</sup> Most Australian plants need fire for species regeneration. Tolerable Fire Intervals are the ideal interval between fires for vegetation communities to be healthy. See DEECA reference at: [https://www.ffm.vic.gov.au/\\_\\_data/assets/pdf\\_file/0008/21113/Report-84-REDUCED-SIZE-Growth-Stages-and-Tolerable-Fire-Intervals-For-Victorias-Native-Vegetation-Data-Se.pdf](https://www.ffm.vic.gov.au/__data/assets/pdf_file/0008/21113/Report-84-REDUCED-SIZE-Growth-Stages-and-Tolerable-Fire-Intervals-For-Victorias-Native-Vegetation-Data-Se.pdf)

<sup>26</sup> Victorian State of the Environment Report 2023: <https://www.ces.vic.gov.au/soe2023/key-topics/fire>

<sup>27</sup> Insurance Catastrophe Resilience Report: 2020-21, pp. 18-19: [https://insurancecouncil.com.au/wp-content/uploads/2021/09/ICA008\\_CatastropheReport\\_6.5\\_FA1\\_online.pdf](https://insurancecouncil.com.au/wp-content/uploads/2021/09/ICA008_CatastropheReport_6.5_FA1_online.pdf)

<sup>28</sup> Westpac, Counting the cost of bushfire's fury: <https://www.westpac.com.au/news/in-depth/2020/01/counting-the-cost-of-bushfires-fury/>



Socially, the impacts of fire can be even more devastating, with people losing their homes, their lives or their loved ones. The effects of bushfire smoke on human health are still being researched but are significant.<sup>29</sup> One study from the University of Tasmania estimated that the smoke-related health costs for Victorians from the Black Summer Bushfires were \$492 million alone.<sup>30</sup> There are also potential long-term mental health impacts of bushfires.

## 2.2.2 Causes of fires in Victoria's forests

Eucalypt forest types account for 93 per cent of Victoria's total native forest area. Eucalypt forests are often highly flammable and can present a fire hazard. Research indicates<sup>31</sup> the severity, extent, frequency and duration of bushfires are all largely increasing alongside Victoria's changing climate. Long-term changes in fire weather conditions are now apparent in Victoria. There is a clear trend toward more dangerous fire weather conditions during spring and summer. There is an increased frequency and magnitude of extremes, as well as an earlier start to the fire season. The 2019–20 bushfires occurred during Australia's hottest year on record. December 2019 was also the hottest of any December.

The Forest Fire Danger Index (FFDI) uses rainfall, evaporation, wind speed, temperature and humidity data to determine fire danger. Over the past three decades, scientists have predicted increases to the FFDI.<sup>32</sup> The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Bureau of Meteorology (BoM) predicted severe fire days would increase from between 160 per cent and 190 per cent by 2090 compared to 2020.

Unplanned fire ignitions occur annually in Victoria's forests, with many being traced to human activity. DEECA collects information on the ignition source of bushfires which affect State forests, national parks, protected public land and other fire protected areas. While the underlying hazard of bushfires will largely remain in Victoria, the risks of bushfires and their frequency can be managed (see section 2.2.3).

It is not always possible to determine the ignition source of a bushfire, so in many cases the cause of these fires is listed as 'unknown'.

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<sup>29</sup> Extreme fire events can cause or exacerbate health conditions including respiratory health, cardiovascular health and stroke, mental health and homelessness, heat-induced illness, and deaths. See: Australian Institute of Health and Welfare 2020. Australian bushfires 2019–20: Exploring the short-term health impacts. Cat. no. PHE 276. Canberra: AIHW.

<sup>30</sup> Fay Johnston, Nicolas Borchers Arriagada, Morgan, GG, Jalaludin, B, Andrew Palmer, Grant Williamson, David Bowman, Unprecedented health costs of smoke-related PM2.5 from the 2019- 20 Australian megafires: [https://figshare.utas.edu.au/articles/journal\\_contribution/Unprecedented\\_health\\_costs\\_of\\_smoke-related\\_PM2\\_5\\_from\\_the\\_2019\\_20\\_Australian\\_megafires/22992434?file=40741478](https://figshare.utas.edu.au/articles/journal_contribution/Unprecedented_health_costs_of_smoke-related_PM2_5_from_the_2019_20_Australian_megafires/22992434?file=40741478) 492 million

<sup>31</sup> See the Victorian State of the Environment 2023 Report (fire): <https://www.ces.vic.gov.au/soe2023/key-topics/fire>

<sup>32</sup> Dowdy, A.J., Ye, H., Pepler, A. et al. Future changes in extreme weather and pyroconvection risk factors for Australian wildfires. *Sci Rep* 9, 10073 (2019). <https://doi.org/10.1038/s41598-019-46362-x>. This study examined changes in fire risk indices (including the FFDI) using historical data from 1990–2009 to predict changes for the period 2060–2079. The study found that 'projected future changes in FFDI show broad-scale increases in the severity of near-surface fire weather throughout Australia'.

Table 4 below shows identified ignition sources of bushfires in Victoria between June 2014 to November 2024.

**Table 4: Selected bushfire events and causes in Victoria, 2014–2024<sup>33</sup>**

<b>Victorian bushfire types of causes relevant to the proposed Regulations</b>	<b>Number</b>	<b>Hectares burnt</b>
Campfire, Barbeque	2,048	15,549
Burning Vehicle, Machine	540	14,989
Exhaust, Other	87	2,514
Exhaust, Chainsaw	29	29
<b>Total bushfires subject to the regulations</b>	<b>2,164</b>	<b>33,081</b>
Lightning	2,064	1,790,387
Deliberate Lighting (Malicious)	705	9,162
Unknown	1,144	56,374
<b>Total – All bushfires in Victoria</b>	<b>12,904</b>	<b>1,961,577</b>

Source: DEECA

A useful model for understanding the incidence of landscape fire is the four switch model.<sup>34</sup> The four ‘switches’ are:

1. sufficient fuel that is
2. dry enough to burn with
3. weather conducive to fire-spread, and
4. an ignition source.

Any non-regulatory or regulatory proposal should seek to manage the risks of unintended fires by managing these ‘switches’, i.e., the ignition source (for example sparking from exhausts, welders, bee smokers, etc) and sufficient fuel source (for example inflammable material such as leaves, twigs, dry grass, forest litter, etc).

If a fire does occur, then a person should be able to apply basic fire suppression measures to prevent its spread (for example have a water source available, extinguisher, etc). For intentional fires, such as campfires, barbeques, and burning off, a person needs to ensure that the fire does not spread. These risks can be mitigated by clearing fuel, using appropriate equipment, or using a properly constructed fireplace.

There are common types of fire risks in relation to forest areas. Firstly, there are fires associated with camping and barbeques, where a fire may escape and spread if not properly managed.

Secondly, there is a risk of fires associated with business activities in or adjacent to forest areas. There are two types of fire risks with respect to business activities:

- some businesses deliberately use fire as part of their activities; for example, burners at sawmills, smokers used in bee farming and burning-off. Deliberate use of fire needs to be safely managed so that it does not spread.
- in other cases, a business may use certain equipment that can inadvertently cause a fire; for example, sparking from chainsaws, welders, grinders, and combustion engines.

Sawmills produce significant amounts of offcuts and sawdust. Up to 50 per cent of timber milled can result in waste product. While some of this material can be sold (for example sawdust, wood chips, garden products) a sawmill is often required to store and burn this material. If not properly stored, sawdust can spontaneously combust and cause a fire. In addition, most sawmills use burners to dispose of the sawdust and offcuts. Burning this material in or near forests poses inherent risks from sparks and embers and needs to be managed.

Beekeepers use ‘smokers’ to pacify bees when they are working around bees. A smoker contains smouldering leaves, straw, pellets or cardboard to create smoke. While smokers have been known to spark,

<sup>33</sup> The fires listed in this table does not show all fires in Victoria across all land types. It shows fires attended by at least one DEECA staff member. Nevertheless, it does represent a significant proportion of fires covered by the regulations.

<sup>34</sup> Bradstock, R. A., 2010, ‘A biogeographic model of fire regimes in Australia: current and future implications’, *Global Ecology and Biogeography*, 19, 145-158.

greater risk occurs if a smoker is knocked over and the smouldering material falls on dried grass, leaves or other forest litter.

Types of mobile equipment such as chainsaws and vehicles are most likely to be used on private land which falls within the fire protected area, directly adjacent to forest areas.

#### Case study: Fire started by angle grinder

A major fire during the 2022-23 summer occurred in Flowerdale. Hundreds of firefighters from across the state battled the aggressive grass and bushfire for 13 days in February 2023. The fire, which burnt more than 1,000 hectares (700 hectares of private land and 300 hectares of state parks), was believed to have been started by sparks from an angle grinder. The fire started in open farmland and quickly spread into inaccessible terrain making initial containment for responding crews extremely difficult. Firefighting aircraft were deployed to support ground operations.

Source: CFA Annual Report 2022-23, p. 40

## 2.2.3 Existing risk mitigation controls

Outside the current Forests (Fire Protection) Regulations 2014, there are a range of controls in place to reduce the likelihood of fires occurring or reduce the extent of damage should a fire occur. Some of these are outlined below.

**Table 5: Mitigation of fire risks under other legislation and policy instruments**

Control	Description
State-wide offence to create bushfire	Under section 201A of the <i>Crimes Act 1958</i> , it is an offence to intentionally or recklessness cause a bushfire.
In national parks	Under the National Parks Regulations 2024, a person must not light or maintain a fire in a park except in a public fireplace or an area set aside.
In alpine resorts	Under the Alpine Resorts (Management) Regulations 2020, a person must not light, kindle or maintain a fire in the open air in an alpine resort. Alpine Resorts Victoria may set aside areas for where fires are allowed or provide public fireplaces. Where fires are allowed, the regulations control the size of fire, distance from other flammable material, and requirements for the fires to be observed and properly extinguished.
In forest reserves	Campfires are only allowed in fireplaces provided by the land manager.
In State Game Reserves	The Wildlife (State Game Reserves) Regulations 2024 provide for prohibiting fires in any part of the reserves. Where fires are allowed, the regulations control the size of fire, distance from other flammable material, and requirements for the fires to be observed and properly extinguished.
Fuel reduction/planned burns	Planned burns are the controlled use of fire under carefully managed conditions to reduce fuel such as dead wood, leaf litter, bark and shrubs. DEECA uses planned burns as a strategic tool to reduce bushfire risk and lessen the spread and intensity of bushfires when they occur. DEECA's fuel management program aims to keep bushfire risk at, or below, 70 per cent of Victoria's potential maximum bushfire risk.
Other management activities	Victoria's Bushfire Management Strategy (2023) provides a strategic framework to reduce bushfire impacts in Victoria. It is accompanied by an Implementation Plan that outlines actions to be delivered under each strategic outcome. In addition, the Code of Practice for Management of Bushfire Management on Public Land (2022), published under the <i>Conservation Forests and Lands Act 1987</i> , among other things, sets the objectives for bushfire management on public land, and strategies and actions across the prevention, preparedness, fuel management (including planned burning), response and recovery spectrum to achieve those objectives. The Code of Practice for Timber Production 2014, which includes sawmills, also contains fire prevention requirements.

Codes and guidance notes	Parks Victoria, Forest Management Victoria, and the Country Fire Authority all publish information and guidance notes on campfire and barbeque safety. A number of recreational organisations (for example camping, fishing) also publish information on campfire safety.
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The Forests Act includes a number of provisions specific to reducing the risk of fires in forest areas. The State Emergency Management Plan, made under the *Emergency Management Act 2013*, contains provisions providing for the mitigation of, response to and recovery from emergencies. An important aspect of the Plan is the principle of shared responsibility in the context of risk management: the current Regulations operate in support of that principle.

**Table 6: Sections of the Forests Act aimed at fire prevention**

Section	Control
63(1) and (2)	A person in any State forest, national park, protected public land, or any fire protected area (other than a State forest, national park or protected public land) commits an offence if they: <ul style="list-style-type: none"> <li>light, kindle or maintain any fire in the open air without authority, where the regulations require an authority to be obtained, during the prohibited period<sup>35</sup></li> <li>fail to comply with any relevant regulation in relation to lighting, kindling, maintaining or extinguishing any fire in the open air</li> <li>do not observe all reasonable precautions to prevent the spread of and damage by any fire they light, kindle or maintain</li> <li>leave any fire lit, kindled or maintained without taking all reasonable precautions to prevent it spreading or causing injury.</li> </ul>
63(3) and (4)	Any person that owns, occupies, resides on, or has charge or control of any private land within 3 kilometres of the boundary of any State forest, national park or protected public land must extinguish any fire on the land or otherwise take reasonable steps to extinguish the fire as directed by an authorised officer or police officer.
64	No person may light a fire in the open air in any fire protected area in relation to which the Minister has, by notice, prohibited the use of fire in the open air for that area. Such notices may be issued where the Secretary reports to the Minister that a condition of acute fire danger exists or is likely to exist in that area.
66A	A person in charge of a campfire or barbeque using solid fuel in the open air in any State forest, national park, protected public land, or licensed water frontage that is not State forest <sup>36</sup> , must not be outside the line of sight, or be more than 50 metres from, the campfire or barbeque.
66B	A person in charge of a campfire or barbeque using solid fuel in the open air in any State forest, national park, protected public land, or licensed water frontage that is not State forest, must not light the campfire or barbeque unless the ground and airspace within 3 metres are clear of flammable material. For campfires or barbeques that use liquid fuel, gaseous fuel or chemical solid fuel, flammable material must be cleared within 1.5 metres.
66C	A person in charge of a campfire or barbeque using solid fuel in the open air in any State forest, national park, protected public land, or licensed water frontage that is not State forest, must not light the campfire or barbeque if the area of the campfire or barbeque is more than 1 square metre in any direction or any dimension of any piece of solid fuel is more than 1 metre, unless authorised by an authorised officer in writing.
67	Every person who finds any fire burning in any State forest, national park or protected public land or in any other fire protected area (during any period when there is a danger of spread of fire), must take all reasonable steps to prevent the spread of the fire and must report the fire to an authorised officer or police officer.

<sup>35</sup> "Prohibited period" means: with respect to any State forest protected public land or national park—the whole year; with respect to any fire protected area other than a State forest protected public land or national park—a period declared by the Minister. The prohibited period for fire protected areas varies with the fire risk for a particular season. A prohibited period may be declared by the Minister for any or all of the applicable lands within 14 local government areas (LGA) and three Alpine resorts. The prohibited period may be introduced all at once, or progressively.

<sup>36</sup> As defined in the *Land Act 1958* (not including State forest).

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When an unauthorised fire is burning in any fire protected area during the prohibited period, the occupier of that land must take all reasonable measures to extinguish the fire and report it to an authorised officer or police officer.

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Note that the effect of section 63(1) and (2) is that, while a person must take reasonable precautions to prevent the spread of fire, they are still able to light fires in these areas (subject to any other provisions set out in the Act or other legislation permitting the lighting of fire), unless regulations are made to regulate the lighting of fires, and specifying the situations where prior authorisation to light a fire is required.

The Government also engages in a complex array of bushfire prevention measures, including providing firebreaks (see sections 65 and 66 of the Forests Act, removal of vegetation), hazard reduction burns, mechanical fuel treatments, education, and scientific research. If an uncontrolled fire does occur on public land, FFMVic has a duty to suppress it in line with their responsibilities in the Forests Act and State Emergency Management Plan. DEECA may be supported by other agencies, including the CFA and FRV.

## 2.2.4 Residual risk

The preceding sections discuss the physical impacts and risks arising from human behaviour that may result in damage from fire. Despite existing regulatory and non-regulatory controls, the following problems would exist in the absence of further specific regulations aimed at these activities:

- As noted above, because of how sections 63(1)(a) and (aa) and 63(2)(a) and (aa) of the Act are written, in the absence of regulations that specify when written authority is required to start a fire in forest areas, there is no specific ability to prevent people lighting any type of fire in forest areas, unless there is a specific prohibition under another Act (which do not cover all forest areas in the state). Allowing more fires to be started in forest areas inherently increases the risk that a fire will escape into surrounding forest and spread. Further, while the Act sets out some requirements for some types of fires in forest areas (such as campfires and barbecues), it does not specify any requirements for other types of fires, instead anticipating that these would be subject to the processes to be established in regulations.
- Risks from campfires and barbecues are not well understood by the general public, leading to unsafe practices, which remains an issue given high usage rates and increased risk of fire in forests owing to climate change. DEECA data shows that the vast majority of offences are for campfires and barbecues, and 16 per cent of forest fires are caused by campfires. Visitors to forests may only occasionally light fires in a domestic setting and may not fully understand the characteristic of forest fires (for example how quickly it can spread, the combustible nature of eucalypts or other forest matter, etc.), and may inadvertently spark fires if their campfire or barbecue is not safe or properly maintained.
- Some activities from sawmills and other operations are inherently risky, owing to the machinery and processes used. Sawmills produce a significant amount of waste timber owing to the need to square timber and because some timber has defects which cannot be used. The milling process itself produces sawdust. Sawdust, if not properly stored, can spontaneously combust and cause a fire. Most sawmills use burners to dispose of the sawdust and offcuts. The use of other equipment (for example vehicles, engines, grinders) have also started fires (see table 4).
- There are insufficient incentives to modify behaviour towards fires. Lighting fires in a forest is generally unobserved and combined with a lack of understanding of fire characteristics. This can result in a complacent attitude towards fire risks.

Further, sections 66A, 66B and 66C of the Act only apply to fires in a State forest, national park, protected public land, or licensed water frontage that is not State forest; these sections do not apply to the additional adjacent land within 1.5 kilometres of those areas, which is included in the wider fire protected area.

The consequences of not managing the residual risks are that the harms from fires (for example diminished environmental, economic, and social values) would be much greater.

As noted earlier, according to the Forest Fire Danger Index (FFDI) climatic conditions have changed since the 1990s. They are forecast to increase in the coming decades resulting in a greater fire risk for Victoria's forests – this includes the period since the regulations were last remade in 2014. Climate science indicates



that Victoria is likely to become drier, especially across the winter months, and high-impact climate hazards including bushfires are projected to continue exacerbating under a warming climate.<sup>37</sup>

In June 2024, the *Sustainable Forests (Timber) Act 2004* was repealed to end commercial native timber harvesting in State forests. This legislation removed the framework authorising commercial native timber harvesting under the Act and abolished VicForests. It also made relevant amendments to the *Forests Act* and the *Conservation, Forests and Lands Act* to preserve key tools that support regulation and forest management. As a consequence, the number of sawmills subject to the regulations in regional Victoria has declined significantly. The minimal number of sawmills will reduce the risk of fires from these sources.

In addition, over the past 10 years there has been increasing recognition of First Peoples' culture and right to self-determination, including to enable cultural connections and obligations to land, water and fire. The Victorian Aboriginal Affairs Framework provides the strategic policy framework for Government to undertake systemic, structural and institutional change to enable self-determination. This recognises that it is the role of Government to change and remove systemic and institutional barriers.

In 2022–23, six Traditional Owner groups led the delivery of 23 cultural burns on Country.<sup>38</sup> FFMVic supported Traditional Owners to deliver 20 cultural burns covering 369 hectares, and the CFA supported the delivery of three.

## 2.2.5 Have the current Regulations been effective in addressing the problem?

DEECA considers that the current Regulations have been effective in addressing fire risks in Victorian forest. In the 2014–2024 period, DEECA recorded 4,983 unattended campfires in the fire protected area that had not spread to bushfire status. In light of this, regulations regarding campfire safety measures are deemed both necessary and effective at preventing non-malicious ignitions.

In light of this ongoing behaviour, DEECA has identified a small number of changes to be included in the proposed Regulations. This includes introducing an offence to leave a fire unattended for the parts of the fire protected area not already covered in the *Forests Act*. This change was suggested by DEECA to make it consistent with the *Forests Act*, which contains these requirements. At a minimum, it will locate this requirement for more convenient access in one instrument for stakeholders. Stakeholder feedback also indicated that the current Regulations may risk damage to cultural heritage and environmental values by allowing the digging of trenches for campfires on public land. To help balance the need to protect these values alongside public safety, the proposed new Regulations no longer reference campfires in trenches but retain the ability to use campfires and barbeques within the existing requirements. Practically speaking, this should not impact established campsites with existing properly constructed fireplaces, or the use of barbeque appliances.

DEECA also considers that the regulations concerning beekeeping have been effective. Over the life of the Regulations, there have been no recorded incidents of bushfire caused by beekeeping on public land.

## 2.2.6 Stakeholder views

As part of this RIS process stakeholders from sawmills, quarries, and beekeepers were consulted. Meetings were also held with DEECA's operational staff. There was general agreement that the current Regulations have worked effectively, and that they are easy to comply with. Stakeholders also agreed that the Regulations address the risks outlined above and that government intervention to address the residual risks is required. Nevertheless, some suggestions were made that may improve the effectiveness and compliance with the Regulations:

- That beekeepers be provided with the option of a fire extinguisher in the prescribed fire suppression equipment
- That forest produce licences and beekeeper site licences print the regulatory requirement on the licence itself so that licensees have ready reference to the requirements (technically out of scope of these regulations)
- That the wording be changed in relation to safety fuses and fuse lighters to reflect changing climate conditions.

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<sup>37</sup> Victoria's Climate Science Report 2024.

<sup>38</sup> Victoria's Bushfire Risk Management Report 2022-2023: <https://www.vic.gov.au/victorias-bushfire-risk-management-report-2022-2023/statewide-overview>.

# 3. Objectives: What outcome is the Government aiming to achieve?

## 3.1 Setting objectives

The *Subordinate Legislation Act* requires a RIS to include a statement of the objectives of the proposed regulations.<sup>39</sup> The SLA Guidelines require that agencies should clearly define the intended objectives and the reasons for those objectives, to ensure that:

- they are reasonable and appropriate for the intended level of regulation
- they can be clearly and succinctly set out
- they conform with the objectives, principles, spirit and intent of the authorising Act, and
- they are not inconsistent with the objectives of other legislation, subordinate legislation and stated government policies.

Subordinate legislation, such as regulations, can only cover matters permitted by the authorising Act, and must be consistent with the principles and objectives of the policy issue (or issues) that the primary legislation addresses.

The Victorian Government has explicit principles for regulation in Victoria (see Chapter 1), to ensure that regulations are effective, efficient, clear, consistent with other regulatory obligations, proportionate to the scale of the problem, and flexible.<sup>40</sup>

## 3.2 Principles and objectives of the primary legislation

There are no stated objectives or principles in the *Forests Act*, however from the nature of the provisions in the Act, it is clear that the purpose of the Act is to protect Victoria's forests from misuse and damage, including by preventing damage from fire.

The Act includes a number of provisions that are aimed at protecting Victorian forests from fire. For example, there are specific provisions in the Act dealing with 'the prevention of and protection from fire'. In particular sections 63 to 67 deal with, among other things:

- restrictions as to lighting fires in certain areas,
- prohibition of use of fire when acute fire danger exists,
- enforcement of burning off near State forest or national park,
- placing inflammable material for the purpose of causing fire etc,
- offences relating to leaving campfires or barbeques unattended,
- requirements to have clear areas around certain campfires or barbeques, and
- restrictions on campfires or barbeques above a certain size.

There is also a general duty to prevent spread of fire.

The Act specifically leaves some detail of its offences to be given effect through the making of regulations. In particular, the Act anticipates that regulations will specify the situations in which written authority will be required to light a fire during a prohibited period.

## 3.3 Authorising provisions

Section 99 of the *Forests Act* allows for the making of regulations with respect to (among other things):

- regulating the burning off of inflammable material and the lighting and use of fires and the use of any engine, boiler or other device or equipment which is capable, in the course of its ordinary use, of igniting a fire, within any fire protected area or any specified portion thereof

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<sup>39</sup> The objectives stated in the statutory rule itself might differ from those in the RIS as RIS objectives should be stated in terms of intended outcomes, rather than means. The objectives in statutory rules are usually narrower than the RIS objectives; they are a brief summary of what the statutory rule does, rather than any policy implications of the statutory rule.

<sup>40</sup> See Victorian Guide to Regulation.



- providing for and regulating the giving by authorised officers of written authority to light fires in any fire protected area or any part thereof and prescribing the circumstances in which such authority may be given
- prescribing conditions to be specified in any written authority to light a fire and authorising authorised officers to specify reasonable conditions at their discretion
- prohibiting the lighting or maintaining of fires in any fire protected area or any part thereof without the written authority of an authorised officer
- the extinguishment of fires lit, kindled, maintained or used in a fire protected area
- the facilities, equipment, apparatus or other things to be provided in fire protected areas for the prevention and suppression of fire, or the protection of life and property from fire
- prescribing any matters required or permitted or necessary or expedient to be prescribed for carrying the Act into effect, and generally for carrying into effect the objects of the Act.

### 3.4 Other policy objectives

Victoria's Bushfire Management Strategy (2024)<sup>41</sup> provides a framework to improve outcomes for bushfire management, including to aid decision-making on where resources will have the greatest impact. It is accompanied by an Implementation Plan that outlines actions to be delivered under each strategic outcome, along with Victoria's Bushfire Monitoring, Evaluation and Reporting Framework that will enable regular progress reporting on the outcomes and strategic directions from December 2025. In addition, the Code of Practice for Bushfire Management on Public Land (2022), published under the *Conservation, Forests and Lands Act*, among other things, sets the objectives for bushfire management on public land, and strategies and actions across the prevention, preparedness, fuel management (including planned burning), response and recovery spectrum to achieve those objectives.

The government also has economic objectives in fostering the 'visitor economy', especially since the global pandemic and Black Summer bushfires.<sup>42</sup> The Visitor Economy Recovery and Reform Plan sets out this strategy and highlights Victoria's unique attraction, especially its parks and forests.

The Victorian Aboriginal Affairs Framework provides the strategic policy framework for government to undertake systemic, structural and institutional change to enable self-determination. This recognises that it is the role of government to change and remove systemic and institutional barriers.

In December 2024, the Victorian Government released its Economic Growth Statement, *Victoria: Open for Business*. The Government has committed to reduce the regulatory burden for Victorian businesses by \$500 million by 2030. This includes reducing regulatory duplication, speeding up and digitising application processes, removing unnecessary permits, and updating regulations to be smarter and simpler.

### 3.5 The objectives of the proposed Regulations

Given the intent of the Forests Act and other policy objectives, and in response to the nature and extent of the problem discussed in the previous chapter, the specific objectives of government intervention are to minimise non-malicious ignitions of fire on public land in order to:

- protect the safety of Victorians
- prevent loss of private and public property
- support resilience of Victorian ecosystems
- provide assurance that commercial activities are conducted in a safe manner.

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<sup>41</sup> The State of Victoria, Department of Energy, Environment and Climate Action, Victoria's Bushfire Management Strategy, 2024: [https://www.vic.gov.au/sites/default/files/2024-05/VBM\\_Strategy.pdf](https://www.vic.gov.au/sites/default/files/2024-05/VBM_Strategy.pdf)

<sup>42</sup> The 2019–20 Victorian Black Summer bushfires caused the loss of five lives and destroyed more than 300 homes and 6,632 head of stock. The fires burnt more than 1.5 million ha of public and private land, including 1.39 million ha of forests and parks, plantations and native timber assets, critical animal habitats and water catchments.

## 4. Options: What possible different courses of action could be taken?

Under the SLA, a RIS must consider other practicable means of achieving the regulatory objectives, including other regulatory options as well as non-regulatory options.<sup>43</sup> This section considers which approaches could achieve the policy objectives, and why other options were considered and rejected.

### 4.1 Options considered in this RIS

Non-regulatory and regulatory options considered in this RIS include:

**Option 1:** remake the current Regulations with minor amendments (*the proposed Regulations*)

**Option 2:** less prescriptive, more performance-based or principles-based regulations

**Option 3:** non-regulatory option involving providing education and information about fire use and safety, guidance notes, more reliance on markets and other permit conditions.

It should be noted that under all of these options, some form of a statutory rule would still be required. This is because elements of the regulations operationalise key elements of the Act.

#### 4.1.1 Option 1: Remake the current Regulations with minor amendments

Regulation may take the form of prescriptive rules, which focus on the inputs, processes and procedures of a particular activity. One of the main advantages of prescriptive regulation is that it provides certainty and clarity. By setting out requirements in detail, it provides standardised solutions and facilitates straight-forward enforcement.

While the Regulations are mostly prescriptive, they do contain elements of performance-based regulation. For example, the provision that deals with burning of inflammable material at a sawmill: it requires that such burning be permitted “if the fire is effectively contained in a pit or structure”. If an authorised officer considers that a sawmill’s arrangements are unsafe, then they may specify the dimensions and specifications of any pit or structure by a notice in writing.

**Table 7: Option 1—Current Regulations with some amendments**

Area of regulation	Content of regulation
Circumstances in which a written authority is required to light a fire in the open air in a fire protected area	A person must have the written authority of an authorised officer in any State forest, protected public land or national park at any time during the prohibited period (except in the relation to barbeques and campfires, burning inflammable material from a sawmill, or bee farming if these activities are conducted in accordance with the Regulations).
Safety fuse, fuse lighters	A person must not use a safety fuse or fuse lighter in a fire protected area before sunrise or between 9:30am and midnight on any day in January, February, March, April, November or December of any year.
Campfires and barbeques without written authority ( <b>solid fuel</b> ) <sup>44</sup>	<p>If <b>in or within 1.5 kilometres</b> State forest, protected public land, national park or a licensed water frontage, a campfire or barbeque must be in a properly constructed fireplace.</p> <p>(Note: The Forests Act requires a person to be within 50 metres and also within line of sight of a campfire or barbeque.)</p> <p>If <b>within 1.5 kilometres</b> of State forest, protected public land, national park or a licensed water frontage during the prohibited period:</p> <ul style="list-style-type: none"><li>• A campfire or barbeque must be:</li></ul>

<sup>43</sup> Section 10(1)(c) of the SLA.

<sup>44</sup> The Forests Act already sets these requirements for campfires and barbeques in a State forest, national park, protected public land, or licensed water frontage; the proposed extend the same requirements to campfires and barbeques on adjacent land within 1.5 kilometres of those areas, which is included in the wider fire protected area.

Area of regulation	Content of regulation
	<ul style="list-style-type: none"> <li>○ clear of inflammable material within 3 metres of the ground and airspace of the outer perimeter and uppermost point of the fire;</li> <li>○ not larger than one square metre; and</li> <li>○ all dimensions of any piece of solid fuel being used must be smaller than one metre.</li> </ul> <ul style="list-style-type: none"> <li>• The person in charge of a campfire or barbeque must not be outside the line of sight of the campfire or barbeque;</li> <li>• The person in charge of a campfire or barbeque must not be more than 50 metres from the perimeter of the campfire or barbeque.</li> </ul>
<p>Campfires and barbeques without written authority (<b>liquid fuel, gaseous or chemical solid fuel</b>)</p>	<p>If in or within 1.5 kilometres of a State forest, protected public land, national park or a licensed water frontage, a campfire or barbeque must be:</p> <ul style="list-style-type: none"> <li>• contained in an appliance designed and commercially manufactured to use that fuel; and</li> <li>• the appliance when alight must be placed in a stable position.</li> </ul> <p>The ground and airspace within a distance of 1.5 metres of the appliance must be clear of inflammable material.</p> <p>(Note: the content of this regulation partly stems directly from the Forests Act but has been represented together here for simplicity.)</p>
<p>Burning inflammable material of a sawmill without written authority</p>	<p>A fire must be effectively contained in a pit or structure.</p> <p>An authorised officer may specify the dimensions and specifications of any pit or structure to be used to burn inflammable material.</p>
<p>Bee farming (use of fire for smoker)</p>	<p>A bee farming operation must:</p> <ul style="list-style-type: none"> <li>• use a smoker on an area of ground which is clear of all inflammable material for a distance of 1.5 metres from the outer perimeter and uppermost point of each beehive;</li> <li>• place the smoker in a fireproof receptacle when not in use; and</li> <li>• during the prohibited period: <ul style="list-style-type: none"> <li>○ have at least one knapsack spray pump with a tank capacity of at least 9 litres which is fully charged with water in proper working order and complies with AS 1687–1991; and</li> <li>○ one rakehoe or similar implement capable of removing grass, shrubs, vegetation and other inflammable material from the area of the fire.</li> </ul> </li> </ul>
<p>Extinguishment of fire</p>	<p>A person who has lit, kindled or maintained a fire, or is in charge of a fire, in the open air in a fire protected area during the prohibited period must, before leaving the place of the fire:</p> <ul style="list-style-type: none"> <li>• completely extinguish the fire; or</li> <li>• ensure that a person who has the capacity and means to extinguish the fire is in charge of the fire.</li> </ul> <p>Additionally, the person must extinguish the fire immediately when required to do so by an authorised officer.</p>
<p>Stationary engines</p>	<p>A person must not use a stationary engine in a fire protected area during the prohibited period if the stationary engine is in the open air or if the exhaust of the stationary engine discharges into the open air, unless the engine:</p> <ul style="list-style-type: none"> <li>• has a working spark arrestor fitted to the exhaust;</li> <li>• the ground and airspace within 1.5 metres from the outer perimeter and uppermost point of the stationary engine are clear of inflammable material; and</li> <li>• there is adequate water supply or adequate water spray pump or suitable fire extinguisher available for immediate use.</li> </ul>
<p>Non-stationary engines</p>	<p>A person must not use a non-stationary engine in a fire protected area during the prohibited period unless the engine:</p> <ul style="list-style-type: none"> <li>• has a working spark arrestor, turbo charger or an exhaust aspirated air cleaner fitted to the exhaust; and</li> </ul>

Area of regulation	Content of regulation
	<ul style="list-style-type: none"> <li>• there is adequate water supply or adequate water spray pump or suitable fire extinguisher available for immediate use.</li> </ul>
Welding, grinding, soldering or gas-cutting equipment	<p>A person must not undertake these activities during the prohibited period unless they comply with the prescribed requirements of:</p> <ul style="list-style-type: none"> <li>• clearing inflammable material;</li> <li>• using a fire shield and fireproof receptacle; and</li> <li>• having an adequate water supply, or adequate water spray pump or suitable fire extinguisher available for immediate use.</li> </ul>
Clearing of area around an operation	<p>A person in charge of an operation in a fire protected area must ensure that the outer perimeter of the operation is clear of all inflammable material at all times, including any log dump, timber stack, timber product, waste burner, pit, winch, kiln, quarry, distillery, retort or other structure associated with the operation.</p> <p>An authorised officer may specify a distance not greater than 40 metres if they consider that the clearance distance from the outer perimeter should be increased.</p>
Firefighting equipment	<p>An authorised officer may specify the firefighting apparatus, water supplies and related equipment required to be provided at a sawmill or other operation (mining, quarrying, brick making, eucalyptus oil distilling or charcoal burning) in a fire protected area, and the places where that apparatus and equipment must be stored.</p>
Storage and disposal of inflammable material of sawmills	<p>An authorised officer may specify methods for the storage and disposal of inflammable material at the sawmill.</p> <p>A person in charge of a sawmill must store and dispose of material in accordance with a notice.</p>
Traditional Owner cultural uses of fire	<p>Exempts a member of a Traditional Owner group undertaking an agreed activity on agreed land who is acting in accordance with an agreement under Part 6 of the <i>Traditional Owner Settlement Act 2010</i> from an offence under the Regulations. Under the <i>Forests Act 1958</i>, a Traditional Owner group cannot be exempted from the following regulations:</p> <ul style="list-style-type: none"> <li>• Regulation 15 – Extinguishment of fire in the open air</li> <li>• Regulation 16 – Fire in the open must be extinguished at direction of authorised officer</li> <li>• Regulation 17 – Offence to leave campfire or barbeque</li> </ul>
Campfire trenches no longer referenced	<p>The proposed Regulations will remove reference to digging a trench for a campfire without authorisation (as previously explicitly referenced in the 2014 Regulations) but will still permit fires provided they meet the definition of a ‘properly constructed fireplace’ (for example rocks surrounding a fire). Alternatively, a fire may be lit in a stable commercially manufactured barbeque appliance.</p> <p>This change will avoid current inconsistencies with the Forests (Recreation) (Temporary) Regulations 2021 that prohibit digging and provide greater clarity for community and enforcement. It will also reduce the risk of damage to sensitive environmental and Aboriginal Cultural Heritage sites.</p>

Each of these provisions are aimed at reducing the risk that use of a fire or other ignition-type activity is done in a way that minimises the risk of unplanned fire occurring and for reducing the likelihood and extent of spread of fire. These are largely the same as the current Regulations, with key changes being:

- a person must not be outside the line of sight of the campfire or barbeque or be more than 50 metres from the perimeter of the campfire or barbeque (to align the requirements for the entire fire protected area with those in section 66A of the Act).

- the requirements for fires used for bee smokers would now apply for the declared prohibited period, not only “if the weather conditions in the area are such that there is a danger of the spread of fire”. This amendment is also being applied to welding, grinding, soldering and gas-cutting activities. Given the declaration of the prohibited period in each area is aimed at identifying the times of the year when there is a higher risk of fire spread, this will improve certainty for beekeepers by removing the subjectivity around whether ‘there is a danger’ that the fire could spread.
- the proposed Regulations include a new regulation that exempts (with some exceptions) a Traditional Owner group entity that has an agreement under Part 6 of the *Traditional Owner Settlement Act 2010* from the Regulations in certain circumstances.
- trenches are no longer referenced as a campfire or barbeque risk reduction option. This change will avoid current inconsistencies with the Forests (Recreation) (Temporary) Regulations 2021 that prohibit digging and provide greater clarity for community and enforcement. It will also reduce the risk of damage to sensitive environmental and Aboriginal Cultural Heritage sites.

There have also been some minor drafting changes to update references and improve clarity (see Appendix B).

#### 4.1.2 Option 2: Less prescriptive regulatory approach

A less prescriptive approach could be considered to achieve the government’s objectives, which focuses on outcomes through performance-based standards (rather than prescriptive inputs).

Performance-based standards specify desired outcomes or objectives, but not the means by which these outcomes/objectives have to be met. The main advantages that performance-based standards have over prescriptive regulation are the greater flexibility afforded to regulated parties in achieving the desired outcomes, and their ability to be used in situations where circumstances may change over time.

In relation to the problems outlined in Chapter 2 of this RIS, performance-based standards could be formulated. A standard or principle could be developed to deal with campfires and barbeques (e.g. vegetation, wind, ground moisture, etc, may vary, requiring greater or lesser distances of clearance or size of fire). Such standards or principles could be supported by a guidance material to ensure clarity.

Guidelines could be used to set down criteria that may reduce the subjective element of performance-based standards by establishing benchmarks by which to measure performance. For example, such a code could provide guidance concerning gradients, wind, vegetation, fire behaviour or appropriate distances from flammable material.

Under this approach beekeepers, sawmills, and persons operating certain equipment or using combustion engines would have more flexibility in the type of fire suppression they choose. For example, a beekeeper could choose an appropriate fire extinguisher in lieu of a knapsack.

This option would address the identified problem by providing detailed information on best-practice methods and equipment to deal with fire risks. Guidelines could be co-developed with industry or peak bodies; however, effectiveness of this option would rely on stakeholders being aware of the guidance material and implementing best-practice measures.

**Table 8: Less prescriptive, outcomes-based approach**

Area of regulation	Regulatory Approach
Circumstances in which a written authority is required to light a fire in the open air in a fire protected area	A person must have the written authority of an authorised officer in any State forest, protected public land or national park at any time during the prohibited period (except in the relation to barbeques and campfires, burning inflammable material from a sawmill, or bee farming if these activities are conducted safely).
Safety fuses and fuse lighters	A person must not use a safety fuse or fuse lighter in a fire protected unless it is safe to do so.
Campfires and barbeques without written authority (solid fuel and liquid, gaseous, and chemical fuel)	A campfire or barbeque must only be lit, kindled or maintained a fire if it is safe to do so. A person must remain in a safe distance from the campfire or barbeque so that they can extinguish a fire if it spreads.

Area of regulation	Regulatory Approach
Burning inflammable material of a sawmill without written authority	A person in charge of a sawmill must ensure that inflammable material is effectively contained and is disposed of safely.
Bee farming (use of fire for smoker)	The bee farming operation must use the smoker on an area of ground which is clear of all inflammable material so that the operation is safe. Under this option, a beekeeper can choose a broader suite of fire suppression equipment.
Extinguishment of fire	A person who has lit, kindled or maintained a fire, or is in charge of a fire, in the open air in a fire protected area during the prohibited period must, before leaving the place of the fire completely extinguish the fire or ensure that a person who has the capacity and means to extinguish the fire is in charge of the fire. A person who has lit, kindled or maintained a fire, or who is in charge of a fire, in the open air in a fire protected area during the prohibited period must extinguish the fire immediately when directed to do so by an authorised officer.
Stationary engines	A person must not use a stationary engine in a fire protected area during the prohibited period if the stationary engine is in the open air or if the exhaust of the stationary engine discharges into the open air, unless it is safe to do so. Under this option, an operator could choose fire suppression equipment tailored to the specific fire risks.
Non-stationary engines	A person must not use a non-stationary engine in a fire protected area during the prohibited period unless it is safe to do so. Under this option, an operator could choose fire suppression equipment tailored to their specific fire risks.
Welding, grinding, soldering or gas-cutting equipment	A person must not use any welding, grinding, gas-cutting or soldering equipment in a fire protected area during the prohibited period unless it is safe to do so. Under this option, an operator could choose fire suppression equipment tailored to the specific fire risks.
Clearing of area around an operation	A person in charge of an operation in a fire protected area must ensure that the outer perimeter of the following areas is maintained clear of all inflammable material at all times: (a) any log dump, timber stack, timber product, waste burner, pit, winch, kiln, quarry, distillery, retort or other structure associated with the operation; (b) any other part of the operation. Specifics of clearances could be set down in guidelines.
Traditional Owner cultural uses of fire	Exempts (with some exceptions) from an offence, a Traditional Owner group entity undertaking an agreed activity on agreed land who has an agreement under Part 6 of the <i>Traditional Owner Settlement Act 2010</i> .

### 4.1.3 Option 3: Non-regulatory approach

Under this option, some regulations would still need to be retained to operationalise key areas of the Forest Act. Section 63(1) of the Act specifies that regulations are needed to define the periods when written authority is required for fires other than those specifically regulated under other sections of the Act or via the regulations. Therefore, under this option, the regulations would continue to require written authority for all fires, other than those that otherwise comply with the Act and regulations, such as campfires, barbeques and other permitted operations.



For those activities that would be allowed to continue without any additional written authority under the regulations, the following table sets out some non-regulatory mechanism that could be used to address the problems outlined in chapter 2.

This option would address the identified ‘information gap’ problems. The vast majority of visitors to parks and businesses intend to do the right but may not fully understand fire risks. This option would seek to address knowledge get by providing targeted, up to date information to stakeholders.

**Table 9: Option 3—Non-regulatory approach**

Area of regulation	Regulatory Approach
Campfires and barbeques without written authority (solid and non-solid fuels)	The Victorian Government, including Parks Victoria, could provide educational material, best-practice guidelines, and signage in popular areas and forest entrances concerning safety and the fire risks to forest visitors. These agencies could build upon current information programs by developing new programs, increasing reach and facilitating accessibility.
Burning inflammable material of a sawmill without written authority. Storage of inflammable material at a sawmill.	WorkSafe, DEECA, CFA and/or other agencies could provide best-practice guidelines concerning fire risks at sawmills. Sawmills are also licensed, so a licence condition concerning fire prevention could also be included. Insurance companies also require businesses to minimise fire risks. These regulatory tools could be relied upon instead of prescribing regulations, essentially representing the base case for this element.
Bee farming (use of fire for smoker)	DEECA, CFA and/or other agencies could provide best-practices guidelines concerning fire risks associated with using smokers. Beekeepers are also required to hold a beekeeper site licence, so a licence condition <sup>45</sup> concerning fire prevention could also be included.
Stationary and non-stationery engines	Educational material and guidance notes could be made available to users. Peak industry bodies could also play a role in education.
Welding, grinding, soldering or gas-cutting equipment	These activities are often undertaken by individuals who may not be a member of an industry or peak body. A general targeted information campaign could be developed aimed at these users. A similar information campaign as ‘Dial before You Dig’ could address information gaps.
Clearing of area around an operation	Educational material and guidance notes could be made available to users. Peak industry bodies could also play a role in education. The CFA could also play a role in education.
Safety fuse, fuse lighters	A person using explosives must have a WorkSafe explosives licence. A condition could be attached to the licence concerning fire safety.
Traditional Owner ceremonial uses of fire	DEECA and CFA would build upon current relationships with First Peoples to provide culturally safe guidance and educational material on safe fire use. This partnership may lead to subsequent policy enabling Traditional Owner self-determination regarding use of land and fire.

## 4.2 Options considered not feasible or not practical

Stricter and more prescriptive regulations were identified as a potential option. For example, campfires and barbeques could be restricted to purpose-built fireplaces only, in a smaller number of designated areas within State forests, or access to forests could be restricted. A higher level of prescription of fire suppression equipment for businesses could also be put forward.

Similar regulations to the current Regulations have been in place for more than 50 years. Since then, there has not been compelling evidence to increase the restrictiveness of the regulations. While it would be possible to make the regulations stricter or more prescriptive, this would increase the compliance costs for businesses and the community without likely commensurate benefits. Similarly, lighting a campfire that complies with the regulations in a state forest still carries some risks. This represents a trade-off between

<sup>45</sup> A forest produce licence issued under the Forests (Licences and Permits) Regulations 2019 is technically not a non-regulatory option since it is attached to a licence, but it operates in a similar way to a contract condition, so is considered here.

accepting a small amount of risk in order to receive the social benefits of enjoying Victoria's outdoors with friends and family. The extract from Parks Victoria's campfire safety webpage summarises this position:

"Sitting around a glowing campfire is one of the joys of camping, but with ten per cent of bushfires caused by unsafe campfires, it's essential to follow the rules and do the right thing".<sup>46</sup>

*Source: Parks Victoria website*

DEECA advises that the current regulatory approach has been effective in managing fire risks in Victorian forests, without unnecessarily burdening visitors or businesses. While not claiming that each enforcement activity would have resulted in a bushfire, the compliance data (especially in relation to campfires and barbeques infringements) suggests the current arrangements have been effective in reducing the potential number of bushfires in forests. Therefore, a more restrictive approach was not considered necessary at this time.

### 4.3 Arrangements in other states

All jurisdictions impose general prohibitions or restrictions on lighting fires in regulated areas. However, direct comparisons are difficult owing to differences in forest vegetation, climate, and commercial operations in forests. In addition, most legislation and regulations are several decades old, reflecting historical developments in those states.

Most jurisdictions also impose restrictions on campfires, barbeques, fireplaces etc., however, these restrictions vary in their prescriptiveness. For example, South Australia's Fire and Emergency Services Regulations 2005, specify the maximum area of the fire, the amount of space that must be cleared around the fire, and other requirements. In contrast, Queensland's Forestry Regulation 1998 simply states that a fireplace or barbeque cannot be used unless it is provided by the chief executive or otherwise approved for use by an authorised officer.

Restrictions on the use of engines and equipment that may cause fire are imposed in all jurisdictions; however, there are some differences in the requirements and types of engines and equipment regulated. For example, Western Australia's Bush Fires Regulations contain several separate regulations for different classes of vehicles and engines, whereas the New South Wales Forestry Regulations prohibit the use of all machines in a forest area unless certain conditions are met. New South Wales and Tasmania have specific requirements for sawmills and other operations, but other jurisdictions appear not to provide for the limited forestry activities on public land in those jurisdictions.

All other Australian jurisdictions have offences in relation to activities that could lead to fire on public land that can be dealt with through infringement notices (or equivalent).

The Victorian requirements are not considered more onerous compared to other jurisdictions, particularly when considered that Victoria is significantly more bushfire prone than Northern and Western states.

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<sup>46</sup> Parks Victoria, Campfire Safety: <https://www.parks.vic.gov.au/get-into-nature/safety-in-nature/visitor-safety-tips-in-parks/campfire-safety>



## 5. Assessment of costs and benefits

This chapter sets out the impact analysis: the expected impacts (benefits and costs) of feasible options and how the preferred option was decided.

### 5.1 Approach to assessing the impacts

#### 5.1.1 Base case

The impacts of each option are assessed against the 'base case', which describes the regulatory position that would exist if the current Regulations were allowed to expire and were not remade. However, other legislation and regulations would continue to operate, which may regulate or prohibit fires (for example Total Fire Bans under the *Country Fire Authority Act 1958*) in some form in specific areas, such as national parks and alpine resort areas, or parks may close altogether.

Existing public information would also continue to be available. This includes information on government websites<sup>47</sup>, information campaigns on television or radio, and guidance notes prepared by the CFA<sup>48</sup> and other groups. Peak bodies also play a role in providing information to their members.<sup>49</sup>

Economic incentive would also provide motivation for individuals and businesses to prevent or protect people and assets from fire. For example, a reasonable person or business would take steps to prevent fire to avoid economic loss or injury. In addition, insurance companies make inspections of businesses to ensure that there are appropriate fire controls and prevention protocols in place, and businesses operating with licences would take precautions to prevent licence cancellation. Further, an individual or business may risk legal action or penalties if they act negligently or do not comply with other laws (for example WorkSafe requirements, licence conditions for quarries, public liability assurance).

The base case also includes 'normal behaviour'. In the vast majority of cases, visitors to forests and businesses operating in or near forests seek to do the right thing, and in some cases where unintended fires do occur, this usually arises from them not understanding fire risks ('the wind changed and fire just got away ...') rather than from bad intent.

Therefore, the regulatory costs to be assessed in this RIS are only those incremental to what people would do in any case (i.e., costs above the base case). However, to be conservative, most costs to be counted as cost imposed under each option are included.

#### 5.1.2 Types of costs considered and assessment methods

By their nature, regulations are designed to modify behaviour to achieve certain outcomes. This can impose costs on individuals or businesses known as 'compliance costs'. In simple terms, compliance costs are the costs of complying with regulations. Relevant compliance costs for the matters covered by the regulations include 'administrative costs' and 'substantive compliance costs'. Administrative costs, often referred to as 'red tape', include filling out forms, reporting to government, and time costs associated with government inspections. Substantive compliance costs are context specific regulations and may require the use of specified equipment or a requirement to carry out an action (for example clearing an area of inflammable material).

A number of methods can be used to assess costs and benefits. These include estimating the quantitative costs of regulatory burdens, using decision making tools in cases where benefits are difficult to quantify, and forms of break-even analysis.

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<sup>47</sup> For example the campfire safety note on the Parks Victoria website: <https://www.parks.vic.gov.au/get-into-nature/safety-in-nature/visitor-safety-tips-in-parks/campfire-safety>

<sup>48</sup> For example the CFA provides a guidance note for beekeepers, *Guidance for Beekeepers during the Fire Danger Period and Total Fire Ban Days in the Country Area of Victoria*. It is worth noting that this guidance adopts the requirements in the current Regulations. The CFA also publishes a Campfire and Barbeque Safety Brochure.

<sup>49</sup> For example see Naturally Vic, Code of Conduct for campfires: <https://naturallyvic.com.au/code-of-conduct/camp-fires/>

In this RIS, the Standard Cost Model<sup>50</sup> is used to estimate annual costs and the present value technique is used to estimate costs over a 10-year period. While certain costs can be quantified, others are difficult to quantify with reasonable certainty (for example the 'cost' of extinguishing a fire when ordered to do so by an authorised officer or clearing inflammable material around a fire). These are minor actions that impose minimal costs on parties and can be complied with easily.

### 5.1.3 Types of benefits considered and assessment methods

The benefits of options considered are conceptually difficult to estimate. First, the benefits are diffuse and sometimes intangible (or incapable of being quantified). They also relate to events that are prevented or contained, that is, avoided costs. Second, many factors play a role in preventing damage from fire. These include factors described in the base case (i.e., 'reasonable' behaviour, economic incentives) and other legislative requirements, not least those contained in the Forests Act itself. This makes it challenging to directly attribute benefits to the regulations' contribution to fire prevention.

However, as discussed in section 2.1.1 in detail, the type of benefits likely to arise from preventing fire damage to Victorian forests and surrounding communities include protecting the values of:

- human life and injury prevention (including physical and mental health costs) – the smoke-related health costs from the 2019-20 Black Summer incurred by Victorians alone have been estimated at \$492 million.<sup>51</sup>
- environmental values (including biodiversity, water runoff (valued at \$244 million per annum<sup>52</sup>), and wildlife preservation.
- direct and indirect economic activities including tourism (\$1.4 billion per annum<sup>53</sup>), recreation (\$600–\$1,000 million per annum<sup>54</sup>), honey production (\$3.4–\$4.6 million per annum<sup>55</sup>) and pollination (\$123–167 million per annum<sup>56</sup>).

There are also many intangible benefits of forests such as maintenance of wildlife genetic diversity and species, cultural connection, community amenity, and scientific and educational benefits.<sup>57</sup>

Given that many of the benefits are difficult to quantify (for example avoided costs of fire), the multi-criteria analysis (MCA) decision making tool is used to assess costs and benefits where these are difficult to quantify. This tool requires judgements about how options would perform against a series of criteria that are chosen to reflect the benefits and costs associated with the options. The decision rule for the options is that if the MCA received a positive net score, then it represents an improvement over the base case and should be adopted. The option with the highest net score is preferred.

Six criteria relating to the costs and benefits were chosen and weightings selected (see Table 10). Benefits and costs have been weighted equally (50 per cent each). These criteria reflect the government's objectives and weighting priorities in relation to bushfire risk reduction.

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<sup>50</sup> The Standard Cost Model methodology is an activity-based measurement of businesses' administrative burdens. This approach estimates: the 'tariff' is a proxy value of a person's time forgone to comply with the regulation (for example filling out a form, time involved during an inspection) or represents the cost of purchasing equipment; 'time' represents the hours taken to comply with the regulation; 'population' refers to the number of businesses or persons regulated, and 'frequency' refers to the number of times an activity occurs per annum. Taken together, this produces the estimated total cost of the regulations. See Appendix A for further details.

<sup>51</sup> Fay Johnston, Nicolas Borchers Arriagada, Morgan, GG, Jalaludin, B, Andrew Palmer, Grant Williamson, David Bowman, *Unprecedented health costs of smoke-related PM2.5 from the 2019- 20 Australian megafires*: [https://figshare.utas.edu.au/articles/journal\\_contribution/Unprecedented\\_health\\_costs\\_of\\_smoke-related\\_PM2\\_5\\_from\\_the\\_2019\\_20\\_Australian\\_megafires/22992434?file=40741478](https://figshare.utas.edu.au/articles/journal_contribution/Unprecedented_health_costs_of_smoke-related_PM2_5_from_the_2019_20_Australian_megafires/22992434?file=40741478) 492 million

<sup>52</sup> *Valuing Victoria's Parks*, Summary documents, p. 4: <https://www.parks.vic.gov.au/-/media/project/pv/main/parks/documents/about-us/valuing-victorias-parks/valuing-victorias-parks.pdf?rev=1b802c3d0c53413187751011331cd177>

<sup>53</sup> *Ibid.*, p. 4.

<sup>54</sup> *Ibid.*, p. 8. Willingness to pay study

<sup>55</sup> *Ibid.*, p. 4

<sup>56</sup> *Ibid.*, p. 7. Across Australia

<sup>57</sup> *Ibid.*, pp. 6-10.

**Table 10: Multi-criteria Analysis Criteria**

Criterion (see note)	Description of criterion	Weighting
<i>Benefit criteria</i>		
Protection of life and human safety, and protection of private and public property from fire loss	A prime government objective of the regulations is to protect the personal safety of Victorians and visitors to the State from death or injury arising from fire. It is also a priority to prevent loss and damage of personal and business property from loss or destruction. The objectives of these regulations form a part of the government's overall priorities contained in the State Emergency Management Plan. Consequently, a relatively large weighting of 20% is assigned to this criterion.	20%
Protect the environment from damaging fire	Victorian forests play an important role in maintaining biodiversity, carbon sequestration, providing healthy water supply catchments, and provide social and cultural benefits including protection of Aboriginal Cultural Heritage sites, among other things. It is important that the value of these 'forest services' is not diminished by uncontrolled fire. Therefore, a weighting of 20% reflects the importance of this criterion.	20%
Provide assurance that commercial activities are conducted in a safe manner	Without arrangements to permit lighting fires in protected areas, businesses would not be able to undertake certain activities to earn income. This criterion receives a relatively small weighting because the number of businesses operating in fire protected areas is relatively small. Indirectly, ensuring that commercial activities do not cause fires also protects the viability of surrounding tourism and other businesses.	10%
<i>Cost criteria</i>		
Business	It is important that any regulations are designed to minimise costs on business and other operators. Regulations should prescribe requirements that impose a minimal cost on business, while achieving the government's objectives. Given that there is a large focus on business in the current Regulations, this criterion receives a score of 20%.	20%
Individuals	By number of persons, campfires and barbeques represent a large fire risk in Victorian forests. Visitors are able to enjoy campfires in forest, but within a tolerable risk threshold. Any proposals should seek to minimise compliance costs to individuals, while ensuring that fires are conducted safely. Reflecting overall risks, a weighting of 20% is assigned to this criterion.	20%
Government	Regulatory arrangements should be well-designed and clear to administer. This entails obtaining maximum public benefit from the public resources employed. Minimising costs also reduces calls on the taxpayer (i.e., wider community).	10%

Note: The business assurance criterion weighting of 10 per cent and public safety criterion weighting of 20 per cent does not reflect overall government policy priorities but reflects the government's objectives in relation to the relatively narrow focus of these particular regulations.

In addition, break-even analysis (BEA) is used to broadly measure the magnitude of costs and benefits. BEA allows a 'rule of thumb' assessment to be made when the benefits are difficult to measure. A BEA presents the costs and asks at what level of benefit will costs equal benefits. If the benefits are several orders of magnitude greater than the costs, then it is likely that benefits will outweigh the costs. A Value of a Statistical Life<sup>58</sup> (VSL) can also be used to assist in the BEA analysis.<sup>59</sup>

## 5.2 Option 1

### 5.2.1 Costs

#### 5.2.1.1 Businesses and individuals

The approach used to calculate these costs follows the Standard Cost Model method. The costs contained in table 11 were those costs imposed by the regulations that were readily quantifiable. These costs are estimated at \$61,000 per annum, or have a present value (PV) of around \$425,000 over 10 years (both in 2024-25 dollars).<sup>60</sup>

Option 1 contains specific provisions for beekeepers and sawmill operators. The equipment required by a beekeeper consists of a knapsack, rakehoe and fireproof receptible (e.g. a steel bucket). These items cost in the order of \$410, and if well maintained, are likely to last a decade or more. Therefore, the costing assumes that such costs are only incurred once every 10 years. This provides a total cost over 10 years for the beekeeping industry of around \$108,000 (PV), which is considered an upper limit.

The costs imposed by Option 1 on sawmill operators are more difficult to estimate. There are only around half a dozen sawmills subject to the regulations, and these businesses have generally operated for decades. Consequently, they generally have appropriate equipment already in place. When new equipment is required, it mostly relates to replacing hoses, knapsacks, and the like. This cost is estimated at around \$500 per annum. The requirement to clear around the area of an operation (including sawmills) mostly consists of brusher cutting weeds and removing forest litter (twig, bark, dry grass). If this is required, 4 hours (half a day) of a business' time is considered reasonable (based on consultation). This amounts to a notional cost of \$420 per annum for this activity. Consultation suggests the operations are run well and combined with insurance requirements; these activities are usually undertaken in the ordinary course of business. A small annual administrative cost of around \$100 per annum is also incurred by sawmills when they apply for an authority to light fires in a protected area. Taken together, the 10 yearly costs imposed by Option 1 on sawmill operators is likely to be around \$600,200 (PV). Importantly, this is considered an upper limit and actual costs incurred in practice by sawmill operators may be lower.

Certain costs were not able to be estimated owing to the lack of data. Regulations that were not costed were: requirements to clear the ground of inflammable material for a campfire; restrictions on lighting large campfires, etc; clearing the ground and airspace of inflammable material when operating a stationary engine or grinding, welding etc.; and the requirement to extinguish an unattended fire and/or extinguish it if directed to do so by an authorised officer. These are all simple, low-cost activities and require minimal compliance effort; however, it was not possible to estimate the number of times these events occur annually and hence no meaningful estimate can be made.

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<sup>58</sup> There is no objective way to place a monetary value on the loss of life. However, for public policy purposes the value of a 'statistical life' (not a real person) can serve a useful purpose to help assess government policies. The value of a statistical life (VSL) refers to the benefits derived from reducing risk of an individual death that is experienced in a population. The term 'statistical' is used to describe an ex-ante (i.e., before the event), anonymous individual, and the concept does not imply that an individual life is a market good.

<sup>59</sup> The Commonwealth's Office of Impact Assessment estimates the value of a statistical life to be \$5.4 million. Department of Prime Minister and Cabinet, 2023, Guide Note: Value of statistical life, October 2023: <https://oia.pmc.gov.au/resources/guidance-assessing-impacts/value-statistical-life>.

<sup>60</sup> Appendix A contains assumptions underlying these calculations.

**Table 11: Incremental costs of Option 1**

Description	Tariff (\$)	Time (hrs)	Population	Frequency (per year)	Cost (\$)
<i>Written Authorities</i>					
Burning of inflammable material of a sawmill	105	2	4	1	837
Give written authority to light fires in a fire protected area	105	1	29	1	2,983
<i>Firefighting equipment</i>					
Bee farming – knapsack and rakehoe	410	–	265	0.1	10,865
Stationary engines – knapsack, fire-extinguisher	90	–	1,500	0.1	13,500
Non-stationary engines - spark arrestor, knapsack, fire-extinguisher	90	–	1,500	0.1	13,500
Welding, grinding, soldering or gas-cutting equipment – knapsack, fire-extinguisher	90	–	1,500	0.1	13,500
Clearing of area around an operation	105	4	1	1.0	4,187
Firefighting equipment required at sawmills	500	–	1	0.5	1,000
Firefighting equipment required at an operation that is not a sawmill	500	–	1	0.5	250
<b>Total Costs*</b>					<b>60,623</b>

\*Subject to rounding adjustments

### 5.2.1.2 Government

The costs to government for enforcing the regulations is estimated at \$190,000 per annum or a PV of around \$1.3 million PV over 10 years.<sup>61</sup>

### 5.2.1.3 Total costs: Option 1

Therefore, this results in a total incremental cost for Option 1, including regulatory costs and government costs, of **\$250,000** per annum, or **\$1.76 million** PV over 10 years.

<sup>61</sup> Appendix A shows the assumptions underlying these figures. Calculations for this figure are shown in Appendix D.

## 5.2.2 Benefits

The valuation of the benefits and intangible benefits of Victorian parks is substantial (illustrated in section 5.1.3 above). Option 1 specifically targets high-risk activities, particularly campfires and barbecues. Certain businesses conduct activities that also create fire risks, and high-risk areas are targeted. However, given the difficulty in comparing the costs with benefits, an MCA assessment was undertaken of this option. The quantifiable costs estimated above are used to inform the MCA assessment.

### 5.2.2.1 MCA assessment: Option 1 – the current Regulations with some amendments

Table 12: MCA assessment: Option 1 – Proposed Regulations

Criterion/weighting	Assessment	Assigned score	Weighted score
<i>Assessment of Benefits</i>			
Protection of life and human safety, and protection of private and public property from fire loss (20%)	Similar regulations have been in place for more than 30 years, and confirmed by stakeholder consultation, have demonstrated their effectiveness in protecting Victorian forests from fire damage. While not all risks can be eliminated, this option provides clear guidance to forest visitors and businesses concerning the minimum standards of conduct and equipment to have at hand in order to minimise fire risks. Importantly, this option contains provisions to enforce behaviour. Given the overall effectiveness of this option, a score of 7 is assigned to this criterion.	7	1.4
Protect the environment from damaging fire (20%)	The regulatory framework established by this option seeks to avoid or minimise fire risks. An outcome of this is that forest values will be protected. This includes protecting biodiversity, water runoff, Aboriginal Cultural Heritage values and wildlife preservation. The Black Summer fires illustrate the damage that fire can cause to the environment. Similar to the criterion above, a score of 7 is assigned to this criterion.	7	1.4
Provide assurance that commercial activities are conducted in a safe manner (10%)	It was once common for businesses to operate in forests. Now a small number of sawmills, eucalyptus distillers, and quarries operate near (within 1.5km of) forests. Beekeepers conduct much of their activity in forests (operating on around 6,700 registered sites). Without the proposals in this option, many activities could not be conducted owing to the operation of the Forests Act. This proposal provides a framework of 'permissions' i.e., written authorities to light a fire. Given that this proposal permits businesses to operate and undertake activities in normally prohibited areas (with certain safety requirements: see	6	0.6



business costs below) a score of 6 is assigned to this criterion.

### Assessment of Costs

Business (20%)	<p>This option imposes the largest regulatory cost on business at around \$60,000 per annum. Even so, this is a relatively small burden with costs to individual businesses relatively minor consisting of basic fire suppression equipment. The requirements are easy to comply with and understand. While most of the regulations are prescriptive (for example specifying types of fire suppression equipment), some elements are performance-based (for example written authority is not required if a fire at a sawmill is safely contained in a pit or structure).</p> <p>Elements of the proposed regulations also lower the burden imposed by the Act. This proposal permits businesses to undertake burning with a written authority.</p>	-3	-0.6
Individuals (20%)	<p>This option imposes notional costs on individuals. It restricts the size of a fire and prescribes what equipment (for example barbeque appliances designed and commercially manufactured to use that fuel), clearance requirements of inflammable material, requirements to be close to the fire, and in some instances, where a fire may be lit.</p> <p>These regulations impose only a minor burden and are easy to comply with. Accordingly, given the small compliance burden involved, -2 is assigned to this criterion.</p>	-2	-0.4
Government (10%)	<p>Government costs are a necessary to support the safety of people and to protect the environment and cultural heritage.</p> <p>This option results in the largest government costs, at around \$190,000 per annum. This cost relates to the costs of compliance officers. Given that this option results in the largest cost (borne by the taxpayer), a score of -6 is assigned to this criterion.</p>	-6	-0.6
<b>Total</b>			<b>+1.8</b>

## 5.2.3 Overall assessment

The MCA assessment results in a net score of +1.8, suggesting that it is preferred over the base case (i.e., letting the regulations lapse). Each benefit criterion was positive reflecting their contribution to the government's objective of protecting State forests, protected public land and national parks from damage by fire. Costs imposed on business and individuals were relatively minor, the largest cost arising from government enforcement activities.

## 5.3 Option 2

This option takes a less prescriptive, more performance-based approach. It would prescribe an outcome (i.e., prevention of fire) and the 'regulatory solution' could be designed by the park visitor or business. Performance-based standards could be developed and supported by guidance material to assist compliance.

## 5.3.1 Costs

### 5.3.1.1 Businesses and individuals

The annual compliance costs for Option 1 were estimated at around \$61,000. If regulated parties chose cheaper equipment (for example a beekeeper choosing a fire extinguisher in lieu of a knapsack or a steel garden rake instead of a rakehoe) then costs may be lower. If such costs were reduced by 10 per cent, then total annual costs would be around \$55,000. Under this scenario costs to beekeepers, sawmills, and other operators may be marginally lower than those prescribed in Option 1. While providing a degree of flexibility, this option would also require persons to read and understand guidance notes and supporting material to be able to decide on appropriate action or choose equipment for their particular circumstances.

Government would continue to incur similar enforcement costs to ensure that 'safe' regulatory outcomes are being achieved. Penalties would still apply if a park visitor or business lit an 'unsafe' fire. At the margin, performance based standards may generate uncertainty because circumstances giving rise to infringement may have a degree of subjectivity. This in turn may increase government enforcement costs because the interpretation of such standards may be challenged or determined in the courts.

### 5.3.1.2 Government

For the purposes of estimating government costs for this option, the same government costs are assumed as Option 1: \$190,000 per annum (with a possibility that they could be slightly higher owing to a greater level of disputation concerning penalties), or \$1.3 million present value (PV) over a 10-year period.

### 5.3.1.3 Total costs

Therefore, this results in a total incremental cost for Option 2, including regulatory costs and government costs, of **\$244,000** per annum, or **\$1.71 million** PV over 10 years.

## 5.3.2 Benefits

As with the other options, the benefits of Option 2 arise from avoided costs of fire, including avoiding loss of life and prevention of injury, avoiding diminished forest values, and avoiding direct and indirect economic costs to individuals and businesses (further details of these values are contained in section 2.1.1).

Given the difficulty in estimate some costs and the benefits, an MCA assessment was undertaken in the following section.

### 5.3.2.1 MCA Assessment: Option 2 – performance-based approach

Table 13: MCA Assessment – Option 2

Criterion/weighting	Assessment	Assigned score	Weighted score
<i>Assessment of Benefits</i>			
Protection of life and human safety, and protection of private and public property from fire loss (20%)	A performance-based approach may be less effective in relation to campfires/barbeques or certain activities such as angle grinding, welding, etc. (particular when these are undertaken infrequently). These groups may not fully understand the fire risks and consider their fire or activity safe. While guidance material could support this approach, a minority may not conduct their activities with sufficient safety. As noted earlier, even a single fire can lead to a high consequence event, a major bushfire. A score of 4 is assigned to this criterion, which nevertheless is an improvement over the base case.	4	0.8



Protect the environment from damaging fire (20%)	The regulatory framework established by this option seeks to avoid or minimise fire risks so that forest values will be protected. As seen above, risks associated with relying on individuals to know how to light and maintain campfires in a fire-safe manner are likely to increase fire risks. A commensurate score to safety of 4 is therefore assigned to this criterion.	4	0.8
Provide assurance that commercial activities are conducted in a safe manner (10%)	Relatively complex, non-standard activities undertaken frequently (whose risk-owners understand the risk) may benefit from performance-based standards. Consultation suggests that beekeepers, sawmills and quarries have a good understanding of fire risks, and supported by guidance notes and authorised officer advice, safety under this option could be effective. Consequently, a score of 6.5 is assigned to this criterion.	6.5	0.65
<i>Assessment of Costs</i>			
Business (20%)	At noted earlier, elements of the current regulations contain performance-based type regulations.  The main advantages that performance-based standards have over prescriptive regulation are the greater flexibility afforded to regulated parties in achieving the desired outcomes, and their ability to be used in situations where circumstances may change over time. Often businesses have a good understanding of fire risks, and may purchase fire suppression equipment tailored to their risks. As seen in the quantitative assessment, modest cost savings may be achieved under this scenario, and consequently a score of minus -2 is assigned to this criterion.	-2	-0.4
Individuals (20%)	It is likely that the majority of individual park visitors will construct a 'safe' fire. Information provided on fire safety by government and others is likely to ensure some level of safety. However, some individuals may consider their fire 'safe' and not carry out sufficient safety measures. This outcome is likely to lower costs for some individuals and accordingly a score of -1 is assigned to this criterion (but is also reflected in the safety criterion above).	-1	-0.2
Government (10%)	Government costs are likely to be similar, or slightly higher, than under Option 1. Even though the same number of enforcement officers are assumed, if infringements or prosecutions are disputed in court over contested views concerning what is and is not compliant, then government administrative, legal, and court costs may be higher. Consequently, this option receives a marginally more negative score of -6.5.	-6.5	-0.65
<b>Total</b>			<b>+1.00</b>

### 5.3.3 Overall assessment

Performance-based regulations may have merit in more complex situations where risks are well understood. In the case of businesses operating in or near forest, operators are in a good position to tailor appropriate fire prevention to their particular circumstances. The quantitative assessment in this RIS suggests that some cost savings may be realised under this approach. A criticism of this approach is that the greater flexibility and freedom offered by performance-based regulations can lead to uncertainty over whether their actions satisfy the standards set by the regulations. This in part could be overcome with supporting performance standards and guidance information produced by regulators.

However, in cases where risks are less complex<sup>62</sup> but not well understood, prescribed standards and specified requirements can provide an effective way of managing risks. While campfire risks are generally less complex, members of the public may not have a good understanding of these risks (for example a camper may only light a fire occasionally and be unfamiliar with local climatic conditions).

In terms of government costs, a potential issue with a performance-based approach is that regulatory and enforcement decisions could lack specificity and could be open to dispute. Performance-based standards may generate uncertainty because circumstances resulting in prosecutions may have a degree of subjectivity. This is likely to increase government compliance and enforcement costs. For these reasons, prescriptive rules stipulated for campfires and certain business activities – where risks are fairly similar – are considered best suited because they remove uncertainty, and compliance is not difficult or costly.

Consequently, an MCA assessment resulted in a score of **+1.0**, which is an improvement over the base case, but is not preferred over Option 1.

## 5.4 Option 3

This option takes a non-regulatory approach involving providing education and information about fire use and safety, guidance notes, more reliance on markets, and other permit conditions. Many of these regulatory tools currently exist, so this option involves a greater penetration of knowledge of existing educational material and enhanced information campaigns to provide a ‘nudge’ toward safety fire behaviour.

Certain regulatory costs would still be incurred under requirements of the Act, for example, for purposes of analysis in this option it is assumed that persons would still require a written authority to light a fire in relation to sawmills and other operations. It is also not proposed to remove the power of an authorised officer to order the extinguishment of a fire, as this is a power in the Forests Act, and would require a legislative amendment by the Victorian Parliament (which is outside of the scope of this RIS).

As with the other options, the base case of ‘reasonable’ person responsibilities, insurance requirements, and exposure to legal risks would also modify behaviour.

### 5.4.1 Costs

People would continue to incur costs ‘voluntarily’ to reduce fire risks, however since these are not prescribed, they are not counted for the purposes of this RIS. However, the application of some 50 written authorities to burn would result in a regulatory cost of around \$5,200 per annum, or \$37,000 (PV) over a 10-year period.

The government currently provides detailed information and education campaigns on fire prevention. Under the activities covered by the current Regulations, bushfires caused by campfires and barbecues present the highest risks. Enforcement data under the current Regulations over the past 10 years also shows that more than 99 per cent of infringements were issued were in relation to campfires and barbecues, and 16 per cent fires in forests were caused by campfires. This illustrates that some individuals still lack knowledge of fire behaviour and associated risks, or in some cases simply refuse to comply.

The cost of information and education campaigns varies by the scale and media used, ranging from \$100,000 to more than \$25 million.<sup>63</sup> The ‘How Safe is Your Car?’ campaign, which aims to educate drivers

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<sup>62</sup> Campfires pose fewer complex risks compared with a petrochemical plant, however, the consequences from an uncontrolled campfire may be as equally devastating as a mishap at a petrochemical plant.

<sup>63</sup> Victorian Auditor-General’s Office, 2022, Government Advertising: <https://www.audit.vic.gov.au/report/government-advertising>

on vehicle safety, is illustrative of a relatively small-scale campaign aimed at managing road safety risks. For this RIS, an annual government information provision cost of \$590,000<sup>64</sup> is assumed.

Enforcement costs would be lower under this option, but government costs would still be incurred since authorised officers would still need to conduct patrols to ensure that campfires and barbecues are safe (authorised officer currently provide advice, as well as informal and official warnings). However, since the government costs cited in the RIS specifically relate to activities surrounding penalties and infringements, for the purposes of analysis in this RIS enforcement costs are assumed to be zero.

The regulatory costs associated with processing written authorities to burn are around \$5,200 per annum, or \$37,000 PV over a 10-year period. If the costs of a government information campaign are included in the option, then annual government costs would be in the order of \$150,000 over a five-year period (this figure is illustrative and is based on an analogous campaign, “Know the Drill Before You Grill”<sup>65</sup>, a gas barbecue safety campaign). These costs are shown in the table below.

**Table 14: Option 3 – Regulatory and government costs**

Description of costs	Annual costs (\$)	10-year costs (\$PV)
Regulatory costs – application costs written authority to light a fire	5,200	37,000
Government costs – campfire/barbeque safety campaign	150,00	615,000
<b>Total</b>		<b>652,000</b>

Therefore, the total costs of this proposal would be in the order of **\$652,000** (PV) over a 10-year period, consisting of regulatory costs at \$37,000 and government information campaign costs of \$615,000.

## 5.4.2 Benefits

A key benefit of this option is that there are many non-regulatory tools already in place, as described in the base case. These can be effective, particularly where persons are members of an industry body. For example, the Apiary Association of Victoria emphasises fire risks to its members, and posts CFA material such as the *Guidance for Beekeepers during the Fire Danger Period and Total Fire Ban Days in the Country Area of Victoria*, on its website. Membership buy-in and awareness has resulted in no recorded fires in forests caused by beekeepers in many years.

An advantage of this options is that government and industry bodies could keep park visitors and industry up to date and reinforce messages about fire risks. The message could be tailored to consider changes to climate conditions or advances in fire suppression technology.

### 5.4.2.1 MCA Assessment: Option 3 – non-regulatory approach

Given the difficulty is assessing some costs and the benefits, an MCA assessment of this option was conducted (see Table 15 below).

**Table 15: MCA Assessment – Option 3**

Criterion/weighting	Assessment	Assigned score	Weighted score
<i>Assessment of Benefits</i>			
Protect the safety and private and public property of Victorians from fire loss (20%)	Almost all infringements under the current Regulations are in relation to campfires/barbeques. It has also been noted that 16 per cent of bushfires are thought to have been caused by campfires. A targeted information and	2	0.4

<sup>64</sup> This cost is assumed to cover the 10-year period.

<sup>65</sup> Energy Safe Victoria, Annual Reports, 2020-21 to 2022-24: <https://www.energysafe.vic.gov.au/energy-safe-victoria-annual-reports>. Advertising campaign costs of “Know the Drill Before You Grill”: 2017-18 – \$150,000; 2018-19 – \$218,000; 2019-20 – \$156,000; 2020-21 – \$74,344; 2021-22 – \$230,000; 2022-23 – \$255,000. Average annual expenditure – \$155,000.

educational campaign of campfire safety could result in some improvements in campfire safety.

An information campaign should improve fire safety for those people who are willing to comply but lack appropriate information to do so. However, it will not change the behaviour of the small cohort of persons who are unwilling to comply with guidance material. In addition, in the absence of the deterrent of penalty infringements, there is little incentive for the latter group who are unwilling to comply, to change their behaviour.

Government information campaigns can be effective in changing behaviour. At the margin Option 3 is likely to be an improvement over the base case. Consequently, a positive score of 2 is assigned to this criterion.

Protect the environment from damaging fire (20%)	A small improvement in campfire safety over the base case may occur. The highest risk activity covered is likely to already be covered under the current arrangement and should reduce the incidence and frequency of fires over time. As highlighted in this RIS, bushfires caused from campfires are a medium probability, extreme consequence event. Any reduction of bushfires reduces damage to forests. Consequently, a score of 2 is assigned to this criterion.	2	0.4
Provide assurance that commercial activities are conducted in a safe manner (10%)	Normal business arrangements would continue. This includes voluntary best-practice fire safety, advice from industry associations, insurance requirements. Since this position reflects the base case a score of zero is assigned.	0	0
<i>Assessment of Costs</i>			
Business (20%)	Under this option no equipment or clearing requirements would be prescribed, hence such costs are not attributable to the regulations (a very small administrative cost is incurred by business in relation to applying for authority to light a fire).	-0.25	-0.05
Individuals (20%)	The information campaign should result in improved fire safety. People who currently light unsafe fires will incur additional (notional) costs (for example extra time clearing inflammable material). The additional activities are easy to comply with, taking only a small amount of time. Consequently, a small negative score of -0.5 is assigned to this criterion.	-0.5	-0.1
Government (10%)	This option results in the lowest cost for government, with the largest element relating to	-3.0	-0.3

information campaign costs. These costs are around half of those of Option 1, therefore a score of -3 is assigned to this criterion.

**Total**

**+0.35**

### 5.4.3 Overall assessment

It is likely that non-regulatory options, including enhanced government information provision, would manage some fire risks in a relatively effective way. It was confirmed during consultation that industry bodies provide their members with information concerning fire risks in their sector. The relatively small number of sawmills also have regular contact with DEECA and the CFA and effective guidance is provided. The main problem with this option is that not all persons are members of industry bodies or user groups, particularly those who may undertake high risk activities such as grinding and welding.

Campfires pose a particularly high risk if not safely lit and maintained. The majority of visitors light safe fires, but some do not. Often this is based on a lack of knowledge of fire behaviour. A campfire/barbeques safety campaign should improve information gaps for this group. However, while education and information can be very effective in community messaging, it largely relies on an individual's willingness to seek this information and act accordingly. Further, the large number of short-term international visitors enjoying Victoria's forests can make penetration of community education difficult. Some park visitors will not comply. For this group, limited enforcement mechanisms may not incentivise responsible behaviour.

Nevertheless, a non-regulatory approach is likely to have some effect in reducing fire risks, compared to the base case. An enhanced educational campaign should lead to improved fire safety behaviour by filling information gaps for those willing to comply.

## 5.5 Determining the preferred option

While each of the options assessed in the sections above are likely to provide some benefits, the preferred option should be based on the option that provides the greatest benefit to the community as a whole. The costs of each option and MCA assessment scores are summarised below.

**Table 16: Summary of regulatory and government costs, 10-year period (\$PV)**

Option	Description	Regulatory Costs (\$)	Government Costs (\$)	Total Costs (\$)
1	Proposed Regulations – current regulations with amendments	425,791	1,335,032	1,760,824
2	Performance-based regulations	383,650	1,335,032	1,718,682
3	Non-regulatory approach	36,762	615,029	651,755

**Table 17: Summary of MCA assessment – cost ratio to probability of effectively reducing risks**

Option	Description	MCA Criteria	Weighted score
1	Proposed Regulations – current regulations with amendments	Protection of life	1.4
		Protection of environment	1.4
		Business assurance	0.6
		Business costs	-0.6
		Individual costs	-0.4
		Government costs	-0.6
		<b>Total</b>	<b>+1.8</b>
2	Performance-based regulations	Protection of life	0.8
		Protection of environment	0.8
		Business assurance	0.65
		Business costs	-0.4
		Individual costs	-0.2
		Government costs	-0.65
<b>Total</b>	<b>+1.00</b>		
3	Non-regulatory approach	Protection of life	0.4

Protection of environment	0.4
Business assurance	0.0
Business costs	-0.05
Individual costs	-0.1
Government costs	-0.3
<b>Total</b>	<b>+0.35</b>

While Option 1 has the higher cost, it has the highest likelihood of reducing fire risk to justify the costs. While Options 2 and 3 may still result in benefits that outweigh costs, the likelihood that they achieve the government's objectives is lower. This is primarily because Options 2 and 3 do not adequately manage the risks associated with campfires. The proposed Regulations prescribe certain requirements for all campfires that have been proven to reduce the risks of fire spreading. They are also supported by significant penalties, at 50 penalty units or \$9,879.50. As noted earlier, bushfires caused by campfires poses a significant risk. The proposed regulations provide certainty, are easy to comply with, and impose a relatively low regulatory burden. Options 2 and 3 could be relatively effective in managing non-campfire/barbeque fires, but the risks would not be lower than in Option 1 because some operators (typically individuals undertaking welding, grinding, etc) may not have networks to provide incentives and shared information.

Option 3 largely represents the base case but supported by enhanced information material and education to provide a 'nudge' to encourage persons to manage fire risks. It is the lowest-cost option, noting however that the scale of information provision costs could be higher than the other options if the information campaign were more extensive. As with the other options, it could be reasonably effective because most people 'do the right thing'. However, without statutory enforcement tools to regulate behaviour (especially in relation to campfires and barbeque), there is little incentive for those who engage in risky or irresponsible activities to modify their behaviour. As seen earlier, even single fires can result in high-consequence events.

Therefore, Option 1, the Proposed Regulations, is assessed as the preferred option.

### 5.5.1 Supplementary assessment – Break-even Analysis

To supplement the MCA analysis and to test the findings above, a break-even analysis (BEA) was conducted to determine at what level of benefit and costs will be equal. If the benefits are several orders of magnitude greater than the costs, then it is likely that benefits will outweigh the costs.

A basic break-even analysis was conducted reflecting elements of the objectives. While prevention of fires cannot be solely attributable to the proposed Regulations, they do provide an important part of the Victoria's bushfire risk management strategy.

The total incremental costs of the proposed Regulations were estimated to be \$1.76 million over a 10-year period. As an illustration, a BEA is undertaken below for each of the main government objectives of the proposed Regulations; namely protection of human life and property; protection of the environment, and providing assurance that commercial activities are conducted in a safe manner:

- human life – tragically bushfires have resulted in loss of human life.<sup>66</sup> The Commonwealth Office of Impact Analysis has provided an estimate of the value of a statistical life at \$5.4 million. This value does not purport to value the life of an individual person (which is inestimable) but can be used for statistical purposes in public policy to assess the merits of a particular policy. Given that the total cost of the regulations is \$1.76 million over a 10-year period, if the regulations result in the preventions of 0.3 of a life each decade, or a single life over a 30-year period, then the cost of the regulations would be equal to the benefits.
- property – fire does not respect fence lines or land tenures (public/private land). Agriculture Victoria has estimated that the Black Summer Fires cost rural businesses \$326 million (structures, fencing, crop and stock loss). The Insurance Council of Australia (ICA) also note that claims from this fire event were \$2.3 billion, with around one third from commercial customers (i.e., around \$760 million). This catastrophic fire was a single event, so even if the proposed Regulations could prevent a fraction of this loss there would be appear to be a positive benefit in the regulations.

<sup>66</sup> Between 1901 and 2011 there have been 260 bushfires in Australia associated with a total of 825 known civilian and firefighter fatalities. Source: CSIRO, Understanding loss of life in bushfires: <https://www.csiro.au/en/research/disasters/bushfires/life-loss-database>



- environment – the Commonwealth Department of Climate Change, Energy, the Environment and Water estimates that around 130 tonnes of CO<sub>2</sub>-e are emitted per hectare of forest burnt.<sup>67</sup> Assuming a valuation of \$128 per tonnes of CO<sub>2</sub>-e emissions<sup>68</sup>, this provides an environmental cost of \$16,640 for each hectare of forest burnt. Under this scenario, a breakeven point of about 106 hectares of 'avoided' forest fire attributable to the regulations would equal \$1.76 million (the cost imposed by the regulation). In terms of scale, the 2019-20 Black Summer Fires burnt 1.5 million hectares in Victoria, so avoiding 106 hectares of forest fires attributable to the Regulation would appear realistic.

The three scenarios listed above describe key areas of the government objectives, and seek to illustrate the level of benefits required for the proposed Regulations to break even in each category. In practice, the proposed Regulations are likely to deliver benefits across multiple categories, further increasing the likelihood that the benefits would outweigh the costs.

This assessment confirms that the regulatory and government costs associated with Option 1 are outweighed by the potential significant benefits arising from provide for the protecting State forests, protected public land and national parks from damage by fire.

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<sup>67</sup> Department of Climate Change, Energy, the Environment and Water, 2020, *Estimating greenhouse gas emissions from bushfires in Australia's temperate forests: focus on 2019-20*: <https://www.dcceew.gov.au/climate-change/publications/estimating-greenhouse-gas-emissions-from-bushfires-in-australias-temperate-forests-focus-on-2019-20#:~:text=The%20fires%20are%20estimated%20to,per%20hectare%20of%20forest%20burnt>

<sup>68</sup> NSW Government, Technical note to NSW Government Guide to Cost-Benefit Analysis TPG23-08 Carbon value in cost-benefit analysis, \$128 per tonne (FY25): [https://www.treasury.nsw.gov.au/sites/default/files/2023-03/20230302-technical-note-to-tpg23-08\\_carbon-value-to-use-for-cost-benefit-analysis.pdf](https://www.treasury.nsw.gov.au/sites/default/files/2023-03/20230302-technical-note-to-tpg23-08_carbon-value-to-use-for-cost-benefit-analysis.pdf)



## 6. Preferred Option

This chapter summarise the preferred option. It describes the characteristics of the preferred option, including small business and competition impacts.

### 6.1 The proposed Regulations

Based on the analysis and assessment in the previous chapter, DEECA proposes to remake the current Regulations with some amendments, as outlined in Option 1 above.

This means that the proposed Regulations will:

- prohibit fires without written permission for the entire year in State forests, national parks and protected public land, and during the prohibited period for other fire protected areas, except for activities that are otherwise authorised (for example campfires, barbeques, and permitted operations such as sawmills and beehives), or in some circumstances were provided for under an agreement under Part 6 of the *Traditional Owner Settlement Act 2010*
- specify the physical requirements for using campfires and barbeques within the fire protected area (other than State forests, national parks and protected public land, which are already controlled under the Act)
- set requirements for the use of certain types of equipment in forest areas
- set specific requirements for sawmill operations and beekeepers to have fire extinguishment equipment
- include a general obligation for those that light fires to extinguish them.

DEECA estimates that, compared to the base case of not remaking any regulations, the proposed Regulations will impose incremental additional costs in the order of \$1.73 million (over a 10-year period). This is mostly in the form of the financial cost on business operations who will need to buy equipment. Around 70 per cent of the total costs are government enforcement costs (borne by the community rather than regulated parties – this may be justified on the grounds the protecting Victorian forests and surrounding communities from fire damage is a public good).

Against these costs, DEECA expects the benefits of making the proposed Regulations to include protecting human life, preventing loss of private and public property, protecting the environment from damaging fire, and providing assurance that commercial activities are conducted in a safe manner. Further, it will provide additional benefits in line with the outcomes of Victoria's Bushfire Management Strategy including removing barriers to Aboriginal self-determination in bushfire management and supporting shared responsibility. While it is not possible to quantify many of these benefits, DEECA considers that, given the potential costs of loss and damage that would occur from even a single uncontrolled bushfire (including the costs of responding to fires), that even a small reduction in the risk of uncontrolled fires from the proposed Regulations justifies the relatively small cost burden.

### 6.2 Competition Assessment

Victoria is party to the Competition Principles Agreement, which requires that any new primary or subordinate legislation should not restrict competition unless it can be demonstrated that the Government's objectives can only be achieved by restricting competition and that the benefits of the restriction outweigh the costs.<sup>69</sup>

In some cases, legislation or regulation can affect competition by preventing or limiting the ability of businesses and individuals to enter and compete within particular markets. The primary cost of a restriction on competition is that it can reduce the incentives for businesses to act in ways that benefit consumers, which can result in lower innovation and productivity, reduced choice of products and/or higher prices. Ways in which legislation or regulations may restrict competition include creating barriers to entry for new firms,

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<sup>69</sup> This is the 'competition test' to be applied to legislation. It is noted that the competition assessment does not preclude any option being preferred but requires that any decrease in competition should ensure that the benefits outweigh the costs and that the desired outcomes can only be achieved by affecting competition.

controls on the amount, quality or price of products or services, increases in business costs for some firms but not others, or otherwise advantaging some firms over others in the same market.<sup>70</sup>

DEECA has assessed that the competition impact of the proposed Regulations, if any, is expected to be immaterial. The proposed Regulations do impose an additional cost on some activities of businesses (around 5 sawmills and 165 beekeepers), but these costs are small compared to overall business costs, and unlikely to be reflected in any competitive disadvantage.

Even so, if there is any minor impact on competition, DEECA notes that, given the risks and extent of damage done by fires in forest areas, the impact on competition would be justified, given the overall small costs, as demonstrated by the analysis in this RIS.

### 6.3 Small Business Impacts

This section considers whether the proposed Regulation is likely to have a disproportionate impact on small businesses.<sup>71</sup> Small businesses may experience disproportionate effects from regulatory requirements for a range of reasons, including limited resources to interpret compliance requirements, or to keep pace with regulatory changes and the cumulative effect of different requirements.

Most of the businesses covered by the proposed Regulations would be considered small business. However, compliance with the regulations is generally straightforward, and does not require large capital outlays or onerous reporting requirements.

Stakeholder consultation with small businesses subject to the regulations confirmed that the regulations did not impose a disproportionate burden on them.

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<sup>70</sup> See for example *Assessment against the Competition Test*, guidelines published by the New South Wales Department of Finance, Services and Innovation, 2017, and *Legislation Impact Assessment Guidelines* published by Tasmanian Department of Treasury and Finance December 2016.

<sup>71</sup> There is no fixed definition of small business. It is generally considered to refer to businesses with fewer than 20 employees or turnover of less than \$2 million per year.

## 7. Implementation and Evaluation

### 7.1 Implementation

The current Regulations have operated for 11 years and are essentially the same as the regulations that have been in place for 30 years.

Given that the proposed Regulations are substantially similar to the current arrangements, no implementation issues are expected to arise for the proposed Regulations.

However, in relation to minor changes, DEECA and the Conservation Regulator will work with affected parties to communicate these changes. This will include:

- highlighting changes in camping education collateral, including on the Victorian Government website that campfires must be in properly constructed fireplaces. Reference to trenches will be removed to ensure consistency with the Forests (Recreation) (Temporary) Regulations 2021 and reduce the risk of damage to Aboriginal Cultural Heritage and environmental values.
- communicating to industry groups and associations that protection gear for apiarists and engines will now be needed for the full prohibited period
- reporting back through existing DEECA channels to Registered Aboriginal Parties and non-formally recognised Traditional Owners .

DEECA will work to inform and educate park and forest visitors on any changes to regulations regarding campfire use, including working to update the Victorian Government website guidance and other information materials on campfire use.

DEECA will work closely with industry groups to communicate changes to safety equipment provisions in the Regulations regarding use of engines and for beekeeping.

Overall compliance with the proposed Regulations is expected to be high, however the large spatial area occupied by Victorian fire protected areas makes aberrant or non-compliant behaviour difficult to manage in all situations. Relevant agencies and officers take an informed risk-based approach to enforcement, and use of infringements and penalties.

### 7.2 Evaluation

Consistent with the Victorian Government's commitment to better regulation and a culture of continuous improvement, agencies must evaluate all regulations. Evaluation involves improving knowledge about the problem to improve regulatory effectiveness over time. Monitoring and evaluation forms part of DEECA's approach to continuous improvement.

DEECA evaluates its management of bushfire risk through complex planning, monitoring and evaluation frameworks, drawing on a range of information sources (internal and corporate datasets, commissioned studies, monitoring reports, and expert/professional opinion) to inform responses.

DEECA's evaluation of the proposed Regulations will include:

- Compliance operations and activities, which may identify regulatory breaches that result in warnings and infringement notices being issued, and court proceedings being commenced. The effectiveness of these activities will be measured in the number of breaches against the regulations.
- A risk-based approach of:
  - educational program and resources provided to park and forest visitors through the established permit system, and published online and at park information sites
  - proactive patrols that target specific areas, especially important areas of cultural significance and biodiversity value
  - increased compliance effort on peak visitation days particularly during windows of increased fire weather, for example around public holidays like Christmas, Australia

Day and Easter throughout the year, which ensures that park visitors are responsible and compliant with laws and regulations

- The effectiveness of compliance effort and educational resources will be measured by:
  - the successful completion rate of the number of permits applied for
  - the number of subsequent permit renewals.

DEECA will also continue to release the annual Victoria's Bushfire Risk Management Report. The report provides information on bushfire risk management delivery and outcomes across public and private land in Victoria for each financial year. It covers state, regional and more localised (district/municipal) levels where appropriate.

Given that the proposed Regulations are similar to those which have been in place for more than three decades, a formal mid-term review is not considered necessary. However, DEECA will monitor the operation of new provisions and changes closely and will evaluate the regulations in 8 or 9 years' time prior to sunseting.

## 8. Compliance and enforcement

Parks Victoria Authorised Officers enforce these regulations on land that is managed under the *National Parks Act 1975* (predominantly, in this case, national park land). DEECA Authorised Officers enforce the regulations in State forest, protected public land and in the fire protected area outside the regulated fire area, including the Conservation Regulator. There are currently 227 Authorised Parks Victoria officers, 83 DEECA authorised officers, and 69 Conservation Regulators authorised officers, making a total of 379 field staff. Authorised Officers are appointed under section 83 of the *Conservation, Forests and Land Act 1987*. Victoria Police may also assist in ensuring compliance.

Enforcement is conducted through a combination of regular patrols by field-based staff to co-ordinate compliance efforts and targeted activities. These arrangements will continue.

The table below shows the infringements and prosecutions under the Forests Act over the past 10 years. While only two infringements are directly attributable to the Regulations themselves (use of a stationary engine), the infringements and prosecutions underscore ongoing behaviour that continues to give rise to fire risks in or near Victorian Forests.

**Table 18: Infringements and prosecutions under the Regulations and Forests Act, June 2014 – Nov 2024**

Description of offence	Numbers
<b><i>Infringements</i></b>	
A campfire or barbeque using solid fuel and that is in the open air in a regulated fire area must not be outside the line of sight of the campfire or barbeque; or be more than 50 metres from the perimeter of the campfire or barbeque	688
Exceed the maximum area of a campfire or barbeque using solid fuel or the maximum dimension of any piece of solid fuel used	177
Light, kindle or maintain campfire or barbeque using solid fuel and in the open air in regulated fire area unless ground and airspace within distance of 3 metres from outer perimeter and uppermost point of fire are clear of flammable material	122
Light, kindle or maintain campfire or barbeque using liquid fuel, gaseous fuel or chemical solid fuel and is in open air in regulated fire area unless ground and airspace within distance of 1.5 metres are clear of flammable material	7
Use of a stationary engine in a fire protected area during the prohibited period	2
<b><i>Prosecutions</i></b>	
Exceed the maximum area of a campfire or barbeque using solid fuel or the maximum dimension of any piece of solid fuel used	3
Light of fire without authority	24
Light, kindle or maintain campfire or barbeque using solid fuel and in the open air in regulated fire area unless ground and airspace within distance of 3m from outer perimeter and uppermost point of fire are clear of flammable material	22
Outside line of sight	25

## 9. Consultation

During the development of this RIS of the following stakeholders and Registered Aboriginal Parties were contacted seeking preliminary views on how the current Regulations could be improved. These groups included:

- Victorian Apiarist Association Inc, and affiliated organisations in Gippsland and Central Victoria
- A sawmill operator
- Construction Material Processors Association

The views are included in the relevant parts of the RIS.

The following Registered Aboriginal Parties have received an initial invitation and will continue to be consulted on the Regulations throughout the public consultation period:

- Barengi Gadjin Land Council Aboriginal Corporation
- Bunurong Land Council Aboriginal Corporation
- Dja Dja Wurrung Clans Aboriginal Corporation
- Eastern Maar Aboriginal Corporation
- First People of Millewa-Mallee Aboriginal Corporation
- Gunaikurnai Land and Waters Aboriginal Corporation
- Gunditj Mirring Traditional Owners Aboriginal Corporation
- Taungurung Land and Waters Council Aboriginal Corporation
- Wadawurrung Traditional Owners Aboriginal Corporation
- Wamba Wemba Aboriginal Corporation
- Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation
- Yorta Yorta Nation Aboriginal Corporation

Key themes that emerged from industry and Traditional Owner consultation included:

- providing beekeepers with the option of carrying a fire extinguisher in lieu of a knapsack
- including the regulatory requirements on the licence
- changes to the start times when safety fuses and fuse lighters are allowed, and
- Traditional Owner groups highlighted the risk to Aboriginal Cultural Heritage and proximity of sites of cultural significance to waterways.

Areas of DEECA, including the Conservation Regulator, were extensively consulted to draw on its experience of the operation of the current Regulations and also provided statistics and data on numbers of infringements and penalties.

The Regulations project team established an internal DEECA working group to review the current Regulations and has consulted subject matter experts across the Bushfire and Forest Services Group, Legal and Legislation Division, First Peoples Self-Determination Division, Parks Victoria, Forestry Industry, Agriculture Victoria, Public Land, and Regions. The DEECA-facilitated Cultural Fire Community of Practice was also consulted.

# Appendix A: Cost calculations

The Standard Cost Model (SCM) is a method for determining the administrative burdens for businesses imposed by regulation. Its inputs include a: tariff (the cost of a person's time or cost of equipment); time taken to undertake a regulatory task; population (how many persons or businesses are affected by the regulatory); and frequency (how often a regulatory event occurs annually). These inputs are multiplied to obtain an industry or sector cost of the regulation.

## Tariff – Value of regulated parties' time and cost of fire suppression equipment

As a proxy for valuing an hour of a regulated party's time, the following formula is given:

$HR_x = (AEx/AW_x \times AH_x)$ , where:

AEx = average weekly earnings multiplied by 52;

AW<sub>x</sub> = number of weeks worked per annum (44 weeks);

AH<sub>x</sub> = average weekly hours for full time workers (41 hours)

This provides an hourly value of a person's time of \$59.81 (i.e. \$1,923.40<sup>72</sup> x 52 divided by (44 x 41)). In the case of businesses, labour on-costs are included. The \$59.81 figure is grossed-up by a factor of 1.75 to take account of these costs. This provides an hourly rate for businesses of **\$104.68**.

The calculations of substantive compliance costs (e.g. the requirement to possess equipment) raises the issue of 'incremental costs' imposed by the regulations. It became clear during consultation that in the vast majority of cases, businesses would have acquired such equipment in any case. In fact, most businesses appeared to exceed the minimum requirements.

The cost of equipment for bee farming is estimated at **\$410**. This consists of the cost of a rakehoe (\$100), firefighting knapsack (\$300), dry chemical fire extinguisher (\$90), and steel bucket (\$20). For the purposes of this RIS the frequency of purchase of these goods is once per 10 years. This is a conservative estimate since well-maintained rakehoes, buckets and knapsacks can potentially last for decades. Fire extinguishers should be replaced every 10-12 years.

Required fire suppression equipment in relation to stationery and non-stationery engines, and for certain activities such as welding, grinding, soldering or gas-cutting equipment, if there is no adequate supply of water, is a knapsack or a 9-litre dry chemical fire extinguisher. The lowest compliance options of the fire extinguisher (\$90) are used to estimate these costs. Costs of fire suppression equipment were obtained from a desktop search of products on the internet sold by hardware stores and specialist firefighting equipment retailers.

## Frequency

Frequency refers to the number of times a regulatory activity occurs per annum. Information was obtained from DEECA and industry consultation. A 'notice in writing' given to a person by an authorised officer (see regulation 8) is usually issued on an annual basis.

## Population

Population refers to the number of persons or businesses subject to the regulations. Information was obtained from DEECA.

## Government costs

Enforcement costs proved difficult to estimate and posed methodological challenges. In 2022-23, 40 enforcement officers issued infringement notices under the regulations. A weighted average annual salary of

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<sup>72</sup> ABS, Average Weekly Earnings, Australia (Released 15/08/2024) Full-time adult average weekly ordinary time earnings: <https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/average-weekly-earnings-australia/latest-release>



a typical DEECA enforcement team<sup>73</sup> was estimated to be \$108,616 (1 May 2024).<sup>74</sup> This salary has been grossed-up by a factor of 1.75 to account for labour and corporate on-costs, which obtains an annual salary cost of \$7.6 million. Of this salary bill, it is assumed that 2.5 per cent of authorised officers' duties involve enforcing the proposed Regulations. This estimate is based on discussions with DEECA and its authorised officers but should be regarded as indicative. While this estimate is considered reasonable, other factors such as what proportion should be attributable to the Act (rather than the regulations alone), and other laws and regulations that authorised officers are required to enforce, make a precise estimate difficult.

## **Discount rate**

Annual costs are discounted by a real discount rate of 7 per cent.<sup>75</sup>

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<sup>73</sup> A typical enforcement team consists of two VPS2s, two VPS3s, and one VPS5 and one VPS6. Mid-point salary points were selected.

<sup>74</sup> Victorian Public Service Enterprise Agreement 2024, p. 171-72:  
<https://www.dtf.vic.gov.au/sites/default/files/document/Victorian%20Public%20Service%20Enterprise%20Agreement%202024.pdf>

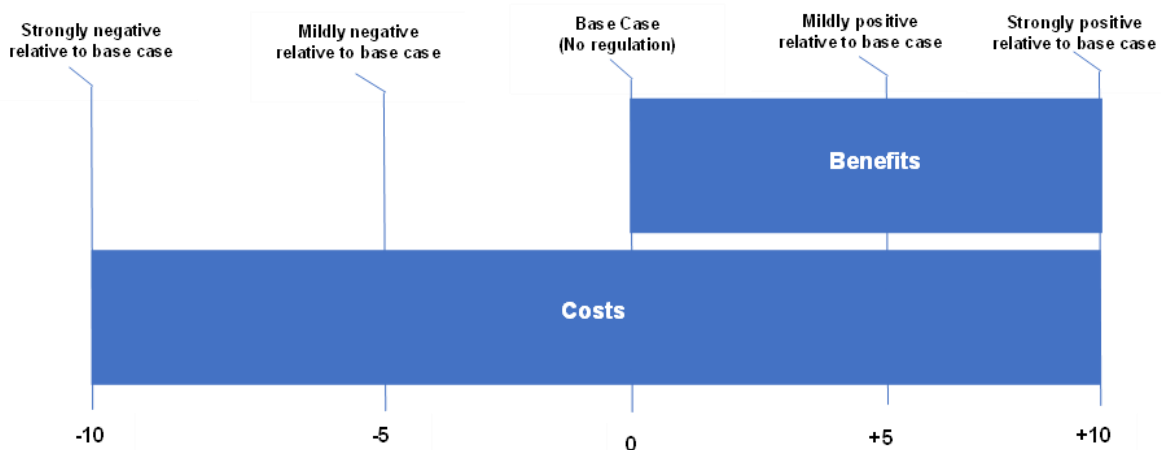
<sup>75</sup> [https://www.dtf.vic.gov.au/sites/default/files/document/Victorian\\_Economic\\_Bulletin-April2019.pdf](https://www.dtf.vic.gov.au/sites/default/files/document/Victorian_Economic_Bulletin-April2019.pdf)

# Appendix B: Multi-criteria Analysis decision making tool

The multi-criteria analysis (MCA) decision making tool is used to assess costs and benefits where these are difficult to quantify. This tool requires judgements about how options would perform against a series of criteria that are chosen to reflect the benefits and costs associated with the options. An MCA score is assigned, depending on the likely impact of the proposal on each of the criterion, and an overall score can be derived by multiplying the score assigned to each criterion by the relative weighting given to each criterion, and summing the result. An assigned score of zero (0) represents the same outcome as the base case, while a score of plus ten (+10) means an option has significant benefits. A score of minus ten (-10) means that the proposal has significant costs. If an option receives a positive net MCA score, then it represents an improvement over the base case.

The decision rule is that the option with the highest net score is preferred.

**Figure 2: Multi-criteria analysis scale used in scoring options**



## Appendix C: Key changes of the proposed Regulations

Current Reg <sup>n</sup>	Proposed Reg <sup>n</sup>	Proposed change
–	7	<p><u>Traditional Owner agreement for cultural uses of fire</u></p> <p>A new regulation that permits a Traditional Owners group entity that has an agreement under Part 6 of the <i>Traditional Owner Settlement Act 2010</i> to light fires in certain circumstances.</p>
9	10	<p><u>Campfires or barbeques using solid fuel</u></p> <p>Regulation remade with amendments. It clarifies that this regulation applies ‘in a fire protected area’ and removes reference to lighting campfires in a trench without authorisation. This amendment avoids current inconsistencies with the Forests (Recreation) (Temporary) Regulations 2021 that prohibit digging and provides greater clarity for community and enforcement. It will also reduce the risk of damage to sensitive environmental and Aboriginal Cultural Heritage sites. The Regulations retain the option for campfires or barbeques to be made in a ‘properly constructed fireplace’, or a commercially manufactured barbeque appliance.</p> <p>A new sub-regulations has been included requiring the person in charge of a campfire or barbeque using solid fuel and that is in the open air in the fire protected area (not being a State forest, protected public land or national park or a licensed water frontage that is not State forest) during the prohibited period must not be outside the line of sight of the campfire or barbeque or be more than 50 metres from the perimeter of the campfire or barbeque.</p> <p>The new sub-regulation aligns with Section 66A of the Act, which sets out the requirements on a person in charge of a campfire or barbeque used in a State forest, protected public land, national park or a licensed water frontage that is in a State forest.</p> <p>A new offence of 50 penalty units is included.</p>
12	13	<p><u>Bee farming</u></p> <p>Remade with an amendment. The wording in the current regulations of “if the weather conditions in the area are such that there is a danger of the spread of fire, has available for immediate use at least” have been replaced the “during the prohibited period”. This will improve certainty for public understanding and enforcement by removing the subjectivity around whether ‘there is a danger’ that the fire could spread.</p>
–	17	<p><u>Offence to leave campfire or barbeque</u></p> <p>A person in charge of a campfire or barbeque using solid fuel in the open air in a fire protected area (not being a State forest, protected public land or national park or a relevant licensed water frontage) during the prohibited period must not be outside the line of sight of the campfire or barbeque, or be more than 50 metres from the perimeter of the campfire or barbeque. This requirement is currently contained in the Act but is now also included in the regulations so that the requirements are aligned to the Act on land within 1.5km of State forest, national park or protected public land, thereby improving clarity and consistency in the regulations.</p> <p>A new offence of 50 penalty units is included.</p>
18	20	<p><u>Welding, grinding, soldering or gas-cutting equipment</u></p>

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		<p>Remade with amendments. The wording in the current regulations of “in circumstances where the weather conditions in the area are such that there is a danger of the spread of fire” have been replaced the “during the prohibited period”. This will improve certainty for public understanding and enforcement by removing the subjectivity around whether ‘there is a danger’ that the fire could spread.</p> <p>Minor wording changes to clarify the use of fireproof shields: “a shield or guard of fire-resistant material is placed or erected to prevent the emission of sparks, hot metal or slag” is replaced with “the appliance is used with a shield of fire-resistant material that is placed or erected in such a way as to prevent the emission of sparks, hot metal or slag”.</p>
19	21	<p><u>Clearing of area around an operation</u></p> <p>This regulation is remade but provides clarification to improve enforcement by allowing an authorised officer to ‘inspect an area’ to better determine appropriate areas to be clear of inflammable material. A new offence of 50 penalty units has been added which requires persons in charge of operations to comply with a notice issued by an authorised officer to clear the outer perimeter of a specified area.</p>
23	25	<p><u>Safety fuse, fuse lighters or splitting guns</u></p> <p>This regulation is remade, except that ‘splitting guns’ have been removed from the prescribed equipment, as these are now obsolete and no longer used.</p>

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## Appendix D: Cost Calculations

Forests (Fire Protection) Regulations 2025 - Government enforcement costs					
Number of enforcements officers <sup>1</sup>	Salary of VPS3 enforcement officer <sup>2</sup> (\$)	Salary on-cost factor <sup>3</sup> (1.75)	Salary cost per officer (\$)	Total salary bill for officers (\$)	Attribution to enforcement of regulations (2.5%)
40	108,616	81,462	190,079	7,603,143	90,079
<b>Total 10-year discounted</b>					<b>1,335,032</b>

Notes:

- 1) Number of authorised officers provided by DEECA.
- 2) Victorian Public Service Enterprise Agreement 2024, annual weighed average salary for a DEECA enforcement team (see Assumptions, Appendix C).
- 3) The labour on-cost gross-up of 1.75.
- 4) Annual costs were discounted by a real discount rate of 7 per cent, as recommend by the Victorian Department of Treasury and Finance.