Regulatory impact statement

Waste Tyres on Farms

Regulatory impact statement: Waste tyres on farms

Prepared by Deloitte Access Economics on behalf of the Victorian Government
April 2022

Acknowledgement

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 who knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protectionof Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

ISBN 978-1-76105-947-6

Accessibility

If you would like to receive this publication in an alternative format, please telephone the DELWP Customer Service Centre on 136186, email customer.service@delwp.vic.gov.au or via the National Relay Service on 133 677 www.relayservice.com.au. This document is also available on the internet at www.delwp.vic.gov.au.

Deloitte.

Regulatory Impact Statement – Waste tyres on farms

Department of Environment, Land, Water and Planning
March 2022

Deloitte
Access Economics

Contents

Glossary

Short name	Full name
BRV	Better Regulation Victoria
CFA	Country Fire Authority
DELWP	Department of Environment, Land, Water and Planning
EP Act	Environment Protection Act 2017
EP Regulations	Environment Protection Regulations 2021
EPA	Environment Protection Authority
EPU	equivalent passenger units
FRV	Fire Rescue Victoria
GED	general environmental duty
MCA	multi-criteria analysis
OTR	off-the-road
RIS	regulatory impact statement
SARC	Scrutiny of Acts and Regulations Committee

Executive summary

Purpose of this regulatory impact statement

The purpose of this Regulatory Impact Statement (RIS) is to assess proposed changes to the treatment of waste tyres stored on farms under the Environment Protection Regulations 2021 (the EP Regulations).

Problem statement

The proposed Regulations are intended to address the following problems:

Problem 1 - Waste tyres pose a significant environmental and public health risk if not properly stored and managed.

Individually, waste tyres are inert and do not pose significant risks. However, several factors can result in waste tyres posing significant risks to human health and the environment. These are:

- the number of tyres held at a place at any one time (with risk increasing with the number of tyres)
- the complexity of activities required to handle, manage or process the tyres and
- the proximity of tyres to sources of ignition.

Waste tyres stored in large volumes, improperly stacked without adequate separation distances from other piles, stored near waterways, or stored on top of long grass, pose a substantial fire risk. The structure and design of tyres make them difficult to extinguish once ignited, and the process often takes weeks or months.

Tyre fires are more toxic for the environment than other types of building or bush fires. They emit toxic smoke and noxious gases containing carcinogens. They also pollute soil and water with pyrolytic oil.[1] The production of pyrolytic oil is amplified when water is used to extinguish or suppress the fire, potentially leading to further contamination.

Waste tyres present specific other risks when stored on farms, such as providing breeding ground for the proliferation of vermin, disease and snakes. The presence of grass and other vegetation around silage piles or pits on farms may exacerbate fire risks if appropriate safety measures are not undertaken.

Problem 2 – Requiring a licence is disproportionate to the scale, nature and risk posed by the storage of waste tyres used as silage weights on farms in Victoria.

The EP Regulations were designed to give effect to a legislative framework that creates a risk-based, proportionate and simplified system of permissions which provides clarity to duty holders and is not administratively burdensome for the Environment Protection Authority (EPA).

For waste tyres, the permissioning scheme provides for two tiers of permissions:

- a licence (A09a - waste tyre storage) is required for sites storing in excess of 5,000 equivalent passenger units (EPU), or 40 tonnes
- a registration (A09b - waste tyre storage) is required for sites storing between 5 cubic metres of waste tyres to 5,000 EPU
- farms with less than 5 cubic metres of waste tyres do not require an EPA permission.

[1] Pyrolytic oil is a complex blend of molecules containing carcinogens, heavy metals and toxic substances which harm soil and waterways.

It is an offence under the EP Act to conduct an activity without obtaining the required permission. There are associated penalties for such breaches.

Licences are used for complex ongoing activities, which have high inherent and residual risk. The focus of the scheme was on tackling the issue presented by large processors and handlers of waste tyres, such as disposal sites and re-processors. The large volumes of tyres held, and complex activities undertaken in these facilities is associated with inherent fire risk. Waste tyre reprocessing facilities are considered to be of this level of risk, based on Country Fire Authority (CFA) and EPA views regarding the risks of waste tyre reprocessing facilities.

At the time of establishment of the scheme, while it was contemplated that other sites may be captured by the A09a licence, it was not anticipated (or highlighted during public consultation) that a substantial number of farming sites would also be captured. However, based on a more recent stakeholder consultation survey undertaken by the Department of Environment, Land Water and Planning (DELWP), there are potentially over 800 farming sites in Victoria that hold more than the threshold quantity of tyres, but do not have an EPA waste tyre storage licence.

While the unintended consequence of farming sites being captured within the licensing scheme is not itself a problem, the application of the scheme, which was designed for waste processing facilities, presents a disproportionate burden when applied to farms. While there have been several significant fires at waste tyre facilities in Victoria in recent years, there is little evidence to suggest that tyres used solely for silage production present a risk to the Victorian community or environment. Waste tyres used for silage production on farms present a lower risk because:

- they are often dispersed across a farming property, limiting the size of any individual stack of tyres
- they are regularly moved to and from silage piles as feed is used throughout the year, limiting the period in which they are static
- peak waste tyre usage on farms coincides with the summer bushfire season, meaning fewer tyres are stored in one place during the period of highest risk
- they are usually located a significant distance from built-up areas
- farmers have a strong private incentive to manage the risk of fire when using and storing tyres.

As the use of tyres as silage weights on farms represents a lower fire risk activity compared to their use on other sites which are required to hold a licence, the potential requirements of obtaining a licence or exemption are likely disproportionate to the risks presented.

Currently, no farms hold an EPA waste tyre storage licence. However, if there were to be a high level of compliance from farms above the A09a licence threshold, this would impose a burden on farmers and government that is excessive given the associated marginal reduction in risk. This warrants investigation of other regulatory and non-regulatory options for waste tyre storage for use as silage wrap weights on farms.

An A09b registration is less onerous than a tyre storage licence in terms of requirements, but still mandates that records are kept and waste tyres are stored and managed in a manner which minimises the risk of fires. The EPA advises that currently few if any farms are registered.

A registration is supported by the general environmental duty (GED) and EPA guidance that contributes to the general state of knowledge. This is the knowledge that a duty holder has or can reasonably be expected to have about a hazard or risk and ways of eliminating or reducing that hazard or risk.

Scope of this RIS and summary of options considered

As noted above, a substantial number of farming sites appear to be captured within the permissions scheme, including the requirement to hold a licence. This has the potential to impose substantial costs (were the EPA to enforce compliance with the current licensing scheme), with potentially limited benefits. At the same time, it is important that the risks of tyre storage be appropriately managed, and that the EPA is aware of sites where tyres are stored.

The RIS therefore considers five options (including the status quo) to address the problem. These options are generally based around the non-licensing tiers of permissions and are as follows:

Base Case: Status quo

Under the Base Case, the Regulations remain unchanged and farms storing more than 5,000 EPU or 40 tonnes of tyres will be required to obtain an EPA waste tyre storage licence or an exemption. The Base Case for analysis in this RIS assumes that the current compliance rates for licences and registration remain the same over time. The economic impact of the proposed options is measured against that of the current compliance rates. Farms would also be supported in meeting their duties through existing information and guidance.

Option 1: More information and enforcement within the existing permissions scheme

Option 1 presents no change to the regulatory regime for waste tyres used as silage weights on farms, that is, farms storing more than 5,000 EPU or 40 tonnes of tyres will be required to obtain an EPA waste tyre storage licence or an exemption. However, under this option EPA would increase its focus on sector compliance with licensing. EPA would undertake additional measures to improve the state of knowledge in those undertaking the activity of storing waste tyres for use as silage weights on farms. This includes EPA issuing farm-specific guidance to support compliance with a registration or licence, and the GED, as well as undertaking an information campaign to improve awareness of the requirements among farmers.

The EPA would also increase their level of enforcement of the current permissions in a manner proportionate to the risks presented by waste tyres used as silage weights on farms. The scale of this enforcement would ultimately be an operating decision of the EPA in line with their risk-based approach to regulation.

Option 2: Exempt farms from requiring a permission altogether

Option 2 would exempt all farms from the waste tyres permission scheme without conditions.

Option 3: Exempt farms from requiring a permission, with conditions

In this option, EPA would issue a determination under section 48 of the Act, exempting farms using waste tyres as silage weights from obtaining a licence or licence exemption provided that they met specific conditions. Farms would self-assess to determine if they were captured by the exemption. It is uncertain how many farms would apply for an exemption, however the intention of the option is to set conditions that would exempt most farms on the understanding that most represent a relatively low environmental and health risk.

Option 4: New registration class for farms using tyres as silage weights

Under this option, the EP Regulations would be amended to establish a new permission to allow farms to use waste tyres as weights for silage production if they are registered. That is, farms using more than 5 cubic metres of tyres for silage production would require a registration. This would better reflect the lower risks associated with use of tyres as silage weights on farms.

Option 5: New registrations class and permit for farms above a threshold

This option is similar to option 4, except with the addition of a permit for farms storing more than 5,000 EPU waste tyres for use as silage weights. The proposed threshold is the same level as the existing waste tyre storage licence. For this option:

- farms using between 5 cubic metres and 5,000 EPU or 40 tonnes of tyres for silage production would require a registration.
- farms using more than 5,000 EPU or 40 tonnes of tyres for silage production would require a permit.

Assessment of options

The options in this RIS are assessed using a Multi-Criteria Analysis (MCA) to score each of the options against the Base Case. Each option is assessed against the following weighted criteria:

1. **Change in environmental risk (40%):** the extent to which the option will change the way tyres used as silage weights are stored on farms, thereby affecting environmental risks.
2. **Improved regulatory clarity for industry (10%):** the extent to which the option provides a clear risk mitigation measure or standard for meeting a duty holder's obligations, thereby providing the duty holder with confidence they have satisfied requirements.
3. **Cost to industry (25%):** the extent to which the option changes compliance or administrative costs to industry.
4. **Cost to government (25%):** the extent to which the option changes costs to government associated with time and resources to administer and enforce the regulatory requirements and the time spent processing applications for permissions.

A summary of the MCA results is presented below in Table i. Results are calculated based on the total weighted score of each option, with the option scoring the highest being selected as the preferred option.

Table i: Summary of MCA results

Criteria	Option 1 – more information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – new registration	Option 5 – new registration and permit framework
Benefits					
Reduction in environmental risk	2	-2	-1	3	4
Improved regulatory clarity for industry	1	2	1	3	2
Costs					
Cost to industry (positive score is lower cost than Base Case)	-8	1	-3	-1	-6
Cost to government (positive score is lower cost than Base Case)	-4	1	-1	-2	-3
Weighted score	**-2.1**	**-0.1**	**-1.3**	**0.8**	**-0.5**

Preferred option

The analysis in this RIS shows that the preferred option is Option 4. The details provided through registrations provides useful information that allows government to proactively monitor and assess the risk of waste tyre storage on farms, while imposing a smaller cost than other options. In addition, the reduction in environmental risk associated with Option 4 is likely to be similar than other more costly or administratively complex options.

The preferred option would impose compliance costs to industry (famers) for registration applications of an estimated $138.25 per application (in time and effort required to register), and costs to government to administer the registration scheme of an estimated $220 per application. Registrations will need to be renewed every five years, at which point farms will incur the $138.25 cost again, and government will incur an estimated $56 per renewal. As fees are not charged to obtain a registration under the EP framework, these costs solely represent time and effort.

Based on these figures the upper limit for the per-farm cost is $545 over 10 years (net present value). Assuming 4,000 farms in Victoria will need to seek a registration, the maximum feasible administrative cost that the preferred option will impose is $2.2m. This comprises:

- a total cost to industry (farmers) of $1.1m (net present value)
- a total cost to government of $1.1m (net present value)

On average, across 10 years, this is an annual cost of $110,600 for and $110,400 to government.

The effectiveness of the preferred option is dependent on the extent to which it reduces the risk of tyre fires on farms relative to the regulatory burden imposed. Given a total cost to industry of $1.1m and an estimated cost of a small/moderate fire of $571,000[2], the proposed Regulations will break even in terms of their regulatory burden if they prevent two fires over ten years, or an average of 1 fire every five years.

Small business and competition impacts

The burden imposed by the proposed Regulations are small and, as such, are unlikely to have any adverse impacts on small business and competition.

Compared to scenario where farms storing more than 5,000 EPU of waste tyres are expected to get a licence, only requiring a permit is less burdensome. This reduced potential burden is less likely to capturesmall farms who, due to holding smaller volumes of silage, are less likely to exceed the 5,000 EPU threshold.

Implementation, enforcement and evaluation

As part of the implementation of the Regulations, the primary activity that will be required is the development of additional guidance for the storage of waste tyres on farms for use as silage. The guidance will support the new permission by setting out the EPA's expectations of risk control measures farmers should have in place to manage the risks, primarily of fire, for this activity. DELWP will also ensure that the amendments to the Regulations are communicated to stakeholders through a range of measures.

The proposed Regulations will commence on making but will provide for an additional grace period to allow large numbers of farms to be registered. This grace period will end approximately 9 months after making of the proposed Regulations.

The EPA will undertake compliance campaigns to ensure suitable oversight of compliance obligations and requirements for the minimisation of risks, so far as reasonably practicable. Initial activity by EPA would seek to ensure that those required to hold a permission have actively sought and received their permission as required by the regulations.

Ongoing compliance monitoring will occur to assess compliance with requirements of the regulations and impacts on the risks to human health and the environment.

Government will review the effectiveness of the new permission and determine whether further or other controls are needed for the storage of waste tyres on farms for use as silage weights, including permits. This review would be based on outcomes of EPA compliance activities and will be completed by DELWP within five years of the new permission being established.

Public consultation

The understanding of the above issues and proposed solutions identified in this this RIS has been developed based on stakeholder engagement to build DELWP's understanding of industry practices involving waste tyres. An understanding of the issues and current state of waste tyre storage on farms was achieved through:

[2] Environment Protection Authority 'Storage of waste tyres – Regulatory Impact Statement' (2014); adjusted for Melbourne CPI, December 2014-December 2021.

- DELWP ongoing engagement with industry peak bodies, Dairy Australia and Victorian Farmers Federation meetings with the Australian Lot Feeders' Association
- survey on Engage Victoria from 27 October to 10 December 2021 on the numbers, uses and management practices of waste tyres on farms
- 11 interviews with farmers on the numbers, uses and storage practices of waste tyres on farms
- ongoing engagement with Agriculture Victoria.

Additionally, DELWP has built an understanding of the risks and potential controls through ongoing engagement with CFA, Fire Rescue Victoria (FRV) and subject matter experts in EPA.

The next steps are public engagement, with this RIS and the proposed Regulations having been publicly released for consultation for consultation to provide businesses, members of the public and other interested parties the opportunity to provide feedback through a formal submission process.

Public submissions to the RIS will be open for 28 days from release. DELWP welcomes feedback from all interested members of the public on any matters they feel would improve the proposed Regulations. DELWP review of regulation for waste tyre use and storage on farms | Engage Victoria

1 Background

This chapter outlines the purpose of the proposed Regulations and the requirement for a Regulatory Impact Statement.

1.1 Introduction

The purpose of this Regulatory Impact Statement (RIS) is to assess proposed changes to the treatment of waste tyres stored on farms under the *Environment Protection Regulations 2021* (the EP Regulations). These Regulations are made pursuant to the *Environment Protection Act 2017* (the EP Act).

The current EP Regulations are intended to mitigate the risks associated with stockpiles of waste tyres on Victorian sites, and to ensure that duty holders (those storing waste tyres) meet their obligations under the EP Act's general environmental duty (GED) and specific waste duties. Under the current EP Regulation, sites (including farms) storing varying volumes of tyres are required to obtain a permission. Specifically:

- a licence (A09a - waste tyre storage) is required for sites storing in excess of 5,000 EPU, or 40 tonnes
- a registration (A09b - waste tyre storage) is required for sites storing between 5 cubic metres of waste tyres to 5,000 EPU
- farms with less than 5 cubic metres of waste tyres do not require an EPA permission.

Despite these requirements, it is currently estimated that more than 800 farms meet the 5,000 EPU threshold for a licence but remain unlicensed. While the current licensing regime is considered adequate to address the environmental risk posed by tyres in large-scale tyre storing and reprocessing facilities, it may pose a disproportionate burden on farms considering that waste tyres are typically used on farms as weights in the production and storage of silage – a type of preserved pasture used as cattle feed. Licences require a considerable amount of due diligence and administrative work on behalf of the duty holder and the regulator, and as such are primarily suitable for high risk activities. Registrations are much simpler to administer, but only provide basic information to the regulator. Registrations are appropriate for less risky activity where proactive screening by the EPA is not necessary but where it remains valuable to maintain a register of duty holders as a source of information to direct regulatory effort and have a mechanism for the EPA to collect additional information that it sees as important as part of the registration process.

This RIS considers the appropriateness of the current regulatory framework for authorising the use and storage of waste tyres on farms for use as silage weights (as opposed to other large-scale tyre storing and reprocessing facilities), and considers a more proportionate and risk-based set of regulatory tools and controls for this primary use of waste tyres on farms.

The RIS identifies the problems and risks associated with waste tyres in general before identifying the primary risks from waste tyre storage and use on farms in particular. A set of regulatory and non-regulatory options and controls for these risks are then set out and assessed using a multi-criteria analysis (MCA) to compare risk mitigation benefits against regulatory and administrative burden. Using the MCA framework, a preferred option is identified, and the impacts of the preferred option are discussed in more detail throughout the remainder of the RIS. The primary aim of this RIS is to implement a set of tailored controls for waste tyres on farms which are proportionate and scalable while remaining in line with the core intention of the EP Regulations which is to mitigate environmental risks.

This RIS does not reassess the use or storage of waste tyres on other sites, or the use or storage of waste tyres on farms for purposes other than as silage weights, as DELWP and the EPA consider that the existing permissions, the GED and Reportable Priority Waste frameworks and their

associated enforcement mechanisms are proportionate to those risks and sufficient to manage them.

1.2 Waste tyres on farms

1.2.1 What are waste tyres?

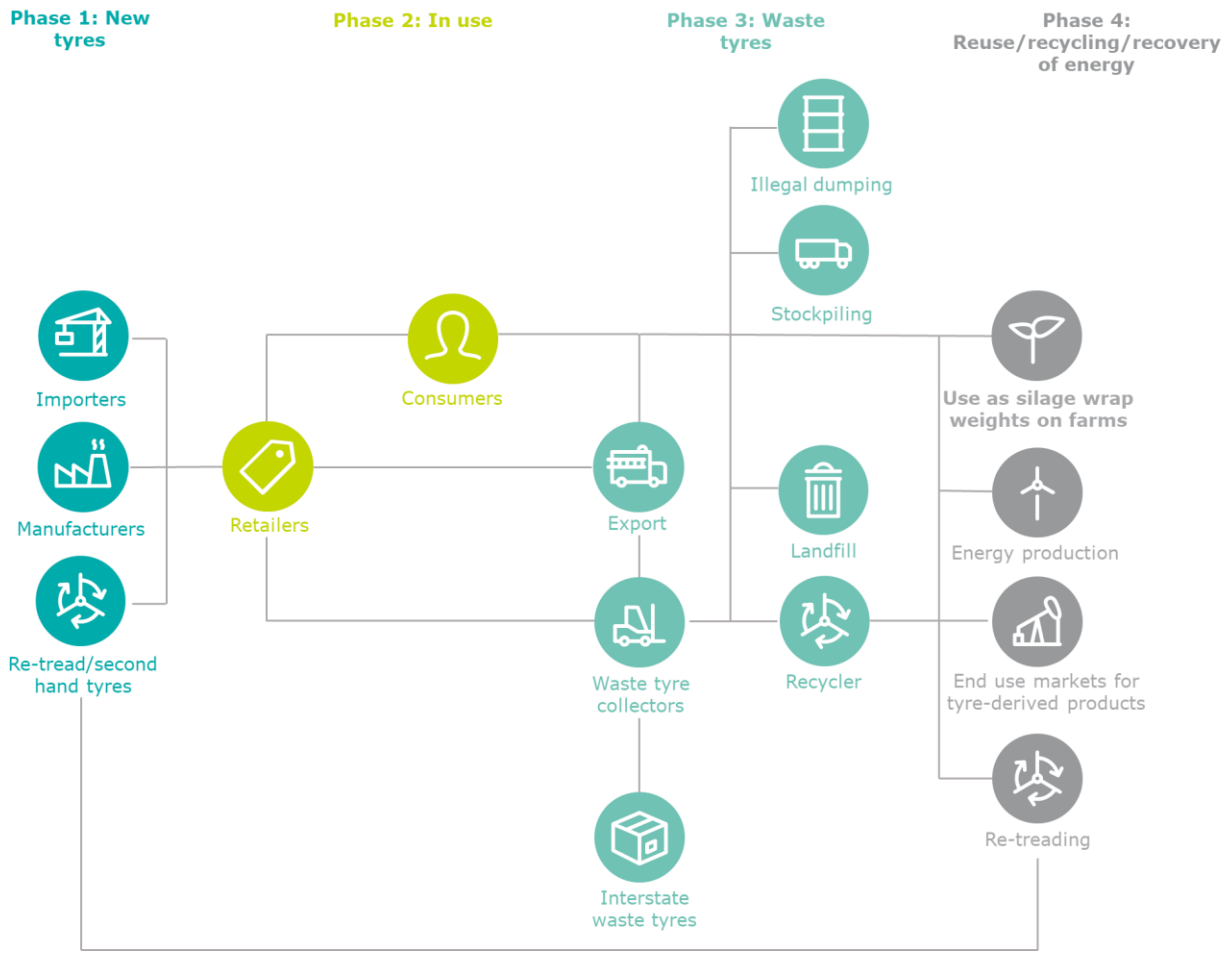
Waste tyres, or end of life tyres, are tyres that can no longer be used for their original purpose and have been removed from a vehicle. The industry standard for a basic unit of waste tyres is the equivalent passenger unit (EPU), which is a standard passenger sized tyre. There are three kinds of waste tyres:

- Passenger tyres – those found on passenger vehicles (including motorcycles and caravans) and trailers for domestic use
- Truck tyres – those used on buses, light and heavy commercial vehicles, prime movers, trailers and semi-trailers, fire-fighting vehicles
- Off-the-road (OTR) tyres – those used on heavy machinery or equipment such as mining, construction, demolition, forestry and agriculture.

The tyre supply chain follows four broad phases (see Figure 1.1):

1. newly purchased tyre (brand new or second hand)
2. tyre in use
3. tyre expiry
4. reuse, recycling or recovery of energy at end of life.

Figure 1.1: Tyre life cycle



Source: Environment Protection Authority Victoria, Deloitte

Waste tyres typically transition from phase 2 to phase 3 in the tyre life cycle through mechanics, automotive dealers and tyre retailers. In Victoria, this is supported by the existing permissions framework that limits the volumes of waste tyres that these businesses can store, incentivising their movement to the re-use or recycling market. The responsible transition of waste tyres is also supported by the voluntary *Tyre Stewardship Australia* scheme, which, by volume, covers 47 per cent of tyre importers, 56 per cent of tyre retailers and 96 per cent of recyclers in Australia.[1]

At phase 3, where a tyre expires and is no longer fit for its intended use, waste tyres create negative externalities – costs imposed on third parties and society at large and which are not borne directly by the original producer of the tyre or its user. Tyres that end up as landfill, are illegally dumped, abandoned, or stockpiled all impose waste management costs and/or environmental risks to society. See Section 2.1 for further details. The EP Regulations regulate these externalities and transactions involving waste tyres by prescribing them as both industrial and reportable priority waste and subjecting them to a range of associated regulatory requirements (see 1.4 below). Tyres transported to or used for productive purposes in phase 4 also pose externalities in the form of risks associated with their use, and so the EP Regulations include a permissioning framework for the lawful authority to receive and store waste tyres, which may refer to guidance on the manner in which this should be done (such as volumetric limits, reporting requirements and storage practices). As noted above, this framework was intended to address risks posed by waste tyres in large-scale storing and reprocessing facilities.

The use of waste tyres as silage weights on farms is considered to come under phase 4. When an appropriate (i.e. not excessive) number of waste tyres are stored for use as silage weights, it represents a productive reuse of the waste stream that does not involve stockpiling or dumping. The use of waste tyres for this purpose on farms is explained in more detail overleaf. There are several potential end-points for waste tyres in Australia, as shown in Table 1.1 overleaf.

1.2.2 Use and storage of waste tyres on farms

The most common use of waste tyres on farms is for the production of silage for livestock. Silage is a form of preserved pasture, and often needs to be stored for extended periods of time. Farmers typically use bins, bunkers or pits to do so. These are covered by tarpaulins and weighed down by tyres to ensure that oxygen does not result in spoilage. Typically, farms prepare several silage pits requiring hundreds of waste tyres distributed across a large area. Tyres for silage weights has been a legitimate use recognised by EPA. Other uses for waste tyres include tree guards, weights for effluent ponds, erosion control, and stockyard fencing.

However, waste tyres improperly stored on farms can present a risk to environmental and human health. Rubber tyres are made of compounds that cause rapid combustion. While tyres are not easy to ignite because they are designed to absorb heat, once ignition takes place, extinguishment is difficult. When tyres catch fire, they break down into hazardous compounds, which can cause significant harm to humans and the environment. This is further discussed in Chapter 3.1.

[1] TyreStewardship Australia, '*2020/2012 Annual Report'* (September 2021).

Table 1.1: End point of waste tyres in Australia 2018-2019

End point	Total tonnes	EPU
Casings and seconds (the rigid, inner of a tyre upon which a tread is placed. Typically tyres good enough for retread or resale as seconds are referred to as casings).	32,000	4,000,000
Civil engineering (including roads, bridges, canals, dams and buildings)	3,000	375,000
Crumb, granules and buffings (shredded rubber derived from grinding the outer layer of tyres in preparation for receiving new tread).	33,000	4,125,000
Pyrolysis -		-
Stockpiles	5,000	625,000
Landfill	34,000	4,250,000
Onsite disposal (Mining OTR – tyres from mining sites, heavy industry and other unregistered off-the-road applications that are not taken offsite)	96,000	12,000,000
Dumping	5,000	625,000
Total	**208,000**	26,000,000

Note: Pyrolysis processed tyre data not reported because of commercial confidentiality constraints, quantity was under 5,000 tonnes per year. Waste tyres used as silage wraps on farms do not fall within any of the above categories as they are being reused in a way that was not accounted for here.

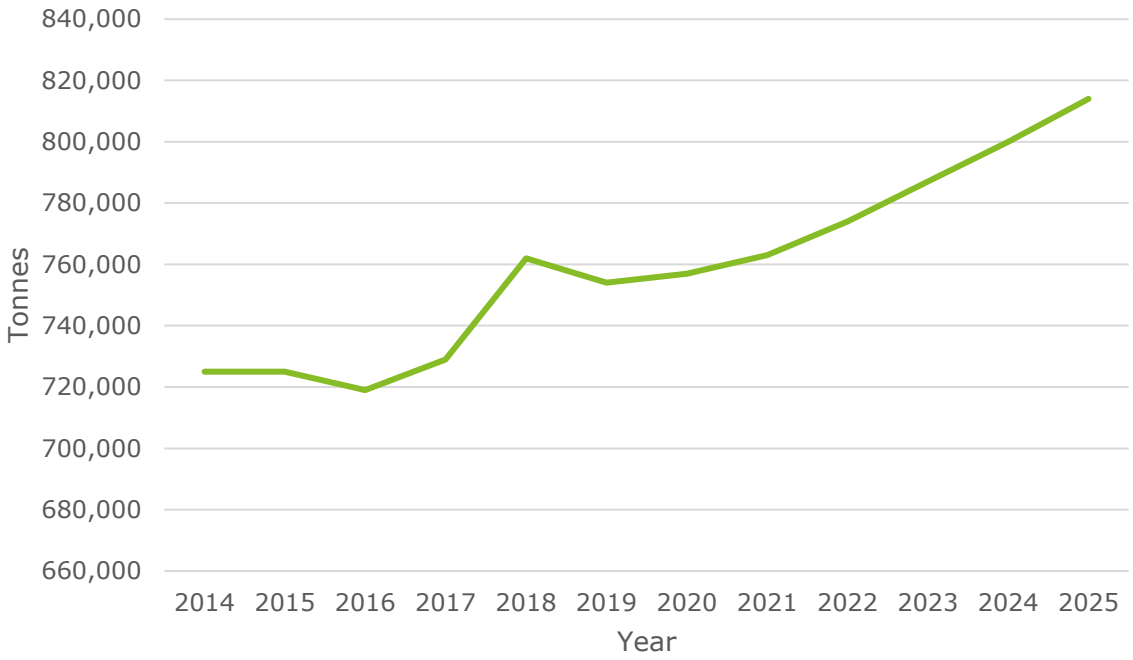
Source: Envisage Works Positive Impact Consulting 2019, 'Tyre flows and recycling analysis', prepared for Department of Environment and Energy

1.3 Waste tyre supply

1.3.1 Waste tyre supply is expected to increase

The amount of waste tyres generated each year is contingent on rates of consumption, stocks and the average lifespan of tyres. There has been a growing number of used or waste tyres (including those that are illegally dumped) produced in Victoria in line with rising vehicle registrations, and this trend is set to continue (see Figure 1.2). Increased silage production may be increasing demand from farmers for waste tyres.

Figure 1.2: Australian tyre stocks (in-use tyres) 2013-2019, projected to 2025



Note: Tyre stocks refer to the period in a tyre's lifecycle where it is utilised in the purpose it was made.

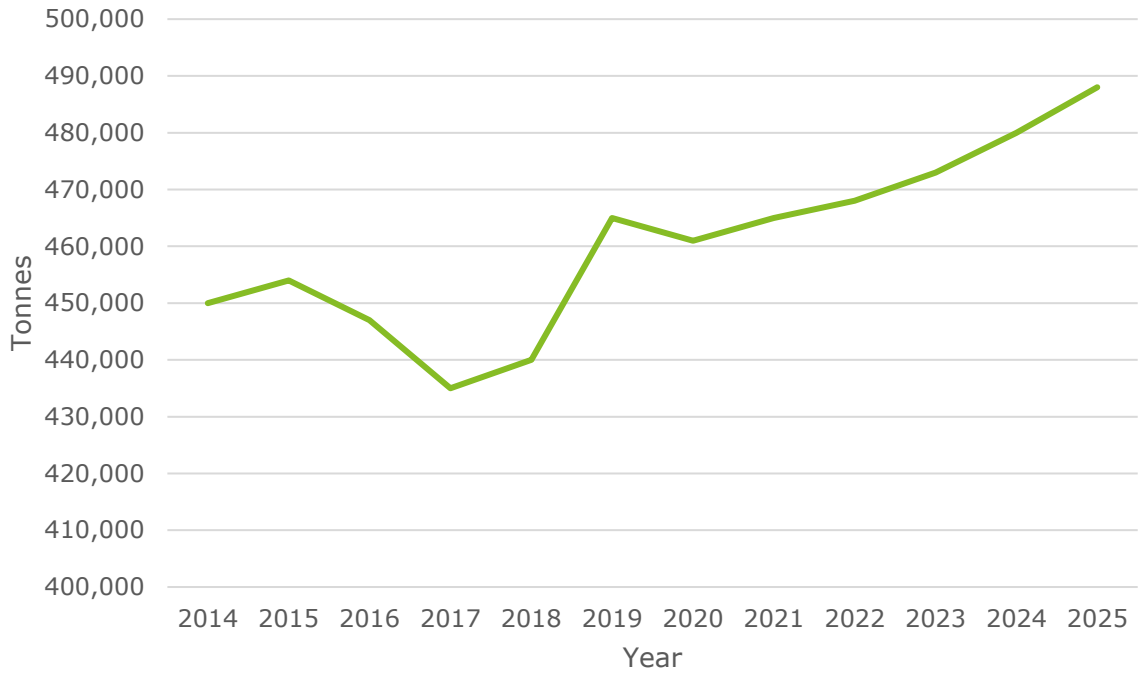
Source: Envisage Works Positive Impact Consulting 2019, 'Tyre flows and recycling analysis', prepared for Department of Environment and Energy

Every year, approximately 12,000 tonnes or 10 per cent of the end-of-life tonnage of waste tyres are unaccounted for in Victoria.[2] There is also potential for additional waste tyres to be brought into Victoria from other states, further increasing the number of tyres being dumped or stockpiled. The number of unaccounted for waste tyres in Victoria is likely to increase in the future as Victoria's population and vehicle use increases.

New changes to waste tyre disposal policy may see this number increase further. The Council of Australian Governments' waste export ban came into effect in December 2021, banning all whole tyres from export. To be exported under the new law, tyres are required to be shredded or processed into crumb rubber, granules, or powder. As a result of the ban, Victorian waste tyre availability is forecast to increase from 90,000 tonnes in 2018 to more than 110,000 tonnes by 2039.[3] Analysis conducted prior to the export law change determined that Victoria's current tyre recycling systems have the capacity to meet the additional demand for tyre shredding and recycling. However, although there is capacity, properly recycling tyres is more costly to the owner than illegal dumping or stockpiling them, so the ban on exporting whole tyres may lead to an increase in the amount of whole waste tyres that are stockpiled. Similarly, other tyre disposal regulations that are already in place limit the ways in which tyres can be disposed of. Tyres are banned from disposal to landfill due to the environmental risks they pose and can also be costly to recycle, leading some parties to dispose of or stockpile waste tyres illegally. The GED and Reportable Priority Waste framework, which requires the EPA to be informed each time waste tyres pass from one party to another, are in place to address the risk of illegal dumping of tyres and other waste.

[2] Environment Protection Authority, '*Using waste tyres on farms and other properties*' (2017).
[3] Sustainability Victoria, '*Invest in Tyres*' (5 October 2021) <https://www.sustainability.vic.gov.au/grants-funding-and-investment/invest-in-victorias-recycling-sector/invest-in-materials-and-infrastructure/invest-in-tyres>.

Figure 1.3: Australian waste tyre supply 2013-2019, projected to 2025



Source: Envisage Works Positive Impact Consulting 2019, 'Tyre flows and recycling analysis', prepared for Department of Environment and Energy

1.3.2 Potential increases in the number of waste tyres used as silage weights in the future

The broader increase in the volume of waste tyres may place additional pressures on farms to serve as a disposal point due to farms being a relatively cheap place for their disposal. The proper disposal of waste tyres at a waste management facility, such as a transfer station, costs in the range of $3.90 to $11.00 per EPU, not including the cost haulage and time.[4] Given that farms may be willing to accept or buy waste tyres at a reduced cost, the incentive for the holders of waste tyres to divert them to farms will likely increase over time. An early sign of increasing pressure to find places willing to receive waste tyres has been the emergence of inducements on social media for farmers to accept free tyres.[5] This may give farms an incentive to continue using tyres as silage weights and disincentivise farms from exploring alternative silage weights or methods.

An additional pressure that may increase the number of tyres used as silage weights on farms is an expected increase in silage production in Victoria as the state experiences dry years more frequently and experiences more variable weather due to climate change.[6] Having enough silage to cover dry periods where there is insufficient ground feed available is essential to the operation of farms. Without access to a sufficient amount of waste tyres, farmers would need to use alternative weights or other means to weigh down silage wraps. Due to the number of weights still likely to be required, this would impose a significant cost. As such, more farms will require more silage weights (such as tyres) to handle increased production.

---

[4] Barwon South West, '*Tyre Recycling*' (August 2019) < https://resources.reduce-recycle.com.au/bswwrrg/wp-content/uploads/2019/10/03013310/3-Tyre-Recycling-options.pdf>; South Gippsland Shire Council, '*Waste Disposal Fees and Charges*' (2022) <https://www.southgippsland.vic.gov.au/info/20048/waste_disposal_facilities_tips/165/waste_disposal_fees_and_charges>.

[5] Dairy Australia to DELWP and EPA, email September 2021.

[6] CSIRO, '*State of the Climate 2020*' (2020); Deloitte Access Economics, '*A new choice: Australia's Climate for Growth*' (November 2020).

It is unclear to what extent these combined effects may have on the future volume of waste tyres on farms given the lack of clear data on market participant behaviour. Farmers acquiring waste tyres is not necessarily undesirable behaviour. If they are storing tyres appropriately and productively, it should be encouraged. DELWP survey data suggest the majority of farmers using waste tyres as silage weights act largely in accordance with best practice guidance set out in the CFA *Open Air Storage of New or Used Tyres* guidance, and keep stacks of tyres being used for silage production away from fire risk factors including vegetation, buildings and powerlines.

1.4 Current waste tyre management framework

1.4.1 EP Act and Regulations

Under the *Environment Protection Act 1970*, the Victorian Government had an obligation to ensure that waste produced in the state is adequately and safely managed. Changes to the EP legislation took effect on 1 July 2021 under the new *Environment Protection Act 2017* (the EP Act), and subsequent regulatory changes focus on shifting waste management in Victoria from a 'reactive' to a 'preventative', duties-based framework. The new EP legislation provides a broad and flexible legislative framework, which requires duty holders to take reasonable steps to minimise the risk of harm to the environment so far as reasonably practicable, to better manage waste and pollution risks. The cornerstone of this preventative framework is the general environmental duty. The framework was designed to be risk-based, scalable and proportionate to the risk posed to human health or the environment.

1.4.2 Licensing requirements for waste tyre storage

The new *Environment Protection Regulations 2021* (under the EP Act) retained the previously existing requirement for sites (including farms) that store more than 40 tonnes, or 5,000 EPU, of waste tyres hold a licence, recognising the risks to human health and the environment created by the improper storage of waste tyres.

The 5,000 EPU level was based on CFA's view of the risks associated with tyres manufacturing, automotive dealers and industrial tyre storage where volumes exceeding the 5,000 EPU threshold can represent a significant fire hazard.

The threshold was intended to enable the regulations to address risks to human health and the environment from fires resulting from improperly stored waste tyres by focusing focus on large processors and handlers of waste tyres, while minimising regulatory burden on duty holders who store smaller amounts of waste tyres, those who store them intermittently, or those with strong private incentives to manage the fire hazards from storing waste tyres.

The new *Environment Protection Regulations 2021* (under the EP Act) retained the requirement for sites storing more than 40 tonnes, or 5,000 EPU, of waste tyres to hold an EPA waste tyre storage licence (an A09a operating licence [waste tyre storage – large]) but added a requirement for sites storing between 5 cubic metres and 5,000 EPU of waste tyres to hold an EPA waste tyre storage registration (an A09b registration [waste tyre storage – small]).

Farms with less than 5 cubic metres of waste tyres do not require an EPA permission.

The tyre storage licence includes a number of operating conditions which must be met in order to hold the licence such as:

- the maximum number of tyres to be stored
- the maximum size of any pile of tyres
- the minimum separation distance for piles of tyres
- record-keeping requirements
- an emergency management plan
- the requirement for onsite fire-fighting equipment.

The tyre storage registration is less onerous than a tyre storage licence in terms of requirements, but still mandates that records are kept and waste is stored and managed in a manner which minimises the risk of fires.

The tiered permissions within the EP Regulations are set as three risk-based levels of permission that consider the risk and complexity of an activity:

- licences – complex high-risk activities that require bespoke assessment, conditions, and ongoing oversight
- permits – moderate risk activities or high-risk low-complexity activities requiring standard assessment processes and ongoing conditions
- registration – simple generic mechanism for automatic granting of permissions with standard conditions attached.

The aim was to produce a risk-based, proportionate and simplified system of permissions which provides clarity to duty holders and is not administratively burdensome for EPA. It is an offence under the EP Act to conduct an activity without obtaining the required permission. There are associated penalties for such breaches.

Six criteria were chosen for characterising the EPA's current and future permissioning tools. These were:

- complexity
- risk
- application
- assessment
- conditions, and
- compliance.

Under this framework, the storage of waste tyres was allocated to the licence and registration tier based on this assessment of risk and complexity, but not to the permit tier.

A licence is targeted to the highest order risks. It is used for complex ongoing activities, which have high inherent and residual risk. Waste tyre reprocessing facilities are considered to be of this level of risk, based on CFA and EPA views regarding the risks of waste tyre reprocessing facilities. The fire risk inherent in large volumes of tyres held in recycling and reprocessing facilities and the complex activities of reprocessing waste tyres through cutting and grinding machinery justifies the requirement for licensing of these facilities that hold more than 5,000 EPU or 40 tonnes of waste tyres.

The permissioning framework is supported by the GED and EPA guidance that contributes to the general state of knowledge – the knowledge that a duty holder has or can reasonably be expected to have about a hazard or risk and ways of eliminating or reducing that hazard or risk. In this context, the GED requires all sites storing waste tyres to manage the risk of harm from the waste tyre storage to human health and the environment. More specific waste duties and permissions regimes, along with guidance provided by the EPA, support the GED by providing clear enforceable standards or by contributing to the state of knowledge. As noted above, the EP Regulations also prescribe waste tyres to be both industrial waste and reportable priority waste (transactions) to further manage the risks of illegal dumping, abandonment, and stockpiling.[7]

As with the 2014 changes to the environment protection framework which recognised the risks of waste tyres, the EP Regulations concentrated on points within the waste chain which pose the greatest fire risk, those holding the largest amounts of waste tyres and either storing them indefinitely or reprocessing them through machinery, often located near to large population centres, businesses and infrastructure.

The additional controls put in place in 2021 also aim to manage the risks of illegal dumping by satisfying the requirement under the EP Act that as an industrial waste, waste tyres can only be

[7] Waste tyres are reportable priority waste for the purposes of transactions but not transport. The transaction of waste tyres must be reported (so waste tyres can be tracked), but they may be transported without additional restrictions. This is because waste tyres do not present a great environmental risk if they escape into the environment when being transported in contrast to toxic wastes.

lawfully sent to and received at a place with lawful authority to do so.[8] Permissions are used to establish the lawfulness for sites receiving most forms of industrial waste. It is an offence under the EP Act for a site to receive or deposit industrial waste (such as used tyres) without lawful authority to do so.

The EP Regulations also introduced a waste tracking system to ensure reportable priority wastes do not disappear from the waste stream. The Waste Tracker system was introduced as part of this reform. DELWP and EPA consider that tracking is necessary for waste tyres, as they are a waste with a rate of disappearance and potential associated hazards that warrant the EPA having oversight and understanding of the waste stream. From 1 July 2021, Waste Tracker replaced waste transport certificates with real time digital monitoring and tracking. This system will continue to operate irrespective of the matters assessed in this RIS.

Table 1.2: Regulation changes for storing waste tyres

Volume of waste tyre	**Environment Protection (Scheduled Premises) Regulations 2015 (under EP Act 1970)**	**Environment Protection Regulations 2021 (under EP Act 2017)**
>40 tonnes / 5,000 EPU	Licence	Operating licence or exemption
<40 tonnes / 5,000 EPU	Nil	Registration
<5m3	Nil	Nil

1.5 Preparation and structure of the RIS

The key purpose of this RIS is to assess the impact of amending the EP Regulations governing waste tyre use and storage on farms for use as weights in the production of silage. The RIS is restricted to analysis of this type of waste tyre use because stakeholder engagement undertaken by DELWP found that this was a common productive use of waster tyres on farms. Subsequent work undertaken by DELWP and EPA subject matter experts suggest that it is a use of waste tyres, that if properly managed, represents an appropriate use. The scope of the analysis does not include a reassessment of the use and storage of waste tyres in other situations, as DELWP and the EPA consider that this is adequately managed through the existing permissions, the GED and Reportable Priority Waste frameworks, and their associated enforcement mechanisms.

This RIS has been prepared in accordance with the *Victorian Guide to Regulation,*[9] which provides a best practice approach to analysing any proposed regulatory intervention. This RIS estimates the impact of the proposed Regulations on Victorian businesses and community.

Key steps in the process to introduce the proposed Regulations are:

- preparation of the RIS (this document),
- independent assessment by Better Regulation Victoria (BRV),
- consultation with stakeholders within agricultural industry peak bodies, individual farmers, CFA, Fire Rescue Victoria, Agriculture Victoria, and the EPA undertaken by the DELWP review,
- public comment on the proposed Regulations, and
- addressing public comment.

[8] Environment Protection Authority, '*Declaration of use: Lawful Place'* (June 2021) <www.epa.vic.gov.au/for-business/waste/declaration-of-use/lawful-place>.
[9] Commissioner for Better Regulation, '*Victorian Guide to Regulation: A handbook for policy-makers in Victoria*' (2016) <http://www.betterregulation.vic.gov.au/Guidance-and-Resources>.

The structure of this RIS and the approach to assessing the impact of the proposed amendments to the Regulations is as follows:

Chapter 2: Identification of the problem and objectives

Consideration of the nature and extent of the problem that the proposed Regulations aim to address, including the need for government intervention and the risks of non-intervention. The objectives of the proposed intervention are discussed.

Chapter 3: Identification of options to achieve the objectives

Several options to address the problem and achieve the objectives are identified and described.

Chapter 4: Assessment of the costs and benefits

Consistent with the requirements of the *Victorian Guide to Regulation*[10], an assessment of the costs and benefits of the proposed changes, relative to a reference case (the Base Case – no change to current regulations and exemptions) was undertaken. The analysis included the quantification, where possible, of costs and benefits to industry (farmers), government, and the Victorian community.

Chapter 5: Impacts of the preferred option

This chapter explores in further detail the impacts of the preferred option, including specifics of how the option will work to achieve the objectives and the expected costs of compliance of requirements under the option.

Chapter 6: Assessment of other impacts

The likely impacts of the preferred option on industry competition and small businesses have been considered. This part of the RIS draws on stakeholder consultations.

Chapter 7: Implementation and evaluation

This chapter describes the arrangements for implementation and evaluation of the preferred option.

In addition, relevant to all components is an overriding requirement that the depth of analysis must be commensurate with the magnitude of the problem and with the size of the potential impact of the proposal.

1.6 Public comment

The issues and proposed solutions identified in this this RIS have been developed based on stakeholder engagement to build DELWP's understanding of industry practices involving waste tyres. An understanding of the issues and current state of waste tyre storage on farms was achieved through:

- DELWP ongoing engagement with industry peak bodies, Dairy Australia and Victorian Farmers Federation meetings with the Australian Lot Feeders' Association
- survey on Engage Victoria from 27 October to 10 December 2021 on the numbers, uses and management practices of waste tyres on farms
- 11 interviews with farmers on the numbers, uses and storage practices of waste tyres on farms
- ongoing engagement with Agriculture Victoria.

Additionally, DELWP has built an understanding of the risks and potential controls through ongoing engagement with CFA, FRV and subject matter experts in EPA.

The next steps are public engagement, with this RIS and the proposed Regulations having been publicly released for consultation to provide businesses, members of the public and other interested

[10] Commissioner for Better Regulation, '*Victorian Guide to Regulation: A handbook for policy-makers in Victoria*' (2016) <http://www.betterregulation.vic.gov.au/Guidance-and-Resources>.

parties the opportunity to provide feedback through a formal submission process. Public submissions to the RIS will be open for 28 days from release.

1.6.1 Addressing public comment

Prior to issuing the Regulations, the Minister will consider all submissions received during the period of public review. The Minister will prepare a Statement of Reasons summarising the submissions received and their response. Submissions to the RIS and draft Regulations, and the Statement of Reasons, will also be made available through the Engage Victoria website.

2 Problem statement and objectives

This chapter outlines the nature and scale of the problem the proposed changes seek to address. It identifies the need for government to intervene in the use and storage of waste tyres as silage weights on farms and establishes that the existing regulatory framework is disproportionate when applied to farms.

2.1 Problem 1 - Waste tyres pose a significant environmental and public health risk if not properly stored and managed

Waste tyres stored in large volumes, improperly stacked without adequate separation distances from other piles, stored near waterways, or stored on top of long grass, pose a substantial fire risk. The structure and design of tyres make them difficult to extinguish once ignited, and the process often takes weeks or months. This is due to design; tyres absorb heat generated by the friction of road contact, the space at the centre of a whole tyre retains oxygen to stoke the fire, and the tyre walls present a barrier to water.

Tyre fires are more toxic for the environment than other types of building or bush fires. They emit toxic smoke and noxious gases containing carcinogens. They also pollute soil and water with pyrolytic oil.[13] The production of pyrolytic oil is amplified when water is used to extinguish or suppress the fire, potentially leading to further contamination.

Waste tyres present specific other risks when stored on farms, such as providing breeding ground for the proliferation of vermin, disease and snakes. The presence of grass and other vegetation around silage piles or pits on farms may exacerbate fire risks if appropriate safety measures are not undertaken. However, as discussed in section 2.1, the fire risk on farms is lower compared to other large waste tyre storge sites. This is due to the low-risk nature in which tyres are typically used on farms (for use as silage weights), in comparison to other facilities (ongoing storage in large piles).

Individually, waste tyres are inert and do not pose significant risks. However, several factors can result in waste tyres posing significant risks to human health and the environment. These are:

- the number of tyres held at a place at any one time (with risk increasing with the number of tyres)
- the complexity of activities required to handle, manage or process the tyres and
- the proximity of tyres to sources of ignition.

The consequences from these risks being realised are increased by proximity of the tyres to population centres, businesses and infrastructure. Preventing and cleaning up after fires involving

[13] Pyrolytic oil is a complex blend of molecules containing carcinogens, heavy metals and toxic substances which harm soil and waterways.

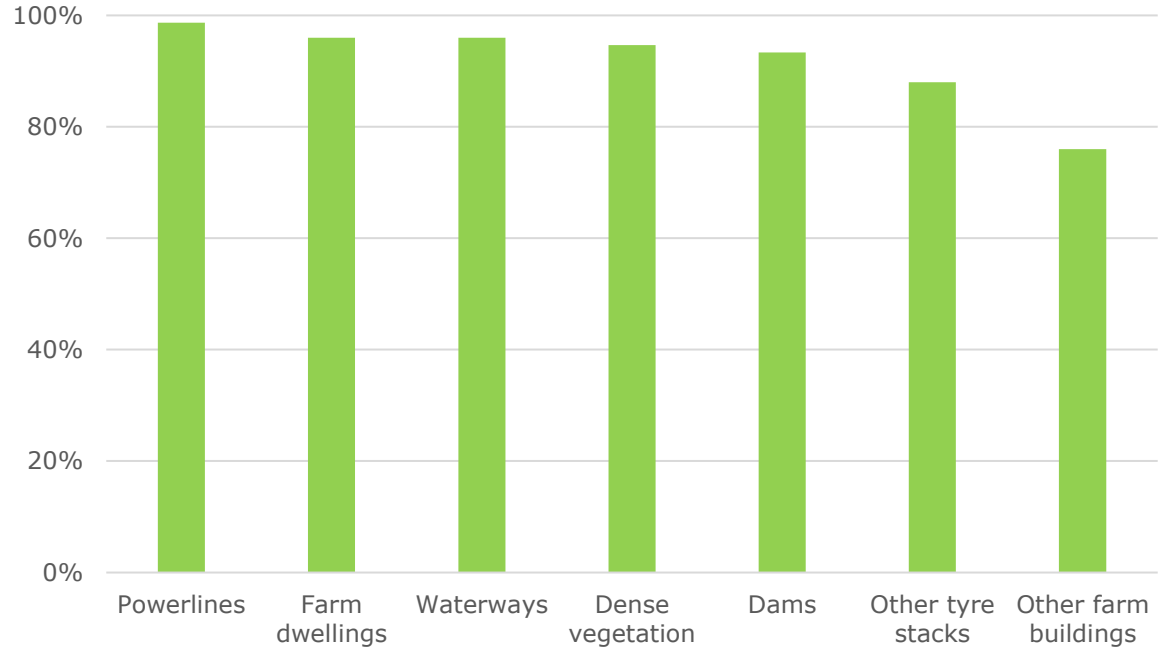
large stockpiles of tyres also results in significant clean-up costs, which can be 6 to 26 times greater than the cost of suppression.[14]

Some recent instances of issues relating to improper tyre storage that illustrate the extent of the issue include:

- a $4.5 million clean-up cost incurred by the owner of a one million tyre stockpile wherein a fire would have resulted in 7,000 people from Stawell being evacuated[15]
- a fire in a Broadmeadows tyre yard with 150,000 tyres took several days to extinguish, and residents were urged to avoid the area while the fire burnt[16]
- a $2 million clean-up cost incurred by a site owner in Numurkah following the removal of 5,000 tonnes of stockpiled tyres.[17]

Although there are no recent cases of significant fires associated with tyre storage on Victorian farms, the consequences of these fires as highlighted above demonstrates the need for risks to be appropriately and proactively managed. Based on a recent anonymous survey conducted by DELWP, most farmers reported that they follow existing CFA guidelines as they relate to tyre storage on farms. For example, a key risk control measure is to not store stacks of tyres within 20 metres of farm buildings, other tyre stacks, dams, vegetation, waterways, farm dwellings or powerlines. As shown in Chart 2.1 below, most survey respondents reported that they practised this. In aggregate, 66 per cent of farms reported that they applied all the measures advised by CFA's guidance, while only 8 per cent did not apply more than one measure.

Chart 2.1: Share of farms compliant with CFA Open Air Storage of New or Used Tyres (Separation Distance Guidelines)



Source: DELWP survey

[14] Office of the State Fire Marshall, Rings of fire revisited: Tire fire prevention and suppression, State of California, 2004.
[15] https://www.abc.net.au/news/2018-10-30/supreme-court-fines-stawell-tyre-stockpile-owner-millions/10447610
[16] 'Melbourne tyre blaze under control but may burn for several days', *ABC News* (online, 12 January 2016) <https://www.abc.net.au/news/2016-01-12/melbourne-tyre-blaze-may-burn-for-another-24-hours-firefighters/7082642?nw=0&r=Gallery>.
[17] 'Numurkah dump owner to pay $2 million to EPA for 'hazardous' tyre stockpile', *ABC News* (19 February 2020) <https://www.abc.net.au/news/2020-02-19/numurkah-tyre-dumpers-ordered-to-pay-2-million-for-clean-up/11976446>.

There is some uncertainty about the use of waste tyres for silage in the future. Tighter recycling and export controls will likely increase the number of waste tyres in Australia. Second, potential increases in silage production will necessitate a greater number of silage weights, such as tyres, on farms. As such, despite the small risk presented by waste tyres used as silage on farms, it is important that the risks presented by tyres on farms continues to be considered and addressed. This is particularly important for the oversight of farms storing especially large volumes of waste tyres.

2.2 Problem 2 - Requiring a licence is disproportionate to the scale, nature and risk posed by the storage of waste tyres used as silage weights on farms in Victoria.

The EP Regulations were designed to give effect to a legislative framework that creates a risk-based, proportionate and simplified system of permissions which provides clarity to duty holders and is not administratively burdensome for EPA.

For waste tyres, the requirement for sites storing in excess of 5,000 EPU, or 40 tonnes, of waste tyres to hold an EPA waste tyre storage licence (an A09a licence) was retained from the previous scheme. Although it was contemplated that other sites may be captured by the licence, the focus was on tackling issues presented by large processors and handlers of waste tyres, such as disposal sites and re-processors.

At the time of establishment, it was not anticipated that a substantial number of farming sites would inadvertently be captured within the permissions scheme. Based on a recent stakeholder consultation survey undertaken by DELWP, it was determined that there are potentially over 800 farming sites in Victoria that hold more than the threshold quantity of tyres, but do not have an EPA waste tyre storage licence. Currently, no farms hold an EPA waste tyre storage licence.

The lack of farms holding an EPA waste tyre storage licence indicates an issue with the current regulatory framework in the sense that a large number of farmers above the volumetric threshold either:

- don’t know about the requirement to obtain a licence
- know about the requirement, but choose not to obtain one
- know about the requirement, but choose not to obtain one because it is too costly or otherwise burdensome.

While the unintended consequence of farming sites being captured within the permission scheme is not itself a problem, the application of the scheme, which was designed for waste processing facilities, does present practical challenges when applied to farms. For example, some of the potential licence conditions such as maintaining extensive onsite firefighting equipment or effective security measures are unlikely to be appropriate in the farm context.

The cost of getting and maintaining a licence or exemption is significant. The current cost estimate of maintaining an EPA licence is $49,000 annually per business and the fee for an exemption is between $1,034 to $11,728 per application. Given that there are currently over 800 farms above the threshold for a licence, the total potential cost to the sector of obtaining a licence is up to $40 million annually, in addition to the costs of complying with the licence requirements. If all eligible farms were to obtain an exemption, the cost of applicable fees would amount to $5.1 million.[18] In practice the total costs are likely to be between these two figures as some proportion of farms are expected to apply for an exemption, and application processing and compliance costs for waste tyre storage on farms may be lower than those typical for other operational licences for waste (particularly where other licensed sites are undertaking more complex activities). As no farms are currently licensed or exempt, if no changes were made to the Regulations or change in enforcement action was undertaken, it is not anticipated that the farmers required to obtain a licence would do so. However, these costs represent those that would be incurred if all parties fulfilled their

[18] Calculated using the mid-point of the fee range.

obligations. Given that an exemption is a discretionary instrument, it is uncertain how many would be granted under this option.

Given the potential costs discussed above, it is evident that the cost of obtaining a licence or exemption is disproportionate to the risks presented by the storage of waste tyres used as silage weights on farms. The use of tyres as silage weights on farms represents a lower fire risk activity compared to their use on other sites which are required to hold a licence. For example, the shredding and grinding of waste tyres at a reprocessing site is a complex activity that takes place amid or near large sources of fuel in tyre stores awaiting processing. This poses a much higher fire risk activity than their use as static weights, spread across silage production. Additionally, the potential consequence of a fire event is greater at a waste tyre processing facility due to proximity to large population centres.

Unlike tyre storage and reprocessing facilities where tyres are stored in one location, waste tyres used for silage weights are often dispersed across a farming property near to where individual silage pits are located. As such, the volume of tyres in a single location on a farm is likely to be smaller than other sites storing an equivalent total volume of tyres. This both limits the risk of ignition in any individual pile and the volume of fuel available in the event of a fire. However, some farms do store tyres in a central location and then transport them to where they are needed. For an equivalent volume of tyres, this centralised method presents a greater risk if appropriate measures are not utilised.

Waste tyres stored for use as silage weights on farms also present a lower risk than their storage on other sites due to the seasonal variation in their use. Tyres used for silage on farms are regularly moved from storage piles to silage pile and from silage pile to silage pile as feed is used throughout the year. As fire risk is greatest when tyres are stored in large piles for extended periods of time, this dramatically reduces the likelihood of fire and other adverse consequences. Based on the survey of farms undertaken by DELWP, the maximum usage of tyres as silage weights on farms coincides with peak fires season. For example, during October to December, 80 to 100 per cent of tyres are in a state of use rather than static storage.

Use of waste tyres on farms is also a low complexity activity. DELWP's survey of farmers suggests that most farms transfer whole tyres to and from silage either by hand or by scooping them up in farm machinery. Though some farmers do cut waste tyres for use, tyres on farms for silage production are not put through complex processes involving cutting and grinding machinery as they are at waste reprocessing facilities.

Additionally, there is a strong private incentive for farmers to manage the risk of fire when using and storing tyres. A fire on site is detrimental to their own health, their property, infrastructure and livestock, and they would bear much of the clean-up cost in the event of a fire. The responses to the survey of farms conducted by DELWP confirmed that most farms were aware of the risk of fire and taking active measures to mitigate the risk. For example, most farmers surveyed by DELWP are already applying some safety practices such as cutting back grass from tyre piles.

2.3 Objectives

The existing Regulations set up a regulatory framework for the storage of bulk quantities of waste tyres. In doing this, the overarching objectives of the Regulations are to:

- minimise the environmental and public health impacts (particularly those as a result of fire) from inappropriate storage of waste tyres
- provide a clear framework for how storers of waste tyres can fulfill their environmental duties
- prevent the illegal dumping, storage and other undesirable uses of waste tyres in Victoria.

Given that few or no Victorian farms were expected to be captured by the regulatory scheme for the storage of waste tyres when the current threshold and requirements were developed, the objectives of the proposed changes considered in this RIS are to:

- manage the risks associated with the storage of waste tyres used as silage weights on farms by:

  - encouraging farmers to use guidance to identify, plan and manage risks from waste tyres on farms
  - discouraging farmers from:
    - storing too many tyres in piles that are too large or close other tyre piles, buildings, powerlines or vegetation
    - storing more tyres than are needed for silage production
    - becoming a disposal pathway for waste tyres.
- establish a more risk-proportionate regulatory framework for the storage of waste tyres used as silage weights on farms.

3 Development of options

This chapter sets out the options developed for consideration in this RIS. They include both proposed regulatory and non-regulatory options that may achieve the desired objectives.

3.1 Options for assessment

As part of the RIS process, it is necessary to consider different options that could achieve the Victorian Government's objectives. The *Subordinate Legislation Act 1994* requires a RIS to consider "other practicable means of achieving those objectives, including other regulatory as well as non-regulatory options".

The options considered in this RIS include those that would attempt to achieve the objectives without a change to the regulatory requirements, and regulatory and non-regulatory changes that are potentially available. These options are be assessed relative to the Base Case and are:

3.1.1 Base Case: Status quo

Under the Base Case, the Regulations remain unchanged and farms storing more than 5,000 EPU or 40 tonnes of tyres will be required to obtain an EPA waste tyre storage licence or an exemption. The Base Case for analysis in this RIS assumes that the current compliance rates for licences and registration remain the same over time. As noted above, it is currently estimated that more than 800 unlicensed farms exceed the 5,000 EPU threshold, and that few if any farms are currently registered.

Despite no farms currently being licensed and few if any being registered under the Base Case, farms are supported in fulfilling their duties under the GED through new and existing published guidelines such as the CFA and MFB's '*Fire Services Guideline: Open Air Storage of New or Used Tyres'* and EPA Victoria's '*Using waste tyres on farms and other private property*'. While these documents provide high-level guidance, there are opportunities to improve and consolidate the state of knowledge for the storage of waste tyres used as silage weights on farms.

3.1.2 Option 1: More information and enforcement within the existing permissions scheme

Option 1 presents no change to the permissions scheme for waste tyres used as silage weights on farms. However, under this option EPA would increase its focus on sector compliance with licensing. EPA would undertake additional measures to improve the state of knowledge for the storage of waste tyres used as silage weights on farms by issuing farm-specific guidance which would inform the state of knowledge for the activity at the farm for the existing permissions, and in turn the GED. EPA would also undertake an information campaign to educate and help farmers comply with their obligations under the permission scheme. After a period, EPA would also increase their level of enforcement of the current permissions in a manner proportionate to the risks presented by waste tyres used as silage weights on farms. This would shift incentives for farmers towards complying with the licensing requirements.

3.1.3 Option 2: Exempt farms from requiring a permission altogether

Option 2 would exempt farms from the waste tyres permission scheme altogether, with no conditions for using tyres as silage weights. Although farms would not be required to obtain a permission to store some quantities of waste tyres, the GED and any EPA guidance informing the state of knowledge (see below) would continue to apply. There would be no conditions for the activity.

3.1.4 Option 3: Exempt farms from requiring a permission, with conditions

In this option, EPA would exempt farms using waste tyres as silage weights from obtaining a licence or licence exemption provided that they met minimal conditions. The EPA would develop guidance for the storage of waste tyre on farms and specify in the Government Gazette a set of requirements that farms could meet in order to be exempt (a determination for the activity set under s48 of the EP Act). Farms would self-assess to determine if they met the requirements, and if so, would be eligible for the exemption from the need to obtain a licence or registration. If a farm subsequently failed to meet any of the prescribed requirements, they would no longer qualify for an exemption under this option. In this instance, they could be liable for a fine, be required to remove the waste tyres or may be required to obtain a permission. It is uncertain how many farms would apply for an exemption, however the intention of the option is to set conditions that would exempt most farms on the understanding that most represent a relatively low environmental and health risk.

3.1.5 Option 4: New registration class for farms using tyres as silage weights

Under this option, the Regulations would be amended to reflect the lower risks associated with use of tyres as silage weights on farms. This would involve establishing a new registration class for farms using tyres as weights for silage production. The applicable volumetric threshold of the new registration would apply to farms storing and using more than 5 cubic metres of whole waste tyres, the same as the lower-range threshold under the existing permissions for waste tyre storage. It is uncertain how many farms this threshold would capture however, it would likely include most of the estimated 4,000 dairy farms operating in Victoria given the minimum scale of waste tyre usage by a farm using waste tyres for the purposes of silage weights.[19]

The registration would include generic record keeping, monitoring and notification requirements (as does the current A09b registration for waste tyre storage). These requirements are significantly less burdensome than those included under the existing licence, such as the installation of extensive onsite firefighting equipment which, as discussed in Section 2.1, may not be proportionate to the risks presented by waste tyres used as silage weights on farms.

To obtain a registration, farmers should also prepare an assessment of risks and risk controls. The complexity of this assessment would be proportionate to the size and scale of the activity with more detailed written assessments expected for farms storing larger volume of waste tyres for use as silage weights. These assessments would not need to be provided to EPA but should be available upon request.

EPA could require the duty holder to undertake the measures or revoke the registration and order tyres to be removed if they formed the view that risks were not adequately being controlled. This would place the duty holder in breach of the waste duties and the GED if they were to continue storing waste tyres.

The new registration would be supported by EPA guidance to set out expectations on specific risk control measures, which would inform the state of knowledge for the activity and the GED. Obtaining this new registration would exempt farms from the need to hold the existing licence (A09a) or registration (A09b) when storing and using waste tyres for silage production. The Regulations governing tyre use and storage on other sites, such as reprocessing facilities, would remain unchanged.

3.1.6 Option 5: New registration class and permit for farms above a threshold

This option is similar to option 4, except with the addition for a permit for farms storing more than a certain EPU threshold of waste tyres for use as silage weights. The proposed threshold is 5,000 EPU, the same level as the existing waste tyre storage licence.

Compared to a registration, the permit would require a more detailed application and an upfront desktop assessment by EPA, with administrative costs passed on to permit applicants through fees. This would be less burdensome than the existing licence as it would not require the highly detailed

[19] Based on a five year average of dairy farms registered with Dairy Australia in Victoria.

and sometimes bespoke assessments currently required in a licence application. Compliance would be informed by the new guidance to be developed by EPA but would represent measures proportionate to the lower risks presented by waste tyres stored on farms for use as silage weights, compared to other sites such as tyre reprocessing facilities.

As with the registration, EPA could require the duty holder to undertake the measures or revoke the permission and order tyres to be removed if it formed the view that risks were not being adequately controlled, potentially placing the farm in breach of waste duties and the GED.

It is possible that a different volumetric threshold (more EPU), or different type of threshold (e.g. density of tyres) may be a more appropriate proxy for risk. However, DELWP and EPA consider that there is currently insufficient data to suggest that a different threshold would be more appropriate than 5,000 EPU.

3.2 EPA guidance

Under all options, this RIS assumes that farmers would be supported in meeting their obligations under the GED through new, farm-specific guidance being created by the EPA. This guidance would inform the general state of knowledge for the storage of waste tyres used as silage weights on farms and also the standards for any permissions or exemptions considered under each option.

Farm specific guidance has the benefit, compared to an EPA licence, of allowing measures that are specific and proportional to the risk of waste tyre storage and use on farms to be set. Importantly, the guidance would not be prescriptive. Farmers would be able to fulfil their environmental duties in accordance with the measures that make sense in the context of their specific site, subject to any specific regulatory mechanisms that mandate compliance with a particular risk mitigation measure outlined in the guidance material.

Potential control measures that could be applied on farms storing waste tyres for use as silage are outlined below in Table 3.1, along with DELWP and the EPA's preliminary assessment of their suitability as measures to manage the associated risks.

In practice, any such measures would be set out in EPA guidance, rather than prescribed in the proposed Regulations, and so are an administrative decision outside the scope of this RIS. As the controls will influence the ultimate impact of the proposed Regulations, however, they are included here in this RIS to canvas stakeholder comment.

DELWP and the EPA understand that many farmers using waste tyres as silage weights already undertake proportionate and appropriate measures to manage the associated risks, and intend to consult with stakeholders in developing any EPA guidance. DELWP anticipates that, as a result, the potential impacts of the proposed Regulations arising from reference to such guidance will be relatively small. DELWP and the EPA welcome stakeholder feedback on the below control measures and current standard and best practices on farms.

Table 3.1: Potential control measures for waste tyre storage on farms (for use as silage weights) that may be stipulated in guidance

Control measure	Assessment
Grass buffer distances based on the size of tyre piles	A reasonably practical option which builds on practices which many farmers are already putting in place. Buffer distance are an effective measure for reducing fire risk and the risk of snakes.
Drainage lines around stored tyres to contain run off from fire-fighting foams	Likely an effective and reasonably low-cost control to reduce the risk of soils and water contamination. Additionally, farmers should have equipment on farm to implement this control.
Availability of machinery to break up tyre piles in the event of fire	An effective control for containing the spread of tyre fires with equipment that farmers or local CFA likely have ready access to, noting that obtaining access to some CFA equipment can be difficult.
Fire suppression capability on site	Limited access to an ongoing water supply would require firefighting systems and infrastructure (either fixed or mobile) to be installed at an expense which in many cases may be disproportionate to the risks.
Security fencing around stored tyres	This is likely to be unduly expensive and disproportionate to the risks posed by farms that store tyres in multiple tyre piles and have silage pits distributed across a property. It may be suitable for those sites that consolidate tyre storage in a central location.
Relocate waste tyre storage use locations to those presenting reduced fire and environmental risks	Best practice guidance could be developed with clear means of assessing compliance. However, difficulties may arise from the disparate topography for farm sites.
Limits on the size and dimensions of tyre storage piles	Likely to be an effective control with a maximum pile size limiting both the risk of fire and the fuel available for burning in the unlikely event of a fire.
Spraying for mosquitoes	May be an effective option if tyres are stored for prolonged periods of time, however, most tyres on farms are unlikely be static for long as they are cycled from silage pit to pit. Mosquitoes may be of growing concern in line with recent humid weather and health warnings in relation to Ross River and Japanese encephalitis virus.[20]

[20] See https://www.health.vic.gov.au/health-advisories/health-warning-on-mosquitoes-and-ross-river-virus-in-central-victoria and https://www.health.vic.gov.au/health-advisories/japanese-encephalitis-virus-detected-in-victoria respectively.

4 Impact analysis

This chapter describes the options and analyses the impacts of the identified options.

4.1 Method of assessment MCA

The options in this RIS have been assessed using multi-criteria analysis (MCA). MCA has been chosen as the preferred analysis tool because it provides a robust way of evaluating the disparate and often qualitative data available. It is a structured and transparent approach that can balance several distinct impacts, for example the extent to which options address the objectives of the proposed Regulations and encourage the desired behaviours in the market. Cost Benefit Analysis is not appropriate for this analysis because of the intangible nature of benefits. Break-even analysis is used in summarising the potential impacts of the proposed approach in Chapter 5.

MCA requires judgement as to how the proposed options will contribute to a series of criteria selected to reflect the benefits and costs associated with each fees option. Each criterion is assigned a weight, to reflect its importance to the policy decision. A weighted score is then derived for each option and the option with the highest weighted score is then selected as the preferred option. The MCA technique is outlined in Figure 4.1.

Figure 4.1: Multi-Criteria Analysis

MCA refers to a range of techniques used to assess policy options against a set of decision criteria. It enables a transparent comparison of options using a mixture of quantitative and qualitative information and allows analysis to consider a wider range of criteria (e.g. equitable considerations) which are not typically included in other common financial analyses, like break-even analysis. All necessary subjective judgements and assumptions used to determine options and criteria, and to assign scores and weights, are made explicit in the write up. The preferences of the decision maker reflected in these judgements and assumptions can be readily changed through a sensitivity analysis or by incorporating alternative indicators.

Where possible in MCA, scores should reflect the relative size or scale of impact when comparing:

- impacts of different options against a single criterion and
- different impacts of a single option for all criteria.

In addition, weights should reflect the priority or importance of a particular type of cost or benefit.

The criteria for this MCA and their allocated weights are outlined in Table 4.1.

Table 4.1: MCA Framework

Criteria	Description	Weighting
Benefit criteria		**50%**
Criterion 1: Change in environmental risk	The regulatory change will affect the way tyres that are used as silage weights are stored on farms, thereby affecting environmental risks, the most important of which is the risk of fire. Suitable management of environmental risk decreases the health risks to farmers and the community and reduces biodiversity loss, destruction of property, and greenhouse gas emissions, whilst not posing an excessive burden on farmers or government.	40%
Criterion 2: Improved regulatory clarity for industry	In a general duties regime, some regulatory and non-regulatory tools can provide greater clarity for duty holders about whether the measures they take to reduce risks or hazards are sufficient to meet their duty. Certain duty holders derive utility from the knowledge that they are in compliance with all applicable regulations, and therefore not at risk of penalty or environmental harm. This criterion assesses the extent to which each option provides clear risk mitigation measures or standards that meet a duty holder's obligations, providing a duty holder with confidence that they have satisfied that duty. Overly prescriptive or binding tools may provide clarity at the expense of flexibility for duty holders to tailor their compliance activities to specific risks. Any such trade-offs are accounted for in Criteria 3 (cost to industry) and Criteria 4 (cost to government) because flexibility can lead to cost savings for both industry and government.	10%
Cost criteria		**50%**
Criterion 3: Cost to industry	There are two main costs that could be imposed on industry. First, compliance costs associated with the time and resources employed to comply with the specific requirements of the regulatory option, such as trimming vegetation around piles of tyres, moving piles to be more spaced out and ensuring record keeping obligations are fulfilled. Second, administrative costs can be defined as the time and resources spent to apply for a licence, including financial fees. Importantly, these costs are to be compared with the current operations of farmers and current level of enforcement, regardless of whether or not they are complying with current regulation.	25%
Criterion 4: Cost to government	The cost to government includes the time and resources spent to administer and enforce the regulatory regime and the time and resources spent processing and assessing application for permissions. There may also be additional capital or implementation costs incurred during the transition.	25%

4.1.1 Weighting

The weighting of the cost and benefit criteria have been neutrally weighted at a total of 50 per cent each. This conforms with best practice as set out in Better Regulation Victoria's Guidance Note on MCA.[21]

Criterion 1, change in environmental risk, receives the highest weighting as management of environmental risk is the primary objective of the Regulations. Any option that would create a disproportionate risk to the environment, relative to the Base Case, would be counter to the Act's purpose of setting out a legislative framework for the protection of human health and the environment from pollution and waste.

Criterion 2, improved regulatory clarity for industry, receives the lowest weight because, while it is important for industry to have confidence that they are fulfilling their duties under the EP framework, it is less important than whether appropriate environmental standards are being set. An option that allows for flexibility in the implementation of adequate controls is a lesser consideration than whether these controls are effective at preventing environmental harm.

Both cost criteria receive equal weights.

The nature of the problems that the options considered in this RIS attempt to solve are based on the existing regulations as applied to the use and storage of waste tyres on farms for weights in silage production. Savings due to reduced burden are treated as a reduction in cost. As such, it is not considered necessary to weight the value of any savings (or additional burden) differently between the two parties. Any differences in the changes in the cost to either party will be reflected in their respective rankings in the relevant cost criterion, rather than the weighting.

4.1.2 Scale

Each option is scored against each criterion on a scale from –10 to +10, based on the option's impact on each criterion in comparison to the Base Case.

Table 4.2: MCA scale

Score	Description
-10	Much worse than the Base Case
-5	Somewhat worse than the Base Case
0	No change from the Base Case
+5	Somewhat better than the Base Case
+10	Much better than the Base Case

Note that a negative score for a cost criterion indicates that an option is *more* costly than the Base Case, and a positive score indicates it is *less* costly.

4.2 MCA scoring

Table 4.3 presents the results of the MCA. As per the Better Regulation Victoria Guidance Note, an option that is worse than the Base Case should receive a negative score.

Option 4 receives the highest weighted score, and therefore is the preferred option.

[21] Better Regulation Victoria, '*Guidance Note – Multi-Criteria Analysis'* (2014).

Table 4.3: MCA scoring

Criteria	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit framework
Benefits					
Reduction in environmental risk	2	-2	-1	3	4
Improved regulatory clarity for industry	1	2	1	3	2
Costs					
Cost to industry (positive score is lower cost than Base Case)	-8	1	-3	-1	-6
Cost to government (positive score is lower cost than Base Case)	-4	1	-1	-2	-3
Weighted score	**-2.1**	**-0.1**	**-1.3**	**0.8**	**-0.5**

4.3 Analysis of options

The discussion below compares the options against the assessment criteria. Each option is scored relative to the Base Case where farms storing over 40 tonnes or 5,000 EPU of waste tyres are required to have an existing licence or exemption (with a large proportion of farms remaining non-compliant).

4.3.1 Criterion 1: Reduction in environmental risk

Table 4.4: Scoring of the reduction in environmental risk

Criterion	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit framework
Reduction in environmental risk	2	-2	-1	3	4

Option 1 (more information and enforcement) receives a score of **2** for this criterion, as it is slightly better than the Base Case. As many farms holding greater than 10,000 EPU of waste tyres are expected to become licensed (or apply for an exemption) under this option, there will be a reduction in the degree of environmental risk at these farms. Additionally, the information and education campaigns that the EPA would undertake under this option would increase awareness of the supporting guidance for the storage of waste tyres and assist all farms, even those who do not obtain a licence, meet their GED requirements. However, given that the use of waste tyres as silage weights on farms and the established practice for their storage do not currently appear to contain significant environmental risks, the addition of farms meeting the conditions of a licence is unlikely to substantially reduce any existing environment risk.

It is expected that the reduction in risk under this option would incrementally increase over time as more farmers become licensed. The increase in compliance would depend on the enforcement resources that the EPA could commit.

Option 2 (exempt farms from requiring a permission altogether) receives a score of -**2** for this criterion, it is slightly worse than the Base Case as it would result in a significant reduction in oversight and specific enforcement powers for the EPA. In the absence of any permissions scheme, there may be an increase in the risk of poorer storage practices, stockpiling and illegal dumping of waste tyres on farms. However, this is not expected to be large due to the GED (and any related EPA guidance) still applying under this option, meaning that farmers still have general environmental responsibilities when storing waste such as waste tyres, based on the state of knowledge.

While the deregulation of farmers' obligations to comply with the current tyre licensing requirements is expected to increase environmental risk, it is only expected to be marginal considering the relatively low risk currently posed by farms, none of which are licensed. On the other hand, while no farms are currently licensed with an A09a licence, a few may register their tyre storage activities voluntarily through the EPA, and some information on the numbers, uses and location of waste tyres could be lost if farms were exempt from the permissioning scheme altogether. This risk may increase over time if farms are seen as a pathway to dispose of waste tyres.

Option 3 (exempt farms from requiring a permission, with conditions) receives a score of **-1** for this criterion. It is slightly worse than the base case, but slightly better than Option 2. It is less effective than the Base Case because it reduces the ability for the EPA to enforce compliance. However, it is more effective than Option 2, because it would allow general farm-specific conditions to be included in a determination.

Option 4 (new registration) receives a score of **3** for this criterion, as it is somewhat better than the Base Case. Under this option there would be broad uptake of the new registration which would likely reduce the risk posed by farms using waste tyres as silage weights due to them, at a minimum, turning their mind to whether their current practices conform with the requirements of a registration during the course of making their application. It would also help reduce risk by providing EPA with information on the numbers, use and location of waste tyres on farms, allowing them to proactively manage the risk of sites holding large quantities.

Additionally, the specific requirements placed on farms under this option would be less prescriptive and more flexible than those under the existing licence. This would allow farms to implement risk reduction measures that meet the GED requirements in a way that makes sense in the context of their specific site. This would be further supported by the additional guidance issued by the EPA. Due to this flexibility, the level of risk reduction is likely slightly greater than under Option 1.

Option 5 (new registration and permit framework) receives a score of **4** for this criterion, as it is somewhat better than the Base Case and moderately better than Option 4. In addition to what is required under Option 4, Option 5 would require farms above a specified threshold to meet additional requirements, for example preparation of an emergency management plan or site visits from the EPA may be required as part of the permit application assessment process. This may reduce environmental risks for large farms relative to Option 4, however not substantially as the primary driver of risk reduction is considered to be compliance with the control measures outlined in EPA guidance.

Option 5 receives a score that is only moderately better than Option 4 given that farm owners have strong incentives to safely manage tyres on their properties and in many cases employ reasonable safety management measures. Further, given the variation and uncertainty of the risk profile of farms from one property to the next, it is difficult to set a clear and specific threshold that accurately reflects a point at which the risks of tyres used on farms increases (for example, DELWP and the EPA do not at this stage have sufficient information to determine whether higher-risk farms using waste tyres as silage weights are likely to be those with larger quantities of tyres, higher quantities of tyres relative to property size, or other variables).

4.3.2 Criterion 2: Improved regulatory clarity for industry

Table 4.5: Scoring of improvement in regulatory clarity for industry

Criterion	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit
Improved regulatory clarity for industry	1	2	1	3	2

Option 1 (more information and enforcement) receives a score of **1** for this criterion, as it is slightly better than the Base Case. Greater awareness of the supporting guidance from the EPA, CFA and MFB would increase the level of regulatory clarity within industry. It would clearly outline how farmers could meet their GED obligations for the activity as well as the licensing obligation. However, given that some conditions of the existing licence are not specifically tailored to the context of a farm storing a moderate quantity of waste tyres, a degree of uncertainty about its application is likely to remain.

Option 2 (exempt farms from requiring a permission altogether) receives a score of **2** for this criterion, as it is slightly better than the Base Case and is better than Option 1 because the revised EPA guidance (see 3.2 above) would be developed in this option (just as in Option 1), and Option 2 would then also involve the removal of the current permissioning scheme – the removal of requirements that are currently ill-suited to farms is expected to improve farmers' understanding of that they are meant to do to comply.

Option 3 (exempt farms from requiring a permission, with conditions) receives a score of **1** for this criterion. While the determination would clearly lay out the eligibility conditions and measures required, the lack of flexibility could mean that farmers may be unsure of the appropriate action to take if they are unable to fulfill one or more gazetted alternative requirements in the specific context of their property. This could result in the farmer needing to obtain a licence, creating further uncertainty. It may also leave some farmers to believe that by meeting the alternative requirements gazetted by the EPA, they have done everything they need to do to uphold their GED obligations, regardless of what other guidance is available (whereas in practice the conditions exempt the farmer from the need to get a licence, but not the need to familiarise themselves with guidance in meeting the GED).

Option 4 (new registration) receives a score of **3** for this criterion, it is somewhat better than the Base Case. Under this option the level of regulatory clarity within industry is likely similar to the Base Case as the regulatory instrument is similar. However, by having farm-specific permissions, farm owners are less likely to disagree with or be concerned or confused by the potential conditions of the existing permissioning requirements, some of which are not practicable on farms. Additionally, the supporting guidance issued by the EPA will assist farmers in fulfilling their duties under the new registration and existing GED.

Option 5 (new registration and permit framework) receives a score of **2** for this criterion. The regulatory approach under this option is identical to Option 4, with the addition of an extra permission for farms storing larger volumes of waste tyres for use as silage weights. However, as farmers would need to determine whether they are above the permit threshold and the permit is more complex than a registration, it has been scored marginally lower than Option 4.

4.3.3 Criterion 3: Cost to industry

Table 4.6: Scoring of cost to industry

Criterion	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit
Cost to industry (positive score is lower cost than Base Case)	-8	1	-3	-1	-6

Per-farm cost estimates are provided where possible to provide an indicative order of magnitude. The total cost to industry in some options will depend on the level of compliance and any exemptions granted, both of which are unknown. These estimates assume that the options are implemented and enforced as described above.

Option 1 (more information and enforcement) receives a score of **-8** for this criterion, as it is somewhat more costly than the Base Case. Under this option many unlicensed farms would become licensed or exempt, resulting in a significantly greater compliance cost relative to the Base Case. This is due to the need for farms to potentially fulfil conditions such as preparing a risk management plan, installing fencing around storage sites and procuring firefighting equipment.

It is estimated that 800 farms would incur the cost of the applicable fee for a licence or licence exemption application. At a minimum the fees for an operating licence or exemption are $1,274 and $1,034 respectively.[22] A licence also attracts an annual fee of $3,156. As such, the ten-year net present value of operating licence fees (including initial application and ten ongoing annual fees) is approximately $27,000 per licence holder.

In addition to these fees, farms would incur costs in complying with licence conditions. Compliance costs of meeting operating licence obligations under the current framework are estimated to be an average of $31,000 per year per duty holder.[23] However, as the use of tyres on farms is fundamentally different to the way in which other licensed duty holders handle waste, the cost in this circumstance is likely to be significantly less than this figure for most, if not all farms. For example, while a waste tyre reprocessing facility may need to track the inflows and outflows of tyres multiple times per day, farms may only receive tyres a few times per year at most. Additionally, not all compliance costs can be considered associated with fulfilling obligations under a waste storage licence. Some activities would be undertaken anyway to fulfill the broader duties under the EP Act, such as the GED. While costs are undoubtably lower for farms, as none are currently licensed it is unclear what the potential costs may be. As such, while it is difficult to be precise, the ongoing compliance cost applicable to farms has been assumed to be 10 per cent of that of an average duty holder, or $3,100 per year per duty holder.

Farms that do not meet the threshold for a licence would incur costs associated with registration. As relatively limited information is required to complete a registration, the process for each farm is estimated to take up to two hours, including for an assessment of risks and risk controls.[24] Using an estimated hourly cost of $69.16 (based on the average Victorian hourly wage of $39.50 with additional on-costs and overheads of 75%),[25] this implies a typical cost of registration of $138.25.

[22] The maximum applicable fee for an operating licence or licence exemption is $14,509 and $11,728 respectively.
[23] Based the estimated cost from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[24] Based on twice the estimated time from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019). The time has been doubled to account for the additional requirement of a preparation an assessment of risks and risk controls.
[25] Australian Bureau of Statistics, *Employee earnings* (August 2021).

An estimated 3,200 farms are anticipated to require a registration under this option, implying an initial registration burden of $442,400 with the same cost incurred again after five years to renew registration (approximately $870,000 in net present value terms over ten years).

In summary, the associated costs to industry, in net present value terms over ten years, if all eligible farms obtain a registration or licence are:

- $21.6 million in fees for 800 farms who obtain a licence
- $25 million in licensing compliance costs
- $870,000 in costs obtaining and renewing registrations

These costs are considered to represent a maximum amount assuming farms become licensed. In practice, costs will be lower if some proportion of farms instead seek an exemption.

Option 2 (exempt farms from requiring a permission altogether) receives a score of **1** for this criterion, as it is slightly less costly than the Base Case. As farms would be exempt from the permissions scheme, they would avoid the cost of undertaking measures they would not undertake in the absence of a registration or licence and avoid the associated application fee applicable to licence, registration or exemption. As no farms are currently licensed or expected to become licensed under the Base Case, there are low to no avoided costs for industry as a result of its removal. However, there will be a small saving from farms who would no longer need to spend the time making an application for registration.

Option 3 (exempt farms from requiring a permission, with conditions) receives a score of **-3** for this criterion. There are additional administrative and compliance costs relative to Option 2 that are required to meet the conditions of the determination. In addition, there is a risk that failure to comply with any alternative requirements gazetted by the EPA or practices set out in guidance could result in non-compliance with obligations under the EP Act and result in significant penalties: the framework for determinations made under section 48 of the Act is such that there are significant penalties if a duty holder does not meet the alternative requirements gazetted by the EPA to be eligible for the determination and continues to operate without the required authority (either a licence or registration), and the EPA does not have discretion regarding the application of those penalties.

Option 4 (new registration) receives a score of **-1** for this criterion, as it is slightly more costly than the Base Case. As few to no farms are assumed to become licensed (or apply for an exemption) and few if any registered under the Base Case, requiring an estimated 4,000 farms to obtain a registration will impose additional cost on industry.[26] As a registration under the EP Act does not attract an application fee, the cost to industry is comprised on the time and effort involved in lodging and complying with the registration.

The registration process for each business is estimated to take up to two hours as relatively limited information about the activity is required to complete the process.[27] Using an estimated hourly cost of $69.16 (based on the average Victorian hourly wage of $39.50 with additional on-costs and overheads of 75%),[28] this implies a typical cost of registration of $138.25. An estimated 4,000 farms are anticipated to require a registration under this option, implying an initial registration burden of $553,000 with the same cost incurred again after five years to renew registration. This amounts to a total burden on industry of approximately $1 million in net present value terms over ten years.

Option 5 (new registration and permit framework) receives a score of **-6** for this criterion. The framework is similar to Option 4 but far more costly due to the introduction of permits. While the final costs to industry of a permit would depend on subsequent design choices regarding the

[26] Based on the 5-year average of registered dairy farms sourced from Dairy Australia <https://www.dairyaustralia.com.au/industry-statistics/cow-and-farms-data>.
[27] Based on twice the estimated time from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019). The time has been doubled to account for the additional requirement of a preparation an assessment of risks and risk controls.
[28] Australian Bureau of Statistics, *Employee earnings* (August 2021).

specific requirements or conditions attached to an individual permit, analysis undertaken for the 2019 RIS on the EP Regulations found that compliance cost of a permit to a duty holder can be up to $14,716.

Based on DELWP/EPA intelligence, 800 farms are thought to store more than the 5,000 EPU threshold of waste tyres and would require a permit under this option. This implies an estimated initial burden to industry of approximately $11.8m.[29] Industry would also incur permit fees equivalent to approximately $1.6 million, recovering the cost to Government of administering those permits (see below).

The cost to the remaining 3,200 farms of being registered is estimated to be $870,000 in net present value terms over ten years, on the same basis as the costs to industry for registration in Option 1.

As discussed in Section 3.1.6, DELWP and EPA consider that there are insufficient data to determine the appropriate threshold metric or level for a permit. As such, for the purposes of sensitivity analysis, the estimated cost burden for this option is also presented with a 10000 EPU threshold. Approximately 400 farms would be over this threshold, resulting in a total estimated burden of $6.4 million. This consists of a $5.9 million cost for permits, and $497,700 for registrations. In addition, industry would incur permit fees of approximately $800,000.

4.3.4 Criterion 4: Cost to government

Table 4.7: Scoring of cost to government

Criterion	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit
Cost to government (positive score is lower cost than Base Case)	-4	1	-1	-2	-3

Option 1 (more information and enforcement) receives a score of **-4** for this criterion, as it is much more costly than the Base Case. Under this option, many unlicensed farms would become licensed or exempt, resulting in significantly greater administrative costs for the EPA.

Based on the fees set for an EPA operating licence, the minimum costs to government of assessing an operating licence application or exemption are $1,274 and $1,034 respectively, with costs of ongoing monitoring, oversight and enforcement recovered through annual fees set at $3,156 in the cost of renewing a licence.[30] If all 800 eligible farm sites were to apply for new licences, this implies a total cost to government that would be recovered through fees of $17.5m across 10 years.

Given that the costs are passed on to industry as fees, these costs have been accounted for as costs to industry in this MCA. However, they are considered minimum costs to government in this case because DELWP and the EPA note these fees may not fully recover costs (particularly where extensive on-site inspection may be required before EPA can approve a licence) and that the fees would not account for the substantial scaling up of resources that would be required to accommodate the significant increase in the number of licence applications that this option represents. On the other hand, it is also likely that many of these 800 farms would apply for exemptions, which if granted would mean farms incur only the application for exemption costs, rather than ongoing renewal costs. On balance, it is likely that costs will be imposed on government over and above the fees charged as it scales up the administration of the licence. As such, while

[29] Based on the cost of all 800 farms storing more than 5,000 EPU of waste tyres seeking a permit, and the remaining 3,200 farms seeking a registration.
[30] Costs that are recovered are not considered costs because they net to zero.

fees will be recovered from industry, it is expected that a significant cost to government will remain, likely to be higher than the registration costs to government discussed below. Given the scale of the licensing regime, this option is considered the most costly to government.

There are also costs associated with processing registrations. However, as the assessment of a registration is a light touch activity, the level of cost to government is only minor and significantly less costly compared with processing a licence application. It is estimated that each registration would require 2.2 hours of administration at an average cost to Government of approximately $220 per registration at the initial point of registration and 0.56 hours at a cost of $56 for a five-yearly registration renewal.[31] This amounts to a total cost to Government of approximately $800,000 (net present value) to administer 3,200 registrations over ten years. As the EPA do not charge a fee for a registration, this represents an unrecovered cost to government.

Additionally, the EPA will incur costs associated with undertaking the education campaign. This cost would vary depending on the nature and intensity of the campaign. At the very least, the cost of the campaign would amount to an additional $800,000 over 10 years, and would likely equate to much more. As such, it has been scored -4 as an indicative estimate of the potential cost.

Option 2 (exempt farms from requiring a permission altogether) receives a score of **1** for this criterion, as it is slightly less costly than the Base Case. As farms would be exempt from the permission scheme, the EPA would not incur any administrative costs related to assessing applications for licences, exemptions or registrations. While it is possible that, in the medium term, this could result in greater investigation, enforcement and remediation costs due to increased environmental risks on farms, this is not expected to be significant considering the low level of risk currently related to waste tyres stored for use as silage weights on farms.

The reduction in cost to government is likely similar to the reduction to industry, due to no farms being assumed to be licensed under the Base Case. However, if those few farms who may already registered under the Base Case decide not to renew their registration under Option 2 (as described above), there would be a small reduction in associated administration costs incurred by Government.

Option 3 (exempt farms from requiring a permission, with conditions) receives a score of **-1** for this criterion, it is slightly more costly than the Base Case. While government will not be required to undertake any upfront assessment activities because farmers will self-assess, the EPA will incur additional expenditure related to ensuring that farms are in fact compliant with the conditions of the determination. In addition, there will be a small cost associated with developing and gazetting the determination.

Option 4 (new registration) receives a score of **-2** for this criterion, as it is slightly more costly than the Base Case, where no farms become licensed and few if any become registered. As discussed above, it is estimated that each registration would require an average cost to Government of approximately $200 per initial registration and $56 per registration renewal.[32] As it is estimated that 4,000 farms would require a registration under this option, the cost to government is $1.1m, plus any additional registration costs for new farms over time.[33] Registration costs would not be recovered through fees as there is no fee for registration. Compared to Options 1 and 5, this option would necessarily be less costly to government due to the absence of any unrecovered costs associated with a permit or licence tier of permission. On average, these are likely to be greater that the marginal cost of a registration.

[31] Based on the estimated time from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[32] Based on the estimated time from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[33] Given the relatively low total cost of registration for all farms, proportionate analysis in this RIS has not estimated the incremental impact of new farms over time, which is expected to be very small on both a per farm basis and in aggregate.

Option 5 (new registration and permit framework) receives a score of **-3** for this criterion. It is slightly more costly than Option 3 and 4 due to the additional administrative and processing requirements associated with permits relative to registrations or a determination. Permits require a greater level of detail from the applicant and can result in additional requests for information from government, as well allowing for individual site visits from the EPA. The discretionary assessment process can take around eight times as long as processing a registration.[34]

It is estimated that each permit would require up to 16.6 hours of administration at a cost to Government of an approximate rate of $1,639 per application, with a renewal required at five years at a cost to Government of $392 per permit.[35] As it is estimated that 800 farms would require a permit, this implies a cost to government of $1.6m.[36] These costs would be recovered through fees, and so have already been accounted for in considering the impact to industry in Criterion 3. However, as with the licence considered under Option 1, there is likely to be a component of the cost to government related to scaling up and providing oversight to the permits unrecovered by fees.

Government would also incur costs associated with administering the registration of the other 3,200 farms that do not require a permit but do require registration. These costs to government are estimated to be $800,000 on the same basis as the costs to Government for registration in Option 1. Registration costs would not be recovered through fees as there is no fee for registration.

Given the registration costs and some level of unrecovered permit costs, the cost to government under this option is assumed to lie between Options 1 and 4.

4.4 Identification of preferred option

The results of the MCA (discussed above and shown again in Table 4.7 below) show that Option 4 is the preferred option. It best balances the desire for government to be able to monitor and assess tyre-related fire risk on farms with the regulatory burden imposed on industry and government.

Table 4.8: MCA scoring

Criteria	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit framework
Benefits					
Reduction in environmental risk	2	-2	-1	3	4
Improved regulatory clarity for industry	1	2	1	3	2
Costs					
Cost to industry (positive score is lower cost than Base Case)	-8	1	-3	-1	-6
Cost to government (positive score is lower cost than Base Case)	-4	1	-1	-2	-3

[34] *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[35] Based on the estimated time from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[36] Based on the cost of all 800 farms storing more than 5,000 EPU of waste tyres seeking a permit, and the remaining 3,200 farms seeking a registration.

Criteria	Option 1 – More information and enforcement	Option 2 – Exempt farms from requiring a permission altogether	Option 3 – Exempt farms from requiring a permission, with conditions	Option 4 – New registration	Option 5 – New registration and permit framework
Weighted score	**-2.1**	**-0.1**	**-1.3**	**0.8**	**-0.5**

Break-even analysis, implementation and evaluation considerations for the preferred option are considering in the following chapters.

5 Preferred option

The results of the MCA support Option 4 as the preferred option. It best balances the desire for government to be able to monitor and assess tyre-related fire risk on farms with the regulatory burden imposed on industry and government. As demonstrated in chapter 4, most other options are significantly more costly for both industry and government without any substantial gains in risk mitigation. The information provided through registrations provides useful information that allows government to proactively monitor and assess the risk of waste tyre storage on farms, while imposing a smaller cost than other options. In addition, the reduction in environmental risk associated with Option 4 is likely to be similar than other more costly or administratively complex options.

5.1 Breakeven analysis of preferred option

The cost-effectiveness of the preferred option is dependent on the extent to which it reduces the risk of tyre fires on farms relative to the regulatory burden imposed.

Whilst the typical economic cost of a tyre fire is difficult to quantify, they can generate serious tangible and intangible impacts to both human health and the environment. These can include:

- generating hazardous air pollutants, oil, runoff and leachates that affect soil, waterways and air
- loss of wildlife and vegetation
- disruption to business
- damage to buildings and other infrastructure
- costs of firefighting and broader emergency response
- loss of amenity
- costs of associated illness and medical treatment
- loss of life.

Previous estimates benchmark the cost of a fire at around:[37]

- $571,000 for a small/moderate fire
- $3.4 million for a large fire
- $5.7 million for a very large fire
- $25.1 million for an extremely large fire – the equivalent of Australia's largest tyre stockpile at Stawell catching fire.

The preventative costs of cleaning up illegally stored tyres is also very large. In some instances, the costs of cleaning up tyre stockpiles to reduce the risk of fire can be up to $4.5 million (see Section 2.1).

The preferred option would impose the following types of costs:

Industry costs for registration applications: The registration process for each business is estimated to take up to two hours as relatively limited information about the activity is required to complete the process.[38] Based on an estimated hourly cost of $69.16 (based on the average Victorian hourly wage with additional on-costs and overheads of 75%)[39], this implies a typical cost of completing a registration of $138.25. As the registration will need to be renewed after 5 years, this will be a recurring expense.

[37] Environment Protection Authority, 'Storage of waste tyres – Regulatory Impact Statement' (2014); adjusted for Melbourne CPI, December 2014-December 2021.
[38] Based on twice the estimated time from the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[39] Australian Bureau of Statistics, *Employee earnings* (August 2021).

Government administration of registration: EPA will incur costs in administering and renewing registrations. It is estimated that each registration will require 2.2 hours of administrative time.[40] At a blended hourly rate of $100, each registration application will impose an administrative burden of $220. Registration renewals are estimated to only require 0.56 hours of administrative time, so each renewal imposes a burden of $56.[41]

These costs are considered conservative estimates with high hourly rates and assumed lengths of activities. Based on these figures, the upper estimate for the per-farm cost across 10 years is $545.[42] This incorporates the costs to industry and government of an initial registration and one renewal cycle. Assuming that 4000 farms in Victoria seek a registration, the maximum feasible cost that the preferred option would impose is $2.2m.[43] This comprises:

- a total cost to industry (farmers) of $1.1m (net present value)
- a total cost to government of $1.1m (net present value)

In addition, some farms may incur compliance costs, or costs of meeting the conditions of the registration. These could include the costs of acquiring equipment to develop an emergency management plan, or costs of record-keeping. Additional compliance costs cannot be estimated, as it is unclear how many farms are already compliant with these conditions under the base case.

The effectiveness of the preferred option is dependent on the extent to which it reduces the risk of tyre fires on farms relative to the regulatory burden imposed. Given a total cost to industry (farmers) of $1.1m and an estimated cost of a small/moderate fire of $571,000[44], the proposed Regulations will break even in terms of their regulatory burden if they prevent two fires over ten years, or an average of 1 fire every five years. However, the preferred option also provides intangible value to government in the form of information on tyre storage on farms. This allows government to proactively monitor and assess the risk of tyre storage on farms.

5.2 Other costs

Accompanying guidance will suggest that an emergency management plan could be developed if a farmer chooses not to follow the guidance. This will be associated with additional compliance and administrative costs. However, this guidance is not enforceable through the regulations, and therefore any associated costs are not a regulatory burden and not in scope for this RIS. The following estimates are provided to demonstrate the indicative costs that could be incurred for a farmer that complies with this emergency management plan suggestion.

[40] Based on estimates included in the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[41] Based on estimates included in the *Regulatory Impact Statement: Proposed Environment Protection Regulations* (August 2019).
[42] Net-present value across 10 years at a 4% discount rate.
[43] This is considered an overestimate of the number of farms the 3,248 dairy farms currently in Victoria all obtaining a registration immediately.
[44] Environment Protection Authority, '*Storage of waste tyres – Regulatory Impact Statement*' (2014); adjusted for Melbourne CPI, December 2014-December 2021.

6 Competition and small business impacts

This chapter assesses the small business and competition impacts of the preferred option.

6.1 Competition

As Victoria is a party to the Competition Principles Agreement, regulation in Victoria is required to include a competition assessment.[45] The Competition Principles Agreement sets out that any new primary or subordinate regulation should not restrict competition except where:

- restriction of competition is required to meet the government's objectives; and
- the benefits of the restriction outweigh the costs.

Restrictions on competition can be identified where there will be changes to the way a market functions due to the implementation of the proposed regulation. Specifically, restriction can occur where:

- the number or range of suppliers is limited
- the ability of supplies to compete is limited
- the incentive of suppliers to compete vigorously is reduced.

Any affirmative answers to the following questions indicate that the regulation is considered to restrict competition.

In the context of this RIS, the relevant market considered is farming.

Table 6.1: Competition assessment questions

Test question	Answer	Explanation
Is the proposed measure likely to limit the numbers of producers or suppliers to: • only one producer? • only one buyer? • less than four producers?	No.	Based on the survey undertaken by DELWP, at least 800 farms are likely to be impacted by the proposed changes. As the preferred option imposes a very small cost on farms, it is unlikely there will be a material, if any, change in the number of farms operating in Victoria.

[45] Better Regulation Victoria, '*Victorian Guide to Regulation*' (November 2016).

Would the proposed measure discourage entry into the industry by new firms/individuals or encourage exit from existing providers?	No.	Given the preferred option would be a low cost for most farms, it is unlikely to significantly impact the entry or exit decision for farming businesses. However, as the preferred option makes it easier for farms to use tyres, relative to the Base Case, it may discourage farmers from exiting the market by creating a larger cost of disposing waste tyres at the end of their useful life or if they elected to vary the products produced on their property.
Would the proposed measure impose higher costs on a particular class or business or type of service (e.g. small business)?	No.	Given the preferred option is considered low cost for most farms and the obligations under the preferred option are small relative to the scale of any registered farm, it is unlikely to impose higher costs on any class of farm. The time and resources spent on compliance are likely to only scale minimally with farm size and silage volume. The farms that will be most impacted are those that are currently storing and using large quantities of tyres but are not undertaking sufficient risk management activities. Given the private incentive of farms to ensure that fires do not breakout on their properties, this is expected to be a relatively small number of farms. This is supported by the survey of farms undertaken by DELWP that demonstrated that most farmers understand tyre-related risks and take steps to control them.
Would the proposed measure affect the ability of businesses to innovate, adopt new technology or respond to the changing demands of consumers?	No.	The preferred option is unlikely to significantly impact the degree of innovation or new technology adoption on farms. However, within the product class of 'silage weights' the preferred option may disincentivise farms from adopting other, more environmentally friendly ways of storing silage.

It is necessary to articulate the objective that is achieved through restriction of competition in the regulation and assess other reasonable means of achieving the objectives without competition restriction. Demonstration of a specific link is required to sufficiently meet the competition assessment requirements. Given that the proposed Regulations do not result in any affirmative answers to the competition assessment questions, they do not significantly restrict competition.

6.2 Small business impact

To ensure the impacts of regulation on small business are examined appropriately, an assessment of the effects on small business is required. This aims to ensure that regulation does not impact business growth and productivity unreasonably, especially that of small businesses.

Small businesses can experience disproportionate impacts from regulation due to limited resources for interpretation of updates in compliance requirements, and the cumulation of different requirements. The lack of economies of scale may affect these businesses' ability to comply with different options.

As the preferred option imposes only minor additional costs on farms, it is unlikely to have a disproportionate impact on small businesses. Additionally, the size of farm corresponds to the size of silage production and the number of tyres in EPU; the larger a farm gets, the more silage it produces and the more waste tyres it has on site. Further, small farms are more likely to use silage wraps instead of pits and so won't store enough tyres to require a licence under the current regulations. As such, most small farms will likely experience no change or a reduction in their regulatory and compliance burden.

7 Implementation and evaluation strategy

This chapter outlines the actions that EPA and DELWP will undertake to implement and assess both the efficiency and effectiveness of the proposed Regulations

7.1 Implementation

The key questions considered for implementation are:

- What needs to be done?
- When will it be done?
- Who will do it?
- Who will monitor implementation, enforcement and compliance?

7.1.1 What needs to be done?

As part of the implementation of the Regulations, the primary activity that will be required is the development of additional guidance for the storage of waste tyres on farms for use as silage. The guidance will support the new permission by setting out the regulator's expectations of risk control measures farmers should have in place to manage the risks, primarily of fire, for this activity. These measures would be the basis of compliance assessment by EPA of the risks of the permissioned activity by constituting state of knowledge of reasonably practical actions under the general environmental duty in the EP Act 2017.

The types of measures outlined in this RIS would inform additional guidance. To complete this activity, EPA would be required to undertake detailed guidance development and consultation in line with its established processes.

DELWP will also ensure that the amendments to the Regulations are communicated to stakeholders through a range of measures, outlined in Table 7.1.

Table 7.1: Planned communication measures

Step	Description	Timing
Publication on Engage Victoria of notice of decision and final amendment regulations and gazettal of final amendment regulations	Formal public notification required by the Subordinate Legislation Act, including in a daily newspaper circulating generally throughout Victoria.	Within 10 business days of making, the Regulations will be sent to Scrutiny of Acts and Regulations Committee (SARC) Within 6 business days of making, the Regulation will be sent to parliament to be tabled in both houses
Publication on EPA website of new permission for the activity within EP Regulations	Publication to stakeholders on EPA's website as regulator.	On making of the amendments to the EP Regulations
Peak body (e.g. Victorian Farmers Federation) messaging	Industry communications aimed at communicating outcome of the DELWP review and next step to support	1-2 weeks after the making of the amendment regulations and in preparation for when the new

	compliance and attain necessary permissions.	requirements to hold a permission commences.
Publication on EPA website of additional guidance for the activity as defined in the EP Regulations	EPA website update will be required for consultation on the additional guidance for the activity.	Updates provided before and during consultation on the additional guidance and when the additional guidance is published.
Targeted EPA public education on the new permission requirements	Targeted education to improve awareness of new and changed legal requirements and expectations for compliance.	Timed to coincide with when the amendment regulations commence and in preparation for when the new requirements to hold the new permission commences.
Engage Victoria messaging	In addition to communicating the amendments, DELWP to communicate it is reviewing the need for further change to the scheme (e.g. introducing a permit), if required.	Decision to proceed with further review within 5 years of commencement of amendment regulations.

7.1.2 When will it be done?

The proposed Regulations will commence on making but will provide for an additional grace period to allow large numbers of farms to be registered. This grace period will end approximately 9 months after making of the proposed Regulations. Communication of the changes will be timed as outlined in Table 7.1 with the EPA guidance being published prior to commencement of the Regulations.

7.1.3 Who will do it?

The EPA is primarily responsible for implementing the proposed Regulations.

7.1.4 Who will monitor implementation, enforcement and compliance?

The EPA will undertake compliance campaigns to ensure suitable oversight of compliance obligations and requirements for the minimisation of risks, so far as reasonably practicable. Initial activity by EPA would seek to ensure that those required to hold a permission have actively sought and received their permission as required by the regulations.

Subsequent action may seek to ensure the target cohort are aware of their obligations and expectations for minimisation of risks, so far as reasonably practicable. This may include a combination of actions to raise awareness of obligations and guidance that supports understanding of how to comply, along with targeted and random inspections to identify particular trends and compliance issues.

Data and insights from initial compliance campaigns would inform risk prioritisation and ongoing compliance monitoring programs for permissioned activities. In so doing, these campaigns may assist DELWP to establish if other controls are required for the activity, including permits, and how these controls may best be targeted.

7.2 Evaluation

DELWP will implement an evaluation strategy, utilising EPA data on compliance, to assess the effectiveness of the proposed Regulations and whether there is a need for additional measures.

Ongoing compliance monitoring of the sector to assess compliance with the regulations and impacts on the risks to human health and the environment. Compliance monitoring will be targeted at:

- tyres stored in stockpiles exceeding 5,000 EPU (or otherwise improperly stored)
- high 'tyre density' (e.g. multiple stockpiles, but they are actually quite close to one another / on the same parcel of land)
- evidence of farmers running a waste receipt / disposal business – e.g. receiving money for disposal of tyres or clearly having more tyres than are necessary for use within their operation

- general poor fire risk management practices.

Government will review the effectiveness of the new permission and determine whether further or other controls are needed for the storage of waste tyres on farms for use as silage weights, including permits. This review would be based on outcomes of EPA compliance activities and will be completed by DELWP within five years of the new permissions arrangements being established.

Limitation of our work

General use restriction

This report is prepared solely for the internal use of the Department of Environment, Land, Water and Planning. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of assessing the regulatory impacts of the proposed amendments to the Environment Protection Regulations 2021. You should not refer to or use our name or the advice for any other purpose.

Deloitte.