

# Regulatory Impact Statement: Regulations to support product stewardship schemes for tyres

## Coversheet

Advising agencies	Ministry for the Environment
Decision sought	Determine final policy for regulations to support product stewardship schemes for tyres
Proposing Ministers	Hon David Parker, Minister for the Environment

## Summary: Problem and Proposed Approach

### Problem Definition

**What problem or opportunity does this proposal seek to address? Why is Government intervention required?**

Tyres can cause significant environmental harm if not properly disposed. Currently, there are limited options for disposing of them in an environmentally safe way, and no product stewardship scheme is in place to address the environmental harm. International jurisdictions where regulated product stewardship schemes are in place have higher recovery and recycling rates than New Zealand.

The Government declared tyres as a priority product in July 2020 under section 9 of the Waste Minimisation Act (WMA). This created a statutory duty under section 10 of the WMA for priority product stewardship schemes to be designed and accredited as soon as practicable. The product stewardship scheme for tyres (Tyrewise scheme) was accredited in October 2020. This scheme is waiting on regulations to support it before it can be implemented.

Cabinet agreed to consult on proposed regulations for product stewardship schemes for tyres [DEV-21-MIN-0202 refers]. In addition, regulated product stewardship was a commitment in Labour Party 2020 Manifesto.

### Summary of Preferred Option or Conclusion (if no preferred option)

**How will the agency's preferred approach work to bring about the desired change? Why is this the preferred option? Why is it feasible? Is the preferred approach likely to be reflected in the Cabinet paper?**

*Regulations to support a product stewardship scheme for tyres*

The Ministry proposes setting the following regulations to implement a product stewardship scheme for tyres:

- requirement for producers and sellers to participate in an accredited product stewardship scheme
- product stewardship fee to cover end-of-life product management
- requirement for product stewardship organisations to provide a product take-back service and to meet service expectations and targets
- quality standard for end-of-life product management
- cost recovery for applications and ongoing scheme monitoring
- information requirements to enforce the above.

Of the two options considered under current Waste Minimisation Act provisions, the option that has enhanced take-back and targets is preferred as it enables the Government to set enforceable expectations for service delivery. It also ensures that the consumer has access to free and convenient collection services. It will likely increase the number and availability of onshore

disposal services, removing barriers to the public accessing these services. The expected outcome is an increase in tyre recovery rate, compared to other options.

#### Summary

The Cabinet paper will reflect the preferred option, which is *Option B: Basic Foundation plus Take-back and Targets*. This option sets enforceable expectations on the Product Stewardship Organisation (PSO) to provide a take-back service and sets targets for the provision of that service.

## Section B: Summary Impacts: Benefits and costs

### Who are the main expected beneficiaries and what is the nature of the expected benefit?

The expected beneficiaries for the proposed option are the environment, local government ratepayers, taxpayers, tyre industry, and the public.

The proposals require the whole industry to participate and pay a product stewardship fee to fund the end-of-life management of tyres. It provides tyre take-back services to shift tyre disposal costs and responsibilities from local government ratepayers and taxpayers to industry and tyre consumers. Industry and the public are expected to benefit from increased access to tyre collection and disposal services, and information on safe disposal practices. Government can set enforceable expectations to oversee the scheme implementation and drive better take-back outcomes. It achieves circular resource use and reduces waste tyres that would otherwise cause harm to environment and people.

### Where do the costs fall?

Product stewardship schemes will impose costs on product stewardship organisations (PSO), industry (importers, producers) and consumers. The PSO is the organisation which implements the accredited product stewardship scheme. The Ministry expects costs to be passed onto consumers through the product stewardship fee.

The cost drivers of the product stewardship scheme for tyres are:

- collection of the end-of-life tyres
- transportation of the end-of-life tyres
- disposal of the end-of-life tyres
- product stewardship fee administration
- compliance, monitoring and enforcement
- providing consumer information
- scheme incentive payments for processing end-of-life tyres.

For the product stewardship scheme for tyres, the total cost of the scheme will be around \$59.9 million per year.

The Government is proposing a product stewardship fee of \$6.65 per tyre equivalent passenger unit. Importers and onshore manufacturers must pay the product stewardship fee on imported and domestic manufactured tyres. Costs shifted to producers (i.e. importers and retailers) are expected to be passed on to consumers at least in part. The cost paid upfront covers the free disposal at its end of life. This is around the same amount as many consumers are currently paying retailers for tyre disposal (this is commonly known as a “environmental fee”).

This RIS includes key aspects of a Cost Recovery Impact Statement (CRIS) 1 and 2 for tyres.

### What are the likely risks and unintended impacts? How significant are they and how will they be minimised or mitigated?

#### Product stewardship organisation role and service delivery

Introducing regulation that prohibits sale of a tyre, except in accordance with an accredited product stewardship scheme, enables an accredited product stewardship organisation (PSO) to set the terms of sale. This concentrates decision-making power with the accredited PSO.

To mitigate this risk, the co-design model has been used, which is industry and community-led and includes regular engagement with all key stakeholders.

The Minister had the final say on whether the scheme is accredited. Tyrewise demonstrated in their accreditation application how their scheme is consistent with the General Guidelines for Product Stewardship Schemes for Priority Products Notice 2020, and how they meet sections 14 and 15 WMA requirements.

The Ministry undertook a verification process to ensure the application was consistent with the General Guidelines, prior to giving advice on the Minister on accreditation.

The Ministry can hold the product stewardship organisation to account for delivering the services, as the Minister can revoke accreditation if WMA requirements are no longer met.

#### **Waste Minimisation Act regulatory tools**

A risk of suboptimal outcomes is posed by using WMA product stewardship regulatory tools for the first time, at least in the short to medium term. We will not know how fit for purpose the WMA options are until we use them. To mitigate this risk, we will engage in close monitoring, regular review and reporting of outcomes (including financial), enforcement as required, and encouraging continuous improvement by the accredited product stewardship organisation (PSO).

The Ministry will review the fee quantum every three years in line with New Zealand Treasury cost recovery guidance.

The General Guidelines set expectations that accredited schemes undertake annual independent audits on scheme performance and include this information in annual reports to the Ministry.

Ministry will audit PSO financial statements on an annual basis at a minimum to verify the fee revenue is being used on purposes allowed for under the regulations, and the scheme remains consistent with the guidelines.

#### **Ministry's ability to monitor priority product schemes and ensure it delivers expected outcomes**

##### *Ministerial guidelines for priority product schemes*

The Government published Ministerial guidelines (under section 12 of the WMA) for priority product schemes in 2020. These guidelines set out the product stewardship scheme expected effects and contents. For example:

- a. continuous improvement in minimising waste and harm, maximising benefit from the products at end of life, and product management higher up the waste hierarchy.
- b. investment in initiatives to improve circular resource use including reuse and new markets.
- c. education and feedback for participants (producers and consumers).
- d. provision of a take-back service that is free to consumers (no access or quality controls).
- e. publicly available annual reports on scheme outcomes, mass balances and finances.
- f. setting and reporting on targets including continuous improvement, performance against best practise, new market development and public awareness.

However, ensuring that accredited schemes implement the guidelines in practise is not easily enforceable under the WMA. The sanction available is complete revocation of scheme accreditation if reasonable attempts are not being made to implement the scheme or if objectives are unlikely to be met (section 18(1)(a)). This would pose a significant risk of unintended consequences until a new scheme could be put in place.

The Ministry has been undertaking work to improve the accreditation process and strengthen the Ministry oversight of scheme operations to minimise the risk. The Ministry is also mitigating this risk by proposing take-back regulations and recycling targets (under WMA 23(1)(c)) to support the product stewardship schemes. The product take-back and targets regulations would require the PSO to provide free and convenient product collection and recycling services that meet performance targets (such as a product recycling rate). This regulation would set clear expectations, while providing the PSO sufficient flexibility to meet the Ministry's expectations. PSO could also be liable to financial sanctions under WMA section 65(1)(c) if they failed to provide appropriate take-back service or meet the targets.

However, the PSO is a not-for-profit organisation and the fee collected is only designed to fund the scheme. Financial sanctions imposed upon the PSO could affect the ability for PSO to operate the scheme and lead to unintended consequences, such as inability to provide take back service or incentivise better reuse options.

To mitigate this, we will input into the upcoming Waste Minimisation Act review to address current barriers to effective product stewardship schemes.



## Section C: Evidence certainty and quality assurance

### Agency rating of evidence certainty?

The Ministry has assessed evidence on:

- The extent of environmental problems caused by tyres.
- The impacts of product stewardship approaches.

#### The extent of environmental problems caused by tyres

The Ministry has limited evidence on the extent of environmental problems caused by tyres due to current data collection practices. The rating of evidence certainty on the problem is low.

Details on insufficient data are elaborated under section 1.2 Key Limitations or Constraints on Analysis.

#### The impacts of product stewardship approaches

The Ministry currently has evidence sources available from:

- comparable product stewardship schemes in place internationally
- co-design reports produced by product stewardship working groups commissioned to recommend scheme designs
- monitoring data available from current voluntary product stewardship schemes for tyres.

As no regulated product stewardship schemes are in place in New Zealand, the Ministry has used comparable data internationally on similar product stewardship approaches to estimate policy impacts. This data demonstrates that New Zealand tyre collection rate is lower than comparable jurisdictions internationally operating similar regulated schemes.

Although there is strong evidence that comparable tyre product stewardship schemes internationally work more effectively, the rating of evidence certainty is low. This is due to the difference in legislative frameworks across countries, which increases the uncertainty of how the tyre scheme would work in New Zealand context.

The Ministry notes that this is the first-time priority products have been declared, and the regulatory powers under section 22(1)(a) used.

The Ministry has a limited ability to estimate and test the costs of establishing and operating product stewardship schemes, and subsequently set an advanced stewardship fee, as this is the first-time regulated product stewardship schemes have been established in New Zealand.

*To be completed by quality assurers:*

### Quality Assurance Reviewing Agency:

The Ministry for the Environment Regulatory Impact Analysis Panel

### Quality Assurance Assessment:

Meets quality assurance criteria

### Reviewer Comments and Recommendations:

The Ministry for the Environment's Regulatory Impact Analysis Panel has reviewed the Impact Statement: Regulations to Support a Product Stewardship Scheme for Tyres as well as the Stage 1 and 2 Cost Recovery Impact Statement. The Panel noted that only regulatory options were available for consideration given the preceding decision of Cabinet to declare tyres one of six priority products under the Waste Minimisation Act 2008. The Panel also noted impact data to compare options and to inform the Cost Recovery Impact Statement were largely drawn from a single source, being the industry and officials group developing the framework for the scheme. Finally, given this will be New Zealand's first regulated product stewardship scheme, it is expected implementation and compliance elements will change and improve through experience. Overall, the Panel confirms that the information and analysis summarised in the Impact Statement meets the quality assessment criteria necessary for Ministers to make informed decisions.

# Impact Statement: Regulations to support product stewardship schemes for tyres

## Section 1: General information

### 1.1 Purpose

The Ministry for the Environment are solely responsible for the analysis and advice set out in this impact statement, except as otherwise explicitly indicated. This analysis and advice has been produced for the purpose of informing Cabinet decisions on policy options for regulations to give effect to product stewardship schemes for tyres.

### 1.2 Key Limitations or Constraints on Analysis

#### What issues are in and out of scope?

In July 2020, the Government declared six product types to be priority products under section 9 of the WMA ([CAB-20-MIN-0312](#) refers). The products are tyres, electrical and electronic products (e-waste, including large batteries), farm plastics, plastic packaging, agrichemicals and their containers, and refrigerants (and other synthetic greenhouse gases). The Minister also issued the General Guidelines for Priority Product Schemes, setting expectations for priority product stewardship schemes.

These products were selected from 24 waste streams using five criteria connected to the WMA and practical implementation factors (being risk of harm, resource efficiency opportunity, sufficiency of voluntary measures, industry readiness, and current products/producers).

Declaration of a priority product under the section 9 of the WMA triggers two steps. Firstly, a product stewardship scheme for the product must be developed and accreditation by the Minister obtained. And secondly, under section 22(1)(a), regulations may be used to require sellers and distributors of the priority product to do so in accordance with an accredited product stewardship scheme for that product.

Stakeholders have co-designed product stewardship schemes for four of the six priority products, and Cabinet has agreed that the schemes for tyres and large batteries are now ready to progress toward a regulatory framework with broad industry support.

#### *In scope*

This analysis is limited to regulatory options for the tyre product stewardship scheme. This analysis focuses on mechanisms to achieve the purpose of the Waste Minimisation Act 2008 Product Stewardship provisions in section 8:

Encourage (and, in certain circumstances, require) industry to share responsibility for:

- ensuring there is effective reduction, reuse, recycling, or recovery of the product, and
- managing the environmental harm arising from the product when it becomes waste.

#### *Out of scope*

The Ministry has limited the scope of this regulatory impact statement (RIS) to regulations to support a product stewardship scheme for tyres, as the co-design process has concluded, and the support level for a regulated framework from the consultation in late 2021 was high.

Other priority products are out of scope of this RIS.

#### What is the evidence of the problem?

There is limited evidence on waste to understand the extent of environmental problems of all priority products and the amount of costs borne by the wider community and future generations.

Currently, tyres are not tracked through the lifecycle, as no record-keeping requirements are set under existing data collection regime. This means the Ministry has limited data to estimate the impact and size of the environmental problem caused by waste tyres, and the economic and social benefits from a more circular use of waste tyres.

Instead, we based our understanding on the co-design report of the tyre product stewardship scheme that stated approximately 6.5 million tyres entered New Zealand annually, and this will increase in line with the increases in New Zealand population and number of vehicles imported each year.<sup>1</sup> It is estimated one third of end-of-life tyres are currently diverted from disposal, while the remaining 67 percent of end-of-life tyres had an unknown end use, including being exported (for reuse or for fuel or material recovery); disposed of to landfill; and a large number end up in storage and stockpiles.<sup>2</sup>

The extent of the environmental problem from these tyres is unclear, but anecdotal evidence is available, mostly in the form of media articles reporting on tyre fires. Costs to ratepayers to clean up tyre fires, including the fire service cost and the loss to businesses, are estimated to be 1.8 million per year.<sup>3</sup>

There is evidence available from monitoring the status quo for tyres (i.e. no product stewardship scheme). In 2019, only 30% of tyres in New Zealand were diverted from landfill. This data demonstrates that New Zealand tyre collection rates are lower than comparable jurisdictions internationally operating regulated schemes for tyres. The tyre diversion rates in Europe, Japan and the United States of America are over 80%, and Canada and South Korea are over 90%.

#### **What are the range of options considered?**

The Ministry has considered international product stewardship models and regulatory tools available under the current Waste Minimisation Act 2008 (WMA) to give timely effect to the Government's priority product decision. The Ministry considered the status quo (not introducing regulations), but this option was not considered feasible as it did not meet the policy objectives. The following two options are considered:

- **Option A:** Basic Foundation requires producers and sellers to participate in an accredited scheme, pay a product stewardship fee, provide the Ministry information to monitor and enforce the requirements, and sets quality standards for large batteries.
- **Option B:** Basic Foundation plus Take-back and Targets, which contains all Option A elements, as well as take-back service requirements and collection targets.

The Ministry proposes using these powers until improved options are available through WMA review or other legislation. If the WMA review occurs in time for the other priority products consultation round, adjustments can be made accordingly. For the time being, the current assessment criteria includes the ability to give effect to the options under existing legislation.

<sup>1</sup> Tyrewise (2020), Regulated Product Stewardship for End of Life Tyres, "Tyrewise 2.0" Updated Report, accessed at <https://110ppppx8b3fccwh3zobtw5-wpengine.netdna-ssl.com/wp-content/uploads/2020/07/Tyrewise-2.0-Master-Report-Final-Released-22July2020-with-disclaimer.pdf>

<sup>2</sup> Ibid, p.82

<sup>3</sup> Tyrewise (2020), Cost Benefit Analysis, accessed at <https://www.tyrewise.co.nz/the-project/reports/>

**What are the criteria used to assess options?**

The Ministry have assessed Options A and B against these criteria:

<b>Effective</b> Likely to support significant improvement in: <ul style="list-style-type: none"> <li>• resource cycling/waste minimisation</li> <li>• reduction of harm in relation to the products.</li> </ul>
<b>Fair</b> Likely to: <ul style="list-style-type: none"> <li>• move costs and responsibilities from communities to producers and product consumers</li> <li>• incentivise full sector participation.</li> </ul>
<b>Efficient</b> Able to be implemented: <ul style="list-style-type: none"> <li>• without placing undue costs on the community, business, or public funds</li> <li>• under existing legislation.</li> </ul>

There were no weightings applied to the criteria. They are treated equally.

**What are the assumptions underpinning the impact analysis?**

Assumption	Explanation and impact on analysis
Accredited schemes will be designed to achieve Waste Minimisation Act outcomes.	<p>To be accredited a product stewardship scheme must demonstrate it will achieve significant reduction in harm, and/or benefits from the reuse, reduction and recycling of the product.</p> <p>The Minister must accredit a product stewardship scheme if it meets the Act requirements, including promoting waste minimisation or reducing environmental harm.</p> <p>The Ministry has assumed that if a regulation is made requiring industry &amp; producer participation, accredited schemes will largely achieve targets and have similar outcomes to comparable international schemes.</p>
Schemes will take approximately five years to operate at full capacity. This time length depends on: <ul style="list-style-type: none"> <li>• if an existing voluntary product stewardship scheme is in place; and</li> <li>• the quality of the co-design process, accreditation application, and existing product collection network is in place.</li> </ul>	The recovery rate in the product stewardship model is set to align with comparable product stewardship schemes at year 6 to provide time for scheme implementation to take effect.
Regulated product stewardship schemes, once operating at full capacity, will achieve comparable outcomes to international jurisdictions with similar policies.	The Ministry has estimated recycling and recovery rate improvements, based on international jurisdictions with similar policies.



### What is the quality of data used for impact analysis?

Where possible, we have used available data and evidence to gauge possible impacts, but the resulting assessments have been hindered to an extent by a lack of data.

The data available is of varying quality:

- **High quality** – data is available from evaluation reports on international scheme designs. These sources inform a market gap analysis undertaken by Tyrewise<sup>4</sup>, identifying international measures necessary for an effective management system and whether New Zealand has these measures in place. The reports inform the overall impact assessment of introducing regulated product stewardship schemes.
- **Lower quality** – the working groups surveyed industry groups and key stakeholders on current practices to inform the problem definition and scheme impact. The data is largely anecdotal, however international examples verify anecdotal evidence.

The limitations and gaps in data include:

- **There is limited evidence on waste, including all priority products:** In 2019 the Ministry noted only 45 per cent of the waste disposed of in New Zealand goes to Class 1 municipal landfills (subjected to the waste levy)<sup>5</sup>, and that only comprehensive data on volumes of waste disposed of at these landfills was available. There is limited data available on waste disposed of at other types of landfills (and on recycling), as this information does not have to be reported to the Ministry. Although the waste levy amendments in 2020 will improve national landfill data in the future<sup>6</sup>, it will not improve the data on reuse, repair and recycling. Changes adopted as part of the expansion of the waste disposal levy to additional sites will start to improve the range of information we have available, but it is clear that our data, and research and evidence base for waste and resource efficiency still needs to further improve. The Waste Minimisation Act review will consider opportunities to develop tools to gather data and build an evidence base to understand and improve our performance.
- **Accredited product stewardship schemes will provide data for the chain of custody:** Accredited product stewardship schemes will be required to report to the Ministry on product collection and disposal pathways as part of reporting requirements to enforce the product take-back and targets regulations. Schemes must provide a transparent chain of custody for collected and processed materials, and publish mass balances (for example, weights) showing rates of reuse/recycling or environmentally sound disposal of priority products. Scheme reporting will help address deficiencies in priority product data available.
- **First time regulated product stewardship schemes developed:** as this is the first-time priority products have been declared and regulations proposed to require participation in an accredited scheme, limited data is available on the potential impact of regulated product stewardship schemes in New Zealand. The Ministry has used data available from evaluation reports on comparable product stewardship schemes internationally to estimate the impact of introducing regulated schemes.
- **Import data for tyres:** the Ministry used Customs import data and vehicle registration data to estimate total tyres imported to estimate product stewardship fees and total scheme impacts. The data quality is limited by the self-reporting accuracy rate, as importers self-declare tyres against tariff codes with high rates of inaccuracy. Currently there are no

<sup>4</sup> Tyrewise is a regulated product stewardship programme which has been accredited by the Government.

<sup>5</sup> Ministry for the Environment, 2019, Reducing Waste: A more effective landfill levy, accessed at <https://environment.govt.nz/publications/reducing-waste-a-more-effective-landfill-levy-consultation-document/>

<sup>6</sup> in 2020 the Government amended the WMA waste levy provision to apply the levy to all classes of landfill (1-4) and improve data collection. However, data will not be immediately available as the waste levy expansion is being phased-in over the next three years and it will likely be five years before initial trends are known.

domestic tyre manufacturers, therefore import data and vehicle registration data cover the vast majority of eligible tyres brought into the country. Some vehicles do not need to be registered with Waka Kotahi, so will not be captured by data collection.

- **Schemes designed through a co-design process:** The Ministry is developing regulated product stewardship schemes through a co-design process with largely industry-led working groups. This impact assessment is informed by co-design reports, developed and published by these working groups. The information available is limited by the quality of these reports.

#### What limitations may there have been on consultation and testing?

Limitations	How the limitation will be addressed?
<b>Priority product declarations</b> This is the first-time priority products have been declared, and regulations considered to give effect to the schemes. The Ministry has not tested many aspects of the proposals, and mechanisms used to give effect to the proposals.	The Ministry will monitor the efficacy of the schemes in meeting their objectives and will review the schemes on a regular time period.
<b>Limited ability to test fee estimates</b> As this is the first-time regulated product stewardship has been implemented in New Zealand, the Ministry must estimate the cost of establishing and operating regulated product stewardship schemes. It is possible scheme administration costs have been over or under-estimated.	The Ministry has estimated fees based on number of products imported, and industry's estimated costs of operating a product stewardship scheme. If costs are over or under-estimated, the Ministry will review the product stewardship fee level and structure. Fee estimates include a reserve that is required to enable the product stewardship organisation to operate as a not-for-profit entity.
<b>Quality of co-design process and reports</b> The quality of evidence provided is influenced by the quality of co-design reports developed by working groups. Public involvement in the co-design process was limited.	The Ministry sought public input into the evidence base through the consultation process. The Ministry requested evidence on the impact of proposals on each sector through consultation questions.
<b>Range of options considered</b> The Ministry has only considered options available under the existing Waste Minimisation Act for product stewardship governance and funding.	The upcoming Waste Minimisation Act review will consider a broader range of regulatory options.

#### 1.3 Responsible Manager (signature and date):

Shaun Lewis

Regulated Product Stewardship

Waste and Resource Efficiency

Ministry for the Environment

2 June 2022

## Section 2: Problem definition and objectives

### 2.1 What is the current state within which action is proposed?

#### Tyres

##### Actions to date towards end-of-life tyres (ELTs)

###### *Product Stewardship Scheme*

The voluntary Tyre Track scheme, co-sponsored by the Motor Trade Association and Ministry for the Environment (2004–09), fostered trading between registered tyre generators<sup>7</sup> and collectors and tracked the fate of the registered tyres. By the end of the programme, about a third of waste tyres were registered but national rates of recycling and illegal dumping were not affected.<sup>8</sup>

Regulated product stewardship schemes are designed to address these challenges by requiring the whole industry to participate. Tyrewise is a regulated product stewardship programme for ELTs which was accredited by the Government in October 2020. This scheme is waiting on regulations to support it before it can be implemented.

###### *Infrastructure enabling tyre-derived fuel use at Golden Bay Cement*

The Waste Management Fund (WMF) provided \$16 million of the \$25 million needed to upgrade Golden Bay Cement's kiln to enable replacement of coal with tyre-derived fuel, resulting in a reduction of greenhouse gas emissions. The WMF also co-funded establishment of a major tyre shredding plant in Auckland to prepare tyre-derived fuel for Golden Bay Cement.

###### *National Environmental Standard for Storing Tyres Outdoors*

This Standard, in effect since 20 August 2021, provides nationally consistent rules that enable council enforcement of illegal tyre stockpiling.

##### Nature of the market

Tyres are characterised as being new, retread, end-of-life tyres (ELTs) or waste tyres. ELTs or waste tyres are used tyres that are not or cannot be reused for their originally intended purpose and are not retreaded.

The declaration of tyres as a priority product covers all pneumatic (air-filled) tyres and solid tyres for use on:

- motorised vehicles (for cars, trucks, buses, motorcycles, all-terrain vehicles, tractors, forklifts, aircraft, and off-road vehicles)
- bicycles (manual or motorised)
- non-motorised equipment.

In 2019, around 6.5 million tyres (or 93,000 tonnes of tyres) entered the New Zealand market. This is a significant increase in tyres imported since 2011 (estimated at 4.8 million tyres (units)).

The below table outlines the categories of tyres captured by the proposed Tyrewise scheme and estimated equivalent passenger unit (EPU) generated by new and used tyre imports.

<sup>7</sup> A generator is an entity that generates tyres as a result of their operations.

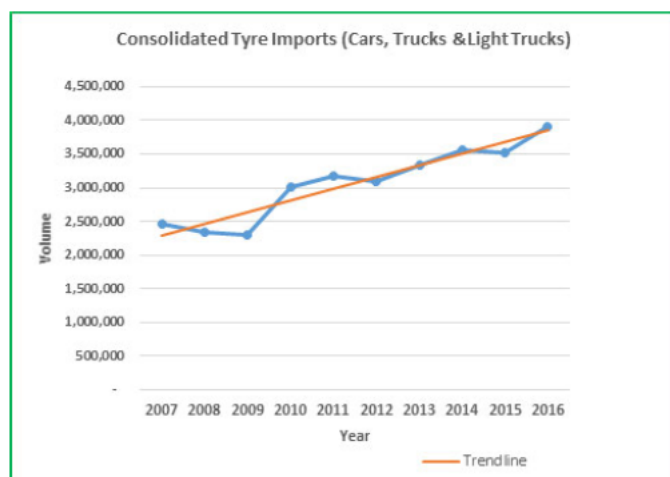
<sup>8</sup> Ministry for the Environment (2006), Product stewardship case study for end-of-life tyres, accessed at <https://environment.govt.nz/publications/product-stewardship-case-study-for-end-of-life-tyres/>

**Table. 1 Imported tyres by category, EPU and weights, conditions new and used**

Table 12 Number of USED tyres and material composition by weights <sup>20</sup>												
Tyre type	Avg used weight (kg)	Material composition (percentage)			Volume of tyres (Units)				Material Weight - End of Life Tyre (tonnes)			
		Rubber	Steel	Textile	New tyres imported (2019 data set)	Used tyres imported (2019 data set)	Tyres on vehicles (2019 data set)	Total tyres (units)	Rubber	Steel	Textile	Total weight (tonnes)
Aircraft	1.6	70%	10%	20%	4,027	0	0	4,027	42.62	6.09	12	61
Construction/Industrial	4.2	70%	30%	0%	17,678	0	0	17,678	498.94	214	-	713
Light commercials /Industrial	1.7	69%	25%	6%	145,478	6,338	0	151,816	1,602.06	580.46	139	2,322
Motorbike	4.0	70%	18%	12%	120,795	0	22,010	142,805	398.85	102.56	68	570
Off road ATV	2.5	70%	18%	12%	49,163	0	0	49,163	86.72	22	15	124
Off road (earthmovers)	53.1	70%	30%	0%	10,213	0	0	10,213	3,609.22	1,547	-	5,156
Off Road (forestry)	3.7	70%	30%	0%	259,046	0	0	259,046	6,397.39	2,742	-	9,139
Off Road (graders)	19.5	70%	30%	0%	543	132	0	675	70.26	30	-	100
Passenger	0.8	72%	21%	7%	3,601,330	211,493	1,370,171	5,182,994	28,564.26	8,331.24	2,777	39,673
Solid industrial (forklift)	3.0	70%	30%	0%	24,222	0	0	24,222	484.25	207.53	-	692
Tractors - large	6.8	70%	30%	0%	19,346	0	6,032	25,378	1,149.01	492	-	1,641
Tractors - small	2.2	70%	30%	0%	13,610	0	6,032	19,642	288.74	124	-	412
Truck, Bus	3.5	68%	32%	0%	252,061	33,050	354,936	640,047	13,868.67	6,526	-	20,395
<b>Total tonnes of TDP's annually</b>					<b>4,517,512</b>	<b>251,013</b>	<b>1,759,181</b>	<b>6,527,706</b>	<b>57,061</b>	<b>20,925</b>	<b>3,012</b>	<b>80,998</b>
Measurement					Units				Tonnes			

**Current trends: Import**

Tyre imports are increasing over time in line with increases in New Zealand population and number of vehicles imported (Figure 1).

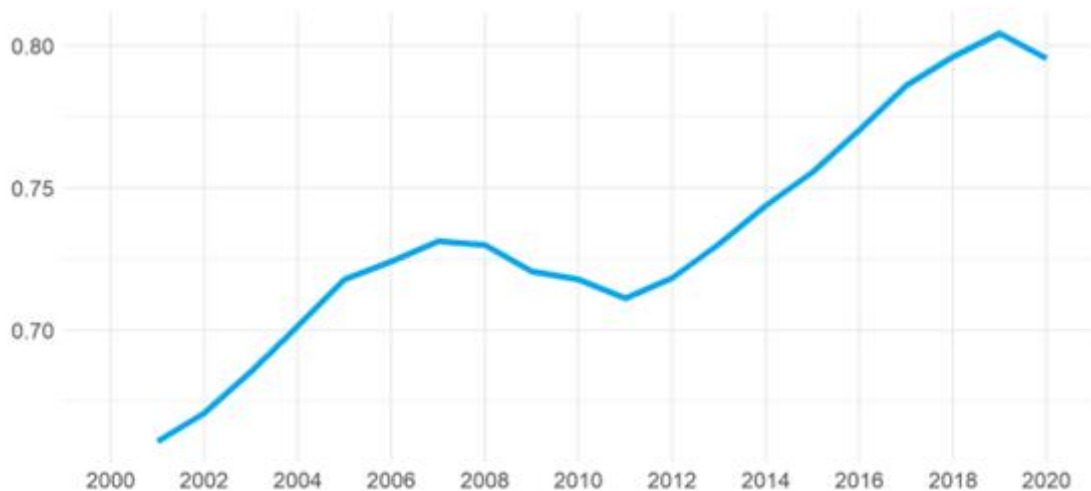
**Figure 1: Consolidated Tyre Imports (based on Customs data)**



### Fleet analysis

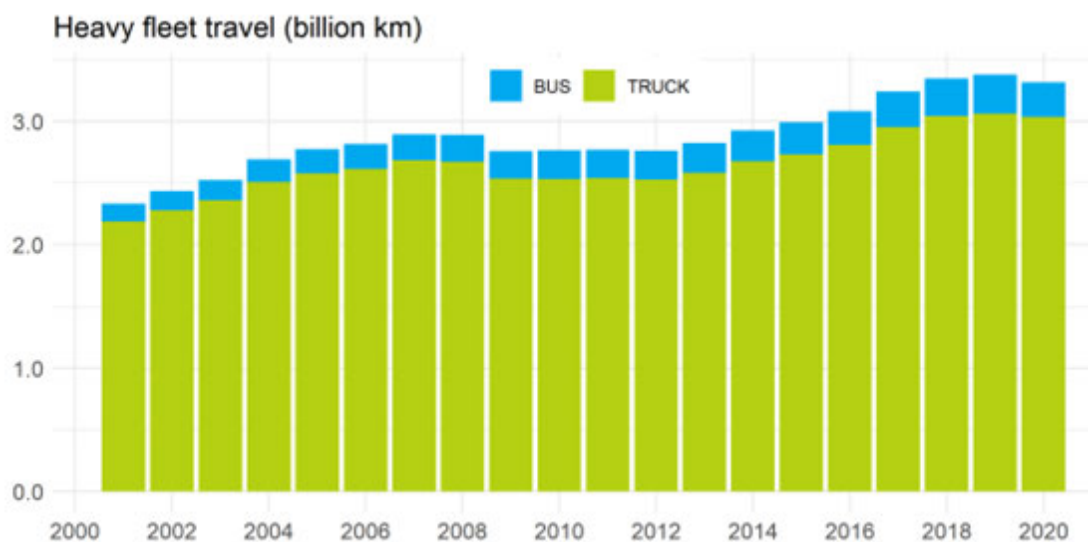
The Ministry of Transport vehicle fleet composition data shows that vehicle fleet numbers have been increasing constantly over the period 2011 to 2019.<sup>9</sup> The vehicle fleet had a modest decline in 2020, likely due to the impact of COVID-19. The Ministry assumes that end-of-life tyres produced will increase in line with this trend, as the current vehicle fleet is retired.

**Figure 2. Light fleet ownership per capita 2000-2020<sup>10</sup>**



In 2020, over 167,000 heavy vehicles were registered in New Zealand. Trucks, carrying freight, are the major contributor of heavy vehicle travel.

**Figure 3. Heavy fleet trends 2000 - 2020<sup>11</sup>**



<sup>9</sup>Te Manatu Waka, the Ministry of Transport (2020) Te tauranga rangai waka a tau 2020 | Annual fleet statistics 2020, accessed at <https://www.transport.govt.nz/assets/Uploads/Report/AnnualFleetStatistics.pdf>

<sup>10</sup> ibid

<sup>11</sup> ibid

### *Golden Bay Cement*

In February 2021 to January 2022, Golden Bay Cement (GBC) has consumed approximately 20,000 tonnes (or nearly 20 per cent out of 93,000 tonnes estimated in 2019) of Tyre Derived Fuel (TDF) product over the past 12 months. At full capacity, the facility has the potential to consume approximately 30,000 tonnes of TDF product annually. Reaching this target is dependent on GBC finding the right fuel mix for its cement kiln.

### *End-of-life tyres*

At present, the market for end-of-life tyres in New Zealand remains relatively undeveloped (with the exception of Golden Bay Cement) and the total demand for end-of-life tyres is low.

The Ministry holds limited data on the exact disposal pathway. An estimated one third of end-of-life tyres are currently diverted from disposal (Tyrewise Working Group, 2012), including:

- an estimated 14 percent are exported whole for reuse and recovery.
- 13 per cent are processed onshore.
- 4 per cent are used as silage covers.
- 1 per cent are used in pyrolysis trials.

Tyrewise estimated that 67 percent of end-of-life tyres had an unknown end use (Tyrewise Working Group, 2012).

### **Environmental impact**

The remaining tyres are exported; disposed of to landfill; and a large number end up in storage and stockpiles, which may cause the following harm:

Harm	Description
Environmental	<p>Tyre dumping and stockpiling can increase the risk of harm from fire and toxic materials entering air, soil and water.</p> <p>Disposal of tyres in landfill takes up valuable landfill space, as well as creating issues for landfill stability and management and the risk of toxic leachate.</p> <p>Large tyre fires have occurred in tyre stockpiles in New Zealand. Tyre fires create toxic smoke, are difficult to extinguish, and can create pollution to soil and waterways through oily effluent and run-off. The compounds found in the smoke from uncontrolled tyre fires can create significant acute (short-term) and chronic (long-term) health hazards to firefighters and nearby residents including respiratory effects, central nervous system depression, and cancer.</p>
Health	<p>Tyre stockpiles also hold water which can be a breeding ground for mosquitoes, which can create a human health risk if these mosquitoes carry diseases. Currently there are not many mosquitoes capable of carrying serious diseases in New Zealand, but if an establishment of a population occurred, all above-ground tyre piles near urban centres would of concern and spraying them against mosquitoes would be costly and ineffective.</p>
Economic	<p>It is also a missed opportunity to create further value from the resources in the tyres and to minimise waste. For example, from whole tyres used in civil engineering projects (eg, baled retaining walls, temporary roads, sea embankments). At present, benefits from tyre derived fuel over the next ten-year period is 14.4 million. It is estimated to become 113.6 million if there is an effective product stewardship scheme for tyres in place (Tyrewise, 2020).</p>

If no action is taken, the accumulation of end-of-life tyres is expected to grow, leading to an increase in environmental and health hazards and missed economic opportunities.

### Social context

Apart from the environmental and health hazards, tyre stockpiling and dumping has negative effects on visual amenity and can impose costs on ratepayers and landowners. It is also an unproductive use of land.

Survey research found that New Zealanders were willing to pay an estimated \$2.22 per tyre for recycling.<sup>12</sup> These figures suggest that New Zealanders are willing to pay \$10.7 million annually to recycle tyres. This means New Zealanders are aware of the problem of end-of-life tyres and are willing to address it.

At present many tyre retailers charge fees to customers to dispose of tyres, sometimes called an 'environmental fee'. It ranges from \$2.50 up to \$16.00, depending on the size of the tyre from passenger tyres through to off road tyres. Surveys undertaken during 2019/20 showed that 50% of the existing ad-hoc 'disposal fee' is retained by retailers for administrative costs and the balance being passed on to the transporter for removal.<sup>13</sup> This fee is not part of any scheme, and there is no accountability or transparency on how it is set or used. In practice, only part of the fee is spent on collection services, contributing to under-resourcing of collection and inappropriate disposal of tyres.

### Industry structure

Tyre stakeholders include companies and organisations representing tyre importers and suppliers (including new and used car importers), tyre manufacturers, motor services, motorists and tyre transporters, processors and recyclers, as well as local government. Table 2 sets out the main categories of stakeholders, the nature of their interest, and how they are affected by proposals to introduce regulated product stewardship for tyres.

<sup>12</sup> Denne, Atreya and Robinson (2007), Recycling : cost benefit analysis. Prepared for Ministry for the Environment (Final report). covcc.

<sup>13</sup> Tyrewise (2020), Regulated Product Stewardship for End of Life Tyres "Tyrewise 2.0" Updated Report, accessed at <https://www.tyrewise.co.nz/wp-content/uploads/2020/07/Tyrewise-2.0-Master-Report-Final-Released-22July2020-with-disclaimer.pdf>

**Table 2. Stakeholder interest and impact**

Stakeholder group	Stakeholders	Nature of interest	Effect of regulated product stewardship proposals
<b>Importers and suppliers</b> Tyres are predominately imported from Japan. Used tyres comprise a smaller proportion of the market.	Three significant tyre importers and distributors collectively account for 80 percent of the market: Bridgestone NZ Ltd, Goodyear, Dunlop Ltd, and Value Tyres.	Market access Scheme participants	Importers must comply with regulated product stewardship requirements, including the requirement to participate in an accredited product stewardship scheme.
<b>Tyre manufacturers</b> Currently, New Zealand has no tyre manufacturing companies.	Tyre manufacture ceased with the closure of the Bridgestone/Firestone factory at Papanui in 2010, and the earlier closure of the South Pacific Tyre factory in Upper Hutt in 2006.	Market access Scheme participants	If tyre manufacturing companies were established in New Zealand in future, they would have to comply with regulated product stewardship requirements.
<b>Motor services</b>	Motor services (for example, mechanics, repair shops, warrant of fitness and servicing stores). These services import and fit new tyres, and dispose of used tyres. Many charge a fee to dispose of used tyres.	Market access Cost and choice	Under the proposals, the disposal fee will be regulated ie, set at a fixed amount in legislation, and will be transparently displayed.
<b>Motorists</b>	The public are tyre consumers. Most of the public obtain new tyres through the above companies when a warrant of fitness is issued.	Cost and choice	Under the proposals, the product stewardship fee cost will be passed onto consumers.
<b>Tyre transporters, processors and recyclers</b>	Transporters/distributors; auto-dismantlers; retreaders; collectors; exporters; processors and recyclers; large vehicle operators; and farmers regularly store end-of-life tyres outdoors.	Market access Scheme participants	Many of these parties will participate in an accredited product stewardship scheme, either voluntarily or in response to regulation.
<b>Local government</b>	Local government develop and implement regional and district plans that have rules managing tyres. The plans also give effect to the National Environmental Standard (NES) for the outdoor storage of tyres.	Scheme participants	Local government may provide drop off locations for tyres and large batteries.



## 2.2 What regulatory system(s) are already in place?

Currently, the import, disposal, storage, use, and export of tyres is regulated under a range of legislation. The product stewardship proposals aim to complement existing legislation.

Legislation and agency	Relationship to tyres
The Litter Act 1979, administered by the Ministry for the Environment.	The Litter Act prohibits dumping of tyres on any property without the owner's permission. An individual can be fined \$1,000 and a body corporate can be fined up to \$20,000 for dumping tyres. However, research shows that the low penalty fines are insufficient to deter irresponsible tyre collectors from dumping tyres illegally.
National Environmental Standard for Outdoor Storage of Tyres, administered by the Ministry for the Environment.	The NES for tyres manages the risk of harm to the environment, human health, and local communities from outdoor tyre storage. The standards classify: <ul style="list-style-type: none"> <li>• Outdoor tyre storage less than 20 cubic metres as a permitted activity.</li> <li>• Outdoor tyre storage 20 cubic metres or more, but less than 100 cubic metres as permitted activity, subject to compliance with general conditions that control the height of tyre storage, and proximity to sensitive areas through minimum setback distances. Non-compliance with the permitted activity conditions will require resource consent as a restricted discretionary activity.</li> <li>• Outdoor tyre storage 100 metres or more as a discretionary activity, meaning resource consent is required.</li> </ul>
Imports and Exports (Restrictions) Act 1988, administered by the Ministry for Business, Innovation, and Employment	The Imports and Exports (Restrictions) Act 1988 controls the importation and exportation of tyres. The Act prohibits the importation, except with the Minister's consent, of tyres that do not meet a range of standards and specifications, such as relating to rim diameter and retreading.
Basel Convention – international obligation	New Zealand is a signatory to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes. The Basel Convention is an international agreement that aims to reduce the amount of waste produced by signatories and regulates international traffic in hazardous waste. The Environmental Protection Authority gives effect to the Basel Convention by issuing permits for the import and export of tyres.
Climate Change Response Act 2002 (CCRA), administered by the Ministry for the Environment	The CCRA, administered by the Ministry for the Environment, regulates certain activities relating to tyres through the emissions trading scheme. For instance, persons who combust used tyres for energy, such as Golden Bay Cement, are mandatory participants in the New Zealand emissions trading scheme and must report emissions and surrender emissions units.
Health and Safety at Work Act 2015 (HSW Act)	The HSW Act sets controls on the use of tyres in workplaces.

*Product stewardship will be regulated under the Waste Minimisation Act*

The Waste Minimisation Act 2008 aims to encourage waste minimisation and a decrease in waste disposal to protect the environment from harm, and provide environmental, social, economic, and cultural benefits. The Act:

- sets a levy on waste disposed of in landfills to generate funding to help local government, communities, and businesses reduce the amount of waste generated; and
- establishes a process for government accreditation of product stewardship schemes that recognise those businesses and organisations who take responsibility for managing the environmental impacts of their products.

Section 22 of the Act enables the Minister to declare a priority product, and make regulation prohibiting sale of the priority product, except in accordance with an accredited scheme. This regulation requires sellers and producers to participate in an accredited scheme.

The Government declared tyres as a priority product in July 2020 under section 9 of the Waste Minimisation Act. This created a statutory duty under section 10 of the WMA for a priority product stewardship scheme to be designed and accredited as soon as practicable.

The product stewardship scheme for tyres (Tyrewise scheme) was accredited in October 2020. The scheme is waiting on regulations to support it before it can be implemented.

Section 23 of the Act has several other tools available to encourage the effective management of products (refer to table of WMA tools to achieve outcomes under *Section 3: Option identification* for further details).

**Has the overall fitness-for-purpose of the system as a whole been assessed? When and with what result? What interdependencies or connections are there to other existing issues or on-going work?**

The overall fitness-for-purpose of the product stewardship system is currently being assessed as part of the Waste Minimisation Act and Resource Management Act reviews. The team working on product stewardship will input into the Waste Minimisation Act review to address current barriers to effective product stewardship schemes. If legislative change occurs because of the review, adjustments can be made to the pending proposals of regulations of product stewardship schemes for other priority products.

**What other agencies, including local government and non-governmental organisations, have a role or other substantive interest in that system?**

New Zealand Customs and Waka Kotahi have an interest in the system as they are potential agencies for collecting product stewardship fees.

Non-governmental agencies with a role or other substantive interest in the system include:

- The Waste Management Institute of New Zealand (WasteMINZ), who are the largest representative body of the waste and resource recovery sector both public and private. WasteMINZ work closely and collaboratively with MfE on advancing waste issues.
- Waste Management New Zealand, which received WMF funding for setting up a national collection network for shredding tyres, with bases in Auckland and Christchurch.
- 3R Group coordinated the co-design process for Tyrewise.

### What interdependencies or connections are there to other existing issues or on-going work?

Work programme	Description of programme	Connection or interdependency to priority products
Waste Minimisation Fund	The Waste Minimisation Fund supports projects that increase the reuse, recovery and recycling of materials. This helps reduce waste to landfill, one-off use of materials and litter.	WMF funding has been used to support many initiatives relating to priority products, such as e-waste (E-Day initiatives). The co-design processes for tyres and large batteries were supported by WMF funded.  Golden Bay Cement's manufacturing plant upgrade that uses waste tyres as fuel was partially funded through the WMF.

### 2.3 What is the policy problem or opportunity?

*Tyres risk harm to the environment and current environmental protection standards are insufficient*

Tyres pose a risk to human health and the environment if they are inappropriately used, disposed, or stored. Refer to environmental state in *Section 2.1: What is the current state within which action is proposed* for full description.

The current environmental protection standards, including legislation, regional rules, and voluntary standards, are insufficient to manage environmental harm from tyres and large batteries. Many rules are inconsistent between regions. In addition, government has limited ability to enforce existing environmental controls, as products are not tracked through the lifecycle.

Many environmental safety standards, designed to achieve environmental outcomes, are voluntary and are not followed by all industry. Subsequently, there are limited barriers to disposing of products cheaply in ways that cause harm to the environment, resulting in dumping of tyres including in large piles, which poses risk of fire and pollution to air, soil and water.

Currently, voluntary product stewardship schemes are in place for some products (such as refrigerants), however they face many challenges outlined in Table 6.

**Table 6. Key barriers to effective product stewardship performance and potential WMA or other statutory remedies**

Current state	Impact
<b>Limited producer responsibility for tyres at end of life</b>	
Producers can easily opt out of current voluntary product stewardship scheme	<p>Scheme participation and recovery rates low</p> <p>Cost of programme paid for by some companies but not sector</p> <p>Free-rider companies and their consumers can benefit from scheme but not pay their share for it.</p>
<p>Producers are free to leave costs of product resource recovery or harm mitigation to the community</p> <p>Producers are not incentivised to take into account the environmental costs of their products at end of life or design their products to generate net environmental benefits</p>	<p>Recycling services are not able to obtain fees needed for environmentally sound management of post-consumer products</p> <p>Recycling services need to charge user-pays fees which disincentivises participation</p> <p>Councils cover costs, so whole community pays disposal costs, not just producers and consumers of the product</p> <p>Inconvenient return systems incentivise illegal dumping/littering and landfill are incentivised</p> <p>Cost to recycle at end of life makes competition with virgin materials challenging</p>
Producers are not required to provide convenient collection services, or achieve minimum product collection and material recovery rates	<p>Collection facilities often inconvenient or locally unavailable</p> <p>Recovery rates low compared to target waste stream</p>
Producers free to create (or import) products which are difficult to recycle or pose risk of harm at end of life	<p>Disposal to landfill most commonly adopted</p> <p>New Zealand has one of the highest rates of landfill disposal in the OECD</p>
Provision of information on material content/environmental risk/and how to recycle is ad hoc and inconsistent	Consumers unable to select more recyclable products or know how to get materials into re-use/recycling

***Tyres have significant potential for environmental and economic benefits from circular resource use***

Tyres also have significant potential for environmental and economic benefits from increased reuse, recovery, and or recycling. The product percentage recovered for recycling or treatment in New Zealand is very low, approximately 33 per cent for tyres.

This means the volume of tyres not being recycled or reused is high compared to overseas jurisdictions that have tyre product stewardship schemes. For example, the tyre diversion rates in Europe, Japan and the United States of America are over 80%, and Canada and South Korea are over 90%. The e-waste diversion rate in EU is 49%. These products contain significant energy and can be converted into other products with value.

New Zealand has the potential to gain significant financial benefits from expanding resource recovery systems. These will create new income streams and industry onshore.



There are a range of existing opportunities to minimise waste and create further value from end-of-life tyres. For example, end of life tyres can be re-purposed to other uses in civil engineering such as road embankments or coastal protection. Tyres also contain significant stored energy (greater than coal) and can be converted into tyre derived fuel and tyre derived materials. For example, 80% of waste tyres were converted to energy (61%) or products (19%) in South Korea in 2021, while 91% of materials were recovered from recycled tyres in Belgium.<sup>14</sup>

- *Tyre derived fuel* is used overseas by cement companies as an alternative energy source. In New Zealand, Golden Bay Cement uses shredded tyres in the fuel mix to reduce their cement plant's reliance on coal and reduce its carbon emissions. The benefits are expected to grow from \$14.4 million to \$113.6 million over the next ten-year if the scheme is in place.<sup>15</sup>
- *Tyre derived materials* include rubber granulate, crumb rubber, and powder which in turn can be manufactured into a range of products called *tyre derived products*. The most common uses of waste tyres overseas are tyre-derived fuel and products made with rubber crumb, such as roading, roofing and flooring. Emerging technologies include pyrolysis (extraction of liquid fuels, steel and carbon black) and de-vulcanisation (recovery of flexible rubber for new products).

Tyrewise estimated the creation of new recycling industry and employment to be \$326.7 million over a ten-year period.<sup>16</sup>

Regulation is required to support effective product stewardship schemes for tyres. The scheme will enable opportunities to achieve the above economic benefits and address environmental harm from tyres.

## 2.4 What do stakeholders think about the problem?

From 4 November to 16 December 2022, the Ministry for the Environment consulted on regulations to support product stewardship schemes for tyres. The Government received 85 submissions.

*Overall support on regulations to support product stewardship schemes for tyres*

The support level for the regulated framework for tyres was high.

Based on submitter type, 76 members of the public supported proposal to establish a regulated framework for tyres. This includes 23 business/industry, 30 individuals, 2 iwi/Māori, 15 local government organisations, and 6 Unspecified/Other.

70 members of the public supported the proposal to establish a regulated framework for large batteries. This includes 20 business/industry, 26 individuals, 2 iwi/Māori, 17 local government organisations, and 5 Unspecified/Other.

Key reasons for supporting the proposals include that:

- Producers and retailers should share responsibility for environmental impacts of their products.
- Regulated product stewardship will support transition to a circular economy.
- Poor status quo outcomes will be improved.

<sup>14</sup> The Korea Tire Industry Association (KOTMA), Waste Tire Recycling Status, accessed at <http://www.kotma.or.kr/waste-tire-recycling/kotma-waste-tire-recycling/waste-tire-recycling-status>

<sup>15</sup> Tyrewise (2020), Regulated Product Stewardship for End of Life Tyres "Tyrewise 2.0" Updated Report, accessed at <https://1l0ppppax8b3fccwh3zobtw5-wpengine.netdna-ssl.com/wp-content/uploads/2020/07/Tyrewise-2.0-Master-Report-Final-Released-22July2020-with-disclaimer.pdf>

<sup>16</sup> Tyrewise (2020), Cost Benefit Analysis v.8

*Did not support on regulations to the product stewardship scheme for tyres*

Two submitters (both individuals) did not support the proposal for a regulated framework for tyres. They did not provide reasons for not supporting the proposal.

*Potential impact of scheme on businesses*

Submitters were asked to give feedback on the likely impact on their business if they had to take part in the proposed product stewardship schemes and some businesses and local authorities provided comments. For the tyre scheme:

- Tyre wholesalers and retailers and their industry associations noted likely net benefits. Tyre collectors expressed some concern and sought more information about the amount of incentive payment they would receive. Tyre Stewardship Australia expressed concerns about the design of the scheme and the potential impact on the Australian and Pacific markets for tyre-derived products.
- Local authorities noted likely benefits for tyre management in their communities and possible cost increases for council vehicle and bus fleets.

## 2.5 What are the objectives sought in relation to the identified problem?

The objective for introducing regulations to support product stewardship schemes for tyres is to achieve the purpose of the Waste Minimisation Act 2008 Product Stewardship provisions in section 8, which is to:

Encourage (and, in certain circumstances, require) the people and organisations involved in the life of a product to share responsibility for:

- ensuring there is effective reduction, reuse, recycling, or recovery of the product, and
- managing any environmental harm arising from the product when it becomes waste.

There are no trade-offs between the aims of managing environmental harm and ensuring effective reduction, reuse etc, and they are weighted equally.

## Section 3: Option identification

### 3.1 What options are available to address the problem?

The Ministry has identified WMA tools available to support the co-designed product stewardship scheme for tyres in Table 7.

**Table 7. Table of WMA tools to achieve outcomes**

REGULATORY TOOLS	DESCRIPTION
Participation obligation WMA 22(1)(a)	This regulation prohibits sale of a priority product, except in accordance with an accredited scheme. This would require producers and sellers of a product to participate in an accredited scheme, which would level the industry playing field, and help achieve desired policy outcomes.
Product stewardship fee WMA 23(1)(d)	This regulation sets a product stewardship fee on all priority products imported and domestically manufactured. The advanced disposal fee will reflect the end-of-life waste management costs of the product and will be used to fund the provision of product stewardship services to industry and the public.
Take-back service + targets WMA 23(1)(c)	The product take-back and targets regulations would require product stewardship scheme to provide product collection and recycling services that meet minimum standards. Take-back standards are defined in terms of expected outcomes, enabling schemes to design cost-effective delivery methods to achieve outcomes.
Quality standard WMA 23	Some priority products are hazardous and require specialist management by trained personnel. A quality standard can be set under the WMA section 23(1)(g) and (h) to ensure that best practice is followed for management of priority products to prevent harm.
Information provision WMA 23(1)(i)	The Ministry will require accurate and timely information to monitor and enforce the above regulations. These regulations will require the product stewardship scheme to report to the Ministry on regulations made under section 23.
Import data from Customs WMA 24	The Ministry requires import data from Customs to monitor and enforce participation and fee payment. This regulation requires Customs to provide this information to the Ministry.
Deposit refund WMA 23	The product stewardship organisation charges a refundable deposit on the purchase of the product (for example, 10 cents on the sale of a glass bottle). The consumer can return the bottle to a designated collection point and receive a partial refund of the deposit (for example, a 5-cent refund).
Fee on disposal WMA 23	"Pay as you throw" schemes charge a fee at the point that the product is disposed.
Cost recovery	The Ministry can recover scheme monitoring costs from the scheme manager. Without this regulation, costs to monitor a scheme would be paid by the general taxpayer rather than the priority product supply chain.

### **Status Quo: Industry-led product stewardship schemes for tyres with full reliance on guidelines**

Under this option, industry develop a product stewardship scheme for tyres, and submits the scheme to the Ministry for accreditation. If the scheme is consistent with the guidelines, the Minister accredits the scheme. Industry could choose to participate in a scheme on a voluntary basis and could voluntarily pay the advanced disposal fee.

The Government has committed to regulated product stewardship schemes by declaring tyres a priority product under section 9 of the WMA. Regulation requiring the sale of these tyres to be in accordance with an accredited scheme will be necessary to make participation in the scheme compulsory.

Without regulation, the scheme will not be able to enforce participation or sufficiently fund the safe disposal of tyres in New Zealand. This is the case with the accredited scheme (Tyrewise). They have been unable to level the playing field within tyre industries, as parties are not obligated to join the scheme nor bear the whole of life cost of tyres or take responsibility for mitigating the environmental impacts of tyres.

Under our assessment, this was not considered a feasible option, as it would not meet all the policy objectives. The accredited scheme (Tyrewise) requires regulation for all industry to participate.

### **Intervention options for regulated product stewardship for tyres**

The Ministry has identified two options in scope, using combinations of the above WMA tools to support the accredited scheme of tyres (Tyrewise), which is implemented by Product Stewardship Organisation (PSO). The Ministry is responsible for monitoring the scheme in line with WMA section 20.

*Option A: Basic Foundation* is the minimal viable option that will achieve all the objectives. Option A contains discretionary components (such as the quality standard and cost recovery regulations) that are not analysed in depth but assist the option to achieve the objectives.

#### *Participation obligation*

The participation obligation will make organisations share responsibility for managing environmental harm and ensuring effective recovery by requiring participation through prohibiting the sale the tyres expect in accordance with the accredited tyre scheme. International schemes with regulated participation achieve higher tyre diversion rates, and Option A is expected to align New Zealand's tyre recovery rates with these schemes due to full participation from producers and sellers.

#### *Product stewardship fee*

The proposed tyre stewardship fee would cover the end-of-life tyre management costs and make collection services free-of-charge to the public.

It would be charged on first point of entry into the New Zealand market and be paid by tyre importers and domestic tyre manufacturers. Recovery services that charge a fee upfront report higher rates of product recycling and/or proper disposal than services with the fee charged at disposal. For instance, Japan charges for recovery of refrigerants contained in appliances at disposal, and in vehicles at import. Japan's vehicle recycling was successful, whereas the fees charged for proper appliance disposal at end-of-life resulted in non-compliance.<sup>17</sup>

<sup>17</sup> Navigant Consulting (2014), Review of Refrigerant Management Programmes, accessed at [https://www.ahrinet.org/App\\_Content/ahri/files/RESEARCH/Technical%20Results/AHRI\\_8018\\_Final\\_Report.pdf](https://www.ahrinet.org/App_Content/ahri/files/RESEARCH/Technical%20Results/AHRI_8018_Final_Report.pdf)



The proposed fee may be fully or partially passed onto consumers, and in some cases, may be higher (or lower) than the fee consumers are currently paying. However, the revenue from the proposed fee will be wholly used to provide disposal services and there will be transparency in how the fee revenue is used. The Ministry will publish annual reports showing to which purposes the fee revenue has been applied.

#### *Quality standard set*

Tyre-derived products require adherence to best practice to minimise risk of harm when they are used. To ensure that best practice is followed, the Ministry proposes to prescribe quality standards for service providers to be eligible for tyre stewardship incentive payments and requires involvement of the PSO to ensure these are met. The tyre-derived products which require attention include the use of crumb rubber in sports fields and playground surfaces, and application of rubber-modified bitumen to road surfaces. International standards exist for these which can be used in New Zealand.

#### *Information provision and Import data from Customs*

Requiring information from Customs and PSO would help the Ministry to monitor and assess the performance of the accredited tyre scheme.

#### **Limitations of Option A: Basic Foundation**

Option A will achieve the objectives; however, the Ministry has fewer regulatory tools than Option B to ensure the accredited scheme achieves outcomes.

Firstly, under Option A, the PSO sets their own targets in the scheme application form. The Ministerial Guidelines set out an expectation that all schemes will set and report annually to the Ministry for the Environment on targets that include as a minimum:

- a. Significant, timely and continuous improvement in scheme performance
- b. Performance against best practice collection and recycling or treatment rates for the same product type in high-performing jurisdictions
- c. A clear time-bound and measurable path to attain best practice

The Ministry has no oversight or control over the target setting process, other than verifying that the application is consistent with the above guidelines.

The Ministry also has limited enforcement tools to ensure the PSO meets the targets listed in the application. The only sanction available is complete revocation of scheme accreditation if reasonable attempts are not being made to implement the scheme or if objectives are unlikely to be met (section 18(1)(a)). This would pose a significant risk of unintended consequences until a new scheme could be put in place.

#### **Option B: Basic Foundation plus Take-back and Targets**

*Option B: Basic Foundation plus Take-back and Targets* contains all Option A elements, as well as take-back service requirements and collection targets. The limitations of Option A will be overcome by including regulations for take-back and collection targets.

WMA Tools	Participation obligation WMA 22(1)(a) <i>sale only in accordance with accredited scheme</i>	Take-back service + targets WMA 23(1)(c)	Product stewardship fee set WMA 23(1)(d)	Quality standard set WMA 23(1)(g) and (h)	Information provision WMA 23(1)(i)	Import data from Customs WMA 24	Cost recovery WMA 22(1)(e)
<b>B –Basic foundation plus take-back and targets</b>	✓	✓	✓	✓	✓	✓	✓

#### *Take-back service + targets*

Under Option B, the Ministry would set product take-back and targets regulations under WMA section 23(1)(c) to require the PSO to provide product collection and recycling services that meet minimum standards.

The product take-back and targets regulations would require the PSO to provide product collection and recycling services that meet minimum standards. Take-back standards are defined in terms of expected outcomes (such as recycling rate), requiring schemes to design cost-effective delivery methods to achieve outcomes. This would enable Government to set enforceable expectations for service delivery and ensure that consumers have access to sufficient collection services. The PSO would face enforcement actions for non-compliance with regulations made under section 23(1)(c) if they failed to provide appropriate take-back service or meet the targets.

The take-back and target requirements will likely increase the number and availability of onshore collection services, removing barriers to the public accessing these services. The expected outcome is an increase in tyre recovery rate, compared to Option A.

#### **WMA tools not included in toolkit**

The Ministry does not recommend including the deposit refund or fee on disposal tools in the proposed toolkits. The deposit refund tool is used internationally in relation to bottle return schemes. The Ministry's analysis is that this is unsuitable for tyres, as tyres are not easily identifiable. It is also difficult for retailers and other collection agencies to determine if tyres returned to them had a deposit paid on them when first imported.

### 3.2 What criteria, in addition to monetary costs and benefits have been used to assess the likely impacts of the options under consideration?

In this context and considering the general principles or regulatory decision-making, the following criteria are proposed to compare options to improve management of the end-of-life tyres:

- **Effective**

Likely to support significant improvement in:

- resource cycling/waste minimisation
- reduction of harm in relation to the products.

- **Fair**

Likely to:

- move costs and responsibilities from communities to producers and product consumers
- incentivise full sector participation.

- **Efficient**

Able to be implemented:

- without placing undue costs on the community, business, or public funds
- under existing legislation.

The above criteria have equal weighting.

### 3.3 What other options have been ruled out of scope, or not considered, and why?

The Ministry have considered a broader range of regulatory options, but we only consulted on options available under current Waste Minimisation Act.

#### Option C: Enhanced stewardship fee collection

This option contains the Option A (basic foundation) elements, plus change to the legislative framework governing Customs and Waka Kotahi to allow them to effectively capture and enforce collection of stewardship fees at product entry into market.

The tyres co-design group's preferred fee collection option is by Customs at import for bulk and loose tyres and by Waka Kotahi for tyres attached to vehicles at point of registration. This option was preferred in order to reduce transaction costs for the PSO and improve coverage and enforceability.

To put this option in place for Waka Kotahi would require legislative instruments in addition to WMA regulation. Customs could collect fees but without a legislation change or declaration of 'special product' under their legislation could not enforce compliance.

This option is not recommended as it would go beyond WMA regulation into new legislation and would not meet all of the assessment criteria. It could remain an option for the future if required.

**Option D: Central Government Control of product stewardship schemes**

This option would see the Ministry for the Environment collecting stewardship fees and contracting services, through accredited PSOs or others, to ensure desired waste minimisation and harm reduction for tyres. Collection convenience, recovery targets, harm reduction standards and potentially other aspects in the published guidelines would be set, monitored and enforced under contract.

This option is out of scope of the analysis as it requires WMA amendment and does not meet all of the assessment criteria. This could remain an option for consideration in the WMA review in due course if required.

**Option E: Increased Cost method - Polluter pays tax or levy**

Increased cost methods work by putting a cost on a good that was previously 'free' to the consumer. Methods include:

- requiring retailers to add a levy or charge at point of use, which is then:
  - remitted to a central government fund for environmental purposes, or
  - retained by the retailer, with an expectation that the retailer will donate it to good causes, with public reporting.
- taxing tyres at manufacture or import (before they reach the consumer) to disincentivise consumption.

This option is not recommended as it would go beyond WMA regulation, require new legislation, and does not meet all of the assessment criteria for progressing regulated product stewardship for tyres. It could remain an option for the future if required, including as an aspect of the pending WMA review.

## Section 4: Impact Analysis

**Marginal impact: How does each of the options identified in section 3.1 compare with taking no action under each of the criteria set out in section 3.2?**

		No action	A – Basic foundation	B –Basic foundation plus take-back and targets
<b>Effective</b> Likely to support significant improvement in:	<b>resource cycling/waste minimisation</b>	0	++ Regulated schemes with mandated participation achieve better waste minimisation and resource cycling outcomes than status quo (no product stewardship scheme).	++ Government-set targets are based on international best practice for resource cycling and minimising environmental harm. Targets are enforceable and likely to increase product recovery rates.
	<b>reduction of harm in relation to the products</b>		++ As above	++ As above
<b>Fair</b> Likely to:	<b>move costs and responsibilities to producers and product consumers</b>	0	++ Product stewardship fee, set at point of purchase, shifts product disposal costs from councils and communities to producers and product consumers.	++ Take-back proposal shifts cost and responsibilities of providing product collection services from councils and ratepayers to industry-led PSO.
	<b>incentivise full sector participation</b>	0	++ All producers must participate in an accredited scheme and comply with safe stewardship requirements.	++ Industry (retailers) are likely to provide product collection points.
<b>Efficient</b> Able to be implemented:	<b>without placing undue costs on the community, business, or public funds</b>	0	0 Compliance cost to industry in meeting accredited scheme requirements (such as record-keeping).  Cost to industry (and subsequently consumers) in paying product stewardship fee. Costs will shift from councils and the environment to product users.	- Cost to industry (and subsequently consumers) in complying with accredited scheme requirements, product stewardship fee, and quality standard.  There is cost to industry in providing regulatory take-back services and to meet targets.
	<b>under existing legislation</b>	0	++ Enabled under WMA.	++ Enabled under WMA.
	<b>Overall assessment</b>	0	8	9



**Key:**

- ++** much better than doing nothing/the status quo
- +** better than doing nothing/the status quo
- 0** about the same as doing nothing/the status quo
- worse than doing nothing/the status quo
- much worse than doing nothing/the status quo

## Section 5: Conclusions

### 5.1 What option, or combination of options is likely to best address the problem, meet the policy objectives and deliver the highest net benefits?

*Option B: Basic foundation plus take-back and targets* is the preferred option, as it is likely to better achieve objectives and outcomes. Option B requires producers and sellers to participate in an accredited scheme, pay a product stewardship fee, provide the Ministry information to monitor and enforce the requirements; sets quality standards for eligibility for tyre stewardship incentive payments; and sets take-back and target requirements for the PSO.

It will make industries and tyre users share responsibility for managing environmental harm caused by end-of-life tyres. This will be achieved by regulations such as requiring participation and product stewardship fee.

Option B is preferred over Option A as it enables the Government to set enforceable expectations for service delivery. This will ensure that the consumer has access to free and convenient collection services.

Regulated take-back requirements with targets make the industry-led PSO take responsibility for providing product collection and recycling services, and subsequently manage the environmental harm of the product.

The take-back and target requirements will likely increase the number and availability of onshore collection services, removing barriers to the public accessing these services. The expected outcome is an increase in tyre recovery rates, compared to Option A.


The Ministry expects the preferred option will align New Zealand with comparable international schemes with mandated participation that achieve a higher tyre diversion rate from landfill (NZ: 30 per cent, international: approx. 80 per cent). The accredited tyre scheme (Tyrewise) is based on these international schemes and industry best practice and are expected to achieve similar success rates at diverting end-of-life tyres from landfill and promote resource efficiency.

## 5.2 Summary table of costs and benefits of the preferred approach

### Preferred option: Option B – Basic Foundation plus Take-Back and Targets

#### Priority products in general

Many costs relate to multiple priority products, as it is more cost-effective to implement systems to capture multiple products. The following table presents the additional costs of the preferred option when it applies to all priority products in general compared to taking no action.

Affected groups	Comment	Impact	Evidence Certainty
Additional costs of the preferred option compared to taking no action			
Regulators	<p><b>Regulation development</b> Cost to develop new regulations under the Waste Minimisation Act. Cost includes public discussion document and advisory group for regulation development.</p> <p>Cost of annual regulation updates, such as fee changes. Cost of scheme accreditation audits</p> <p><b>Government administration for tyre product stewardship fee</b> Cost to build IT systems to collect product stewardship fee, and ongoing monitoring of the scheme's performance and administration for fee. Cost likely to be passed onto the end-user. The IT system cost for future priority products included in estimate.</p> <p><b>Compliance, monitoring, and enforcement of product stewardship requirements</b> Cost to administer and enforce regulations. Two full-time equivalent staff (FTE) required in the CME team, and one FTE required for performance monitoring.</p>	<p>Waka Kotahi costs: \$207,221 per annum</p> <p>s 9(2)(j)</p> 	Medium
<b>Total monetised costs</b>		\$1,445,159 per annum	
<b>Non-monetised costs</b>		Medium	Medium

## Tyres

The analysis is largely based on the Cost-Benefit Analysis from Tyrewise report.

*Additional costs of the preferred option when it applies to tyres*

Affected groups	Comment	Impact	Evidence Certainty
<b>Additional costs of the preferred option compared to taking no action</b>			
<b>Tyres</b>			
Product stewardship organisation	<b>Tyrewise scheme administration</b> The cost drivers of the product stewardship scheme for tyres are: <ul style="list-style-type: none"> <li>• collection of the end-of-life tyres</li> <li>• transportation of the end-of-life tyres</li> <li>• disposal of the end-of-life tyres</li> <li>• providing consumer information.</li> </ul>	<b>Tyrewise</b> Product stewardship organisation setup costs \$1.2m Total cost of scheme administration: \$59,887,624 per year Tyre collection \$7,708,402 Tyre transportation \$19,498,239 Tyre processing / end markets \$23,342,127 Consumer information \$2,872,473	Medium
Industry	<b>Product stewardship fee</b> Cost to industry (importers, manufacturers, retailers) in paying product stewardship fee. The product stewardship fee cost will be passed on to consumers from the importer in the tyre price and included in the vehicle registration cost for tyres fitted to vehicles. Product stewardship fee set at \$6.65 per equivalent passenger unit (EPU).	Average cost of \$59.9m per year for the first three years.	Medium
	<b>Participation in an accredited scheme</b> Industry (importers, manufacturers, retailers) must participate in an accredited product stewardship scheme for tyres and comply with its requirements, which may incur costs (eg, record-keeping). Requirements will be determined by the accredited scheme.	Medium	Low

Tyre consumers	<p><b>Product stewardship fee</b> Cost to consumers in paying product stewardship fee</p> <p>Product stewardship fee set at \$6.65 per equivalent passenger unit (EPU).</p> <p>The cost may be higher or lower than what consumers currently are paying retailers for disposal (currently called as “environmental fee” and the fee ranging from \$2.50 up to \$16.00, depending on the size of the tyre from passenger tyres through to off road tyres). However, the cost is expected to be much cheaper than sending tyres into landfill. For example, in Southland, the cost to dispose tyres in landfill is a variable rate based on the weight of the tyres and a fixed fee depending on the size of the tyre.</p> <p>The cost can also be an additional cost for those who do not choose to pay retailers for disposal.</p>	\$6.65 per equivalent passenger unit (EPU)	Medium
<b>Total monetised costs</b>		Set up costs of \$1.2m and ongoing costs of \$59.9m per year.	Low
<b>Non-monetised costs</b>		Medium	Low



*Expected benefits of the preferred option when it applies to tyres*

Status quo costs of tyre management are outlined below. The scheme is expected to reduce these costs (in conjunction with other policies) by preventing the creation of more legacy and orphan tyres.

Affected groups	Comment	Impact	Evidence Certainty
<b>Expected benefits of the preferred option compared to taking no action</b>			
<b>Tyres</b>			
Industry	Reduction in business funded repairs, loss earnings, loss stock following fire.	Current cost of business funded repairs estimated at \$960,000 per annum.	Medium
Public, ratepayers	Reduction in council-funded plus privately-funded costs of clean-up of illegal dumping on private land	<p>Council-funded clean-up cost is expected to grow from \$586k to \$1.38million in the next ten years (scaled up to NZ population)</p> <p>Privately funded clean-up cost is expected to be \$6,600,000 in the next ten years</p> <p>In total, it costs \$15,944,496 over ten years (or \$1,594,450 per annum)</p>	Medium
Local Government	Reduced council-funded environmental clean-up costs from tyre fire (assuming one large fire per year).	Estimated \$8.8k per annum.	Low
<b>Total monetised costs</b>		Estimated \$1,699,250 per annum	Low
<b>Non-monetised costs</b>			

The following table presents the expected benefits of regulations to support a tyre stewardship scheme.

Affected groups	Comment	Impact	Evidence Certainty
<b>Expected benefits of the preferred option compared to taking no action</b>			
<b>Tyres</b>			
Regulators	End-of-life product management service costs shifted to consumers and producers. Accreditation will accelerate industry-led action on environmental challenges with tyres.	Medium	Medium
Wider government	Product collection services increase alternatives to council-operated waste services, such as landfills, and manage specialist waste. Likely to reduce overall demand for and cost of operating waste services.	Medium	Medium
Industry	Market Value of Tyre Derived Product Diverting tyres from landfill means the resource will become available for tyre collectors and processors to capture the economic market value of tyre derived products, including onshore services. For example, from whole tyres used in civil engineering projects (eg, baled retaining walls, temporary roads, sea embankments).	\$11,363,415 <sup>18</sup> per annum.	Medium
	Creation of new end-of-life tyre recycling industry.  A significant proportion of the product stewardship fee paid by consumers to the Tyrewise Product Stewardship Organisation (PSO) will become incentivise payment. This directly funds new business in New Zealand, in turn creating employment opportunities.	\$28,987,284 per annum	

<sup>18</sup> Cost-Benefit Analysis from Tyrewise report

Environment	<p>The toolkit will increase number and quality of disposal services available and industry participation rates. Expected impacts are:</p> <ul style="list-style-type: none"> <li>• reduced rates of illegal disposal, such as littering and tyre stockpiling</li> <li>• reduced risk of tyre fires</li> <li>• reduced total waste to landfill through incentivising product design with higher recyclability</li> </ul> <p>reduced reliance on raw materials through better availability of collection and recycling services.</p>	High	Low
Importers, suppliers, retailers, exporters, and New Zealand manufacturers	Level playing field – all importers contribute towards product stewardship scheme costs. The same rules for all mean no one is disadvantaged.	Medium	Medium
	Positive PR – ‘doing the right thing’.	Low	Medium
	If retailers and manufacturers opt to participate as a collection point, this may increase their customer base.	Low	Low
Recyclers, collectors, and disposal services	<p>Toolkit expected to create new recycling markets and increase demand for services.</p> <p>Accredited schemes are designed to increase circular resource use (reuse, recycling, and recovery).</p> <p>If recyclers, collectors, and disposal services contract with the PSO to provide services, this may greatly increase their customer base.</p> <p>Product stewardship fee cost incorporated into purchase price expected to incentivise recyclable product design.</p>	Medium	Low
Consumers	Take-back and target regulations will increase availability of product collection services.	High	Medium
Local Government	Better information on product disposal and recycling services available.	Medium	Medium
<b>Total monetised benefits</b>		\$40,350,699 per annum	Medium
<b>Non-monetised benefits</b>		High	Medium

### 5.3 What other impacts is this approach likely to have?

As this is the first-time a regulated product stewardship scheme has been established in New Zealand, the Ministry holds limited data on the impact of introducing regulations to support the tyre scheme in New Zealand.

The Ministry will monitor the efficacy of accredited schemes and require the scheme to record, and provide data on, scheme effectiveness (i.e., tyre collection rates) to the Ministry on a regular basis. The Ministry will then review the effectiveness of the take-back and targets toolkit as a policy approach.

## Section 6: Implementation and operation

### 6.1 How will the new arrangements work in practice?

If Cabinet agrees to the proposed policy, regulations will be developed under sections 22 and 23 of the Waste Minimisation Act 2008. The Ministry will work with the Parliamentary Counsel Office in 2022 to draft regulations.

The Ministry will publish guidance on how to comply with the regulations on our website, including the requirements to act in accordance with an accredited scheme.

The Ministry for the Environment are responsible for enforcement of regulations under section 22 and 23 of the Waste Minimisation Act 2008. The Ministry is responsible for undertaking audits and investigating potential breaches of regulations.

The Ministry would require importers and the PSO to keep records of compliance and investigate where non-compliance is detected. Penalties in the WMA for non-compliance are summarised in Table 3: Summary of proposal.

The PSO will have a role in monitoring compliance of agreements with scheme participants. The PSO will set record-keeping requirements for participants to monitor for compliance. If participants do not comply with requirements, the PSO will escalate enforcement efforts to the Ministry.

Where alleged breaches or non-compliances are identified, various enforcement tools may be used to bring about positive behaviour change, and to deter future offences through appropriate penalties. Enforcement outcomes would be proportionate to the seriousness of the non-compliance following an investigation process.

s 6(a)

The Tyrewise scheme is already accredited. Preparation for scheme implementation on the ground is underway this year and the scheme will be able to go live in 2023 subject to Cabinet decisions on regulations.

The fee and monitoring cost recovery regulations are proposed to come into force six months before the scheme starts operating so the PSO can obtain a 'float' to start the scheme. The PSO's operating revenue would derive from the stewardship fee and there is no facility for Government or other parties to provide a float from the outset.

### 6.2 What are the implementation risks?

Financial implementation risks include:

- The costs of providing a product stewardship scheme may differ (i.e. an unexpected surplus or deficit) from those set out in the financial model, as this is the first-time priority products have been declared and regulations made to give effect to the scheme. This risk will be monitored through annual reporting requirements, as part of accreditation, and mitigated by regular reviews of the fee quantum.

Risks in relation to scheme performance include:

- The General Guidelines for Product Stewardship Schemes, which set out the expectations of accredited product stewardship schemes, are not enforceable. The sanction available is



complete revocation of scheme accreditation if reasonable attempts are not being made to implement the scheme or if objectives are unlikely to be met. The Government aims to mitigate this risk by setting regulations that require PSO to provide a take-back service that is free at point of deposit, and by setting targets.

- The public do not use the scheme and they landfill or illegally dump the tyres. This risk would be exacerbated if rural areas do not have access to take-back services. This will affect the ability of the scheme to achieve outcomes and targets. The Government will address this by introducing a take-back regulation to require the PSO to provide a free and convenient take-back service, including providing access to rural locations.
- There is a risk that tyre collectors will landfill or illegally dump tyres. The Ministry will mitigate this risk through specifying that tyres accepted by registered collectors of the accredited tyre scheme cannot be landfilled, except with written permission from the scheme.

Risks in relation to scheme administration include:

- Introducing regulation that prohibits sale of a tyre, except in accordance with an accredited product stewardship scheme, enables an accredited product stewardship organisation (PSO) to set the terms of sale. This concentrates decision-making power with the accredited PSO. To mitigate this risk, the accreditation applicant must disclose their proposed requirements for selling a product in accordance with an accredited scheme in the application form. The Ministry undertakes a verification process to ensure the applicant meets the WMA requirements, and to ensure the point-of-sale requirements are reasonable.
- The accredited scheme can ask for a variation of the scheme, and the variation may impact the regulations, such as the PSO withdraws from the scheme. This will be mitigated by the requiring the PSO to provide sufficient notice to the Ministry and will be monitored by the scheme performance.

Scheme monitoring risks include:

- The Ministry have a risk of inadequate data to implement and monitor the scheme, as fee collection, enforcement, and implementation are undertaken by different agencies.
- MfE and Waka Kotahi are the fee collection agencies; MfE are the enforcement agency; and the PSO are the scheme delivery agency. MfE requires an effective data sharing mechanism to enforce fee payment adequately. If this mechanism was not in place, the PSO's ability to implement the scheme, and MfE's ability to monitor the scheme would be impacted.
- The Ministry are mitigating this issue through developing data sharing arrangements with Customs, Waka Kotahi, and the PSO. The design requirements of the I.T. system take account of this risk.

Inconsistency with trade obligations:

- The Ministry will work closely with the Ministry of Foreign Affairs and Trade to ensure New Zealand's international trade obligations are considered and reflected in the scheme design, to ensure consistency with New Zealand's obligations.

## Section 7: Monitoring, evaluation and review

### 7.1 How will the impact of the new arrangements be monitored?

Section 14 of the Act requires a scheme to “provide for assessing the scheme’s performance and for reporting on its performance to the Minister”. Section 20 enables the Secretary to monitor the performance of an accredited scheme and recover the costs of doing so from the scheme manager (on behalf of the scheme) as a charge in the prescribed manner.

Accredited tyre product stewardship schemes (Tyrewise) must provide the Ministry data on scheme performance as a condition of accreditation. For example, they must report to the Ministry on an annual basis on financial performance, environmental performance, measurement of outcomes, achievement of targets, and agreements with service providers. An independent Audit Committee is responsible for oversight of the financial reporting process, selection of the independent auditor, and receipt of audit results both internal and external. The Ministry will use this data to evaluate the efficacy of the scheme when it is established. As part of the monitoring, the Ministry will specify in the regulations that their financial statements to be prepared and audited according to generally accepted accounting practice to ensure its credibility

The Ministry will need to collect additional data on the effectiveness of the regulations to support the scheme for monitoring purposes. The Ministry recommends setting regulations under section 23(i) to require the product stewardship organisation and scheme participants to provide this information to the Ministry quarterly:

- PSO, importers and retailers to provide information on collecting and disbursing fees; and
- PSO to provide information (costs and outcomes) on achievement of targets (compliance).

### 7.2 When and how will the new arrangements be reviewed?

The Government proposes a maximum review period of three years. This review will cover the overall efficacy of the scheme and regulations.

Submissions highlighted the need for the fee to be flexible and reviewed regularly, as scheme costs are heavily dependent on a market which is still developing. As an independent not-for-profit entity, the product stewardship organisation will be sensitive to cash-flow. The financial risk of under or over recovering costs is a trigger to review the regulations.

A potential trigger to review the take-back service regulation would be the numbers of tyres being pulled through the scheme, in comparison to the number of tyres estimated to reach end-of-life. If the tyres are ending up in landfill or being illegally dumped, this would indicate the scheme is not achieving its objectives and trigger a review.

The Government will use the information provided by the PSO and scheme participants to review the effectiveness of the scheme, and to inform future reviews.

Legislative change at a national or international level could trigger a review of the product stewardship requirements. For example, the Resource Management Act 1991 and Waste Minimisation Act are currently being reviewed, and change has been indicated for the WMA.

The Ministry may have to review the existing regulatory arrangements if another scheme was accredited for tyres. For instance, if the new accredited scheme requests a change to the fee quantum, or requests additional supporting regulations.

## Stage 1 and 2 Cost Recovery Impact Statement

### **Tyre stewardship fee and charge to recover the cost of monitoring the performance of the tyre stewardship scheme under the Waste Minimisation Act 2008**

#### AGENCY DISCLOSURE STATEMENT

This Cost Recovery Impact Statement (CRIS) has been prepared by the Ministry for the Environment (the Ministry). It should be read in conjunction with the Regulatory Impact Statement for regulations to support the product stewardship scheme for tyres.

It provides an analysis of options to recover the cost of regulated product stewardship scheme for tyres.

#### PRODUCT STEWARDSHIP ORGANISATION AND CO-DESIGN

The delivery of the product stewardship scheme for tyres will be managed by a not-for-profit product stewardship organisation that is external to government. The Ministry is proposing to recover the product stewardship organisation's costs to deliver the scheme through a fee.

The Ministry is also proposing to recover its own costs through the fee, including its performance monitoring costs, which require a separate regulation.

The tyre stewardship scheme will be New Zealand's first regulated product stewardship scheme. There will inevitably be uncertainty associated with the cost estimates, as the scheme is not yet in operation.

The government-accredited product stewardship scheme for tyres is named Tyrewise. Tyrewise was designed by an industry-led codesign group, and later received Ministerial accreditation.

#### COST ESTIMATIONS

The fees are calculated from the average costs estimated in the first three years of the scheme.

The costs to the product stewardship organisation of managing the accredited tyre stewardship scheme have been estimated by the codesign group. These estimations are based on broad industry consultation, as well as information on international tyre stewardship schemes. To estimate the scheme costs, the codesign group considered factors including, but not limited to, the likely end-uses of tyres under the incentives structure, the likely distribution of end-of-life tyres, the cost of running a collection site and the cost of transporting tyres.

The government costs were calculated in consultation with Customs and Waka Kotahi. At this stage, the Ministry has not completed its requirements and design or procurement process for its IT system. The IT costs are estimates.

The cost model for the first three years of the scheme, upon which the fee is based, does not include inflation.

The fee amounts in this paper are exclusive of GST. GST will apply to the tyre stewardship fee.

#### ASSUMPTIONS IN THE CALCULATING THE UNITS

The fees are calculated based on the number of tyre units expected to enter New Zealand in the first three years of the scheme.

The financial model based on 2019 Customs import data and Waka Kotahi vehicle registration data. The financial model assumes that the number of tyres entering the New Zealand market in year 1 of the scheme will be equal to 2019. From there, the scheme assumes an increase of 2% per annum of

EPUs entering the market as loose tyres, and a decrease of 2% per year of tyres entering the market fixed to vehicles.

The fee model assumes that the scheme will be able to collect a fee on 8,999,117 equivalent passenger units (equal to 9.5kg of tyre) on average over the first three years of the scheme. This is 95% of the total EPUs expected to enter the New Zealand Market.

The average weights (in EPUs) of tyres in relation to tariff codes and vehicle registration categories was estimated by the codesign group with advice from technical experts.

### GAPS

The codesign group did not produce data on the number of vehicles that are imported fixed to off-road vehicles that are not road registered.

There are gaps in Waka Kotahi's historic vehicle registration data, making it difficult to forecast the rate of increase in tyre imports.

We do not know the number of legacy tyres that currently exist in New Zealand. The codesign group stated that there is no way to know the number of stockpiled tyres that are no longer required for the purpose they were intended for, nor the number of tyres that have been abandoned.

### DEPENDENCIES

The regulations are dependent on the implementation of the product stewardship organisation. This includes the implementation of the organisation itself, the IT system, a soft launch to test the systems and processes, a review of the level of the incentive payments within the agreed funding, the registration of scheme participants, and the establishment of contracts with collection sites.

Product stewardship for tyres is the last piece of the puzzle to solve the problem of end-of-life tyres, following on from the implementation of the National Environmental Standards for the outdoor storage of tyres and Government's infrastructure investment at Golden Bay Cement kiln. The outcomes of both of these initiatives depend on product stewardship for tyres being in place.

In July 2020, the Government declared six products as priority products, to enable use of regulated product stewardship tools under the WMA. These products are: tyres; electrical and electronic products (e-waste); agrichemicals and their containers; farm plastics; refrigerants and other synthetic greenhouse gases; and plastic packaging.

In addition to tyres, there are six other regulated product stewardship schemes. Some of these schemes, and voluntary product stewardship schemes, may also benefit from the upgrade of the Waka Kotahi IT system and the Ministry's IT architecture. It is not clear at this stage whether other product stewardship fees, such as fees for large batteries and refrigerants attached to vehicles, will be collected through Waka Kotahi. There is also some uncertainty over the timing of the implementation of the other schemes, which affects the allocation of costs.

The Ministry is currently reviewing the WMA. This is likely to impact the future legislative basis for this scheme and the other six schemes for current priority products.

### FURTHER WORK REQUIRED PRIOR TO IMPLEMENTATION

The Ministry will need to work with the product stewardship organisation Auto Stewardship New Zealand on the implementation of the tyre stewardship scheme by November 2023.

The Ministry will need to propose an appropriation that will allow it to collect the fee revenue from The Ministry (based on New Zealand Customs Service (Customs) importation data) and Waka Kotahi New Zealand Transport Agency (Waka Kotahi) and to distribute a portion of that fee revenue to the product stewardship organisation for the management of the scheme.

Details of information sharing, protection of privacy, stewardship fee collection, accounting, transfer of funds, enforcement, and memoranda of agreement are currently being confirmed between the

Ministry, Customs, Waka Kotahi, The Treasury and the PSO to ensure robust and cost-effective operation.

The Ministry will need to procure IT architecture for product stewardship and Waka Kotahi will need to upgrade their IT systems. This will support the government's activities that form part of the service.

#### TYRE LIFECYCLES

There is a time delay between when tyre producers will start paying the proposed fee on imported and new tyres and when those tyres will be collected and processed under the scheme. Tyres typically reach their end of life three to four years after they have been imported. The product stewardship scheme has been designed to use this revenue to start managing the collection, transportation and processing of tyres that have reached their end of life in the first four years of the scheme, when the fee revenue is being collected.

The majority of the tyres that will be managed by the scheme in the first year will be tyres that are reaching their end of life in year 1. There is an upward trend in tyre imports, so we assume that these tyres will not cause an increase in the fee that the importers are paying. However, this creates a fiscal risk if tyre imports decrease or increase at a lower rate than forecast that will need to be mitigated.

There are an unknown number of stockpiled legacy tyres that are no longer required for the purpose they were intended for. There are also an unknown number of 'orphan' tyres that have been abandoned. These tyres will unavoidably enter the scheme and have been costed into the financial model to some extent. There is a risk that a larger number of stockpiled legacy or orphan tyres will enter the scheme than the financial modelling predicts. This creates a fiscal risk that will need to be mitigated.

#### TIMELINE

The product stewardship organisation will need a "float" before it can commence operations. The Ministry proposes that the product stewardship fee and the charge for recovering performance monitoring costs should come into effect six months before the scheme begins operations to accumulate this float.

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## EXECUTIVE SUMMARY

The Ministry proposes to create regulations to support the product stewardship scheme for tyres, including:

- A tyre stewardship fee to recover the costs incurred by government and the costs incurred by the tyre stewardship organisation in managing the tyre stewardship scheme, this includes the cost of monitoring the performance of the tyre stewardship scheme
- A charge to enable government to recover its costs for monitoring the performance of the tyre stewardship scheme.

The proposed tyre stewardship fee is calculated based on a level of \$6.65 per equivalent passenger unit (EPU) and applied to tariff code descriptions and vehicle registration categories.

Of that \$6.65 per EPU, 0.48% relates to government's performance monitoring costs.

Sections 20(b) and 22(1)(e) of the WMA require government to create a further regulatory charge in order to recover the costs of monitoring the performance of the scheme. These costs will ultimately be recovered from the tyre consumer through the tyre stewardship fee. These costs are therefore contained in the "performance monitoring" line of CRIS Table 1 below. The proposed charge for recovering governments performance monitoring costs from the tyre stewardship organisation will be 1.11% of tyre stewardship fee revenue.

The Ministry proposes that the tyre stewardship fee and the performance monitoring charge come into force in November 2023.

## STATUS QUO

The proposal is to create a new fee for product stewardship for tyres and a new charge for recovering the costs of monitoring the performance of the product stewardship scheme for tyres, that is ultimately passed on to consumers through the product stewardship fee.

Please see Section 2.1 of the Regulatory Impact Statement for regulations to support the product stewardship scheme for tyres, which sets out the current situation.

## COST RECOVERY PRINCIPLES

Principles from section 8 of the Waste Minimisation Act 2008 (WMA)<sup>1</sup>:

- **Product stewardship** - the people and organisations involved in the life of a product share responsibility for ensuring there is effective reduction, reuse, recycling, or recovery of the product; and for managing any environmental harm arising from the product when it becomes waste

Principles from the Office of the Auditor General's *Setting and administering fees and levies for cost recovery: Good practice guide*<sup>2</sup>:

- **Transparency** – costs are transparent
- **Justifiability** – costs can reasonably be attributed to the delivery of the service
- **Efficiency** – net benefits are maximised
- **Equity** – costs are distributed equitably between fee-payers as far as is practicable

## POLICY RATIONALE: WHY A USER CHARGE? AND WHAT TYPE IS MOST APPROPRIATE?

Tyres are privately owned products, and they are often disposed of in a way that is harmful to the environment and harmful to human health. It is appropriate for people and companies who benefit from tyres to bear the cost of their disposal in a way that manages these harms. The tyre stewardship scheme offers the fee-payers a service to dispose of end-of-life tyres that is an alternative to landfill.

Part 2 of the Waste Minimisation Act 2008 (WMA) contains legislative provisions, including a fee-making power. Part 2 is designed so that the government can create regulations that ensure that people and organisations involved in the life of a product share responsibility for ensuring there is effective reduction, reuse, recycling, or recovery of the product; and for managing any environmental harm arising from the product when it becomes waste.

### PRODUCT STEWARDSHIP FEE

Section 23(1)(d) of the WMA contains the power to set a fee for the management of a product. The Ministry proposes that the government sets a fee under this provision for the management of tyres. In line with the principle of product stewardship, we are proposing full cost recovery.

### CHARGE FOR RECOVERING SCHEME PERFORMANCE MONITORING COSTS

Section 20 of the WMA states that the Secretary may recover the costs of monitoring the performance of an accredited product stewardship scheme from the scheme manager, on behalf of the accredited scheme. Section 22(1)(e) of the WMA contains the power to prescribe charges payable to the Secretary for the monitoring of an accredited product stewardship scheme. The Ministry proposes that the government sets a charge to recover the cost of monitoring the performance of the scheme.

These costs will be recovered from the tyre supply chain and consumers by the product stewardship organisation by way of the tyre stewardship fee. Government will then recover a percentage of the fee revenue that corresponds to the cost of monitoring the performance of the scheme from the product stewardship organisation.

### ECONOMIC CHARACTERISATION OF THE SERVICE

Tyres are a private good. The use of tyres generates a negative externality in the form of environmental harm. This negative externality is not currently being appropriately managed, nor being priced into the cost of the purchase and disposal of tyres. In order to internalise the externality, and make sure that consumption of tyres has reduced environmental harm, it is appropriate for the users of the private good to pay for their disposal at full cost.

## COST COMPONENTS

TABLE 1 – COSTS OF SCHEME OUTCOMES

Activity	Output	Cost per annum (based on three-year average of cost estimates)	Cost per Equivalent Passenger Unit (EPU)
Fee administration	§ 9(2)(j)		
	Waka Kotahi IT system costs	\$207,221	\$0.02
Compliance, monitoring and enforcement	§ 9(2)(j)		
	§ 9(2)(j)		
	§ 9(2)(j)		
	PSO programme management costs	\$627,705	\$0.07
	PSO overheads	\$747,267	\$0.08
Performance monitoring	§ 9(2)(j)		
Scheme participant information	Providing informational material to scheme participants, point of sale material, information website	\$2,872,473	\$0.32
Tyre collection	PSO payments to collection sites	\$7,708,402	\$0.86
	PSO programme management costs	\$590,706	\$0.07
	PSO overheads	\$43,957	<\$0.01
Tyre transportation	PSO payments to transporters	\$19,498,239	\$2.17
	PSO programme management costs	\$590,706	\$0.07
	PSO overheads	\$43,957	<\$0.01
Tyre processing/ end markets	PSO payments to tyre processors/ end markets	\$21,485,295	\$2.39
	PSO grants for research and development	\$2,398,402	\$0.27
	Grants for market development through	\$1,200,694	\$0.13

	investment in community spaces		
	PSO programme management costs	\$590,706	\$0.07
	PSO overheads	\$43,957	<\$0.01
<b>Total</b>		<b>\$59,887,624</b>	<b>\$6.65</b>

Note that an equivalent passenger unit (EPU) is 9.5kg, the weight of an average passenger tyre. The cost per EPU has been included in the table to give a sense of scale.

## IT COSTS

Some of the six other product stewardship schemes due to be implemented over the next few years may also benefit from the upgrade of the Waka Kotahi IT system and the Ministry's IT architecture. It is not clear at this stage whether other product stewardship fees will be collected through Waka Kotahi, this is an option for large batteries and refrigerants. There is also some uncertainty over the timing of the implementation of the other regulatory schemes. Voluntary product stewardship schemes may also benefit from the Ministry's IT investment, but this benefit is considered to be quite minor compared to the regulated schemes.

The Ministry proposes to recover the full costs of the Waka Kotahi and the Ministry's IT work through the tyre stewardship fee to minimise the risk that it will not recover its costs. The Ministry proposes to review the product stewardship fees at a later date to correct for any cross-subsidisation that may occur.

At this stage, the Ministry has not completed its requirements, design or procurement process for its IT system. It is likely that the necessary software may be procured as software as a service. The guidance in the current Treasury *Guidelines for Setting Charges in the Public Sector* is:

*"As a starting point, we typically would expect all costs (including capital charge and depreciation of related assets) to be recovered so that users are paying the true and full cost. Where Government investment is initially required, such as to build a database or other asset to support a cost recovered activity, this investment will often be recovered through the depreciation expense incurred (and charged as a cost) over the life of the asset."*

This CRIS assumes that the Ministry's IT costs can be depreciated and recovered through the fee.

## THE LEVEL OF THE PROPOSED CHARGES

This section explores three sets of options that inform the proposed level for the tyre stewardship fee and the charge for performance monitoring.

- A. Options for collecting the tyre stewardship fee
- B. Options for the structure of the tyre stewardship fee
- C. Options for the proposed performance monitoring charge

### A.1. OPTIONS FOR THE COLLECTION OF THE TYRE STEWARDSHIP FEE

- 1. Set a fee that is payable at the point of disposal
- 2. Set a fee that is payable at the point of entry to the New Zealand Market
  - a. Set a fee that can be collected by New Zealand Customs Service
  - b. Set a fee that can be collected by Waka Kotahi New Zealand Transport Agency
  - c. Set a fee that can be collected by the product stewardship organisation
  - d. Set a fee that can be collected by the Ministry for the Environment

### A.2. ASSESSMENT OF OPTIONS FOR COLLECTION OF THE TYRE STEWARDSHIP FEE

#### 1. SET A FEE THAT IS PAYABLE AT THE POINT OF DISPOSAL

If the fee is charged at point of import, all tyres already in circulation in NZ will benefit from disposal for free as once a tyre is in NZ, it isn't possible to differentiate between those that were imported subject to the fee and those that were already here. This creates cross-subsidisation, in a way that does not occur when a fee is charged at the point at which the service is delivered.

However, if the tyre stewardship fee were to be charged at the point of disposal, this would create a disincentive for tyres to be disposed of through the scheme. End-of-life tyres would likely continue to be disposed of in the same way that they have been historically, with tyres ending up illegally dumped or left in storage or stockpiles.



This would frustrate the intentions of the policy and the principle of product stewardship under the WMA. The people and organisations involved in the life of a product would not be sharing responsibility for ensuring there is effective reduction, reuse, recycling, or recovery of the product; and for managing any environmental harm arising from the product when it becomes waste.

Collecting the fee at the point of disposal is therefore not the preferred option.

## 2. SET A FEE THAT IS PAYABLE AT THE POINT OF ENTRY TO THE NEW ZEALAND MARKET

Charging a fee in advance will enable the tyre stewardship scheme to provide a collection service that is convenient to the end user or consumer and is free at the point of collection. This is in line with the Ministerial guidelines for product stewardship schemes for priority products made under s12 WMA<sup>3</sup>. It is important for the service to be free and convenient at the point of collection, to incentivise service uptake and to avoid illegal dumping or stockpiling of tyres. This is necessary for the product stewardship scheme to fulfil its purpose.

Collecting the fee at the point of import would amount to a lower administration cost than point of disposal as it means there will be fewer collection points with larger transactions.

### a. SET A FEE THAT CAN BE COLLECTED BY NEW ZEALAND CUSTOMS SERVICE (CUSTOMS)

Customs already has the infrastructure in place to collect duties on imported goods. This means that there are cost savings associated with collecting the fee through Customs, making this option more efficient and justifiable.

Customs already has an existing point of contact with tyre producers, who pay duties on imported goods. This means that paying the fee through Customs will be less administratively burdensome for fee payers than establishing a new point of contact.

Tariff code descriptions for tyres that are imported loose give sufficient detail to enable a fee to be set that differentiates between larger and smaller types of tyre. This enables the fee structure to be designed in a way that is more equitable than charging a single fee per tyre, since tyre weights broadly correlate with the cost of managing the tyre at end-of-life.

Tariff code descriptions do not include the actual weight of the tyres imported. Attempting to charge a fee per kg of tyres would be fairer, but administratively impractical. It would add significantly to the cost of the service, making it difficult to justify and the service inefficient.

Customs already collects sufficient information on importers of loose tyres to enable government to monitor and enforce compliance with the fee regulation.

Tariff code descriptions for tyres that are imported fixed to vehicles are not a suitable basis for a fee structure for tyres.

The Ministry are not progressing this option, as Customs indicated they would not collect the fee unless it is declared a duty. The Ministry would need to amend primary legislation to declare the fee a duty, which is out of scope of this project.

### b. SET A FEE THAT CAN BE COLLECTED BY WAKA KOTAHİ NEW ZEALAND TRANSPORT AGENCY

Waka Kotahi already has the infrastructure in place to collect charges at the point of first vehicle registration. This means that there are cost savings associated with collecting the fee through Waka Kotahi, making this option more efficient and justifiable.

Waka Kotahi already has an existing point of contact for paying charges on road registered vehicles. This means that paying the fee through Customs will be less administratively burdensome for fee payers than establishing a new point of contact.

Waka Kotahi's vehicle registration categories enable a fee to be set that differentiates between larger and smaller categories of tyre. This enables the fee structure to be set in a way that is more equitable than charging a single fee per tyre, since tyre weights broadly correlate with the cost of managing the tyre at end of life.

Waka Kotahi does not count the number of tyres on vehicles that it registers. Requiring Waka Kotahi to count the number of tyres on vehicles would be fairer, but it would add significantly to the cost of the service, making the cost difficult to justify and the service inefficient.

Waka Kotahi will not be able to collect a fee on vehicles that are not road registered.

c. **SET A FEE THAT CAN BE COLLECTED BY THE PRODUCT STEWARDSHIP ORGANISATION**

The product stewardship organisation does not have access to the information that Customs or Waka Kotahi collect on tyre importers or those registering vehicles. It would therefore be more administratively complex and costly for the product stewardship organisation to collect the fee. This arrangement would also be more costly for government to enforce, and therefore less justifiable. This arrangement would also make the service less efficient.

Customs cannot charge a fee on tyres that are imported fixed to vehicles. Of those tyres, Waka Kotahi cannot charge a fee on tyres that are imported fixed to vehicles that are not road registered. The product stewardship organisation is therefore the only remaining option for collecting the fee on tyres that are imported fixed to vehicles that are not road registered.

Tyres are not currently manufactured in New Zealand. If tyres are manufactured in New Zealand, the manufacturer should be charged a fee that is equivalent to the fee paid by the importer. Tyres manufactured in New Zealand will not go through Customs.

d. **SET A FEE THAT CAN BE COLLECTED BY THE MINISTRY FOR THE ENVIRONMENT**

Under this option we would use s23(1)(d) to require certain classes or person to pay a fee for the purposes of “funding product stewardship of priority products through an accredited scheme”. We would use powers under s23(1)(j) to specify that the MfE should collect the fee and disburse the funds, less administration costs, to the PSO.

MfE’s core functions do not include fee collection, so MfE may not be best suited to this role, leading to inefficiencies. However, MfE have contracted fee collection services to external parties for other projects, so this model can be replicated for the product stewardship fee collection. Option D can be considered as an interim solution until a more suitable alternative is available to collect the fee.

### A.3. PROPOSED APPROACH TO COLLECTION OF THE TYRE STEWARDSHIP FEE

TABLE 2 – PREFERRED OPTIONS FOR FEE COLLECTION

	The class or classes of person who must pay the fee	The stage in the life of the product when the fee must be paid	The payee
Tyres imported loose	The importer	At the point of import	The Ministry for the Environment
Tyres imported fixed to vehicles that are road registered	The first person to register the vehicle for road use	At the point of first vehicle registration	Waka Kotahi New Zealand Transport Agency
Tyres imported fixed to vehicles that are not road registered	The importer	The point at which the tyre enters the New Zealand Market	The Ministry for the Environment
Tyres manufactured in New Zealand	The manufacturer		

### B.1. OPTIONS FOR THE STRUCTURE OF THE TYRE STEWARDSHIP FEE

1. Set a single fee rate for any tyre
2. Charge a fee that is based on the weight of each tyre
3. Set multiple fee rates based on average tyre size where possible
4. Set multiple fees based on the category of vehicle and the average number of tyres on that category of vehicle

### B.2. ASSESSMENT OF OPTIONS FOR COLLECTION OF THE TYRE STEWARDSHIP FEE

#### 1. SET A SINGLE FEE RATE FOR ANY TYRE

Tyres come in a wide range of sizes. Tyres for off-road earth movers are around 63.3 times the weight of an average passenger tyre. The costs of collecting and transporting a tyre are correlated with the weight of the tyre. The option to charge the same amount per tyre, regardless of the weight of the tyre would be inequitable.

#### 2. CHARGE A FEE THAT IS BASED ON THE ACTUAL WEIGHT OF EACH TYRE

Weighing each tyre or collecting data on the weight of the tyre from manufacturers for the purpose of fee collection would be inefficient and the additional cost would be difficult to justify. This approach would also exclude the preferred fee collection entities Customs and Waka Kotahi from collecting the fee, as it would be impractical for them to do so, and it would result in significant cost increases.

#### 3. SET MULTIPLE FEE RATES BASED ON AVERAGE TYRE WEIGHT

The industry-led co-design group proposed a fee structure that differentiated between different types of tyre based on weight. A standard unit of measurement in the tyre industry is an equivalent passenger unit (EPU) which is equivalent to the weight of an average passenger tyre; 9.5kg. The co-design group proposed 13 tyre categories and assigned each tyre category an EPU value based on average weight. Technical experts advised the co-design group on how these types of tyre align to tariff codes and vehicle registration categories.

This option is the most equitable, as it aligns the fee more directly to each fee payers actual use of the service.

It should be noted that none of these options distributes the cost of the service in a way that is entirely equitable. Although several of the cost components correlate with the weight of the tyre, the proposed community development grants and research and development grants that the scheme will distribute do not. These costs will not benefit all types of tyre in a uniform way. There is some unavoidable inequity in any fee structure.

#### 4. SET MULTIPLE FEES BASED ON THE CATEGORY OF VEHICLE AND THE AVERAGE NUMBER OF TYRES ON THAT CATEGORY OF VEHICLE

The Ministry is proposing to collect the fee on tyres that are imported fixed to road registered vehicles through Waka Kotahi. If a fee could be set per tyre, then this would be more equitable to fee payers. The Ministry considers this efficient where there is significant variation in the number of tyres on a vehicle within one vehicle class.

### B.3. PROPOSED STRUCTURE OF THE TYRE STEWARDSHIP FEE

The preferred option is to set multiple fee rates based on the average weight of tyres that are imported loose, imported fixed to non-road registered vehicles, and manufactured in New Zealand. The proposed fee structure is set out in Table 3.

The preferred option for tyres that are imported fixed to vehicles that are road registered is to set a fee per vehicle, based on the type of tyres on that vehicle and the average number of tyres for that vehicle. The proposed fee structure is set out in Table 4.

**TABLE 3 – FEES PAYABLE FOR TYRES IMPORTED LOOSE, TYRES IMPORTED FIXED TO OFF-ROAD VEHICLES AND TYRES MANUFACTURED IN NEW ZEALAND**

Type of tyre	Applicable tariff code description	Average weight of the tyre in EPU's	Fee per tyre (EPU's*\$6.65)
Off-road all-terrain vehicle	4011.70.00.39K	0.3	\$2.00
Motorbike	4011.40.00.00C	0.5	\$3.33
Passenger / light truck	4011.10, 4011.20.03.01C, 4011.20.03.09J, 4011.20.03.11L, 4011.20.03.19F, 4011.20.12.09H, 4011.20.12.11K, 4011.20.20.12.19E, 4012.11.11.00G, 4012.11.19.00H, 4012.20.01.01J	1.0	\$6.65
Aircraft	4011.30.00.00K, 4012.13.00.00D	1.9	\$12.64
Light commercial / industrial	4011.90.10, 4011.90.20, 4011.90.30, 4011.90.40, 4011.90.50, 4011.90.90.00L, 4012.19.11.00C, 4012.19.19.00D, 4012.19.29.00K, 4012.20.01.09D, 4012.20.09.00A, 4012.20.19.00G	2.0	\$13.30
Medium truck	4011.20.03.11L, 4011.20.03.19F, 4011.20.03.21H, 4011.20.03.29C, 4011.20.12.11K, 4011.20.12.19E, 4011.20.12.21G, 4011.20.12.29B	3.2	\$21.28
Tractor – small	4011.70.00.10A, 4011.70.00.23C	2.6	\$17.29
Solid or cushion tyres (forklift)	4012.90.00.01H, 4012.90.00.09C, 4012.90.00.19L	3.6	\$23.94
Heavy truck / bus	4011.20.07.01J, 4011.20.07.09D, 4011.20.12.01B, 4011.20.18.01L, 4011.20.18.09F, 4012.12.00.00K	4.2	\$27.93
Off-road (forestry)	4011.70.00.19E, 4011.70.00.21G, 4011.70.00.35G	4.4	\$29.26
Construction / industrial	4011.80.00	5.1	\$33.92
Tractor - large	4011.70.00.11K, 4011.70.00.25K	8.1	\$53.87
Off-road (graders)	4011.70.00.13F, 4011.70.00.29B	23.2	\$154.28
Off-road (earthmovers)	4011.70.00.15B, 4011.70.00.31D	63.6	\$422.94

## FEES PAYABLE ON TYRES FIXED TO VEHICLES

The preferred option is to set fees for tyres fixed to vehicles based on the total equivalent passenger unit (EPU) value of the tyres per vehicle.

The Ministry proposes setting fees for tyres fixed to vehicles in two categories:

- *Category 1*: set a fee per vehicle for vehicle registration categories with a standard number of tyres (excluding medium and heavy trucks, trailers, and buses; large tractors; and special purpose vehicles (SPV))
- *Category 2*: set a fee per tyre for vehicle registration categories with a variable number of tyres (limited to medium and heavy trucks, trailers, and buses; large tractors; and special purpose vehicles (SPV)).

Category 2 includes these classes of vehicles<sup>19</sup>:

- *Trucks*: medium and large goods vehicles (EPU variation of 16.8 to 202.1)
- *Trailers*: medium and large (EPU variation of 16.8 to 201)
- *Buses*: medium and heavy omnibus (EPU variation of 5 to 75.1)
- *Tractors*: large tractors over 3.5 tonnes (EPU variation of 32.4 to 145.8)
- *Special purposes vehicles*: a self-propelled goods vehicle capable of normal highway speeds (e.g. road marker or street sweeper) that is incapable of carrying other goods (EPU variation of 5 to 67.2).

Category 1 includes all other vehicles.

The same fees would be payable on tyres affixed to imported or locally manufactured vehicles that are not registered for road use, collected by the Ministry.

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<sup>19</sup> The vehicle class is defined by NZTA under the vehicle equipment standards classifications accessed at: <https://www.nzta.govt.nz/vehicles/vehicle-types/vehicle-classes-and-standards/vehicle-classes/>



TABLE 4 – CATEGORY 1 FEES PAYABLE ON TYRES FIXED TO VEHICLES THAT ARE REGISTERED FOR ROAD USE

Waka Kotahi / New Zealand Transport Agency vehicle registration category	Average weight of each tyre in EPUs	Average number of tyres per vehicle	Fee per vehicle (average weight in EPU * \$6.65 * average number of tyres per vehicle)
Agricultural machines	4.4	4	\$117.04
All-terrain vehicles	0.3	4	\$7.98
Light omnibuses (categories MD1, MD2) Note: medium and heavy omnibuses MD3, MD4, ME category are excluded.	1.0	5	\$33.25
Cars	1.0	5	\$33.25
Mobile machines	5.1	4	\$135.66
Mopeds	0.5	2	\$6.65
Motor caravans	1.0	5	\$33.25
Motorcycles	0.5	2	\$6.65
Towed caravans	1.0	3	\$19.95
Tractors	8.1	4	\$215.46
Trailers (Category TA – Very light trailer)	1.0	2	\$13.30
Trailers (Category TB – Light trailer)	1.0	3	\$19.95
Small tractor (up to 3.5 tonne gross vehicle mass (GVM) <sup>20</sup> )	2.6	4	\$69.16
Light goods vehicle (category NA)	1.0	5	\$33.25

## CATEGORY 2: PROPOSED FEE STRUCTURE FOR VEHICLE CATEGORIES WITH A VARIABLE NUMBER OF TYRES (CATEGORY 2)

The Ministry proposes setting a fee for the category 2 vehicles via this formula:

$$\text{Vehicle fee} = N * \text{EPU} * \$6.65$$

Where:

N is number of tyres per vehicle

EPU: Equivalent passenger unit value (1 EPU is the equivalent of a standard passenger car tyre of 9.5kg)

The effect of this formula will be to set a fee per tyre, based on size:

<sup>20</sup> Note – Gross Vehicle Mass (GVM) means the maximum safe operating mass for a vehicle (including the mass of any accessories, crew, passengers, or load) that is derived from the design, capabilities, and capacities of the vehicle's construction, systems, and components.

**Table 3: Category 2 fees payable on tyres fixed to vehicle categories with a variable number of tyres**

Tyre size	EPU	Fee
Small (S)	1.0	\$6.65
Medium (M)	3.2	\$21.28
Large (L)	4.2	\$27.93
Extra large (XL)	8.1	\$53.87

The legislation would then include the table 4 as guidance for the fee per vehicle. Table 4 sets out the estimated cost per vehicle, based on the vehicle classification and gross vehicle mass (GVM).

**Table 4: Examples of Category 2 fees payable on tyres fixed to vehicle categories with a variable number of tyres**

Note: a goods vehicle (i.e. truck) is defined as a motor vehicle constructed primarily for the carriage of goods, and either has at least four wheels or has three wheels and a gross vehicle mass (GVM) exceeding one tonne.

Class	Class description	Applicable GVM range	Number of tyres	Tyre size - EPU	Tyre fee	Estimated cost per vehicle
NB: Medium goods vehicle	A goods vehicle that has a GVM exceeding 3.5 tonnes but not exceeding 12 tonnes.	3.5 tonnes to 6 tonnes	5	S / 1 EPU	6.65	\$33.25
		Above 6 tonnes	5 or 7	M / 3.2 EPU	21.28	\$106.4 (5 tyre vehicle) \$148.29 (7 tyre vehicle)
NC: Heavy goods vehicle	A goods vehicle that has a GVM exceeding 12 tonnes.	Above 12 tonnes	4 -16	L / 4.2 EPU	27.93	Fee ranges from: \$111.72 (4 tyre vehicle) to \$446.88 (16 tyre vehicle)
TC: Medium trailer	A trailer that has a GVM exceeding 3.5 tonnes but not exceeding 10 tonnes.	3.5 tonnes to 6 tonnes	4 or 6	S / 1 EPU	6.65	\$26.60 (4 tyre vehicle) \$39.90 (6 tyre vehicle)
		Above 6 tonnes	4 or 6	M / 3.2 EPU	21.28	\$85.12 (4 tyre vehicle) \$127.68 (6 tyre vehicle)
TD: Heavy trailer	A trailer that has a GVM exceeding 10 tonnes.	Above 10 tonnes	4 – 32	L / 4.2 EPU	27.93	Fee ranges from: \$111.72 (4 tyre vehicle) to \$446.88 (16 tyre vehicle)

Class	Class description	Applicable GVM range	Number of tyres	Tyre size - EPU	Tyre fee	Estimated cost per vehicle
MD3: Medium omnibus	An omnibus with GVM exceeding 3.5 tonnes but not exceeding 4.5 tonnes	3.5 tonnes to 4.5 tonnes	5 or 7	S / 1 EPU	6.65	\$33.25 (5 tyre vehicle) \$46.55 (7 tyre vehicle)
MD4: Medium omnibus	An omnibus with GVM exceeding 4.5 tonnes but not exceeding 5 tonnes	4.5 tonnes to 5 tonnes	5 or 7	S / 1 EPU	6.65	\$33.25 (5 tyre vehicle) \$46.55 (7 tyre vehicle)
ME: Heavy omnibus	An omnibus that has a GVM exceeding 5 tonnes.	Above 5 tonnes	4 or 6 or 8	L / 4.2 EPU	27.93	\$111.72 (4 tyre vehicle) \$167.58 (6 tyre vehicle) \$223.44 (8 tyre vehicle)
Large tractor	A tractor that has a GVM exceeding 3.5 tonnes	Above 3.5 tonnes	4 or 6 or 18	XL / 8.1 EPU	53.87	\$215.48 (4 tyre vehicle) \$323.22 (6 tyre vehicle) \$969.57 (18 tyre vehicle)
SPV: Special Purpose Vehicles	A self-propelled goods vehicle capable of normal highway speeds (e.g. road marker or street sweeper) that is incapable of carrying other goods.	3.5 to 6	5 or 7	S / 1 EPU	6.65	\$33.25 (5 tyre vehicle) \$46.55 (7 tyre vehicle)
SPV: Special Purpose Vehicles		6 to 12	5 or 7	M / 3.2 EPU	21.28	\$106.4 (5 tyre vehicle) \$148.29 (7 tyre vehicle)
SPV: Special Purpose Vehicles		Above 12	4 - 16	L / 4.2 EPU	27.93	Fee ranges from: \$111.72 (4 tyre vehicle) to \$446.88 (16 tyre vehicle)

### C.1. OPTIONS FOR THE PROPOSED PERFORMANCE MONITORING CHARGE

1. Recover  $\text{\$ } 9(2)(j)$  per annum from the product stewardship organisation for government's costs to monitor the performance of the product stewardship scheme.
2. Recover 0.48% of fee revenue from the product stewardship organisation for government's costs to monitor the performance of the product stewardship scheme.

Note that the cost of government monitoring the performance of the scheme is considered to be part of the service as a whole, and as such this cost is recovered through tyre stewardship fee revenue from the tyre stewardship fee, paid by the tyre supply chain and consumers.

It is envisioned that government will retain the  $\text{\$ } 9(2)(j)$  /0.48% of fee revenue and / or invoice the product stewardship organisation for this amount. In both cases, government will also be recovering Waka Kotahi's IT costs, the Ministry's fee administration costs, the Ministry's IT, compliance, monitoring and enforcement costs through tyre stewardship fee revenue.

### C.2. ASSESSMENT OF OPTIONS FOR THE PROPOSED PERFORMANCE MONITORING CHARGE

#### 1. RECOVER $\text{\$ } 9(2)(j)$ PER ANNUM FROM THE PRODUCT STEWARDSHIP ORGANISATION FOR GOVERNMENT'S COSTS TO MONITOR THE PERFORMANCE OF THE PRODUCT STEWARDSHIP SCHEME.

This option would ensure that government fully recovers the cost of monitoring the scheme's performance from the product stewardship organisation. However, the product stewardship organisation is a not-for-profit organisation, the fee revenue is intended to fully recover the cost of running the product stewardship scheme. If the fee revenue under-recovers the cost of running the scheme, there is a greater risk to government of the scheme being unable to deliver its outcomes.

#### 2. RECOVER 0.48% OF FEE REVENUE FROM THE PRODUCT STEWARDSHIP ORGANISATION FOR GOVERNMENT'S COSTS TO MONITOR THE PERFORMANCE OF THE PRODUCT STEWARDSHIP SCHEME.

This option would mean that the risk of under-recovering these costs from tyre stewardship fee revenue would be shared between the government and the product stewardship organisation.

### C.3. LEVEL OF THE PROPOSED PERFORMANCE MONITORING CHARGE

The preferred option is for government to charge the product stewardship organisation 0.48% of fee revenue to recover the costs of monitoring the performance of the scheme.

## IMPACT ANALYSIS

Please see the full impact analysis for the tyre stewardship scheme provided in the Regulatory Impact Statement.

## CONSULTATION

The Tyrewise scheme was designed by an industry-led co-design group. The scheme has been developed over the past decade. In 2019, the co-design group led a project to update the original 2012/13 project. The 2019 co-design group consulted widely with industry and with other stakeholders to design the scheme.

The Government consulted on proposed regulations to support the tyre stewardship scheme in late 2021<sup>21</sup>. The consultation included cost and fee structure proposals.<sup>4</sup>

The public were asked: *“Do you agree with the proposal to set a product stewardship fee or domestically manufactured products to cover the end-of-life management of tyres?”*

Of those who answered the questions, 97 per cent agreed with the proposal, this was 87 per cent of total submitters.

The public were asked whether they agreed with the proposed fee-collection entity 84 to 88 per cent of those who answered (or 62 to 71 per cent of total submitters) agreed with the proposals, depending on the entity.

The public were asked whether they agreed with the proposal to recover the cost of monitoring and performance of the tyre and large battery schemes. 87 per cent of those who answered (or 39 per cent of total submitters) agreed with the proposal.

A suggestion for improvement from a submitter has led to a revision of the approach to the fee for tyres fixed to road registered trucks. A fee of \$231 per truck had been proposed based on the assumption that a truck would have an average of 10 tyres at \$23.10 each. However, given the extent of the variation in axle numbers and tyre weights in trucks, this submitter recommended use of truck weights and axle numbers based on Waka Kotahi’s Road User Charges information. The recommendation is now to set a fees per tyre fixed to categories of road registered trucks, trailers, buses, and special purpose vehicles based on the \$6.65 per EPU fee.

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21 Ministry for the Environment (2021), Proposed product stewardship regulations: Tyres and large batteries, accessed at [Proposed product stewardship regulations: Tyres and large batteries | Ministry for the Environment](#)



## CONCLUSIONS AND RECOMMENDATIONS

The Ministry recommends that a tyre stewardship fee be paid at the point at which the tyre enters the New Zealand market. This fee should be collected by the Ministry for the Environment, Waka Kotahi and the product stewardship organisation as set out in Table 2.

The level of the fee should be calculated on the basis of \$6.65 per equivalent passenger unit and the schedule of fees should be set against tariff code descriptions and vehicle registration categories, as set out in Tables 3 and 4.

## IMPLEMENTATION PLAN

Please see section 6 of the full Regulatory Impact Statement for the implementation plan.

## MONITORING AND EVALUATION

Accredited schemes must provide the Ministry data on scheme performance as a condition of accreditation. For example, they must report to the Ministry on an annual basis on achievement of targets. The Ministry will use this data to evaluate the efficacy of the scheme.

The Ministry proposes setting regulations under section 23(i) to require the product stewardship organisation and scheme participants to provide information to the Ministry.

## REVIEW

It is recommended that the tyre stewardship fee and the performance monitoring charge are reviewed every three years at a minimum, in line with Treasury's *Guidelines for Setting Charges in the Public Sector*<sup>5</sup>. It is also recommended that government should initiate a review if there is a material change in service delivery costs from those which are forecast, or a material change in market conditions, or if the accumulated surplus or deficit in the memorandum account is trending away from zero.

## Appendix A: Overview of the Tyrewise product stewardship scheme for tyres

### Co-design and accreditation

A working group to co-design a regulated product scheme for tyres was first established in 2012 with support from the Waste Minimisation Fund (WMF). The group represented major tyre importers and retailers, vehicle importers, vehicle fleet managers, the Motor Trade Association, the Automobile Association, local government and tyre recyclers. Their report to Government in 2013 proposed the 'Tyrewise' scheme. This was not progressed by Government in favour of other complementary measures which have since come into effect.

- A National Environmental Standard to provide nationally consistent rules for the responsible outdoor storage of tyres, in effect as of 20 August 2021.
- Infrastructure to enable onshore use of tyre-derived fuel use has been advanced through WMF funding \$16 million of the \$25 million project to upgrade a manufacturing plant that uses tyre-derived fuel to power Golden Bay Cement's kiln. A WMA regulated product stewardship framework is required for self-sustaining economics of collection and shredding.

In 2018, the Tyrewise co-design group was re-convened with WMF co-funding to update their 2013 report. This was published in final form in 2020.<sup>22</sup>

Tyrewise is a not-for-profit entity established for the purposes of promoting product stewardship and environmentally sound waste management for end-of-life tyres. Accreditation has been granted for the Tyrewise scheme as updated in 2020.

The Tyrewise scheme cannot be given effect until regulations set the framework for industry participation and collection of tyre management fees.

### Overview of the scheme

The proposed Tyrewise scheme is designed to be a push-pull model. Regulations are used to push end-of-life tyres away from landfill, stockpiling and illegal dumping to more environmentally sound pathways. The accredited product stewardship organisation Tyrewise will oversee and administer the payment of the tyre stewardship fee through incentives to collectors, processors and manufacturers to pull end-of-life tyres through to increased resource cycling. Incentive payments for tyre-derived products for ongoing use will be higher than delivery to tyre-derived fuel processors.

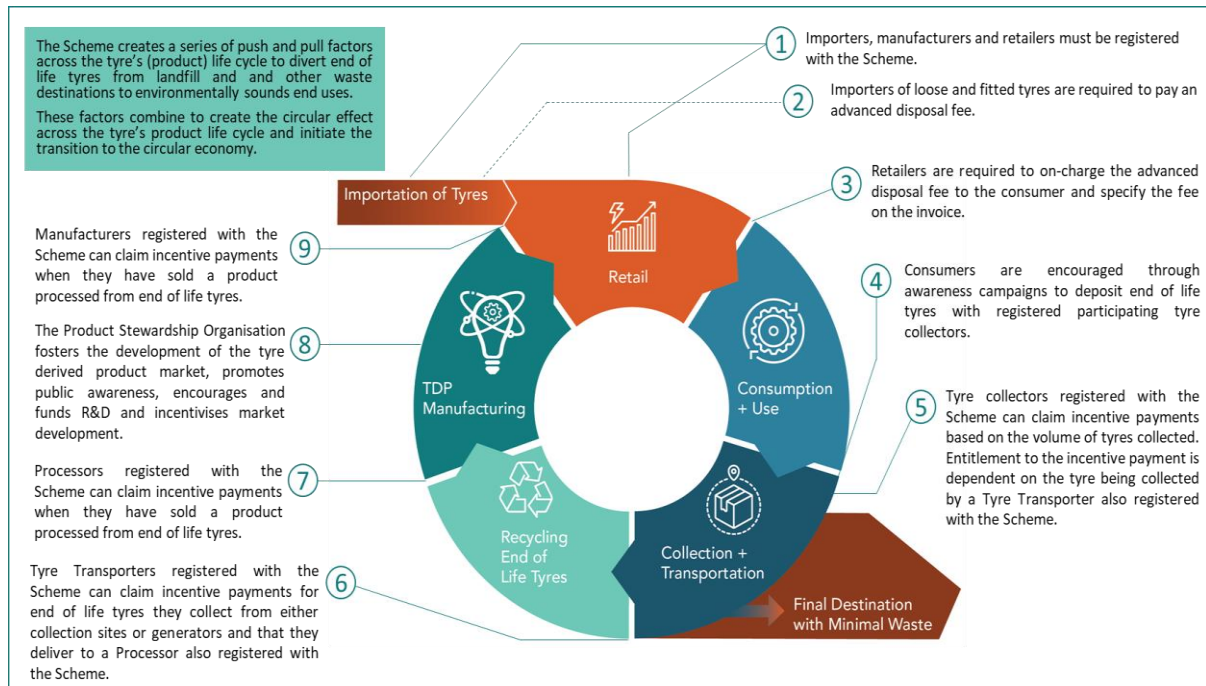
A disincentive for illegal tyre dumping would be created through replacing the previous ad-hoc tyre disposal fee charged by retailers and used in part to pay tyre collectors, with a new incentive payment from the tyre stewardship fee paid only to bona fide registered tyre collectors.

The level of the proposed fee is comparable to the current average price of the ad-hoc fee but is paid directly to more environmentally sound outcomes and allows a clear chain of custody. Tyrewise will report to the Ministry for the Environment on progress in diverting end of life tyres from waste toward improved destinations and will publish reports showing progress against targets.

A schematic of the scheme is in figure 4 and the roles and responsibilities of the key players set out in table 7.

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<sup>22</sup> 3R Group. 2020. *Regulated product stewardship for end-of-life tyres 'Tyrewise 2.0 updated report: Update on industry solution developed between 2012-2015 'Tyrewise 1.0'.* Prepared by the Tyrewise Project Managers, 3R Group Ltd, final released 22 July 2020. [www.tyrewise.co.nz](http://www.tyrewise.co.nz)

**Figure 4: Tyre product lifecycle under the proposed Tyrewise scheme**

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