Tyre Stewardship Australia

Submission to the Review of the *Recycling and Waste Reduction Act 2020*

27 February 2025

BACKGROUND

Australian Government Leadership

Australia's future success on recycling and waste reduction, and specifically on used tyres, depends on attention from policy makers, a well-designed and more fully regulated product stewardship scheme, and clear outcome expectations in a global and local context. However, this is not occurring.

Further to tyres being on the Federal Environment Minister's Product Stewardship Priority List for two consecutive years - 2022/23 and 2023/24 - and industry put on notice that government regulation would be forthcoming if significant action was not taken (which it wasn't). TSA notes that in late 2024 the Australian Government and state and territory governments through the Environment Ministers Meeting (EMM), reviewed an Options Paper on the better management of used tyres in Australia (the Options Paper).

And that the Options Paper, prepared by the West Australian Government after consultation with industry stakeholders, DCCEEW and state and territory jurisdictions, recommended stronger regulation of used tyres in Australia through a co-regulatory or mandatory stewardship scheme under the RAWR Act.

But with no EMM action required or resulting from this consultation process and Option Paper presentation, it seems clear that government intervention, regulation and enforcement for product stewardship is not a priority at this time.

This lack of prioritisation is frustrating to TSA and those in industry, including the biggest tyre brands and importers, that are motivated and working diligently to achieve better environmental, social and economic outcomes for the more that 500,000 tonnes used tyres generated in Australia each year.

ISSUES

Action Needed

For circularity to be achieved, innovation needs an environment in which it can thrive. It is not thriving on tyres. Action is needed to achieve the Objects of the RAWR Act, through effective product stewardship and building on the success of the export ban

The existing system of used tyre management in Australia is complex, inefficient, and not fit-for-purpose and needs to change. Australian Government leadership is needed. Stewardship schemes need to be supported – not left out to dry.

TSA is of the view that the Objects contained in the RAWR Act are appropriate and aligned with current policy settings. They seek improved environmental outcomes and a more circular economy in Australia, that provides public benefits and meets international obligations.

However, in the absence of more targeted intervention by the Australian Government, how the Objects of the RAWR Act, or indeed the targets in the National Waste Policy and Action Plan, are to be achieved, remain somewhat abstract.

In this context, where the Australian Government does not seem to have an appetite for progressing co-regulatory or mandatory product stewardship interventions provided by the RAWR Act, we therefore make the following recommendations based on a Plan B, being useful changes that can:

- Occur within the current legislative settings.
- And small changes that can be made to the *RAWR Act* and subordinate *Recycling and Waste Reduction (Export—Waste Tyres)* (Tyre Rules).

In summary, we suggest that that if properly prioritised and resourced, greater achievement towards the Objects of the RAWR Act can be attained efficiently and expeditiously.

RECOMMENDATIONS

1. Use all available measures in the RAWR Act, other laws, and policies (including in novel ways) to achieve the Objects of the RAWR Act, and to address barriers to greater circularity and resource recovery rates

Process Improvement

The RAWR Act provides several mechanisms, that typically require significant timeframes and processes to enact – such as the steps and time required to progress from a voluntary to co-regulatory or mandatory scheme (e.g., one year on minister's priority list, regulatory impact assessment and so on). Or requires legislative change through parliament. These change processes are clunky and seem to rely on consensus rather that the Commonwealth just making it happen and working with jurisdictions to implement.

Free riders

There is patchy participation in the voluntary schemes. Free riders are gaining a competitive advantage by not participating. Only two automotive companies contribute financially (Mercedes-Benz and Porche), despite tyres fitted to vehicles accounting for 16% of all tyre imports. Further, if significant contributors depart, the entire Scheme may be put in financial jeopardy.

Free riders are most efficiently addressed through co-regulatory or mandatory schemes that obligate all producers to participate in the product stewardship scheme. This requires political will, government prioritisation and adequate resourcing to be realised, which is not easily won.

An alternative suggestion is that a change be made to the Tyre Rules that requires all entities that import tyres to be licenced, and that a condition of that licence be participation in a tyre stewardship scheme. Akin to the situation for refrigerant imports. At the moment, it seems incongruent that the export of tyres requires a licence, but the importation of tyres does not.

Landfill Bans and Reducing Mining Burial and Stockpiling

In Australia, for nearly 50 years solid wastes have been required to be taken to offsite licensed landfills, with two notable exceptions: coal ash from power stations, and tyres and conveyor belts on mining sites.

Industry and the broader community are required to pay for offsite disposal of used tyres, conveyors and tracks at licensed landfills. Mining operations are an exception as they dispose onsite at little or no cost. Further, mines are not required to follow the strict rules government places on all other off-site licensed landfills.

An average of over 100,000 tonnes of used mining tyres are generated in Australia each year, with around 98% buried or stockpiled on site, or in landfill. Working with state and territory government, existing landfill laws can be used to encourage waste recovery in mining.

For example, the NSW EPA allows mines to bury tyres on site with a caveat that they needed to report within 2-years on their efforts to find alternative resource recovery solutions, else the permission to bury may cease.

The same laws could be used to require mining companies that are given permission to bury or stockpile on site to pay a levy (as per the landfill levy paid on other tyres sent to landfill), and the sites fall in line with the strict rules placed on all other off-site licenced landfills.

This will make the comparative cost of resource recovery more economically viable, leading to greater recovery rates and significant progress towards achieving the Objects of the RAWR Act.

Procurement

All tiers of government have a role to play in supporting and growing the onshore market for end-of-life tyre applications through their substantial procurement programs.

This procurement can act as a lever to pull more tyres towards recovery, and from recovery towards more favourable higher order outcomes like using crumb rubber to make Australian roads more durable and cheaper overall.

At the federal level, there is significant policy support for this government procurement, including the Australian Government's National Waste Policy Action Plan (Annexure 2022) Target 4: 'Significantly increase the use of recycled content by governments and industry'.

Government procurement policies should set clear, unambiguous requirements for the inclusion of recycled content in road construction and related infrastructure such as safety barriers. This will support significant emission reductions and support government goals in respect to waste and resource recovery, and the circular economy.

Government purchasing power is a significant driver of change. It can be used to drive greater uptake of products using recycled materials with positive impacts downstream with increased investment in resource recovery facilities and technology to meet market demand. Government procurement guidelines exist nationally and, in most state, and territories, however they are often not mandatory or enforced. Mandating government guidelines or requirement practices to prefer products with recycled Australian content would make a significant impact on increasing the market.

For example, Australia is exporting most of its end-of-life tyres to overseas markets. Only 25%[1] of the total end of life tyre generation is used in Australia – but we can do so much more, in fact, if our infrastructure network where simply to abide by the roads specifications as listed in each State, our country could use some 150,000t of materials.

In another example, Victoria used the purchasing power of its 'Big Build' projects to prefer products with recycled content. They established a quasi-government body called Ecologiq to assist contractors, suppliers, constructors procure recycled products that met strict safety and construction requirements.

Markets

There are significant barriers to strong market uptake of recycled materials, and currently no consistent drivers to address this. There is also significant market opportunity if Australia takes action to realise these opportunities now.

For example, natural rubber demand is increasing globally, however the supply is limited due to the specific growing conditions required for rubber plantations. Used mining tyres are prized as a crumb due to their high natural rubber content, and Australia is burying on average over 100,000 tonnes of mining tyres each year. This crumb can be devulcanized and partially replace natural rubber in the production of new tyres and rubber-based products.

Also, geopolitical unrest in Eastern Europe has disrupted the production of carbon black, a component in the production of tyres. Investing in the technology to produce the crumb, devulcanized material or carbon black onshore will increase resource recovery of our used tyres to high circularity outcomes, bringing economic benefit to Australia and

[1] Australian tyre consumption and recovery – 2023-24 https://www.tyrestewardship.org.au/wp-content/uploads/2025/01/Australian-Tyre-Consumption-and-Recovery-2023-24.pdf (accessed 27 February 2025).

achieving the Objects of the RAWR Act. Further, well-designed product stewardship schemes in the RAWR Act can incentivise to address barriers and exploit opportunities.

Product stewardship schemes can be designed to step in and support market development. The current voluntary Tyre Product Stewardship Scheme allows for levies to be used to support market development initiatives, with over $10million across 74 projects funded to date. But well-designed schemes can go further, such as incentivising to support the competitiveness of products using recycled materials in the market.

Australian Design Rules

For new vehicles and trailers coming into the country, the Australian Design Rules (ADR) are our national standards and safeguard for road vehicle safety, anti-theft, and emissions.

TSA provided a submission in support of the new vehicle efficiency standard (presumably a new ADR) which will enable Australia to catch up with the world on new vehicle efficiency and emissions. The TSA submission highlighted that 'For cheaper, cleaner cars – Don't forget the tyres!'.

TSA's submission also expressed support for the changes that are being made to introduce a new fuel quality and noxious emission ADR to catch up with European Union (EU) - Euro 6d standards (noting Euro 7 standards have now been approved by the EU).

Taken together, the new vehicle efficiency standard, and the new fuel quality and noxious emission standard, will deliver billions of dollars of savings to Australians including through reduced health impacts and fuel costs.

The TSA submission made it clear that, just as Australia has finally caught up with the rest of the world on these standards, further benefits can now be realised by catching up on tyre labelling standards.

Current ADR Enforcement

The current ADR for tyres includes the fitting (ADR 96-00), and on-tyre labelling, quality, and safety parameters (ADR 23-03) that passenger tyres must meet.

The overall intent of the ADR is that harmonisation is achieved between the ADR and the United Nations Economic Commission for Europe Regulations (UNECER), where this makes sense. However, there seems to be a significant lag between changes to global best practice and changes to the ADR.

Further, at the present time it is unclear how and to what extent, the ADR are enforced for in-service vehicles and trailers.

For imported (new and second-hand) vehicles, the Commonwealth Government receives a statement of compliance by the vehicle importer. Presumably, there is not any major issue with non-compliance in respect to the ADR at this point, including as it relates to tyres.

However, for *in-service* vehicles and trailers, the *Australian Light Vehicle Standards Rules 2015* take the reins and require a vehicle that is subject to an ADR when built or imported continue to comply with the ADR.

Compliance for this rule sits with the states/territories, but it is not clear if they are enforcing it. This is a problem.

For example, anecdotally, 'grey import' non-ADR compliant new and used tyres are entering our markets in shipping containers and being sold and used on in-service vehicles and trailers. Presumably, if tyres don't comply with the existing ADR, as required by the rule, this has implications for road safety.

And at the economic level, a perverse outcome is seen in trucking, where there was once a strong re-tread market that re-used high quality tyre casings several times, businesses are now directly importing containers full of single-use tyres because it is cheaper. This practice means that no levy is being paid to stewardship, more used tyres are generated, and higher circularity business models are disadvantaged – all due to poor enforcement.

Labelling

Just as government provides and improves standards (i.e., Greenhouse and Energy Minimum Standards) to enable consumers and businesses to make informed choices on purchasing energy efficient (i.e., energy rating label) appliances and equipment, consideration should be given to providing consumers with support, including standards, labelling, awareness/education, and incentives, to choose energy efficient tyres.

The frontrunners in implementing tyre labelling programmes, considering rolling resistance as an indicator for fuel efficiency, include the EU, Japan, and South Korea. These programmes are based on the UNECER 117.02 which is the globally accepted standard on 'tyres, rolling resistance, rolling noise and wet grip'. The UNECER 117.02 has been strengthened over time and is now at revision four.

A standard could be introduced via a new ADR that is harmonised with UNECER 117.02. Notably, the EU regulation includes the testing regime related to tyre wear and wet grip which is expected to save EU motorists further billions by averting premature tyre purchases – a benefit that has gained media coverage in Australia[2].

Tyre energy efficiency labelling would spur and achieve inclusive consumer action in reducing emissions from transport, including consumers who retain or choose new internal combustion and hybrid vehicles. Emphasis in communications can be on the fuel cost savings to consumers. Such labelling can enhance choice and competition in the market. Further, labelling tyres aids the achievement of government policy objectives including as they relate carbon emissions from transport.

[2] Drive, *New tyre law introduced in Europe, Australian regulators watching – report* https://www.drive.com.au/news/new-tyre-law-introduced-in-europe-australian-regulators-watching-report/ (accessed 24 July 2024).

TSA advocates for harmonising labelling requirements with international standards, to include key information on tyre performance, such as rolling resistance, sound emissions, and wet surface adhesion.

The EU tyre label based on UNECER 117.02, (Regulation (EU) 2020/740) as an example, is aimed at helping consumers to be better informed when buying new tyres. The communication messages are simple (see Figure 1 below).

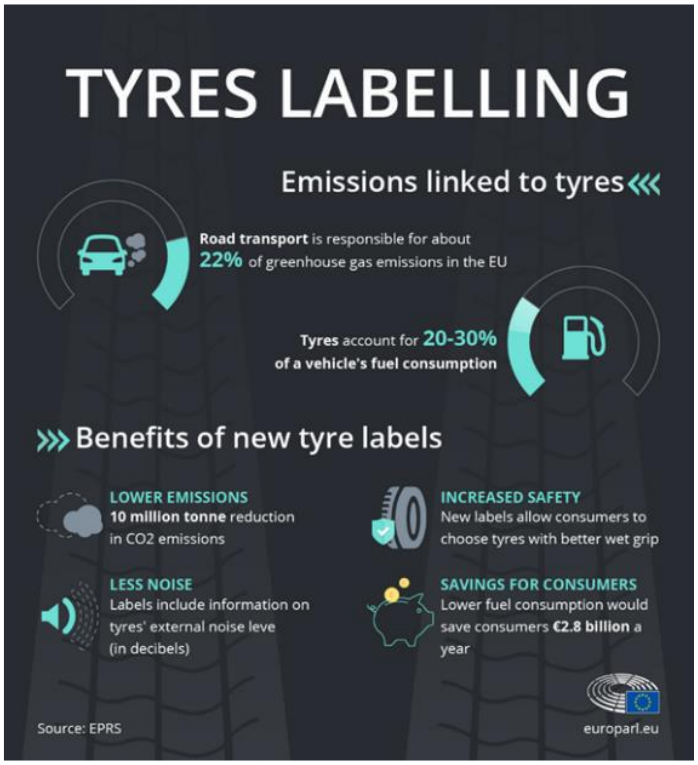

Figure 1: Infographic on tyres and emissions in the EU[3]

The label includes five grades of rolling resistance - A to E. These denote a difference in rolling resistance/fuel consumption. For example, switching from Class E tyres to Class A tyres can reduce fuel consumption by circa 7.5% (see Figure 2 below).

[3] European Parliament, *Tyre pollution: lowering car emissions with new EU tyre labels.* https://www.europarl.europa.eu/topics/en/article/20200423STO77731/tyre-pollution-lowering-car-emissions-with-new-eu-tyre-labels (accessed 22 July 2024).

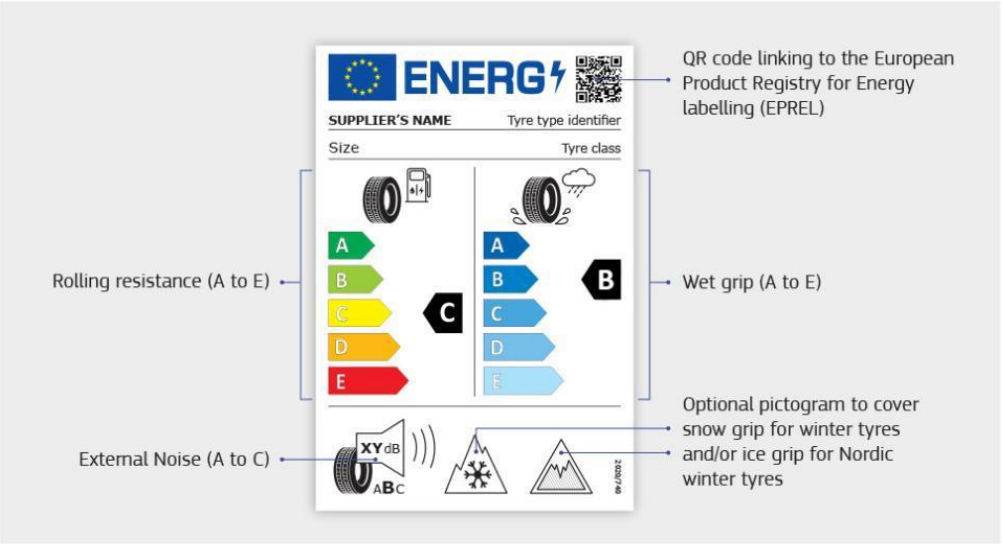

Figure 2: EU tyre label[4]

2. *Focus on achieving increased circularity across the value chain, not just waste management*

Product stewardship schemes created under the RAWR Act are predominantly focused on resource recovery. To achieve the Objects of the RAWR Act, and broader government policies and targets, schemes should be designed and supported to deliver greater circularity across the entire value chain.

For example, in the 2023-24 financial year Australia generated approximately 537,000 tonnes or 67 million used tyres (passenger tyre equivalents units). Of that 34% was not recovered, meaning it was disposed to landfill or buried onsite at mines, stockpiled in long-term storage, or dumped to the open environment and not cleaned up. In addition, 40% was sent to energy recovery, being mostly exported overseas – that is, most of Australia's end of life tyres are shredded and used as derived fuel in cement kilns in Asia.

This means that nearly three-quarters (74%) of our end-of-life tyres are still going to end fates that are not circular. Only a quarter is going to recycling and reuse. Accepting the existing low-circularity pathways hinders investment in innovative solutions.

Without an incentive to change, there is little economic rationale to move away from existing business models that deliver the least circular outcomes (e.g., burying tyres on mine sites or tyre derived fuel) that provide similar or better profit margins than more circular outcomes (e.g., tyre-derived materials that can be used in advanced manufacturing or tyres back into tyres such as devulcanization, micronisation, and carbon black from pyrolysis).

[4] European Commission, *Energy Efficient Products,* https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label/product-list/tyres_en (accessed 23 July 2024).

3. *Leverage the Waste Export Ban to further drive better circularity, environmental, social outcomes and reduce human harms Objects in the RAWR Act*

In the tyre industry, the waste export ban has had the desired effect of stopping used tyres being bailed and sent overseas. The outcome has been used tyres now being processed for more circular outcomes onshore in Australia. It has also resulted in greater resource recovery investment in Australia, more recycling services have started operations and there is interest from international entrepreneurs that see the potential for new technologies and advanced manufacturing processes in Australia.

As noted above, with 75% of Australia's end-of-life tyres by weight being exported, typically for fates that are not circular, the waste export ban could be leveraged to encourage even greater circularity of Australian tyre-derived material being sent overseas.

For example, the Tyre Rules could limit the volume of tyre-derived material shipped overseas for low circularity fates and help achieve the circularity Objects in the RAWR Act.

Currently, the Tyre Rule only requires tyres exported for re-tread to be audited through foreign end market verification, as an assurance that the end-destination does not cause environmental, social or human health harm. We support the verification process as part of the export ban, however, only targeting re-treads is addressing a small percentage of used tyre exports (about 20%) and in the least risky market.

Expanding foreign end market verification to export destinations for all regulated tyre exports, and all export regulated waste streams, would provide great assurance that waste generated in Australia is not contributing to environmental, social and human health harms overseas, helping to achieve these Objects in the RAWR Act.

While regulating the export of our waste, we are not in turn supporting Australian industries by applying similar restriction on imports.

There is an opportunity for the Tyre Rule to be expanded to reduce the import of recycled material that is being manufactured in Australia. For example, tyre-derived crumb used in roads, infrastructure and advanced manufacturing in Australia, can be imported for less than the cost of Australian-made crumb. This is often because the imported crumb arrives subsidised by the incentives of a regulated product stewardship scheme in the country of origin. By reducing the volume of tyre-derived material entering Australia, we are increasing the recovery rates for our end-of-life tyres, and increasing the market for tyre-derived material made in Australia, helping to achieve the Objects of the RAWR Act.

4. *Create a clear pathway from Minister's Priority Product Stewardship List to stronger regulation available in the RAWR Act*

Greater transparency on how materials are selected for the Minister's Priority List, and clarity on the pathway from Minister's Priority List to stronger regulation, would provide industry and stewardship schemes with greater confidence in the product stewardship schemes and broader system and to make investment decisions.

Further, when issuing the Minister's Priority List each year, the industry is put on notice that if they do not take action, there may be greater regulation of the industry. This sends

a strong signal to the industry and investors about potential future opportunities for growth, and those that have already committed to voluntary product stewardship have a sense of reward for doing the right thing and now being ahead of the game.

However, when government does not ultimately take said action and it is clear that stronger regulation is not truly likely, there are significant unintended consequences that are realised:

- Free-riders are emboldened to continue to disregard participation in the voluntary scheme.
- Voluntary contributors and participants in the scheme become disenchanted, lose faith in the scheme and broader system, reconsider return on investment on participating in the scheme and potentially exit the voluntary scheme.
- Further pressure is placed on voluntary product stewardship schemes, that are delicately balancing.
- Ultimately, acts against achieving the Objects of the RAWR Act.

The Minister's annual priority product stewardship list made under the RAWR Act could be used as a trigger mechanism currently in the RAWR Act, or new mechanisms. The aim would be to create simpler pathways to addressing barriers or stronger regulation than currently exists in the RAWR Act, such as impact assessments or an Act of Parliament. For example, a new Tyre Rule could require any material listed on the Minister's priority triggers all producers to start contributing to the voluntary scheme within a period of time, addressing the barrier of free-riders.

5. *Align policies and resourcing with Objects contained in the RAWR Act*

As provided in the terms of reference for this review, the RAWR Act, "…*is the main Commonwealth legislation that supports action on the circular economy, resource recovery and waste management."*

The Australian Government has released policies and targets with a view to improving the circular economy (*Australia's Circular Economy Framework*), reducing and better managing our own waste onshore (*National Waste Policy*), and increasing Australia's manufacturing capacity (*Future Made in Australia*), amongst others. While the RAWR Act is the principal legislation to support these policies, there is no alignment in these policies back to the RAWR Act.

This lack of alignment between policies and the principal legislation misses the opportunity to leverage the RAWR Act to achieve its Objects or the aims of the policies.

Another opportunity lost is harnessing product stewardship schemes that can swiftly collaborate across the entire value chain and lifecycle of a waste stream to support and drive policy objectives. As a consequence, resourcing to support policy initiatives does not appear to flow to DCCEEW as administrators of the RAWR Act, or product stewardship schemes to drive and support these initiatives.

In fact, DCCEEW's resourcing, in our view, has not been sufficient to achieve the Objects of the RAWR Act and the time and effort required to establish and maintain a co-ordinated approach product stewardship regime in Australia.

This fragmented approach sends mixed signals to schemes that are delicately balancing financial support from scheme contributors, as well as stymying their potential to deliver against the Objects of the RAWR Act, and support for DCCEEW work. For the Objects of the RAWR Act to be achieved, it requires government to appropriately prioritise and resource DCCEEW to deliver a comprehensive program for stronger product stewardship and achievement of the Objects of the RAWR Act and Tyre Rules.

6. *Stronger support for voluntary product stewardship schemes, which in turn will deliver the Objects of the RAWR Act*

There are currently 85 operational product stewardship schemes in Australia, 14 of which are regulated by national state or territory governments, and eight accredited under the RAWR Act. A further 15 product stewardship schemes are in development.

While some of these schemes have been established with the assistance of the Government's National Product Stewardship Investment Fund, there is no ongoing support from government for voluntary product stewardship schemes to be successful.

Schemes are driving the achievement of the Objects of the RAWR Act, spearheading implementation of new laws like the export ban in their industries and activating organisations across the value chain to voluntarily participate in product stewardship.

Calls on government to address the barriers to better product stewardship of material streams or progress towards stronger regulation through mechanisms in the RAWR Act such as co-regulatory or mandatory regulation do not materialise. It is unclear if this is due to a lack of political will, resourcing and/or capacity in government.

7. *Greater economic, innovation and environmental opportunities can be realised with action (and so much can be lost from inaction)*

Aligned with the findings in the recent CSIRO report[5] there is much to be gained for Australia with stronger product stewardship, supported by government action towards achieving the Objects of the RAWR Act, including:

> ***Driving Economic Growth and Innovation:*** Increased resource recovery will generate jobs and foster economic growth. By exporting most of our tyre derived material for fuel, we are in effect exporting opportunities for local industry and business, particularly manufacturing.
>
> Effective incentives can create strong onshore markets for recycled products, as well as create a diversity of market opportunities within Australia, ultimately leading to new business opportunities. As mentioned earlier, continuing to adjust the export ban to encourage higher-order (and reduce lower order) outcomes for recycled materials, further realising the purpose of the export ban and achieving the Objects of the RAWR Act – environmental, human health, towards circularity and meeting our international obligations.

[5] CSIRO and Curtin University (2024) Best practise case studies for increasing value recovery from end-of-life tyres and conveyor belts https://www.nespsustainable.edu.au/sites/default/files/documents/IP5.02_Stage%202%20tyre%20and%20conveyor%20belt%20case%20study%20report%20final-20240716.pdf (accessed 27 February 2025).

Enhancing Resource Efficiency: By embracing the circular economy and enhancing resource efficiency, we can reclaim valuable resources from used tyres, mitigate against the risks associated with the current reliance on exporting tyre waste to foreign destinations, and deliver advanced products like more durable roads.

Protecting the Environment: By ensuring all tyres are recovered, we can end our reliance on landfills, avoid the onsite burial of tyres at mines, and assist farmers and other businesses to dispose of used responsibly to protect the environment.

Promoting Public Health and Safety: There are significant clean-up costs to councils from illegal dumping, in the range of $6M across the country annually. This doesn't include the costs to others. By stamping out illegal dumping and stockpiling we can prevent public health and safety hazards like mosquito breeding, rodent infestations, and toxic fires, ensuring a safer, cleaner Australia.

Ensuring Compliance and Fairness: A robust stewardship approach will provide all stakeholders with consistent environmental and safety standards, increasing compliance, reducing administration, streamlining enforcement, and promoting fairness across the country including in outer urban, regional and remote areas.

It will also ensure better reporting and information, improving the measurement and evaluation of outcomes and the management of the scheme itself. TSA supports greater consistency in reporting across stewardship schemes and using data from other bodies to support the stewardship schemes, such as import data held by customs.

GENERAL COMMENTS

- The title of RAWR Act doesn't not reflect its Objects, in particular circularity. Consideration should be given to changing the name of the Act and Tyre Rules.
- There is no definition of product stewardship in the RAWR Act. There are multiple views which can lead to confusion e.g., is there a difference between an Extended Producer Responsibly (EPR) scheme and a Product Stewardship scheme. The RAWR Act should include a definition.
- Reporting should be consistent across product stewardship schemes, and data from all government agencies (e.g., customs) should be made available.

OTHER TSA SUBMISSIONS

Productivity Commission Inquiry into Opportunities in the Circular Economy

Senate Inquiry into Waste Reduction and Recycling Policies

NSW Social Procurement