

Key facts and figures – July 2024

Tyre Stewardship Australia (TSA) information and data. Refer to our website www.tyrestewardship.org.au for the most updated information.

Used Tyre Generation 2022/23 – Tonnes (Equivalent Passenger Unit - EPU)

Location	Passenger/Truck/Bus tyres	Off-the-road tyres	Total
NSW	114,500 (14.3mill)	28,500 (3.5mill)	143,000 (17.8mill)
Australia	397,000 (49.5mill)	148,000 (18.5mill)	545,000 (68mill)

In NSW, TSA **estimates** approx. 1/3 of used Passenger/Truck/Bus tyres are generated in rural areas, with the remaining 2/3 generated in metropolitan areas and regional centres.

Recovery Rates 2022/23

Location	Passenger/Truck/Bus	OTR	Overall
NSW	76%	9%	62%
Australia	77%	8%	58%

Of what was recovered overall, in NSW in 2022-23, 44 percentage points were exported, meaning only 18% of all used tyres generated in NSW were recovered and used in Australia. This leaves **over 115,000 tonnes of used tyres either exported or not recovered.**

Number of Recycling Facilities in NSW

	Shred (only)	Crumb/Granules (May Also Shred)
TSA Accredited	3	3
Known Non-TSA Accredited	1	2
Total	4	5

Market development

- TSA investment: \$1 million from TSA leads to \$4.5 million investment by private businesses.
- TSA supports incentives to boost innovation and investment.
- Australia annually produces 130,000 tonnes of OTR tyres. Annual recycling potential: 42,000 tonnes of steel, 78,000 tonnes of crumb rubber. Value: \$11 million in steel, \$62 million in crumb rubber. Forfeited value by not recycling: at least \$70 million per year.
- NSW produced roughly 19% of OTR tyres in 2022-23. Thus, based on the above: The annual recycling potential: 8,000 tonnes steel, 14,750 tonnes of crumb rubber. Value: \$2 million in steel, \$11.75 million in crumb rubber

Off-the-road tyres

NSW – Hunter Valley and Northern NSW

The 'Tipping the Balance' report (<https://www.tyrestewardship.org.au/otr/>) provides a conservative estimate of 10,600 tonnes of end-of-life OTR tyres being generated in the Northern NSW and Hunter regions each year, mainly arising from coal mining activity. Ongoing engagement with mining in this region, suggests that this volume is larger.



OTR – Regulations for onsite disposal in NSW

- NSW mining licenses lack specific requirements or permissions for rubber product disposal
- In 2021, the [NSW EPA](#) cautioned six open cut coal mines for burying tyres without proper license conditions.
- Regulatory ambiguity complicates policy development for tyre recovery.
- NSW EPA plans to review the status of on-site mining tyre disposal in the future.

Indigenous Peoples

- Mining companies often do not own the land where mining tyres are buried; they are temporary occupants.
- Significant when mining occurs on lands with native title rights.
- Essential to return post-mining land to indigenous people and local communities with minimal legacy issues.
- Environmental justice is crucial when returning land to marginalized communities.
- Indigenous peoples will inherit land containing waste tyres, posing long-term risks.
- Fair engagement with indigenous people and local communities is necessary to address waste contamination risks.
- Respecting the land rights of native title holders is crucial, especially for lands with buried tyre waste.

Roads

- Procuring roads with the specification of inclusion of crumb rubber provides a circular economy and carbon reduction opportunity, while also supporting local recycling organisations.
- NSW government can support this practice by adopting mandatory requirements for roads, such as what WA main roads has done. Read more at www.mainroads.wa.gov.au

NSW Insights

It is estimated that in 2023, 17.28% of the total bitumen used in NSW was modified using crumb rubber, meaning approximately 6,000 tonnes of crumb rubber was used in roads.

- Potential for growth in bitumen modification, especially using crumb rubber.
- Projected for 2026 in NSW the neat bitumen market: ~246,000 tonnes.
 - Of which, at current growth rate, 19.5% will be modified with tyre-derived crumb rubber.
 - **If crumb rubber was mandated at 15% loading, for the 2026 projection, ~37,000t of crumb would be used in roads.**
 - For reference, if crumb rubber had been mandated at 15% loading in 2023, this would have provided a market for approximately 85% of used truck tyres generated.
- Crumb rubber-modified bitumen:
 - Mature market in spray sealing applications in NSW.
 - Significant potential in emerging asphalt applications.

Benefits of Crumb Rubber in Roads

Using crumb rubber in asphalt pavement construction and maintenance, operations make a substantial contribution to low-carbon infrastructure, minimising long-term maintenance costs, maximising performance, and promoting a more sustainable approach.

For more information, please contact TSA.

NSW legislation for tyres handling and EOL tyres storage

- EPA License Requirements:
 - Facilities storing >5 tonnes or 500 waste tyres, or processing >5,000 tonnes/year, need an environment protection license (EPL).
 - Waste tyres include used, rejected, unwanted tyres, casings, seconds, shredded tyres, or tyre pieces.
- Fire Safety Guidelines:
 - NSW Fire and Rescue's guideline outlines requirements for open and indoor storage of waste tyres to manage fire risks.
 - Aims to inform relevant parties of their obligations to minimize fire risk.
- Compliance and Costs:
 - Tyre recovery facilities must have EPLs and follow license conditions.
 - Compliance represents an operating cost and a barrier to entry, ensuring new entrants are competent and willing to follow waste management regulations.

Tracking and Reporting of Waste Tyres Transport:

- Regulations and Offences:
 - Tyre retailers, re-treaders, and transporters can be guilty of an offence if waste tyres are transported to unlawful waste facilities.
 - The Protection of the Environment Operations (Waste) Regulation 2014 outlines tracking requirements for waste tyres.
- Tracking System:
 - Waste tyre generators, transporters, and receiving facilities must track and report waste tyres (>200 kg or 20 tyres per load) using the Waste Locate online system.
 - Tracking requirements apply before transporting used tyres via backloading from mining or farming sites to reprocessing facilities.