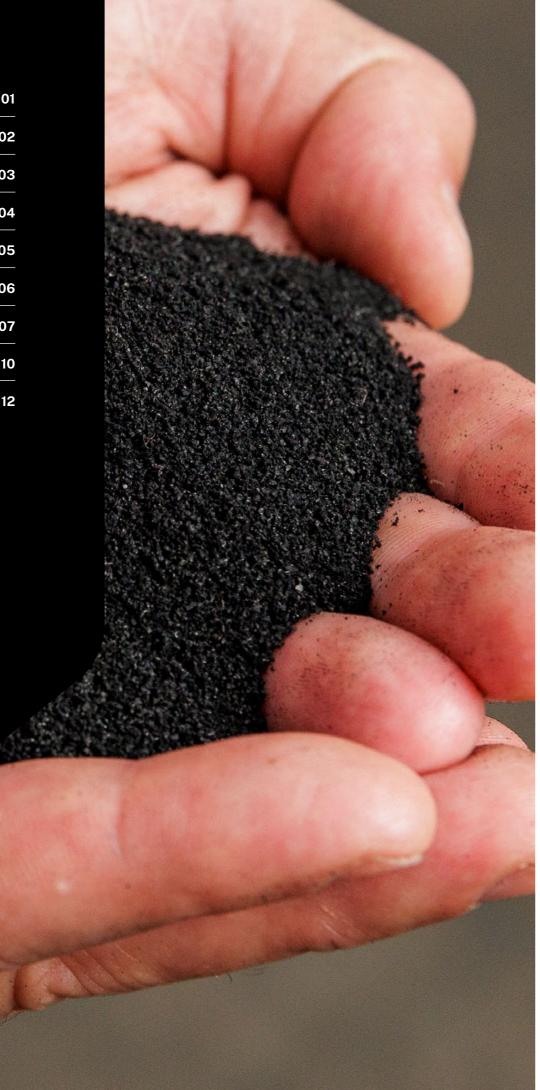


Capability Statement Off the Road Tyre Recycling

A Resource Co Company

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Global Leader & trusted partner

Tyrecyle is an integral part of the ResourceCo Group, a leader throughout Australia's resource recovery industry. We're leaders amongst key industry peak bodies and pride ourselves on maintaining environmental, quality and safety accreditations for our operations.

ACOR AUSTRALIAN COUNCIL OF RECYCLING

NWRIC NATIONAL WASTE AND RECYCLING INDUSTRY COUNCIL









Tyrecycle, Australia's largest collector and recycler of tyres, is investing in world-leading infrastructure at strategic locations throughout the country in our endeavour deliver sustainable outcomes for end-of-life off the road (OTR) mining tyres.

Our expanding OTR tyre recycling capability adds to our nation-wide network of collection services and recycling facilities, where we recycle in the order of 20 million tyres each year. When considering the magnitude of recycling Australia's OTR tyres, Tyrecycle's experience, infrastructure, investments, national coverage and market presence positions us the standout service provider for the sustainable management of OTR mining tyres.

Our recycling rate performance of 99% is best-in-class, it's a result of our commitment to maximising the potential of every tyre, strenuous R&D and a continuous improvement program across our operations. Throughout our 30 years Tyrecycle has established and unrivalled material traceability and chain of custody service as we work closely with our feedstock partners to provide the piece of mind that their 'waste' isn't being wasted.

National footprint

Tyrecycle operates over \$150 million in recycling capital throughout Australia.

Our growth continual improvement and investment program is aimed at increasing our tyre recycling capability and capacity as markets develop (just as OTR recycling), along with strengthening our our position in existing markets.

Throughout our 30 years, Tyrecycle has established and unrivalled material traceability and chain of custody service as we work closely with our feedstock partners to provide the piece of mind that their 'waste' isn't being wasted. **\$50m** investment over the past 5 years

03

rubber crumb facilities across Australia

30,000 tonnes of crumb output

20,000,000 Tyres recycled per annum







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01

03

End-of-life OTR Tyre

Tyrecycle works closely with mining partners to integrate tyre recycling into operational logistic networks transport tyres from mine site to our recycling facility.

02

Shear or shredding for size reduction Waste tyres are cut down in size to ensure safer handling as they undergo the first steps in the tyre recycling process, or are

manufactured into TDF.



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Feedstock Tyrecycle's advanced rubber recycling process can turn feedstock into either Tyre-Derived Fuel (TDF) or a wide range of crumb rubber products.

04

Shred enters rasper to liberate steel

Tyrecycle rubber is processed through four stages of magnetic separation to ensure it has steel removed, helping Tyrecycle maintain its recycling rate of 99%.

05

Enters the grinding mills for sizing Rubber is reduced to a range of sizes and products, including rubber granulate of varying dimensions or rubber crumb.



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150,000 tonnes of TDF is equivalent to taking 37,286 cars off the road for a year.

04

fuel end users

TDF shipped to alternative

Our full chain of custody

control regimes, means our

customers can be confident

that ourhigh quality TDF

TDF beneficially reused

to reduce fossil fuel

consumption

results in sustainable

outcomes.

05

and strict testing and

End products of rubber crumb and granules

Tyrecycle's recycled rubber is high-quality ideal for a wide range of applications, including playground surfaces and road construction.

Break

Pads



TDF production



Drainage

aggregates



Road

Surface



Tyre-Derived

Fuel (TDF)



Sporting, Playground and soft fall surfaces

Carbon Benefit

Independent analysis has verified the verv real co2-e benefits of using rubber crumb in roads as well as the consumption of TDF as an alternate fuel source. While these benefits are considered in terms of the tyre derived product consumer, Tyrecyle can offer up-chain reporting for our partners who can share in claiming the positive impact by recycling their end-of-life tyres.



Every tonne of crumb rubber used in asphalt mixes represents a greenhousegas saving of 2,463 kg CO2-e.



Every tonne of crumb rubber in spray seal represents a greenhouse gas saving of over 596 kg CO2-e.



Every tonne of TDF used as a substi tute for brown coal represents a green house gas saving of 234 kg CO2-e.

Crumb and Granules

Recycled rubber crumb and granules are used in a wide range of applications, including in tile adhesives, playgrounds and sporting fields and most widely used the in construction and resurfacing of roads. Used as a binder with bitumen, and applied via hot-mix or seal spray, our rubber crumb enhancing road performance, significantly reducing road noise and extending the life of our roads by making them more durable and sustainable.

TDF

Our Tyre Derived Fuel (TDF) is an alternate fuel source used by high energy consumers throughout north and South Asia. TDF displaces the use of fossil fuels such as coal and gas thereby provides our customers with important reduction in greenhouse gas emissions.

04

Our products

Partner with confidence

Like OTR mining tyres, the generation of end-of-life commercial and passenger tyres is continuous.

It's a concept well known to us at Tyrecycle, and through our longterm agreements with Australia's largest retailers and disposers of end-of-life tyres, we're entrusted to continually collect and recycle their end-of-life tyres - it's a non-stop service they depend on. The same applies to our long term offtake partners who depend on a continual supply of high quality products.

Both sides of our supply and offtake operations depend on high-quality production processes. Our expanding network of tyre recycling facilities includes internationally recognised best-in-class equipment, enabling us to offer our partners the piece of mind that our operations function seamlessly without disruption.



Chain of Custody

We track waste movement data, and continuously seek best practice to improve efficiency while meeting regulatory requirements.

Tyrecycle's full chain of custody reporting capability gives our customers the assurance that the materials they are disposing, or products they are buying, have been dealt with in an environmentally sound manner.

With strict documentation and process controls, Tyrecycle can supply reports supporting the end destinations of its products, whether that be rubber crumb or TDF.

Off the road tyres

Australia's largest tyre recycler is focussed on delivering sustainable outcomes for Australia's largest tyres.

Our versatile approach to product production capability includes the ability to pivot our operations to meet the needs of our customers. We're the leading manufacturer and suppler of crumb rubber into Australia's road infrastructure and the largest exporter of manufactured-to-specification TDF into international markets where we're helping our clients meet their strict emissions targets.



Changes to end-of-life OTR tyre management

Australia's Environment Ministers are focussing on the fate of end-of-life tyres.

The Federal Environment Minister has placed tyre recycling on the Minister's product stewardship priority list and has flagged mandated regulation-if market-led recycling does not increase recycling rates.

OTR and surface mining tyre recycling rates are significantly the lowest of all tyres in Australia, undoubtedly regulators are sharply focused on improving recycling outcomes for this part of the industry. Tyrecycle presents the mining industry with a pathway to leverage our extensive experience for the sustainable management of end-of-life OTR tyres.

Australia's OTR Tyres

Across Australia 130,000 tonnes of off-the-road tyres reach their end of life each year.

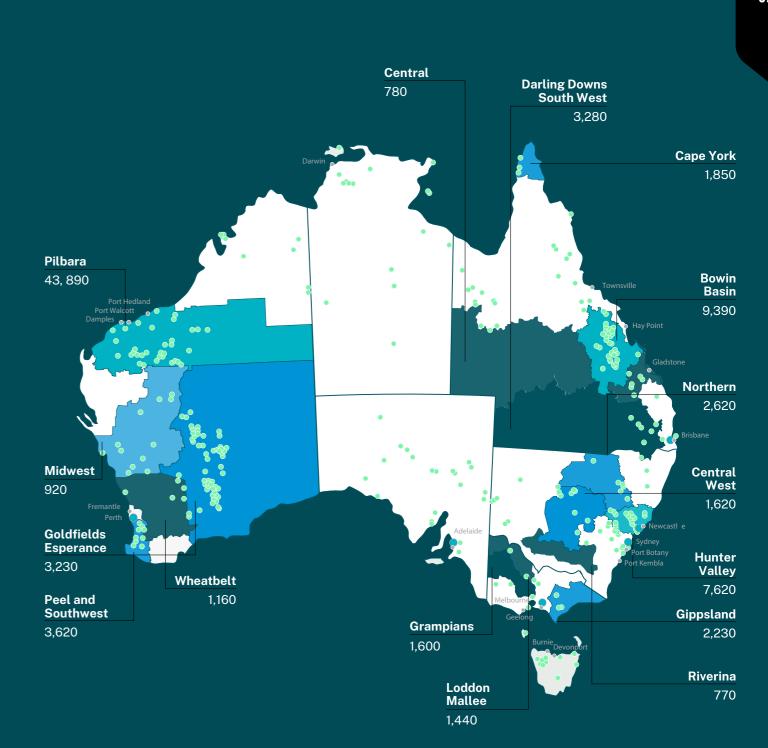
Three State's account for 89% of Australia's OTR tyre waste generation every year. In 2021-22 Western Australia was the leading jurisdiction generating 50,380 tonnes of end of life OTR tyres, 37% of the national total. Queensland was a close second, generating 46,330 tonnes (34%), followed by NSW with 24,630 tonnes (18% of the national total). Top 3 OTR generating catchments as a proporation of Australia's top 11 catchments

49% Pilbara

12% Hunter & Nthn NSW

11% Bowen Basin

Only around 10% OTR tyres are recovered.



Operating Mines

- Processing Hubs
- Major Ports



'Off the road tyres is a significant issue for Western Australia, and Western Australia is leading national efforts to see how we can improve the situation in terms of recovery so more of those tyres on site are getting into this facility', Hon. **Reece Whitby** MLA, Minister for **Environment (WA)** at the opening of Tyrecycle's new Perth recycling facility in May 2024.

Tyrecycle's OTR solution

Tyrecycle is investing in strategic locations and world-leading infrastructure to efficiently and sustainably recycle OTR tyres.

We're investing today, for more sustainable outcomes of Australia's OTR tyres tomorrow. Tyrecycle's East Rockingham tyre recycling facility, 40km south of Perth, is not only Australia's largest and most flexable tyre recycling site, it's also an integral part in our integrated network that will deliver never-before-seen OTR tyre capabilities. East Rockingham will work together with our new Pt Hedland site, which in it's own right will be Australia's first OTR tyre recycling facility, bringing new recycling solutions to the mining industry.

East Rockingham Plant

In May 2024 Tyrecycle officially opened its latest state-of-the-art facility in East Rockingham, Perth.

Situated 40 kilometres from Perth, this facility marks a significant advancement in waste tyre processing on a national scale.

The \$15 million-dollar plant, boasts a processing capacity of 40,000 tonnes of end-of-life tyres per annum, importantly it is capable of producing 7,000 tonnes of rubber crumb – a growing market in Western Australia.

The East Rockingham facility represents a vital step towards addressing the growing challenge of Australia's off the road tyre waste. The East Rockingham plant will function as a secondary processing plant to Tyrecycle's planned Port Hedland OTR tyre recycling operations. The East Rockingham facility will be used to further refine the primary processing undertaken at Port Hedland, meaning Australia's OTR mining tyres can very well live on as rubber crumb throughout our road network, or as an alternate fuel source reducing greenhouse gas emissions by displacing coal or gas consumption. **40,000+** tonne per annum processing capacity

7,000 tonne per annum rubber crumb production

Largest tyre recycling facility in Australia



Scan the QR code to learn more







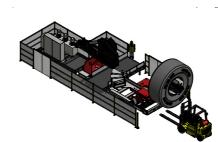
Scan the QR code to learn more about Salvadori: Wolverine



Scan the OR code to learn more about the MT-rex



Raptor OTR bead remover



MT-Rex OTR Shredder

Tyrecycle's Pt Hedland operations will be Australia's first OTR mining truck tyre recycling facility.

Using best-in-class bespoke equipment our strategically located operations will, for the first time, offer the mining sector an economical solution to the sustainable management of end of tyre OTR tyres.

Tyrecycle has chosen to partner with the internationally renowned equipment manufacturer Salvadori as the supplier of our OTR tyre recycling plant. Installed throughout 40 countries, Salvadori's equipment is trusted to recycle the world's largest tyres in facilities just like the one Tyrecycle is developing in the Pilbara.

Tyrecycle is renowned for the safe and reliable collection of end-of-life tyres, enabling our customers to continue their operations, without the burden of tyre stockpiles. Our innovative tyre collection solutions translates to Australia's mining industry, where we'd leverage existing logistics routes and services near to our Pt Hedland and East Rockingham sites.



Pilbara plant



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tyrecycle.com.au

