



Recycling in WA - 2008/2009

Source: Recycling Activity in Western Australia (Hyder Consulting 2010)

Recycling in WA has improved but still lags behind other states

- 1.83 million tonnes of material was recycled¹ in 2008/2009
- Of the 3 waste streams³, construction and demolition waste (C&D²) makes up the largest proportion recovered by weight, due to the density of materials like asphalt, concrete and bricks
- Much of the recovered commercial and industrial material (C&I) was industrial steel
- 1.58 million tonnes of material was recycled in the metropolitan area, representing 86% of the total.

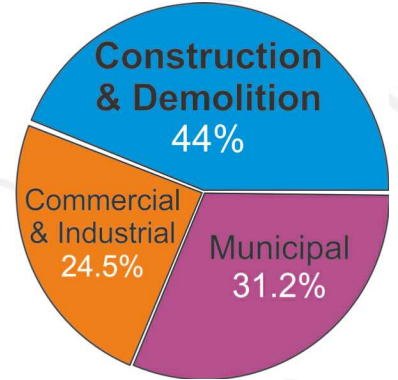
So how does this translate into individual waste output? In the metro area, based on 1.43 million people, 3,288 kilograms or about the weight of 3 cars is generated. Of this amount, a third is recycled or 1,104 kilograms.



The recycled percentage has improved slightly from 30% in the previous year, to 34%.

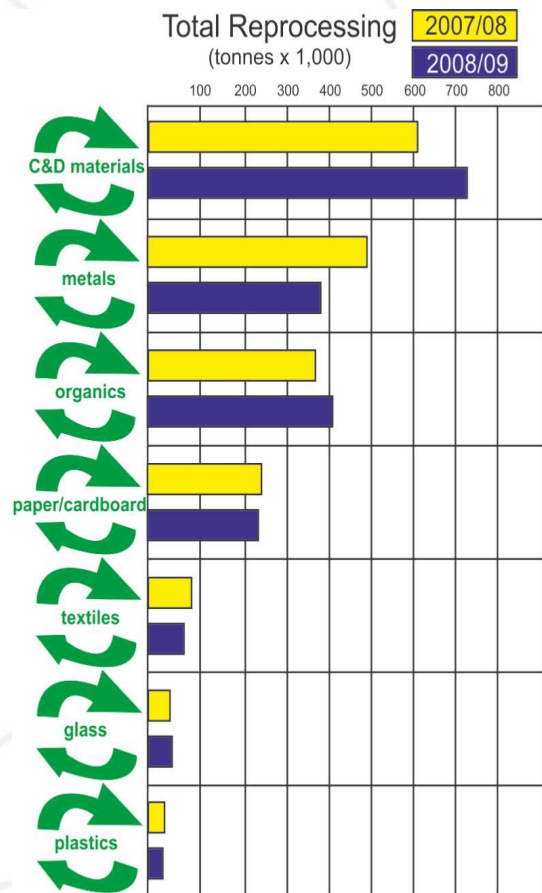
Where does the material come from?

Bricks, concrete, windows, timber frames and tiles are heavy and bulky so the C&D sector is the major source of material recycled.



Approximately 66% of all material recovered in WA was re-processed here, with 31% being exported overseas. Interstate transfer is fairly minimal at 3%. All C&D materials were re-processed locally.

What sorts of materials get recycled? The ranking below for the two years of the research, reflects the market for these products as well as factors such as cost of collection, transport and re-processing.

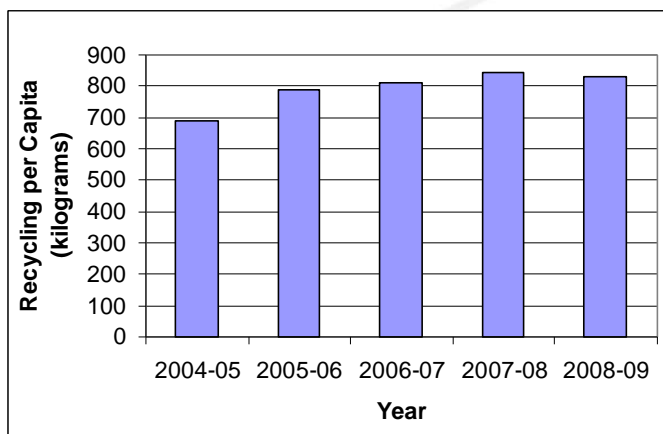




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WA Recycling Plateaus - trends from the last half of the decade indicate that the per capita figures have stagnated at around 820 kilograms per annum.



- **Plastics** - Recovery was primarily from commercial, industrial and municipal recycling collections. Two-thirds of plastics recovery is sourced from the metropolitan area.



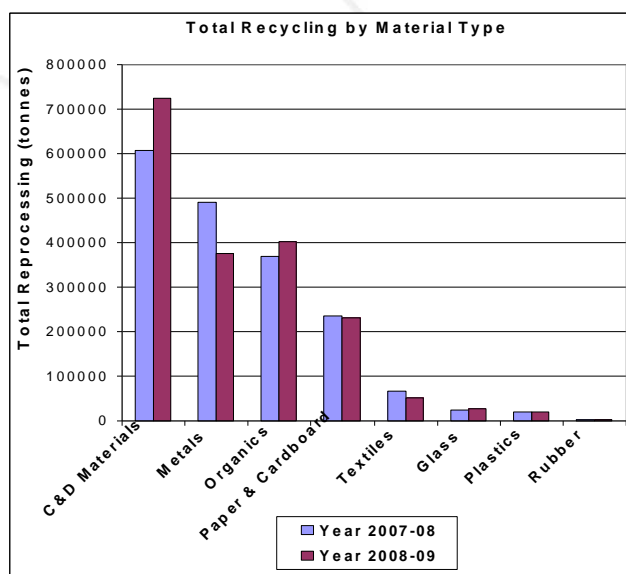
What are the employment flow-on effects?

Employment within the reprocessing industry is both direct and indirect, eg activities like transport of materials. It is difficult to obtain an accurate count of the number in the sector but is estimated at 1,914 direct and 4,775 indirect employees.

What's the annual turnover? Based on the turnover of reprocessing in Australia of \$950/tonne, the total re-processing activity reported for WA is estimated at \$1.74 billion.

How does each type of material fare in the mix?

- **C&D¹** - More favourable market conditions have been reported by re-processors. Many buildings are increasing the proportions of recycled products as the demand and acceptability of recycled materials continues to rise.
- **Organics** - Overall the industry remained stable with an increase in garden organics re-processing counteracting decreases in other organics and wood processing.
- **Metals** - A 2008 drop in prices for local/export markets and the *Global Financial Crisis* led to a reversal of the steady increases, however with a recovering economy, growth in this sector is expected to increase.
- **Paper/Cardboard** - Remains at a high level but there was no significant increase. Re-processors indicated a shortage of supply due to decreased consumption for the last two years.
- **Textiles** - Most came from the municipal sector but demand was patchy. Re-processors say the availability is good but are unsure of the strength of demand.
- **Glass** - The market is relatively small, with the majority of glass recovered sent interstate for reprocessing.



Conclusion

Recycling in WA reached a total of 1.83 million tonnes in 2008/09, an increase on recycling activity in recent years.

Despite an indication of decreased activity with some material types, due to external economic factors, the next 12 months could see an improvement due to a recovering economy, and trends should continue to be positive.

Terms	
¹ Recycled -	material that has undergone physical processing to create a raw material or saleable product
C&D -	timber, windows, doors, tiles, bricks, sand, concrete, PVC etc - typically put in skip bins during construction
waste stream -	categorisation of waste into general classes - Municipal, Construction and Demolition and Commercial and Industrial