


Audit highlights significant waste reduction on construction sites

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Dr Anda, along with the Master Builders Association of WA who helped facilitate the initiative, and Right Homes, identified three key projects involving waste auditing; one of general builders waste, the other two of demolition and residential sites. Credit: David Jones 

Roughly 80 per cent of materials used on some WA building sites can be recovered for reuse or recycled, according to a series of audits by Murdoch University students.

WA Building company Right Homes volunteered three of their [building](#) sites for Murdoch's study as a way to benchmark the savings that could be achieved if best-practice [waste](#) management was introduced.

Murdoch School of Engineering researcher Martin Anda says the [students'](#) preliminary report also shows around 14 per cent, or almost 28 tonnes, of materials are discarded from the average home site; around half of which is sand and rubble.

"I knew from my previous engagements with the building industry that there is a very high capacity for recycling and other waste management opportunities." he says.

"That was really the driver for having our students involved with Master Builders WA."

Dr Anda, along with the Master Builders Association of WA who helped facilitate the initiative, and Right Homes, identified three key projects involving waste auditing; one of general builders waste, the other two of demolition and residential sites.

Six final year engineering students then conducted waste audits over several weeks at different stages of construction, enabling calculations to be made across the full construction life cycle.

Sand and masonry is the bulk of waste materials

"We can deduce from that some major findings. A large proportion of the waste we know are sand and masonry materials, perhaps 60 per cent," Dr Anda says.

"Across the supply chain, there are several possible interventions that might reduce the amount of waste going to landfill, including reviewing

ordering systems, handling on site, and reuse or recycling as road building materials".

The report also found a lack of government support and information on minimum standards, contamination of recyclable products and a lack of recycling facilities as major causes of waste

"This was a small scale research project, and we can't necessarily draw too many conclusions Dr Anda says.

"But it is certainly indicative, and provides the groundwork for a more detailed study."

Final year honours student Casey Flemingham plans to complete her thesis as part of the project.

"From the report writing to the presentation to stakeholders in this project, including the Waste Authority, it has been a useful and practical learning experience," Ms Flemingham says.

The students final report will be submitted to the state government's Waste Authority, which supported the study, for feedback.

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