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Business Waste Reduction Project – Case Study Lismore Shopping Square

Background

The North East Waste Forum (NEWF) is a collective of five local councils that have come together to share resources to help avoid and reduce waste going to landfill in the Northern NSW region. The

NEWF collective not only provides support for participating local Councils in managing waste, but also provides support and advice to various commercial sectors on how best to implement sustainable practices that reduce waste generation, wastes landfilled, and promote the recovery of recyclable resources.

An initiative of NEWF, The Business Waste Reduction Project (BWRP), began in April 2005 and focussed on developing Waste Reduction Action Plans for six businesses, ranging from hospitality, through to aged care facilities, a correctional centre, a club facility and a large shopping complex. The following is a case study for Lismore Shopping Square

Lismore Shopping Square



Lismore Shopping Square is the largest shopping centre in the Northern Rivers region with 80 specialty shops and four large chain stores: Kmart, Coles, Woolworths and Big W.

On commencement of this study, the centre utilised two 3m³ trade waste bins for general garbage and one 26m³ compactor for recycling cardboard and paper. Lismore Shopping Square generates over 100,000 kgs of garbage annually.

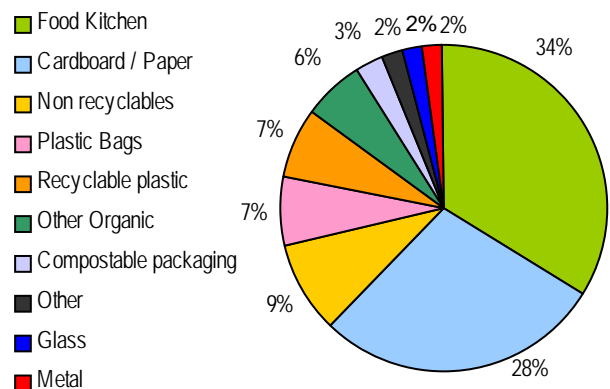
The Challenge

The main objective of the BWRP was to assess the efficiency of waste management practices at six businesses, characterise their waste streams and come up with waste management systems that would reduce the volume of waste going to landfill through waste avoidance, reuse and recycling and save these businesses money in the process. These studies have now been completed. It is hoped that their outputs will serve as effective blueprints for improving waste management among similar business in northern NSW.

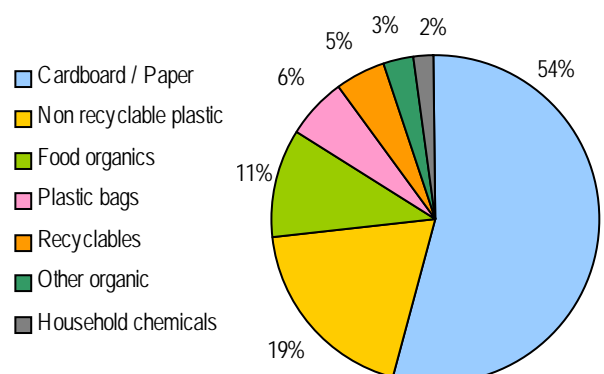
Waste Characterisation

Waste audits were conducted on both the trade waste bins and the cardboard recycling compactor to determine the composition of the waste stream.

Lismore Shopping Square general garbage trade waste bin



Lismore Shopping Square cardboard compactor





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Waste Reduction Action Plan

A waste reduction action plan was devised based on the results of the audit and feedback from staff surveys.

Cardboard recycling recovery stream

Prior to this study, all paper and cardboard collected for recycling in the compactor was so contaminated that it has consistently been sent to landfill for the previous 14 years. This corresponds to around 45 tonnes/year. Audit results confirmed these findings, with recorded contamination levels of 46%. One of the main challenges of the WRAP was to come up with ways of reducing contamination levels in the compactor. Some of the recommendations included:

- Installing bars on the compactor window to prevent bags of mixed waste being thrown in;
- Placing educational material on the compactor door;
- Educating retail operators;
- Commencing a 'compactor monitor' program;
- Installing a 'dummy' camera at the compactor.

General garbage bins

Lismore Shopping Square generates around 100 tonnes of general garbage each year, of which, a third is made up of food scraps. This finding led to attentions being focused on encouraging food retail operators to donate left over food to welfare organisations, and to investigate the possibility of setting up a central composting program.

In an effort to reduce the overall quantity of garbage generated, retail operators were encouraged to purchase goods with less packaging, or packaging that can be recycled. A centre-wide policy encouraging store holders to use recyclable plastics in the food court area was also recommended.

The development of effective education and communication programs for all newly implemented waste reduction measures was of equal importance; installing clear signage throughout the centre was a high priority.

Lastly, it was recommended that a centre-wise waste reduction and purchasing policy be implemented.

Outcomes

Since the implementation of the Business Waste Reduction Project, Lismore Shopping Square has reduced its waste to landfill by over 30% (57 tonnes per year) based on their waste patterns prior to the centre's expansion.

One of the major successes of the program was the reduction in the level of contamination within the cardboard recycling compactor (from 46% to 5%). All cardboard placed into the compactor is now being recycled for the first time in 14 years. If this holds now that the shopping centre has doubled in size, it would effectively result in avoiding around 169 tonnes of cardboard materials going to landfill each year.

Used cooking oil from the food court area is now collected by a private contractor and converted into bio-diesel and retailers have been encouraged to ask for reduced packaging at the supply source and minimise their own packaging.

Cost Savings

Lismore Shopping Square received cost savings of \$12,625 in the first year of implementing the Business Waste Reduction Project.

The Future

While the higher priority actions have now been implemented, there are some tasks in the WRAP that are yet to be actioned. These include:

- Implementing a store-wide waste reduction and purchasing policy;
- Conducting ongoing monitoring and evaluation of the WRAP; and
- Providing ongoing education and signage.

Contacts

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Lismore Shopping Square

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