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Business Waste Reduction Project – Case Study BCS Maranoa Retirement Villages (Alstonville and Lismore)

Background

The North East Waste Forum (NEWF) is a collective of 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 the Baptist Community Services (BCS) Maranoa aged care facilities.

The Challenge

The main objective of the BWRP was to assess the efficiency of business waste management practices, characterise their waste streams and come up with waste management systems that can 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, with their outputs serving as effective blueprints for improving waste management among similar businesses in northern NSW.

Waste Characterisation

Using past waste audits and surveys conducted by the NEWF for similar organisations, the composition of the waste stream was estimated, helping to identify the most efficient means of reducing waste.

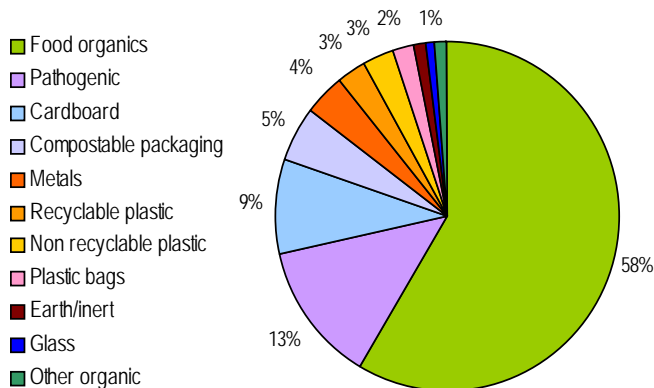
BCS Maranoa Retirement Villages (Alstonville and Lismore)



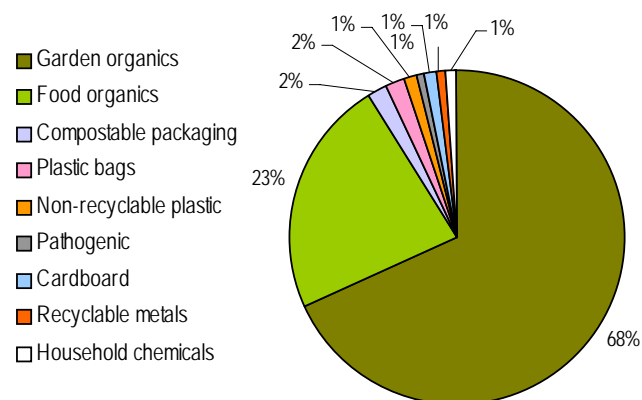
Baptist Community Services has a total of 20 retirement villages across NSW and the ACT. Two of these are located in Alstonville and Lismore, with approximately 200 staff employed across both sites. Alstonville's Maranoa Community Village consists of 28 independent living units, with 58 low care and 30 high care hostel residents. Lismore's Maranoa Nursing Home cares for 17 low care and 55 high care residents.

Prior to implementing waste reduction measures, the Alstonville site had a 3m³ and 1m³ trade waste bin as well as a 1m³ cardboard/paper recycling bin. The Lismore site had a 3m³ trade waste bin and a cardboard/paper recycling wool bale. Clinical waste is collected on a needs basis.

Aged Care Facility



Independent Living Units





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Waste Reduction Action Plan

A Waste Reduction Action Plan (WRAP) was prepared based on staff observations at the sites as well as investigating waste audit studies and waste reduction opportunities from similar businesses. Some of the main actions were:

Installing a bokashi bin

In comparable nursing homes, food waste makes up between 20 to 60% of the trade waste stream. When diverted and used effectively, it can become a valuable resource for use in the garden instead of synthetic costly fertilisers. BCS researched their options for food waste diversion and decided to



trial the use of a bokashi bin as the liquid by-product from the process can also be used as a safe and effective grease trap cleaner. Lynne McKee, Catering Manager (above) displays the Alstonville site's bokashi bin located in the kitchen.

Introducing commingled recycling

BCS found that introducing commingled recycling would allow diversion of an estimated 25% of waste from landfill, creating a potential cost saving of \$600 per year. They also hoped it would assist in odour control. Management again researched waste service provider options and found the most practical provider for their needs. Finding their trial successful and free of contamination, they now have 13 recycling bins across both sites.

Paper recycling in offices

While both sites had paper/cardboard recycling facilities, it was estimated these materials made up approximately 30% of the waste stream and that management was paying 75% more than necessary each time it was placed in the waste bin instead of recycling. To help combat this, paper recycling trays have been placed in all offices, facilitating convenience and more effective recycling, separated at the source. Management also ensures that all printer cartridges are recycled.

Ozone generators

Installing ozone generators in the laundry is set to significantly increase BCS sustainability as the generators decrease the use of chemicals, as well as engaging electricity and water savings. BCS metered usage patterns prior to installation and is currently monitoring their new system.

Outcomes

Maranoa no longer has the previously common complaint of odour problems (particularly relating to stale milk bottles) it once endured due to the effective recycling now undertaken. Since implementing this approach, the use of recycling bins has been expanded throughout the centres.

Their bokashi bin trial has proved to be successful and they will soon be able to experiment with the end product on their gardens. Management has also purchased another bokashi bin to continue their food waste reduction achievements.

Cost Savings

No cost savings have currently been recorded. However, prior to preparing their WRAP, management was seriously considering increasing the number of trade waste bin empties per week. Thankfully, waste reduction actions negated this. Ozone generator usage is currently being metered across a three month period to monitor the savings that take place.

The Future

BCS Maranoa Retirement Villages continue to review actions as they move through their WRAP, discovering new ways of performing more effectively as time goes by. For example, management did not envisage the implementation of ozone generators upon WRAP commencement and this was then incorporated into their WRAP through a review and monitoring process. In a similar fashion, management is willing and open to respond to other opportunities as they arise.

Contacts

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