

A Case Study: Kingscliff TAFE 2009

Kingscliff TAFE

The Kingscliff TAFE is one of the North Coast Institute of TAFE Campuses. Kingscliff is a resort town located just south of the Queensland border in Northern NSW. It offers vocational, education and training facilities in hospitality, graphic design, carpentry and joinery and information technology. Other study areas available at the campus include general education and children's services.



With assistance from the North East Waste Forum's Business Waste Reduction Project, Kingscliff TAFE is working with the Tweed Shire Council to improve its waste management system and implement more sustainable practices. A waste audit was conducted in October 2008.

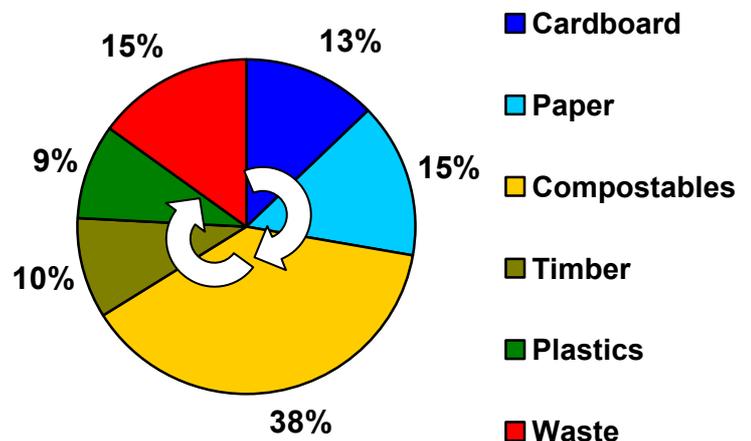
At the time of the audit the TAFE had 26 paper and 2 glass 240 L recycling bins. A 1.5 cubic metre cardboard cage is collected weekly and is generally at or above capacity. Waste oil from the hospitality block is collected on a needs basis. General waste at the Campus is deposited into 3 x 2.28 cubic metre bulk bins.

The Challenge

The main aim of the BWRP is to assess the efficiency of the waste management practices of 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. It also aims to save businesses money and transfer lessons learned to other businesses in the region.

Waste Characterisation

Each teaching block was audited separately and the results combined to give an overall picture of the potential to recover recyclable materials with the arrows indicating the categories of waste that could be recycled or composted. The co-mingled recycling and paper/ cardboard stream are easily recovered in Tweed Shire. Timber can be recycled at the Stott's Creek landfill and compostable material could be managed on site.



The largest volume of waste was compostable materials and the majority of this was paper towel and serviettes, followed by food scraps. The next was paper and cardboard, indicating that the existing system was not effectively capturing this resource.

57% of the waste from Block H was timber (approximately 10% of the overall waste). The timber was untreated and could therefore be recycled or reused. The recyclable plastic, was mainly drink containers. Only 15% of the waste stream was non-recyclable or not compostable and would require disposal to landfill.

Post audit recommendations included:

- Improving paper and cardboard recycling
- Establish a co-mingled recycling service for plastic, metal and glass
- Raise staff awareness
- Reduce waste and purchase sustainably
- Recycle or compost organic materials
- Recycle/reuse timber products

The Results and Opportunities

Kingscliff TAFE has implemented many of the actions recommended after the waste audit, including a number of sustainability initiatives of their own.

- A second bulk cardboard bin has been introduced and located on the opposite side of the campus from the original bin
- 4 green waste bins for garden waste were purchased and fallen trees have been mulched for use on the campus
- A recycling system is being trialled starting with 7 x 240L co-mingled recycling bins positioned at the canteen, in the kitchen, at the hospitality block and Child Services block
- 20 new paper recycling boxes have been added to the existing paper recycling system (shredded paper is collected by a private contractor)
- New copiers were installed in each block that have double sided printing/copying set as the default
- Collaboration with cleaning staff to ensure waste management systems are implemented
- A partnership was formed with the Sustainability Advantage Program (DECC) to improve resource efficiency. As a result hot water urns were turned off on weekends and holidays
- Curtains and flyscreens were installed and repaired to allow natural ventilation and reduce air conditioning
- A solar hot water system on the Childrens Services block



The new recycling bins ready for use at the canteen

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Savings and the Future

Campus management are committed to further improving the TAFE's sustainability with planned initiatives including:

- Waste wise event training for hospitality students and composting/worm farming practices training for horticulture students
- planting 20-30 trees in open spaces
- a bush tucker/herb garden for the tourism and hospitality section
- a car pooling cooperative
- turning off fridges at breaks
- including TAFE's sustainable practices at staff induction
- additional separation of recycling at the source in kitchens
- eventual replacement of desk side bins with smaller desktop bins

The installation of an extra cardboard bin and wheelie bins will result in a diversion of approximately 5.72 ton or 164.3 cubic metres of plastic, aluminium, glass, paper and cardboard from landfill.

The diversion of organic material will vary depending on gardening activities but there is now the capacity to divert an additional cubic metre of green waste on a regular basis since the 4 new green waste bins have been installed.

The removal of these materials from the general waste stream will save the TAFE money as recycling is collected at a significantly lower cost than general waste.

Energy saving initiatives undertaken such as turning off the water urns in breaks and on weekends has already saved the TAFE approximately \$2,000 per annum. Further savings will be realised from reductions in air conditioning and refrigeration usage.

Background

The North East Waste Forum (NEWF) is a collective of local councils in the Northern Rivers region of NSW who take a regional approach to waste management. An initiative of the NEWF, the Business Waste Reduction Project (BWRP) works with local businesses to assist them in developing waste management strategies that promote waste reduction and resource recovery. The project began in April 2005 and has collaborated with a wide variety of businesses and institutions. An integral part of the project is to transfer information from participating businesses to other similar operations within the region. The project also works with industry organisations, such as Chambers of Commerce, to further disseminate information on commercial waste reduction.