

A Case Study: Linnaeus Estate at Broken Head

Background

The North East Waste Forum (NEWF) is a collective of local councils who take a regional approach to waste management. An initiative of the NEWF, the Business Waste Reduction Project (BWRP) works with the local businesses to assist them in developing waste management strategies that promote waste reduction and resource recovery. This case study illustrates the actions taken by the Linnaeus Estate at Broken Head to improve its waste management regime. Through its support of the Students Using Sustainable Strategies project (SUSS) Linnaeus has also contributed to regional environmental education initiatives.

The Linnaeus Estate at Broken Head

The Linnaeus Estate is set on 111 hectares of coastal land just south of Byron Bay in Northern NSW. Its natural environment features rainforests, wetlands and coastal dune systems. It is bordered by nature reserves and a marine park and has a 1.5km beach frontage. The Estate comprises of residences and features a dining club and bar, a library and a number of sporting facilities. The built environment at Linnaeus covers less than 1% of the total land area. A part of this is a separate community building called 'The Crab' (below), which is the venue for this years *Students Using Sustainable Strategies Forum*.



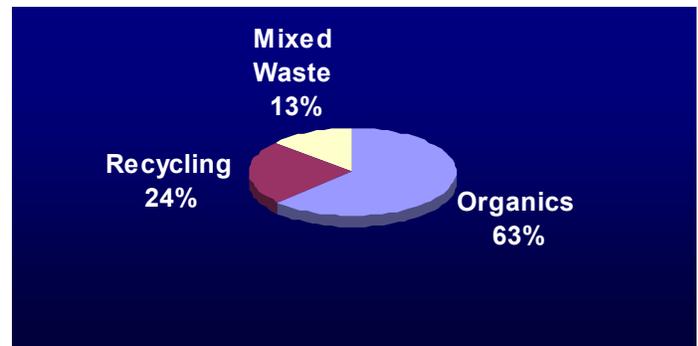
Planning for Waste Reduction

Initiatives to introduce more effective waste management began in 2007. The estates waste stream fluctuates depending on the number of people in residence, so waste management decisions needed to accommodate these changes. In June 2007, the staff at Linnaeus began investigating options to separate cardboard, paper and commingled recycling from mixed waste. Bins size, accessibility, signage and cleaning options were investigated.



The waste station constructed at Linnaeus blends effectively with the natural environment

Next, the focus of staff and residents shifted to organic waste. In January 2008 a waste audit was conducted to establish the volume of organic waste produced and to help inform decisions regarding the most appropriate means of recovery and reuse.



The graph above illustrates that 63% of the total waste stream is organic material. Options considered for processing the organic waste included worm farms, bokashi bins, open and closed compost systems.

Outcomes to date

A waste management station was constructed to house the new system. Two bulk bins, one for cardboard and paper and one for mixed waste were installed. Signage was attached to bins to raise awareness and promote the correct separation of recycling and waste.



Several 240 litre MGB's (wheelie bins) were provided to capture co-mingled recycling and are collected on demand when they are full.



To deal with the organic waste two large compost bins were purchased. They are designed to allow for the removal of compost from the base and have a special ventilation system to assist decomposition. The end product is used on the estate's gardens and grounds.

Environmental Education

The focus of the Students Using Sustainable Strategies (SUSS) Forum is sustainability and the main aim is to build the capacity of Year 7 to 10 students and accompanying teachers to undertake and implement sustainable conservation strategies within their schools and community. The Linnaeus Estate is represented on the SUSS Steering Committee and as such have a significant input to the organisation of the SUSS Forum. This Forum for regional high school students will be held at the Estate for the second year, in May 2008.



Students are trained in waste auditing to help their own schools develop waste action plans

In 2007 eleven high schools and 60 students and teachers participated in a series of workshops over the 2 days that delivered information and resources on sustainability aspects of waste, water, energy and biodiversity. This year 22 schools are attending and the workshop program will be extended to include issues of climate change, Aboriginal Cultural Heritage & organic gardening.

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