

A Case Study: Image Design Homes -Murwillumbah

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 Image Design Homes in Murwillumbah to improve its waste management regime.

Image Design Homes (IDH)

IDH design and pre-build homes and cabins on site in the industrial estate at Murwillumbah in Tweed Shire. The factory was purpose built and 19 houses or 26 cabins can be constructed at any one time. The company utilises local suppliers and staff wherever possible and has an average of 15 staff.

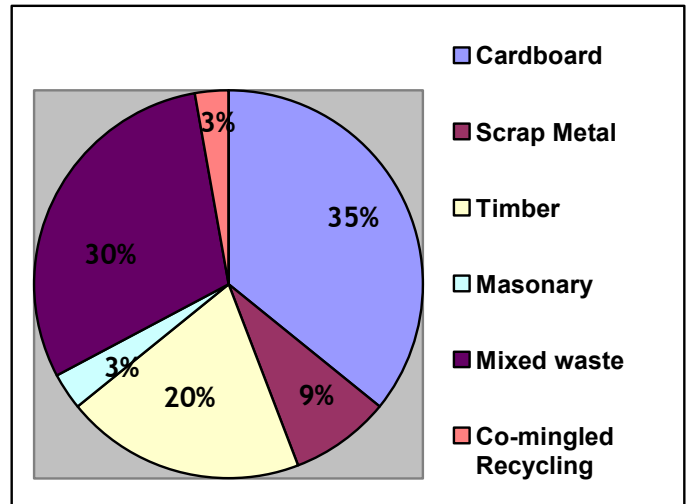


Waste from the construction of the homes is collected into four 5.5 cubic metre bins that were purpose built. When full the bins are transported to the local landfill using the company's own vehicle.

Planning for Waste Reduction

Initiatives to introduce more effective waste management began in early 2008. An audit was conducted to identify and categorise the company's waste stream. The graph below displays the results of the audit.

Graph 1 Waste Stream Composition



Cardboard represented 35% of the waste produced on site. One bin was at $\frac{3}{4}$ capacity with cardboard and another cubic metre was found in the remaining bins. Timber represented 20% of the recyclable waste stream, with scrap metal following at 9%.

Table 1: Waste Volumes

| Category | Volume (Cubic Metres) | Comment |
|--------------|-----------------------|--|
| Cardboard | 5 | Predominantly unflattened |
| Scrap Metal | 1.2 | A scrap metal pile on site. |
| Timber | 2.8 | Non-treated timber can be mulched at landfill. |
| Masonry | .4 | Can be crushed for road base |
| Mixed Waste | 4.2 | Potential for reuse of some products. |
| Recycling | .4 | Mostly drink containers. |
| TOTAL | 14 | *3 of the 4 bins were audited |



Waste Reduction Actions

One of the first actions taken was for management to employ the services of a local contractor to collect all the cardboard from site. The first collection diverted more than 5 cubic metres from landfill.

Secondly, placing scrap metal in a designated area for collection metal was reinforced with staff as much of this valuable resource was finding its way into the mixed waste stream.



Originally it was assumed that 70% of the waste was recoverable but the treatment used to make the timber resistant to pests made it unsuitable for mulching or chipping for gardens. Reuse options were also explored but lengths were not sufficient to interest second hand building material suppliers. Wooden pallets however, can be returned to the supplier of goods at no charge.



Making staff more aware of utilising smaller pieces of timber and minimising offcuts was considered a viable option to reduce waste.

Opportunities

IDH has the opportunity to continue to improve its waste management regime. This includes:

- Investigating opportunities for the reuse of treated timber. Separation of treated and non-treated timber would allow for mulching of the **untreated** component.
- Tiles and other masonry can be separated / stockpiled to be disposed of at sites designated for builder's rubble at landfill.
- Procure a 240 litre recycling bin for the collection of cans, bottles and plastics. Ensure it is well signed and accessible to staff.
- The success of implementing changes to the existing waste management system relies on raising the awareness of staff. Clear and graphic signage on bins can increase diversion of useful or recyclable materials substantially. Staff training and meetings can also assist.
- Building dimensions can be sized to enable standard materials length, widths and thickness to be used thus eliminating off-cuts.
- Explore the potential to reuse some of the products currently disposed of to landfill such as PVC tubing and plasterboard (below).



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