

85% WASTE DIVERTED FROM KICKOFF.

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1.0 Introduction

The Timaru District Council's aim for solid waste is to achieve zero waste to landfill by 2015. This is a target that should be fairly easy to achieve, given that over 85% of our current waste stream could be diverted from landfill using current technology.

The reasons that our Council has moved so strongly down the Zero Waste path is that there are so many benefits to a no waste society that communities have a hard time quantifying them.

For this reason, some of our motivators are listed below clarified under **Social, Economic and Environmental** benefits - **SEE** the benefits for yourself:

1.1 Social Benefits

- Recycling creates 14 times as many jobs as does landfilling
- Recovered materials are made available for cottage industries and educational facilities.
- The community can finally feel good about their efforts to protect what's left of our planet's resources.

1.2 Economic Benefits

- If the Timaru District composted the nearly half the landfill content that is organic waste, using various methods, and then vermicomposted some of our organic waste into prime compost, we could earn a significant income every year.
- Jobs created locally means wages spent locally.
- There are significant and growing markets for a variety of materials, not least including brass and copper, worth from \$2 500.00 to \$3 000.00 per tonne.

1.3 Environmental Benefits

- Returning much needed organic matter to our severely depleted soils.
- Reduction in global environmental disorders like ozone depletion, global warming, climate change and acid rain. These ills stem from fossil fuel use, - if we keep materials for recycling, we need not dig up the planet nor manufacture and transport products we already have, but have thrown away.
- Conservation of habitat for wildlife – again, no need to dig up the planet for materials we already have.

2.0 Methodology

2.1 Waste Audit

In order to plan for Zero Waste, we needed to figure out what was being wasted. This was achieved by conducting a waste audit. We held on to the Council's rubbish for one week, then separated and weighed each component of the waste stream.

The weekly total was then extrapolated to gain an average annual total. This 'snapshot' waste audit of course does not take into account times of increased waste, - for example, when the new phone books come out, or the end of the

financial year arrives and a load of confidential paper is sent to the dump. As part of the education plan, staff were told whom to contact in the event of a major clean out or significant increase in incoming packaging. The results of the audit are as follows.

PRODUCT	KILOGRAMMES	% OF WASTE STREAM
Good Quality White Paper	4,000	60%
Mixed Grade Paper	800	12%
Corrugated Cardboard	200	3%
Food, Tissues & Handytowels	1,000	15%
Re-usable products	140	2%
Glass and metals	140	2%
Plastics & multimaterial goods	400	6%
TOTAL	6,680 kgs	100%

2.2 TDC Management Team Approval

In November 2000, a report and action plan for the Zero Waste building was presented to the Management Team of the Council. The report detailed the benefits of Zero Waste both locally and globally and included a budget for the implementation of the Zero Waste plan.

It was agreed to adopt the plan in order to set the best possible example for our community, as well as giving us the opportunity to help our schools, businesses and industry towards Zero Waste.

2.3 Environmental Working Group

The Management Team also approved the establishment of an Environmental Working Group, consisting of a representative from each of the four groups of the Council and convened by the Waste Minimisation Co-ordinator. The Working Group was to assist with the implementation of the programme, as well as provide a 'local' contact person that staff in each group could approach for queries.

2.4 Timeline for Programme.

A timeline for the implementation of the programme was established and was so strictly adhered to that the proposed launch was brought forward a month to February.

1	Educational materials finalised	December 2000
2	Infrastructure in place	January 2001
3	Finalise launch plan	January 2001
4	Publish educational materials	January 2001
5	Launch March/April	Actual launch February 2001

2.5 Costs and Savings

2.5.1 Costs

A detailed budget was included in the report for the Management Team. After discussion, it was decided to increase the budget to allow for purchase of new "Resource Recovery Receptacles" rather than making do with existing bins and boxes. The Chief Executive was keen for the programme to be established as an example of best practise, so that it could be promoted almost as a display model. The set-up costs, including all necessary infrastructure, signage and educational

materials, was approximately \$10 000.00. This is not quite as bad as it sounds, as our disposal costs amounted to over \$4000.00 per year, so our payback time is just over two years.

Also, some staff are extra pleased as two extra parking spaces have been created where the skip used to be!

2.5.2 Savings

Waste disposal costs prior to the launch of Zero Waste were significant.

Disposal Costs

Current Disposal Cost	Method	Saving
\$4000.00 annually	Skip emptied fortnightly	\$0.00
Zero Waste Principle	Method	Saving
\$162.00	2 Wheeled bins weekly	\$3800.00

Under the **Zero Waste** principle, only \$162.00 will be needed for disposal of residual waste to landfill.

Recyclable paper and cardboard are to be collected at no charge initially.

There are also savings to be made in the Cleaner's Contracts, as outlined below:

Current Time	Number of Bins	Time per Week
4 Cleaners, 20 mins each / day	158	6.5 hours per week
Zero Waste Time	Saves emptying 120 bins / day	
2 Cleaners, 10 mins each / day	12	1.7 hours per week.

The cleaning staff empty the office recycling bins once a week, and daily from kitchens, photocopiers, reception areas and cash desks.

2.6 Markets

2.6.1 Paper

From the initial waste audit, we can clearly see the content of our wasted resources stream and could then sort out markets for the materials. The major waste is paper, so contact was made with our local paper recyclers to find out:

- a) Did they want the product?
- b) Would there be a cost involved?
- c) What condition did they want the paper in?

The consultation with the recyclers was imperative in that we could then plan the infrastructure needed (recycle system) to get the materials in the best possible condition with minimal contamination and handling.

Recycling paper reduced the waste stream by 75%

2.6.2 Organics

The organic portion of the remaining waste is composted on site, both by worms and an Earthmaker compost bin. Although it was initially thought that the worms would be able to compost the significant amount of paper towels from the bathrooms, it was found that they couldn't (the paper is made especially strong with glues so that

the wet strength is as strong as possible). The paper towels are now taken to the Council composting site and are shredded with the garden waste from the district

2.6.3 Glass, Metals and Miscellaneous Items.

The glass and metal are taken to the local recycle centre, and re-usable items are rostered to go to Timaru District Kindergardens and schools.

3 Infrastructure.

All the 158 rubbish bins in the building were removed and replaced with a comprehensive recycle system. Desk side rubbish bins were replaced with a 3 tier trolley (\$10.00 from The Warehouse). Into this, staff put good quality white paper on the top layer; mixed grade paper in the middle and all re-usable items at the bottom.

Staff were given a plastic tub with a lid to put their tissues and food waste into. The Council staff are responsible for emptying their containers into the main compost bins located in the kitchens and toilets.

There are now only 12 “landfill only’ bins in the building. These contain plastics and multi-material goods that can not yet be recycled: light bulbs and some batteries etc.

4 Education

It was very important to make the staff understand the impact that our waste has on our local and global environment. To this end, all staff were encouraged to attend one of two educational sessions that lasted 15 minutes each. The talks gave an overview of why we are walking the Zero Waste path, the social, economic and environmental benefits of copying nature and having no waste. An education pack was developed, as well as a small desk brochure that explains what has to be separated and where to put it. The education pack itself contains a variety of information, including what to do with miscellaneous items like bubble wrap, calendars and pencil shavings.

5 Conclusion

A significant reduction in waste to landfill from any office, school or business can be easily and cost effectively implemented. Having reduced our own waste by 85%, the Timaru District Council is sending a clear message to our community: If the Council can do it, anyone can!