

Appendix 4 – Otorohanga District Council Solid Waste Management Strategy 2002

1.0 Introduction

The Otorohanga District is primarily rural, with key centres of population at Otorohanga and Kawhia and smaller communities at Aotea and Te Kawa.

Since the adoption by Council of its Solid Waste Management Strategy in February 1998, there have been significant changes in the District's management of solid waste, including the closure of its two landfills at Otorohanga and Kawhia. In addition, the adoption by Council of a 'ZeroWaste' policy and the development of an implementation strategy, make this an opportune time to review the Solid Waste Management Strategy.

The Local Government Amendment Act (No.4) 1996 requires local authorities to amend or update its Waste Management Plan as necessary. This update is intended to overview

the current solid waste situation and outline the general direction of solid waste management over the next 10 years.

A more detailed action plan, giving directions and priorities for the first two years of the ZeroWaste policy is attached as Appendix A. However, no specific waste reduction targets are set for the first two years since there is a lack of information upon which to base them.

In order to achieve the objectives of the Policy it is important that the community have substantial input to the process and take ownership of the strategy and its initiatives. A consultative process as set down in the Act must be followed. It is hoped that the development of the strategy will generate a higher level of public participation in Waste Management issues

2.0 Zerowaste Principles

Council has adopted a policy of 'zero waste by 2010'. The alternative to expending ever-increasing sums on transport and disposal is to invest in the reduction and eventual elimination of waste.

2.1 Definition

Waste is any material, solid, liquid or gaseous, that is unwanted and/or undervalued, and discarded or discharged by its owner.

Note: This definition recognises that what one person or organisation regards as waste, can be a useful resource when used again for a beneficial purpose.

2.2 Waste Management Hierarchy

The internationally recognised hierarchy uses the 5Rs – Reduce, Reuse, Recycle, Recover, Residue Disposal descending order of priority.

This approach to waste management is recognised in the Local Government Amendment Act 1996 by inclusion in Section 557.

Councils are directed to consider these five methods of waste management in priority order.

Reduce – the highest priority and the heart of ZeroWaste. It refers to avoiding making waste in the first place. It is achieved domestically by such measures as selective purchasing – buying goods, which will last, or are designed to be repaired, by buying goods in bulk rather than in small containers, not buying one-trip disposable items etc. Far from requiring a new attitude to resources, it necessitates a return to a previous philosophy.

Reuse – the second priority, is the further use of products in their existing form for their original or similar purpose.

Domestically – the development of second chance shops at recycling centres enable reuse. Many of these offer repair or certification of electrical appliances etc.

Commercially – multiple use of pallets and containers is a form of reuse. The regional ‘Waste Exchange’ enables re-use of materials by organisations and deserves support.

Recycle – This aspect has received most attention, and is clearly the focus of most community action. A limited range of materials is collected at kerbside and at drop-off points. However, it is only third in priority after reduction and re-use. It reduces the processing of materials to create new products, rather than using virgin materials. As such it is a valuable method of diversion for the waste stream, but are requiring in many cases on-going support – by way of avoided disposal costs, to make viable.

Recovery – there is a lot of biomass, energy and materials in waste which can be recovered e.g. composting and worm-farming recover nutrients.

Residue Disposal – The disposal of the declining volume of waste created, which can not currently be diverted from the waste stream.

By following the 5R’s hierarchical approach, the use of the hierarchy, significant environmental benefits will result, both by avoiding waste creation and in diverting materials from the waste stream.

3.0 Present Waste Management Practice

Since closure of both landfills in the District, most waste is transported to landfill at Te Kuiti.

Council provides a weekly kerbside waste collection in the communities of Otorohanga, Kawhia and Aotea for which a user-charge is imposed partially offsetting disposal costs. The fee may be varied by the contractor.

Council provides kerbside collection, without charge, of a limited range of recyclable materials – currently newspaper, plastic bottles, glass bottles and aluminium cans – in Otorohanga and Kawhia. The same range of recyclable materials is collected from Aotea. Council also provides for the deposit, without charge, of the same recyclable materials at its Recycling Centres in Otorohanga and Kawhia.

Garden waste may be deposited at the recycling centres for which a user-charge is levied.

Waste may be deposited at the Kawhia Recycling Centre – for which a user-charge is levied.

There are no facilities to allow collection or disposal of waste from rural households and no drop-off facilities for recyclables other than at Otorohanga, Kawhia .

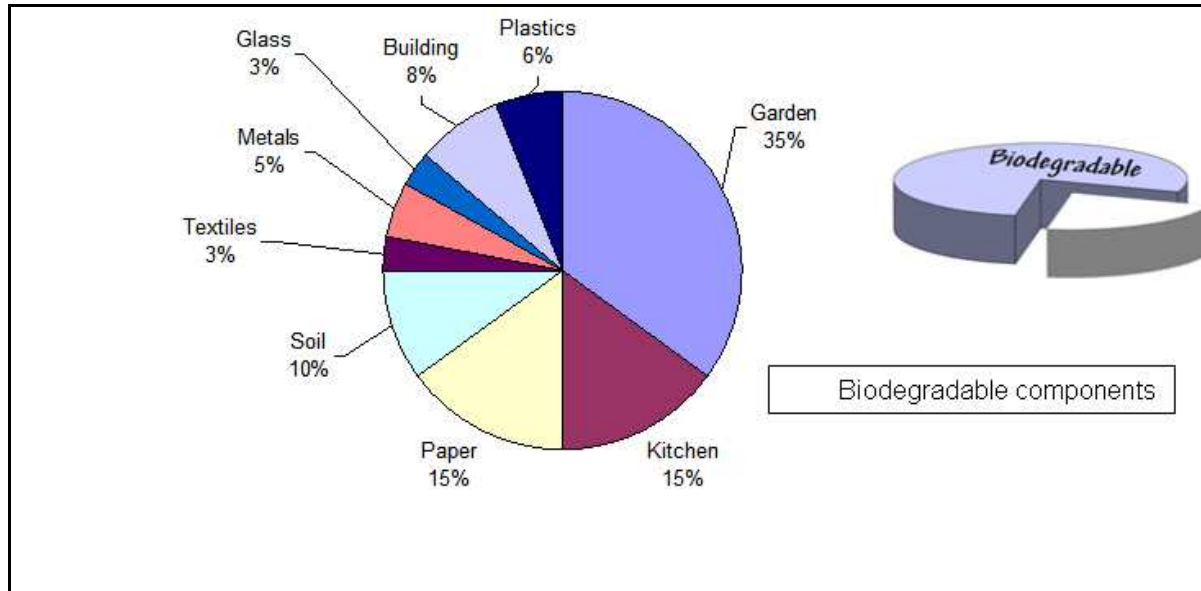
Recent developments including an increase in user-charges and the removal of refuse tips has contributed to an increase in fly-tipping, the burning of some wastes and the use of litter bins for domestic waste disposal. This is a national trend.

The absence of a transfer station in Otorohanga has resulted in extensive use of contractor’s skips and drums by residents for all waste, which is too bulky for the refuse bag. This portion of the waste stream – including disused furniture, building materials and domestic appliances – is conveyed to landfill without separation of recyclables or the opportunity for re-use.

4.0 Characteristics of the Waste Stream

The waste stream includes all solid waste produced in the not merely waste collected by Council.

No analysis or measurement has been carried out of Otorohanga District’s waste, but in the 1996 survey by Environment Waikato, 4 neighbouring Districts were found to have waste stream composition as shown.



Nationally the volume of waste produced per annum and per capita has increased at the rate of 3% per year, and New Zealand produces the highest volume of waste per capita in the world.

The cost of disposal in landfills has increased dramatically as environmental protection requirements have increased. Costs for disposal at Te Kuiti are now \$69 per ton. If the true costs were accounted for, including for example, replacement of the landfill, costs would exceed \$100 per ton.

The cost of transport to landfill has increased as the distance to landfill has increased.

Approximately 75% of the waste stream is biodegradable – kitchen and garden waste, paper, textiles, earth etc.

This part is readily returned to the soil by various methods.



Without the biodegradable components, the remainder of the waste may be viewed as merely a collection of resources – many of which are immediately recyclable – plastics, glass, metal etc.





Materials not currently recyclable are the subject of on-going research and diversion methods eventually become available. Recent examples include – agricultural plastic wrapping and various building materials etc.

The use of recycled materials not only avoids future environmental problems at disposal sites but reduces the use of virgin raw materials which are finite resources, thus enhancing sustainability.



5.0 Objectives

The Otorohanga District Council's objectives in the area of waste management include the following:

-  To eliminate waste to landfill by 2010.
-  To promote the concept of Zero Waste, and encourage individuals, households and businesses to take responsibility for their waste, and provide leadership, information and support to all groups.
-  To actively encourage community participation in all waste reduction activities.
-  To understand our waste stream to enable measurement of changes and the effectiveness of reduction initiatives.
-  To target specific components of the waste stream in all sectors of the community and achieve optimum reduction, re-use and recycling of them:
 - Residential: Otorohanga, Kawhia, Aotea and Te Kawa Township and households in the rural area.
 - Commercial: Offices and shops, food, hospitality and tourist industry institutions – marae and schools.
 - Industry: Manufacturing, building industry, rural business.

-  To progressively extend the range of waste stream components targeted and facilitate their reduction or diversion to recycling.
-  To ensure that the costs of waste disposal are progressively apportioned to those who generate the waste.
-  To review the strategy and any targets bi-annually.
-  To protect the public health.


Note: The plan must:


-  Be consistent with Environment Waikato's Regional Policy Statement.
-  Comply with the requirement of Section 538 Local Government Amendment Act to encourage effective and efficient waste management.

6.0 Waste Minimisation Methods

A substantial reduction in waste to landfill can be achieved by the application of the waste management hierarchy to each sector of the community producing waste – residential, commercial and industrial. The waste stream from each sector has its own characteristics and each sector will respond to different measures.

Methods: To be successful, an integrated programme is necessary, which provides:

-  education and promotion – to allow the development of community awareness.

 facilities (both community and individual) – enabling awareness to be converted into action.

 financial incentives – to reward those making the effort.


6.1 Education

This is the key activity, the necessary first step in an integrated programme, since it involves both changes in attitude and in behaviour.


attitude – we all create waste – and have to take responsibility for it – individually or as a business. Waste must be viewed as a potential resource. In nature and earlier societies there was no such thing as waste – it is a relatively new phenomenon.


behaviour – the adoption of waste avoidance methods offers the best long-term benefit.

An effective waste education programme should reach all sectors producing waste in:


 **Schools** – a priority. By 2015 today's students will have households of their own. Already a waste programme has established recovery of food waste through worm farms in almost all primary schools in the District. Extension of the programme to include other aspects of waste, and the opportunity for the school to adopt a zero waste policy would increase its value to the District.


 **Community groups** – talks and exhibitions reach all sectors.


 **Commercial and industrial sectors** can receive advice and assistance in identifying waste, conducting waste audits etc, which is termed - cleaner production.

 **Households** – education is normally by the distribution of promotional materials plus information on specific aspects directed on a house-by-house basis.

6.2 Enable the community by:

 Identifying components in the waste stream that can be diverted from it by reuse and recycling.

 Provide facilities for the reception or collection of separated materials.

 Progressively extend the range of materials recycled.

6.3 Incentives

After the provision of information, and facilities to enable waste minimisation, support can be offered to those taking the time to do the right thing by making sure that those who make waste meet the true costs of its disposal.

Note: It is important that people do not feel that they are paying twice for a service, and that subsidies to waste makers are not continued.