SOLID WASTE MANAGEMENT PLAN FOR WAIRARAPA

February 2005

This version of the revised plan is recommended by WMW to its constituent district councils for adoption following public consultation in 2004 in accordance with the Local Government Act.

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EXECUTIVE SUMMARY

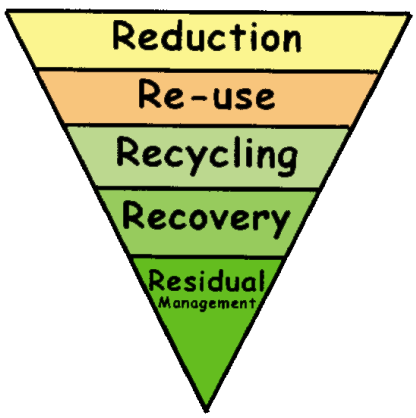
This Solid Waste Management Plan is the first review of the plan originally approved and implemented by councils in 2001, and replaces that plan. It provides for the waste management needs of the Wairarapa community, now and in the future. The Wairarapa community produces over 31,000 tonnes of solid waste each year including greenwaste and recyclables; enough waste to cover a rugby field to the height of a six storey building. It is important to manage our solid waste carefully to ensure the waste we produce does not adversely affect our health, community or environment.

This Plan has been prepared following *community consultation* by Waste Management Wairarapa (WMW). WMW was formed when Masterton, Carterton and South Wairarapa District Councils joined, with representatives from Iwi and Wellington Regional Council, to collectively address waste management issues in Wairarapa.

The philosophy behind WMW is that the region's councils are better able to address some waste management issues collectively than they could individually. However, WMW recognises there are some aspects of solid waste management that need to be tailored to individual communities' needs and are therefore best addressed at an individual Council level.

The Solid Waste Management Plan sets out the solid waste management goals of the Wairarapa community and includes actions to achieve the goals, set out under the following headings:

- Waste Management Practices
- Education and Promotion
- Cultural Values
- Waste Minimisation
- Re-use and Recycling
- Resource Recovery
- Difficult and Hazardous Wastes
- Construction and Demolition Waste
- Residual Waste Management
- Funding and Finance



The Plan also discusses the principles of zero waste management. Zero waste management uses the waste hierarchy of reduction, reuse, recycling, recovery and residual management with the long term view of reducing the residual waste component of the waste stream to zero.

This Plan meets the requirements of the Local Government Act 2002. It addresses only solid waste (refuse) and will be reviewed as necessary and at least every ten years.

WMW first released a public discussion document on the development of the Solid Waste Management Plan in July 1999. The Plan was adopted by each of the three councils in 2001. This document is the first revision of the Plan and has been prepared in response to the Government's issue of the New Zealand Waste Strategy in 2002. Consultation was carried out in 2004.

WMW is committed to this Solid Waste Management Plan. We believe it provides the best framework to achieve the objective of providing for the waste management needs of the Wairarapa community in a sustainable manner, ensuring waste management practices that do not adversely affect the natural environment, human health, animal and plant health, amenity values or cultural values.

PLAN STRUCTURE

Figure 1 shows the relationships of sections in the Plan.

The Solid Waste Management Plan for Wairarapa has three parts:

Part One gives an overview of the Plan including development processes, legislation and definitions.

Part Two states the solid waste management goals for the Wairarapa and the actions that Councils will take to achieve those goals.

Goals and actions are set out under the following headings:

- Waste Management Practices
- Education and Promotion
- Cultural Values
- Waste Minimisation
- Re-use and Recycling
- Resource Recovery
- Construction and Demolition wastes
- Difficult and Hazardous Wastes
- Residual Waste Management
- Funding and Finance

Goals are not listed in order of priority.

Details about actions are contained in the discussion below each action.

Each of the sections in Part Two is closely linked. Readers are asked to consider sections within the context of the overall plan and outcomes sought.

Part Three contains a Glossary and Appendices. These appendices provide supporting information to the Plan including a summary of current waste services, waste stream statistics and a list of stakeholders.

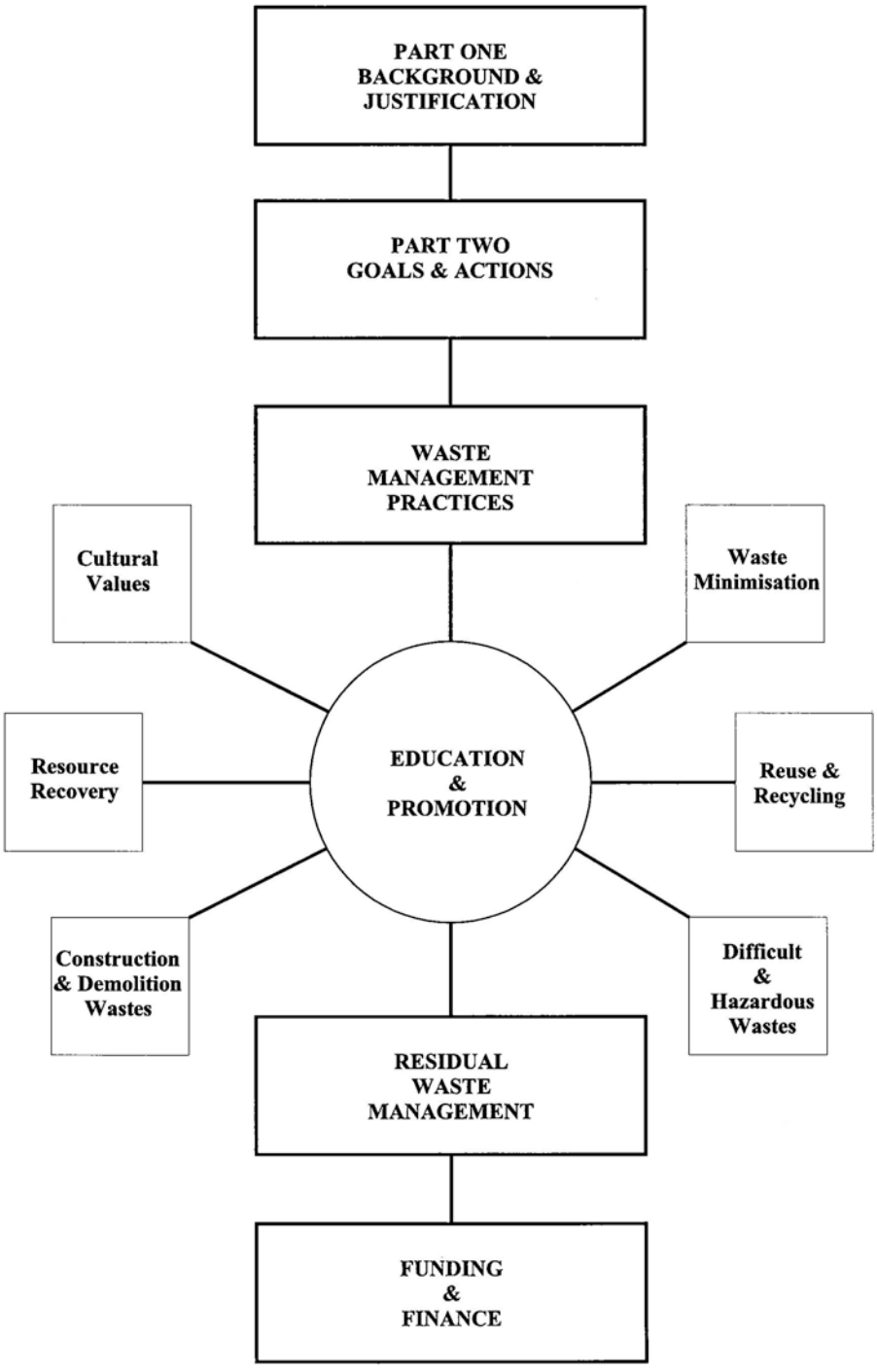


Figure One: Structure of the Plan.

PART ONE

INTRODUCTION

Solid waste management is a community issue. It affects the quality of the environment in which you live and therefore affects you. Every person in the Wairarapa, on average, produces approximately 820 kg of rubbish per year. The purpose of this Plan is to address all aspects of Wairarapa's waste.

The Wairarapa, in the context of this Plan, comprises the area encompassing the Masterton, Carterton and South Wairarapa District Councils.

WHAT IS SOLID WASTE MANAGEMENT?

Solid waste management (SWM) is the way in which your rubbish is managed, including avoiding its creation and how you manage it at home. SWM is the term used to describe the process of collecting and disposing of solid waste and includes methods to reduce the amount of waste requiring disposal and the management of the residual waste stream requiring disposal.

The solid waste stream has distinct components. These include:

Clean Fill	Materials such as clay, soil, rock, or brick, that are free of combustible or putrescible components or hazardous substances or materials likely to create a hazardous leachate by means of biological or chemical breakdown.
Organic	Biodegradable waste such as food and vegetable scraps, paper, wood and garden trimmings: Putrescible material of plant, animal or microbiological origin.
Special or Difficult	Material that needs special consideration before disposal, such as sewage sludge, car bodies.
Hazardous Substance	A substance with one or more of the following properties or one which on contact with air or water generates substances with any of these properties: explosiveness, flammability, capacity to oxidise, corrosiveness, toxicity, ecotoxicity (with or without bioaccumulation), and radioactivity. Such material has the potential to cause significant adverse effects to human health and the environment and includes pesticides, oils, sludges containing heavy metals and chemical wastes such as agrichemicals and their containers.

All these components must be managed in a way that minimises potential harmful effects.

AIM OF THE PLAN

The aim of the Solid Waste Management Plan is to implement a sustainable, environmentally appropriate solid waste management regime incorporating the principles of zero waste for the Wairarapa, through community co-operation, education and commitment, in a culturally sensitive and economically viable manner.

Accordingly the emphasis is on encouraging waste minimisation rather than finding ways to dispose of residual waste. The Councils want to move from merely providing waste disposal services to leading waste minimisation and othe waste management practice in the Wairarapa.

OBJECTIVES

The objectives for WMW are to:

- minimise waste quantity and potential harmfulness
- provide solid waste disposal on a Wairarapa-wide basis
- encourage waste management initiatives which are implemented in a consistent and equitable manner throughout the Wairarapa
- achieve economies and effectiveness by addressing waste management initiatives collectively
- promote better environmental outcomes
- build on the existing solid waste services through mutual co-operation.

WHAT IS THE PLAN FOR?

The Wairarapa Solid Waste Management Plan sets out how the community can best deal with solid waste management issues in Wairarapa. The plan:

- meets the requirements of the Local Government Act 2002
- identifies the goals for solid waste management in the Wairarapa
- states the actions councils will take to achieve those goals
- highlights what can best be dealt with collectively (at a Wairarapa-wide level) and what is best handled by individual councils
- describes how to manage solid waste in the Wairarapa in a manner that is economical and environmentally acceptable.

DEVELOPING THE PLAN

There were a number of stages in developing the current Solid Waste Management Plan:

- Stage 1 - Preparation of the Public Discussion Document and the Public consultation strategy *(July-August 1999)*
- Stage 2 - Receiving submissions on the Public Discussion Document *(October 1999)*
- Stage 3 - Preparation of the first proposed Solid Waste Management Plan *(November 1999 to February 2000)*
- Stage 4 – Consulting with constituent councils *(March -April 2000)*
- Stage 5 - Publicly notifying the Plan *(June 2000)*
- Stage 6 - Receiving formal public submissions on the Plan *(June/July 2000)*
- Stage 7 - Hearing of public submissions *(August/September 2000)*
- Stage 8 - Finalising the Regional Waste Plan and subsequent adoption by its constituent councils *(November 2000-February 2001)*
- Stage 9 – First Review: Reviewing and updating the Plan in light of the issuing of the New Zealand Waste Strategy 2002 by repeating Stages 3 to 8 *(commencing May 2004).*

This revised Plan has been prepared following public comment and submissions and is recommended for adoption by all three Councils. As required by the Local Government Act 2002 it will be further reviewed at least every 10 years, or at shorter intervals as necessary.

LEGISLATION

The following legislation is relevant to waste management in the Wairarapa. Note the following is a general outline of the statutory provisions. Please refer to the specific provisions of the respective statutes for the exact wording. Copies are held at Council offices and are available for viewing on request.

The Local Government Act (1974)

- Section 538 requires Territorial Authorities to encourage efficient waste management within their District by:
  - having regard to environmental and economic costs and benefits for the District
  - ensuring the management of waste does not cause a nuisance or be injurious to health.

- Section 539 requires the development and adoption of a Waste Management Plan via the special consultative procedure of the Act, "being a plan developed after consideration, in order of priority, of the following methods: reduction; reuse; recycling; recovery; and treatment and disposal of residual waste.

- Other sections relevant to waste management include sections 540 - 544.

Local Government Act 2002

LGA 2002 was enacted just prior to Christmas 2002. Some parts of it came into effect immediately and other parts of it took effect on 1 July 2003. It is a comprehensive revision of the primary local government legislation but it is important to note that not all of LGA 1974 has been repealed. In particular, Part XXXI (Waste Management) has not been repealed which means that the sections of the 1974 Act referred to above still apply.

LGA 2002 introduces a whole range of new matters that have relevance to the way local authorities carry out their waste management responsibilities. Therefore, when examining the specific matters contained in Part XXXI of the 1974 Act they must be considered in the wider context of the 2002 legislation. Matters in the new legislation that are of importance to the waste management activity of local authorities include:

- the new emphasis on sustainability – particularly the social, economic, environmental and cultural well-being of the community;
- the increased obligation to Maori – particularly relating to consultation and decision-making;
- the new emphasis on collaboration and co-operation between councils, government agencies, other organisations and the community (WMW is a good example of this);
- the new decision-making requirements;
- the new consultation principles;
- the new obligation for all councils to prepare sanitary services assessments by 30 June 2005 (via the special consultative procedure); and
- the new requirement for all councils to have adopted a waste management plan by 30 June 2005 (via the special consultative procedure).

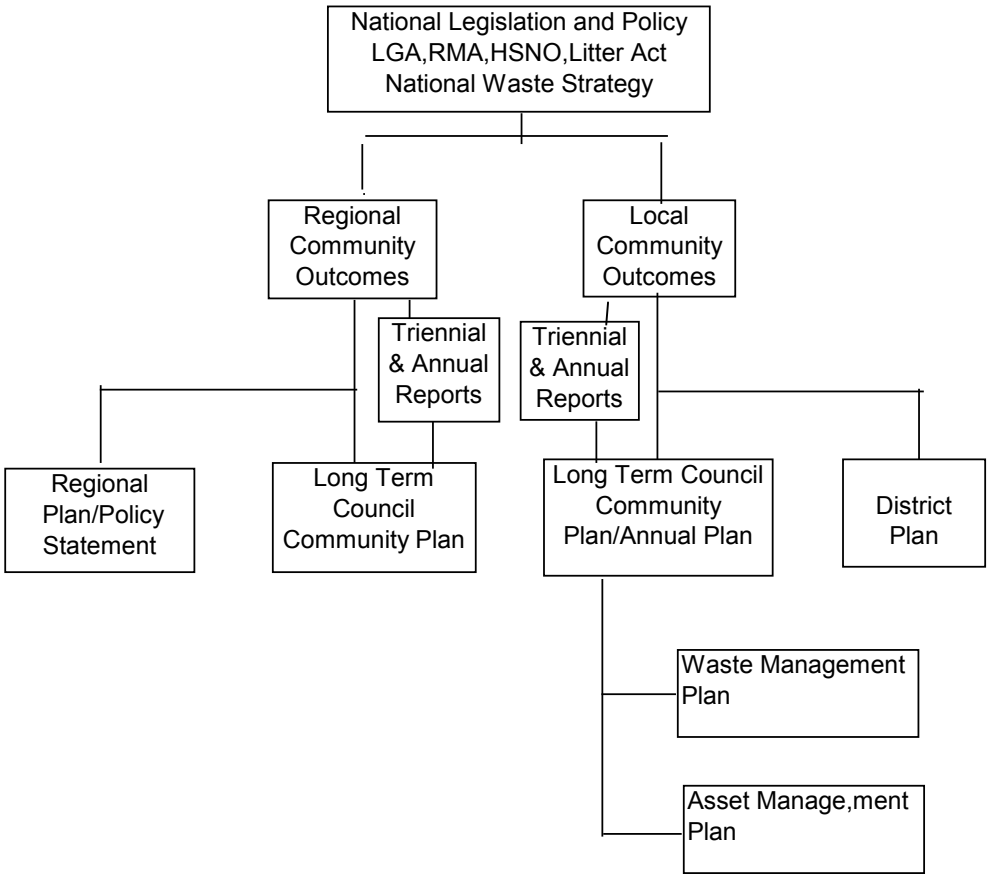


Figure 2 -- Linkages to Council Planning Processes

The Resource Management Act (1991)

- Section 7 states that 'all persons exercising powers and functions under the Act, in relation to managing the use, development and protection of natural and physical resources, shall have particular regard to kaitiakitanga'.

- Section 8 states that 'In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi)'.
- Section 31 requires District Councils to be responsible for achieving integrated management of the use of land and associated natural and physical resources of their District.

The Health Act (1956)

- Section 25 indicates that the Minister may require Territorial Authorities to ensure the provision of sanitary works including works for collection and disposal of refuse.

Other legislation relating to waste management includes:

- Building Act (1991)
- Health and Safety in Employment Act (1992)
- Public Bodies Contract Act (1959)
- Public Works Act (1981)
- Hazardous Substances and New Organisms Act (1996)
- Litter Act (1979)
- Transport Act (1972)

The relationship between legislation and various plans and strategies is shown in Figure 2 - Linkages to Council Planning Processes.

ROLES OF CENTRAL, REGIONAL AND TERRITORIAL LOCAL GOVERNMENT

Central Government

The role of central government is one of setting policy for waste management in the whole of New Zealand.

In March 2002, central government published the New Zealand Waste Strategy. This strategy adopts the vision:

Towards zero waste and a sustainable New Zealand

The New Zealand Waste Strategy sets out five core policies for waste management. These are:

- A sound legislative basis for waste minimisation and management
- Efficient pricing
- High environmental standards
- Adequate and accessible information
- Efficient use of materials

The strategy sets out 30 targets to be achieved between now and 2010 at local, regional and national level. This Waste Plan adopts the targets which are relevant at the local and regional level.

Regional Councils

Greater Wellington Regional Council has a role to:

- Control discharges to the environment from landfills (leachate, odour, gas)
- Monitor environmental effects of activities such as landfills
- Prevent or mitigate any adverse effects arising from the storage, use, disposal, or transportation of hazardous substances
- Promote environmentally acceptable waste disposal
- Control discharges to air (emissions from burning, odour)

District Councils

District Councils have policy and service-delivery roles to:

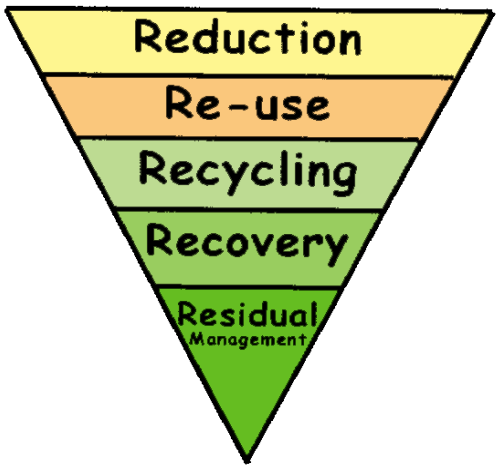
- have in place a waste management plan
- ensure that there is provision of waste collection and disposal services
- make provision for waste reduction, re-use, recycling and resource recovery
- ensure waste management is provided for in District Plans
- prevent 'nuisances' such as pests, litter and odour
- investigate and control activities that may breach the Health Act or Litter Act; and
- control the use, development or protection of land to prevent or mitigate any adverse effects arising from the storage, use, disposal, or transportation of hazardous substances.

Waste Management Wairarapa

Waste Management Wairarapa (WMW) is a committee of the Masterton, Carterton and South Wairarapa District Councils, and includes non-voting representatives from local iwi and Greater Wellington Regional Council. WMW's role is to assist the three councils to address solid waste issues collectively. At present its powers are limited to advising the three district councils and acting upon their directions. The future governance and legal capacity of WMW are being addressed by the Councils. The most likely outcome is that it will become a Council controlled organisation and take over the waste management functions of the three councils.

THE WASTE HIERARCHY

The 5 Rs of Solid Waste Management are:



Reduction	Lessening the quantity or toxicity of waste generated by using materials and resources more efficiently. Methods to achieve waste reduction include conducting waste audits, education and cleaner production. The concept embraces "prevention" and "avoidance" of waste generation.
Re-use	Re-using a product in its existing form (for example, using the same glass jars for several batches of jam).
Recycling	Reprocessing materials to make new products. (For example, aluminium cans may be melted down and made into new cans or into aluminium cookware.)
Recovery	Extracting materials or energy from waste for further use or processing, such as compost or as a fuel.
Residual Management	Treatment and disposal of waste when no other use can be found. In New Zealand, most residual waste is disposed of to a landfill.

The 5 Rs are listed in descending order of desirability. Reducing waste is the most effective method of addressing waste problems while residual management is the least effective.

The first four R's comprise "waste minimisation." The term "waste diversion" is sometimes used for the three middle R's.

ZERO WASTE MANAGEMENT

WMW has adopted the principles of Zero Waste management, which uses the waste hierarchy to

manage waste. Many councils throughout New Zealand have also adopted the Zero Waste principles. WMW has joined the Zero Waste New Zealand Trust along with many other local authorities. The Trust has been set up to encourage all sectors of New Zealand society to work towards a target of zero waste to landfill.

Traditional waste disposal process incurs several costs, including:

- Collection, transport and disposal costs
- Monitoring costs
- Environmental costs through loss of land and resources and potential contamination of water, soil and air
- Social costs due to lost resources

The waste hierarchy - reduction, re-use, recycling, recovery and residual management - is applied to ultimately reduce the residual component of the waste stream to zero.

Zero Waste implementation creates the following benefits:

- Less land required for waste disposal
- Reduced contamination of soil, water and air from landfill discharge
- Use of resources that were previously discarded through dumping
- Income from the sale of reusable and recycled goods
- More effective use of resources through implementing 'Cleaner Production' practices
- Social and community benefits arising through employment created as a result of re-use and recycling operations

Zero Waste is not an immediate solution and will require a significant change in community attitudes and practices. Progress must therefore continue to be made in addressing current waste management and disposal practices.

Waste Management Wairarapa is committed to the Zero Waste philosophy. Actions to implement Zero Waste management are listed in Part Two of this Plan.

PART TWO – GOALS & ACTIONS

The Goals and Actions of this plan are presented in the following sections. Goals are not listed in any order of priority and are of equal weight

- Waste Management Practices
- Education and Promotion
- Cultural Values
- Waste Minimisation
- Re-use and Recycling
- Resource Recovery
- Construction and Demolition wastes
- Difficult and Hazardous Wastes
- Residual Waste Management
- Funding and Finance

❖ WASTE MANAGEMENT PRACTICES

GOAL A: TO ADOPT A WAIRARAPA-WIDE APPROACH TO WASTE MANAGEMENT

Actions

1. *Take a collective approach to waste management, where appropriate, including the following:*

   - *Reviewing end markets for recyclable materials, compost and re-useable goods*
   - *Hazardous waste collection, storage and disposal*
   - *Residual disposal options*
   - *Bylaws (solid waste)*

   A collective approach to waste management means WMW may be able to achieve economies of scale that are not available to individual councils. Administrative costs can

be shared. However, WMW also recognises some services are better provided for by individual councils because they can be tailored to meet communities' specific needs.

WMW considers a collective approach is the best method to address issues such as: hazardous waste collection, storage and disposal; residual waste disposal ; and coordination of material diversion from the waste stream.

2. ***Take into account costs when assessing the benefit of a collective approach.***

Costs to individual councils are likely to reduce from taking a collective approach to waste management. WMW will have regard to costs when determining which actions are best undertaken at a collective level or at individual Council level.

3. ***Employ Waste Minimisation staff.***

WMW will keep under review the provision of dedicated Waste Minimisation staff.

A Wairarapa Waste Minimisation Officer could co-ordinate WMW's strategies and initiatives to minimise waste. This may include facilitating waste audits in industry, promoting best practice waste management awareness awards, running competitions, producing education material and visiting schools and community groups.

Employing an officer at a collective level would mean the funding is shared between the three Councils, approaches to waste minimisation can be consistent across all districts, and new initiatives can be pursued.

4. ***Investigate partnering with community groups and businesses and with local authorities outside the Wairarapa.***

Partnering with local authorities outside the Wairarapa to address waste management is a further opportunity to share costs and ideas, taking into account long term and strategic issues.

WMW will investigate the potential for partnering with councils near to the Wairarapa to take a wider geographical approach to solid waste management.

GOAL B : TO PROMOTE THE HIERARCHY OF REDUCTION, RE-USE, RECYCLING, RECOVERY AND RESIDUAL MANAGEMENT OF WASTE

Actions

1. ***Promote the benefits of the Waste Hierarchy - Waste Reduction, Re-use, Recycling, Recovery and Residual Management.***

Emphasising the importance of the Waste Hierarchy is one of the keys to the success of the Zero Waste management philosophy. WMW proposes to facilitate the provision of information to the public on how they can use the Waste Hierarchy to reduce the amount of waste being disposed of in the Wairarapa. Where

practical this will include encouraging the processing and use of diverted resources locally.

GOAL C: TO PROVIDE FOR EFFECTIVE COLLECTION AND DELIVERY MECHANISMS OF RECYCLED MATERIAL AND RESIDUAL WASTE

Actions

1. ***Encourage individual councils to facilitate the collection of household residual waste at least once per week.***

   Regular collection of residual waste, in areas where there is a household bag collection, is important for maintaining hygiene and minimising odour in the home.

2. ***Encourage individual councils to provide a timetable for collection of kerbside recyclable materials to all relevant households in the region.***

People living in areas where there is kerbside recycling must be informed when and what recyclable material will be picked up from their area. A distributed timetable will ensure householders are aware of their part in the recycling collection process and will minimise confusion.

3. ***Encourage individual councils to regularly review waste management contracts, including assessing the benefits of collectively tendering out the services.***

   Councils may choose to contract out services for collection, transfer and disposal of residual refuse and recycling material. WMW will encourage councils to review the contracts held with service providers regularly, in a collective manner, to ensure the needs of the council and the community are being met in the best possible way.

4. ***Encourage individual councils to collect general household items, such as whiteware and furniture, at least once per year or to otherwise provide for their re-use.***

   Throughout the year, households accumulate residual waste products such as whiteware and furniture that cannot normally be collected at the kerbside or are difficult to take to the landfill or transfer station. WMW will encourage systems to ensure that these products are collected for re-use, recycling or disposal.

   Councils will also be encouraged to facilitate and publicise the proper disposal of derelict vehicles within their districts.

5. ***Encourage individual councils to provide clear and consistent signs at landfills and transfer stations to show compost, re-use and recycling facilities.***

   Bold signs at landfills and transfer stations directing the public to re-use, recycling and composting facilities

remind people to use the facilities and therefore reduce the amount of residual waste disposed.

6 ***Encourage individual councils to adopt in-house waste minimisation programmes and "green" purchasing policies.***

Councils operations need to conform to this Plan in order to increase its authority and set a good example to the community.

GOAL D: TO ENCOURAGE GOOD WASTE MANAGEMENT PRACTICES IN RURAL AREAS AND HOLIDAY COMMUNITIES

Actions

1. ***Encourage individual councils to provide extra collection services in holiday areas to meet demand.***

The influx of holiday makers can significantly increase the pressure on waste services in some areas. WMW will encourage councils to ensure residual waste disposal needs in holiday areas are met through providing extra disposal bins and/or collecting waste more frequently, as necessary, during the busy summer months.

The "Wairarapa Coastal Strategy" has two relevant recommendations:

- Adopt a "pack in, pack out" rubbish policy for short-term visitors
- Monitor the existing level of service for rubbish collection and disposal and, where it is not working, investigate options for dealing with rubbish problems in the coastal environment.

2. ***Encourage individual councils to provide recycling collections/ facilities/services at rural transfer stations and coastal holiday areas by December 2005.***

People living in rural areas and coastal holiday settlements may want to recycle their waste but are unable to because they live too far away from a drop-off facility. WMW will encourage councils to provide recycling drop-off facilities at rural and coastal holiday settlement transfer stations to encourage participation in recycling.

3. ***Facilitate the provision of information on management of hazardous chemicals in rural areas.***

Hazardous chemicals are widely used in rural areas for control of pests on farms and other rural properties. There is a need for information on what farmers should do when they no longer want to use the chemical. WMW will facilitate the provision of information to people in rural areas to ensure hazardous chemical wastes are managed safely.

4 ***Facilitate the collection, transportation and disposal where appropriate of rural hazardous wastes.***

It is environmentally advantageous to collect, transport and dispose of unused, unwanted and unmarked agrichemicals to reduce the risk of inappropriate disposal or accidental discharge resulting in environment contamination.

5 ***Encourage individual councils to undertake regular reviews of the level of service provided for waste management in rural areas and rural residential settlements.***

Regularly reviewing waste management services in rural areas and rural residential settlements will ensure services are tailored to meet the needs of the rural community.

❖ EDUCATION AND PROMOTION

Educating and promoting the benefits of sustainable waste minimisation practices is of paramount importance if the Wairarapa's waste management issues are to be addressed. Industrial, commercial and public sectors need to be informed of strategies and options for waste minimisation and reduction. It is important for the community to be kept informed of progress toward adopted waste reduction targets.

GOAL E : TO ENCOURAGE THE COMMUNITY, THROUGH EDUCATION AND PROMOTION, TO ADOPT SUSTAINABLE WASTE MINIMISATION PRACTICES

Actions

1. ***Establish Wairarapa Waste Management Environmental Awards for industrial, commercial and household categories.***

Activities in the Wairarapa that have particular regard to reducing solid waste disposal should be recognised. Establishing a regional Environmental Awards system will commend recipients for their efforts and encourage others to follow their example. The awards will run periodically, say every two years, and may be held in conjunction with other organisations.

2. ***Regularly publicise recent achievements and future initiatives in waste management in the Wairarapa.***

Regular publicity will inform the community of the progress of WMW and the Wairarapa community toward achieving waste minimisation goals and what is planned for the months ahead. A newsletter or flyer may highlight upcoming competitions or activities to ensure public commitment to waste minimisation.

3. ***Liaise with the Ministry for the Environment, the Department of Conservation and Greater Wellington Regional Council to ensure a consistent approach to education and promotion.***

Several organisations have environmental responsibilities in the Wairarapa that involve aspects of waste management. Liaising with these organisations will reduce the amount of overlap and encourage a consistency of approach to education and promotion. The Wellington Region Environmental Agency (WREA) is a useful vehicle for such liaison.

4. ***Work with organisations to assist with maintaining a database, such as Enviromart, of reusable and recyclable materials wanted by or available from businesses in the Wairarapa.***

Enviromart is an example of a waste exchange database that assists organisations to find markets for unwanted materials which have traditionally gone to landfill. Through assisting with maintaining a database such as Enviromart, WMW will help businesses find a market for industrial by-products, surplus material and waste products. Examples of waste products that could be used by other businesses include wooden crates, steel drums and construction waste.

Diverting these waste products away from disposal means the provider avoids waste disposal costs while the receiver gains a valuable resource and reduces the demand for new materials.

5. ***Encourage the market for reusable goods, recycled goods and composting products.***

The market for recyclable material, e.g. newspaper, depends on the demand for recycled end products, e.g. recycled writing paper. WMW will publish the names of companies that buy and sell re-used, recycled and composting products at least once per year. This may include second-hand dealers, scrap metal dealers, craft shops and garden centres.

Advertising in the publication will help promote environmental awareness of these businesses to the community.

6. ***Promote sharing of information to encourage reduced use of hazardous materials.***

Many hazardous materials are used in the home and business. Hazardous materials include cleaning products, paint stripper and garden spray.

There are harmless alternatives to hazardous materials. WMW will promote the sharing of information to encourage use of alternatives to hazardous materials.

7. ***Promote industrial and commercial waste reduction mechanisms by:***

i) Promoting waste audits of businesses

WMW will promote provision of information showing businesses how to measure the amount of waste they produce and implement ways to reduce, re-use or recycle the waste.

ii) Promoting Cleaner Production

The industrial and commercial waste stream makes up about one third of the total waste stream in the Wairarapa. Many industrial and commercial wastes can be reduced by implementing **Cleaner Production** i.e. changing processes so less waste is produced. Cleaner production can reduce disposal costs for the companies concerned and increase profit by changing a potential waste product into a valuable resource material. For example, a company making orange juice uses the solids to make cleaning products and room fresheners. The company saves money through less disposal costs, makes money from selling their new products and reduces the amount of waste they dispose.

WMW will promote the provision of information to businesses on how to achieve Cleaner Production.

8. ***Facilitate education and the dissemination of information to individual households on best practice minimisation and recycling processes.***

There are significant gains in waste minimisation and reduction to be made at a household level. However these gains can only be achieved if all households are made aware of what can be done and how it is done. Liaison with other bodies having similar objectives to WMW will provide ideas and resources. Individual households also need to be informed that their contributions are important and worthwhile steps towards achieving the community's waste reduction goals.

❖ CULTURAL VALUES

GOAL F: TO ENCOURAGE THE ACTIVE PARTICIPATION OF TANGATA WHENUA IN WASTE MANAGEMENT ISSUES IN THE WAIRARAPA

Actions

1. ***Facilitate consultation with iwi on solid waste management matters in the Wairarapa region.***

It is important to ensure iwi are aware of solid waste management matters in the Wairarapa. WMW will facilitate consultation with iwi on matters that may have significance to iwi in relation to solid waste management in the Wairarapa.

2. ***Encourage iwi participation in decision making on waste management issues in the Wairarapa.***

WMW will encourage iwi participation through representation on Waste Management Wairarapa to ensure iwi views form an integral part of the policy formation and decision making processes.

3. ***Liaise with other environmental and resource management agencies on waste management matters of significance to iwi.***

Liaising with other environmental and resource management agencies encourages an integrated approach to waste management matters of concern to iwi across regional boundaries.

❖ WASTE MINIMISATION

GOAL G: TO INSPIRE THE COMMUNITY TO ACHIEVE THE TARGET OF HAVING ZERO RESIDUAL WASTE REQUIRING DISPOSAL AT A LANDFILL BY 2015

Actions

1. ***A Encourage councils to develop information systems which generate data on waste diversion and disposal .***

Reducing the amount of waste we produce requires that we know as much as possible about the current waste stream. We need to benchmark our waste generation so we can target waste reduction strategies and measure the effectiveness of waste reduction programmes.

From late 2006, all landfilled waste will be weighed. Records of recycled materials can also be kept, and a comprehensive record of the whole waste stream can be achieved with little new effort.

B Encourage Councils to carry out Waste Analysis Protocol (composition analysis) surveys in order to manage their waste streams, identify waste minimisation opportunities, set targets and monitor the effectiveness of waste minimisation programmes

The Solid Waste Analysis Protocol, designed by Ministry for the Environment (2nd Revision, 2002), is a standard method of analysing the composition of the waste stream. From 2008, WMW proposes analysis every year using targeted surveys based on the Waste Analysis Protocol.

2. ***Encourage business initiatives for waste reduction.***

Business initiatives for waste reduction will be supported through nominations for any Wairarapa environmental awards and by highlighting businesses that have conducted successful waste audits. This is expected to encourage a wider acceptance by business that waste reduction is a sound and responsible business practice.

3. ***Encourage individual councils to conduct in-house waste audits, set in-house waste reduction targets and implement in-house waste minimisation practices by December 2005.***

Greater Wellington Regional Council (Wairarapa Division) and the Masterton, Carterton and South Wairarapa District Councils, during their day to day operations, produce significant amounts of waste. The Councils will use their own organisations as examples of how to conduct a waste audit and develop and implement a waste reduction strategy. Councils will complete an in-house waste audit and develop a waste minimisation plan and set targets for waste reduction from their own activities by December 2005. As part of the waste minimisation plan, councils will review their purchasing policies.

4. ***Encourage individual councils to report on in-house waste minimisation progress in their Annual Reports.***

Councils will report on their progress towards developing a waste minimisation plan in their Annual Reports until 2005. After 2005 (or after development of a waste minimisation plan, if earlier than December 2005), Councils will report on their waste minimisation achievements in their Annual Reports.

5. ***Encourage community groups to minimise waste.***

Community groups such as schools and scout groups sometimes run re-use and recycling programmes (such as garage sales). WMW wishes to encourage these groups to continue minimising waste. WMW will promote provision of information on waste minimisation to these groups and visit the groups when appropriate to ensure ongoing commitment to waste minimisation. Information may include producing a waste minimisation package that is specifically targeted to children.

6 ***Encourage waste minimisation at public events***

Public events typically generate a lot of waste. While the total amount may be small when compared with the annual waste stream, it is usually very visible. Sound waste avoidance, reuse and recycling are valuable in reinforcing the sustainability ethic. Councils will consider using the consents for public events to promote waste minimisation.

7 ***Encourage waste minimisation in street litter management and disposal.***

Council litter bins could have signage promoting recycling where possible instead of disposal in the bins; and consideration could be given to progressively pairing each litter bin with a bin for recyclables.

❖ RE-USE AND RECYCLING

GOAL H: TO PROMOTE RE-USE AND RECYCLING OF WASTE PRODUCTS

Actions

1. ***Endorse the provision of kerbside recycling.***

Convenience is a most important factor in recycling waste products. Putting recyclable material out at the gate is more convenient for most people than taking the material to a recycling station. WMW endorses the kerbside recycling schemes in all three districts.

2. ***Encourage the District Councils to provide greenwaste separation, re-use and recycling, and resource recovery facilities at all landfills and transfer stations by December 2005.***

Some materials that may otherwise be disposed of at a landfill, such as furniture and household items, could be re-used if drop-off centres were provided at Wairarapa landfills. WMW will facilitate the trial of further re-use and recycling at landfills and transfer stations to determine their suitability for the future.

3. ***Promote competitions based on re-used and recycled material use.***

Competitions for artwork or inventions using recycled and re-used material highlight how something new and exciting can be created from what used to be waste and in turn promote the benefits of re-use and recycling. Competitions will be run every two years.

4. ***Record the amount of material diverted to recycling each year.***

The weight of each type of recyclable material, from kerbside collection, drop-off facilities, and commercial pickups will be recorded to measure how much material is diverted from the waste stream to recycling. Comparison over time can be made to gauge how well the region is progressing toward Zero Waste goals.

5. ***Ensure that recycling facilities are available to at least 95% of the community by December 2005.***

Councils will review the use and accessibility of their existing recycling facilities and review the nature and location of recycling services available to ensure that at least 95% of the community has reasonable access to recycling services. Provision of recycling facilities may mean kerbside collection and/or drop off centres at schools, service centres, landfills or transfer stations.

6. ***Require new multi-unit residential and commercial buildings to include space for appropriate recycling facilities by December 2005.***

By December 2005 Councils will require through the building regulation system that all new multi-unit residential commercial buildings include space for appropriate recycling

facilities. Councils shall consult between themselves to ensure consistency across the Wairarapa.

7 ***Address recycling facilities within the building and subdivision consent process***

If applicants are required to address recycling in their consent applications then it is more likely that suitable facilities will be designed into the project which will avoid or reduce the difficulty of retro-fitting them later.

❖ RESOURCE RECOVERY

GOAL I: TO REDUCE THE VOLUME OF LANDFILLED ORGANIC WASTE THROUGH COMPOSTING AND VERMICULTURE BY AT LEAST 60% BY DECEMBER 2005 AND MORE THAN 95% BY DECEMBER 2010.

Actions

1. Promote the benefits of home composting and vermiculture.

Vermiculture is the use of worms to digest and stabilise organic wastes, particularly food scraps, but also green waste and paper. Composting is suitable mainly for greenwaste and paper.

WMW will provide information on composting and vermiculture including:

- how composting and vermiculture works
- the benefits of using composting and vermiculture in the home
- how to start your own composting or vermiculture bin.

2. Endorse the continued provision of drop-off facilities for green waste at all transfer stations and landfills in the Wairarapa.

All landfills and transfer stations in the Wairarapa currently have a green waste drop-off facility. WMW will encourage councils to continue to provide these facilities for the life of the landfills and thereafter at transfer stations.

3. Sponsor compost and vermiculture bins to target groups such as schools.

WMW will encourage the use of composting and vermiculture bins by sponsoring a number of bins to groups such as schools. Children may view first hand how green waste converts to a valuable product, and learn how they can compost at home.

4. Investigate end markets for compost and vermiculture products.

Investigating and securing end markets for composted material is important for completing the waste recovery cycle and

recovering costs of composting. End uses may include selling the compost for commercial or domestic use or using the compost as a cover when closing existing landfills in the Wairarapa.

5. ***Implement a monitoring programme to assess the organic waste stream by December 2006.***

Each council will develop and implement a monitoring programme to provide a clear and quantitative assessment of the organic waste stream. Such an assessment is necessary to ensure organic waste facilities are best suited to the particular mix of organic waste in the District (i.e. greenwaste, food, sludges, cardboard).

6. ***Investigate options for achieving 95% diversion of commercial organic waste by December 2010.***

If the organic waste stream measurement indicates significant quantities of commercial organic waste, Council will work with businesses to develop the most effective methods for diverting this waste from landfill to beneficial reuse.

❖ DIFFICULT AND HAZARDOUS WASTES

GOAL J: ENCOURAGE REDUCED USE OF HAZARDOUS MATERIALS

Actions

1. ***Promote knowledge and awareness of alternatives to hazardous materials in the home and at work.***

Wairarapa has a limited capacity to accept, manage and dispose of hazardous waste. Hazardous wastes in Wairarapa include:

- Household hazardous waste (HHW)
- Wastes from contaminated sites
- Waste oil
- Timber treatment waste
- Medical waste
- Agricultural and industrial chemical waste
- Wastes from pollution incidents, emergency discharges and accidents

Hazardous wastes are of concern because of their potential to cause significant adverse health and environmental effects from their inappropriate storage, use or disposal.

Avoiding hazardous waste generation is the most effective method of managing hazardous wastes. WMW will provide information to encourage reduced use of hazardous materials in the **home** and **workplace** and on how to manage the safe collection, handling and disposal of associated hazardous waste products.

GOAL K: ENCOURAGE SAFE COLLECTION, STORAGE AND DISPOSAL OF HAZARDOUS AND DIFFICULT WASTES

Actions

1. ***Include in transfer station and landfill management plans by December 2004 guidelines for safe collection, storage and disposal (where appropriate) of hazardous and difficult wastes, including hazardous household wastes.***

   Difficult wastes are those that need special treatment before disposal. Difficult wastes include tyres and car bodies, and liquid wastes like sewage sludge. Difficult wastes are usually transported directly to the landfill rather than to a transfer station due to the size and/or nature of the difficult waste.

   The two most common methods for disposing of hazardous wastes in New Zealand are by incineration or co-disposal in sanitary (specially designed) landfills. Wairarapa currently has no such landfill.

   WMW will encourage the documentation of procedures in landfill and transfer station management plans to ensure there are no adverse effects caused from inappropriate collection, storage, transport and disposal of difficult and hazardous wastes. These will conform with the Ministry for the Environment document "Module2 – Hazardous Waste Guidelines: Landfill Waste Acceptance Criteria and Landfill Classidication" and "Waste Acceptance Criteria for landfills – Final Report."

2. ***Liaise with Greater Wellington Regional Council to find acceptable solutions for storage and disposal of hazardous wastes by December 2004.***

   The District Councils and Wellington Regional Council each have responsibilities for the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances in the Wairarapa. WMW will liaise to clarify respective roles with the Wellington Regional Council regarding collection, storage and disposal of hazardous wastes in Wairarapa.

   Of particular concern is polychlorinated biphenyl (PCB) from old transformers and organochlorine pesticide wastes which New Zealand has international obligations to collect and destroy under the Stockholm Convention. WMW will work with Greater Wellington to facilitate a collection, storage and disposal system for PCB and organochlorine pesticides by December 2010.

3. ***Investigate and encourage periodic collection of unwanted hazardous chemicals in the Wairarapa by December 2004.***

There is currently no collection of hazardous chemicals in the Wairarapa. The Councils will investigate the potential for periodically collecting unwanted hazardous chemicals in the Wairarapa to ensure hazardous wastes do not enter the residual waste stream.

Commercial services are currently available and are used within the Wairarapa.

4. ***Establish a monitoring and recording programme to document the amount of hazardous chemicals collected.***

The Councils, in consultation with commercial collection services, will develop a system to record the amount and type of hazardous wastes collected in the Wairarapa and the treatment and disposal systems used.

5. ***Investigate by December 2006 the current recovery and recycling rates for a list of priority wastes, and increase rates by 20% by December 2012..***

Priority hazardous wastes could be identified in consultation with Greater Wellington Regional Council and then investigated.

❖ CONSTRUCTION AND DEMOLITION WASTE

GOAL L: TO REDUCE CONSTRUCTION AND DEMOLITION WASTE AND CLEANFILL TO LANDFILL BY 50% BY DECEMBER 2008

Actions

1. ***Establish a Wairarapa measurement programme to quantify the amount of construction and demolition waste.***

The Councils will work together to develop a monitoring and recording programme to enable the amount of construction and demolition waste going to landfill and the amount being diverted from landfill. This programme shall be established by December 2005. The Councils will use this information to establish local targets for diversion and recycling of construction and demolition waste.

2. ***Promote reduction and re-use of demolition waste.***

Much of the construction and demolition waste disposed of to landfill could be salvaged and re-used. On behalf of the Councils, Waste Management Wairarapa will investigate the feasibility of providing one or more resource recovery centres where materials can be deposited and on-sold. WMW will also work with businesses in the construction and demolition industry to promote means of reducing waste and encourage networking between businesses so that materials can be salvaged and re-used. The target is to reduce by December 2008 the amount of such waste to landfill to 50% of the amount measured by the monitoring programme at December 2005.

❖ RESIDUAL WASTE MANAGEMENT

GOAL M: ENSURE THE RESIDUAL DISPOSAL NEEDS OF THE WAIRARAPA COMMUNITY ARE PROVIDED FOR NOW AND IN THE FUTURE

Actions

1. ***Provide for disposal of residual solid waste from the Wairarapa.***

WMW has investigated future disposal options out of the Wairarapa, having determined that this is less costly and less risky than establishing a new landfill in the Wairarapa. A contract is in place which provides for disposal to Awapuni landfill until it closes and then to Bonny Glen landfill until at least 2018. By then new technologies will probably be available and all options can be considered.

2. ***Produce, comply with and regularly revise management plans for council transfer stations and landfills.***

Landfill and transfer station management plans are an important part of solid waste management. The plans may include procedures for health and safety, control of fly litter, hazardous wastes and odour control. WMW will ensure management plans for council facilities are produced, complied with and regularly revised to ensure Wairarapa's landfills and transfer stations are operating at optimum levels. WMW will promote the use of guidelines such as the Ministry for the Environment's guidelines for Landfill Engineering, Cleanfills, and Closed and Closing Landfills, where appropriate.

3. ***Encourage the regional and territorial councils to develop consistent policies and approaches to the matter of clean spoil within their respective statutory plans.***

Councils will review their provisions for clean spoil disposal in the District Plan and work together to develop consistent policies and rules across the region.

4. ***Promote the adoption of the Ministry for the Environment's Cleanfill Guidelines for all cleanfill disposal sites by December 2005.***

Councils will promote the use of the Ministry for the Environment's Cleanfill Guidelines for siting, design, operation and maintenance of cleanfill sites. Councils will work together to encourage all cleanfill sites to comply with the Cleanfill Guidelines by December 2005. Where necessary, Councils will encourage upgrading of existing cleanfill sites to comply with the Cleanfill Guidelines by December 2005.

❖ FUNDING AND FINANCE

GOAL N: ENCOURAGE WASTE MINIMISATION THROUGH COLLECTION AND DISPOSAL CHARGES

Actions

1. ***Encourage Councils to put in place systems that will achieve full cost recovery of waste management operations.***

The councils recover waste management costs in a variety of ways including landfill user pays systems, charges for bag collection and general rates. The Councils have financial systems which ensure that full cost recovery by user charges could be achieved. Where it is not possible to fully implement full cost charges by December 2005, Councils will, by that date, have in place a programme for phased implementation of full cost charges.

2. ***Encourage waste minimisation practices through collection and disposal charges which reflect the full cost of treatment and disposal.***

Landfills have become very expensive to operate. The smaller the landfill, the greater the unit cost of disposing waste. Charges for disposal of refuse have two purposes: to recover the cost of disposing waste and to act as an incentive for people to reduce the amount of waste they dispose of.

3. ***Ensure charges for disposal of hazardous or difficult wastes reflect the nature of the waste.***

Methods to safely dispose of wastes are harder if a waste has difficult or hazardous properties. Charges for hazardous or difficult waste disposal, depending on the type of waste, may need to be greater than charges for general waste disposal. This encourages waste generators to assess how they can find ways to reduce the amount of hazardous and difficult waste they produce. However it is also acknowledged that the cost and consequences to the community of illegal disposal may be greater than the revenue collected. This will need to be taken account of in the setting of any charges.

4. ***Have differential charges for green waste.***

Reducing charges for green waste drop-off compared to general refuse encourages the community to divert their greenwaste to composting facilities and therefore reduce residual waste disposal.

However, we all need to recognise the high cost of other waste diversion (recycling, re-use and resource recovery) and the validity of charging for waste diversion in the same way as for waste disposal.

5. ***Encourage a consistent charging policy for waste disposal across the Wairarapa.***

Setting inconsistent waste disposal charges across the region can create pressure on some disposal facilities. People may be more willing to travel longer distances to a 'cheaper' landfill or transfer station than to go to a more expensive landfill nearby.

Consistent charging across the Wairarapa Region would emphasise the regional approach to waste management, ensuring all members of the regional community have their disposal needs met fairly.

GOAL O: ENCOURAGE CENTRAL GOVERNMENT TO TAKE A CONSISTENT AND COHERENT NATIONAL APPROACH TOWARDS WASTE MANAGEMENT

Actions

1. ***Support central government in implementing a consistent statutory and regulatory framework in the waste management area.***

Currently there is no statutory or legislative framework to support the government's waste management policies and implementation of the New Zealand Waste Strategy, particularly in waste minimisation.

2. ***Encourage central government to facilitate the development of a national approach to identifying the benefits and costs of waste management initiatives.***

At present there is little understanding of the community and environmental costs or benefits, including employment opportunities, which may be incurred by pursuing various waste management initiatives, such as minimisation and recycling. Developing such an understanding would lead to more effective pricing and resource charging.

PART THREE:
GLOSSARY AND APPENDICES

GLOSSARY

Cleanfill
Materials such as clay, soil, rock, or brick, that are free of combustible or putrescible components or hazardous substances or materials likely to create a hazardous leachate by means of biological or chemical breakdown.

Composting
Degradation of green waste and organic material to produce, under the right conditions, a stable rich soil product for use in and around the garden.

Ecosystem
An ecosystem is made up of living things e.g. plants, insects, animals and humans, the physical world around them e.g. water, soil, sunshine and the processes or connections between them all.

Enviromart
A waste exchange database operated by the Wellington Region Environmental Agency. The service connects potential buyers with owners of usable resources which would otherwise become waste residue.

Green Waste
Uncontaminated plant material from the garden, including lawn clippings, tree prunings and leaves, but does not include kitchen waste or soil.

Hazardous Wastes
Unwanted materials with one or more of the following properties or one which on contact with air or water generates substances with any of these properties: explosiveness, flammability, capacity to oxidise, corrosiveness, toxicity, ecotoxicity (with or without bioaccumulation), and radioactivity. Such material has the potential to cause significant adverse effects to human health and the environment and includes pesticides, oils, sludges containing heavy metals and chemical wastes such as agrichemicals and their containers.

HSNO
Hazardous Substances and New Organisms Act (1996)

Kaitiakitanga
The exercise of guardianship and in relation to a resource, including the ethic of stewardship based on the nature of the resource itself.

Leachate
Leachate is the contaminated liquid that is emitted from a landfill or certain other facilities. If uncontrolled it may enter the ground, groundwater or surface water.

Landfill Management Plan
A plan which sets out the environmental, financial and logistical objectives for a landfill and how they will be achieved.

LGA
Local Government Act (1974 or 2002)

LTCCP
Long Term Community Consultation Plan as required by the Local Government Act

Landfill
A site for the controlled disposal of solid waste.

Operational Plan
A plan which specifies certain technical processes and the day to day operational procedures that must be followed to achieve the objectives set out in the management plan.

Organic Waste
Biodegradable waste such as food and vegetable scraps, paper, wood and garden trimmings, and sewage sludge; putrescible material of plant, animal or microbiological origin.

RMA
Resource Management Act (1991)

Solid Waste
Unwanted or unusable waste materials (rubbish or refuse) of a solid, as opposed to a liquid, nature. However, it includes sludges.

Transfer Station
A public facility for receipt of recyclable material and waste. The recyclable material and/or waste is then transferred by road or rail for recycling or to a landfill as appropriate.

Vermiculture
The use of worms to digest and stabilise organic wastes, particularly food scraps.

Wairarapa
In the context of this plan, comprises the territory of Masterton District Council, Carterton District Council and South Wairarapa District Council.

Waste Management
The strategy for dealing with solid waste in a planned and systematic manner.

Waste Management Plan
A statutory document developed by territorial authorities detailing their waste management strategies.

Waste Minimisation
All activities aimed at preventing, reducing, re-using, recycling or recovering waste.

Waste Management Wairarapa (WMW)
A committee of the Carterton, Masterton and South Wairarapa District Councils together with invited stakeholders.

WREA
Wellington Region Environmental Agency, a liaison group of the Greater Wellington Regional Council

Zero Waste
A catchphrase for waste minimisation targets (zero waste to landfill)

Zero Waste Trust
A national funding, advocacy, support and information group fostering community development projects for minimising waste.

COMPONENTS OF THE WASTE STREAM

Components of the current waste stream are:

- Domestic refuse from Councils' domestic bag collections
- Transfer station refuse
- Public disposal at landfill
- Commercial and industrial disposal at landfills
- Street refuse
- Construction and demolition waste
- Difficult wastes that need further consideration or treatment before disposal
- Hazardous waste
- Recyclable material
- Green waste
- Public event refuse

CURRENT SOLID WASTE MANAGEMENT SERVICES

Table A1 Current Solid Waste Management Services

	Masterton	Carterton	South Wairarapa
Bag Collection	Yes	Yes	Yes
Transfer station	Castlepoint Riversdale Mauriceville Tinui	Carterton	Greytown (recycling) Featherston Pirinoa(recycling) Martinborough Tutaramuri (recycling)
Recycling: kerbside	Yes	Yes	Yes
Recycling: drop-off	paper plastic glass metal	cans plastic glass	paper plastic glass metal
Landfill Public Access	Yes	No	Yes
Green waste drop-off	Yes	Yes	Yes
Hazardous Waste	Limited	Limited	No

WASTE COMPOSITION

Table A2 Waste Composition in Wairarapa by Weight

	Masterton bag composition (%)	Carterton bag composition (%)	South Wairarapa bag composition (%)	Region Wide Analysis			
				Ave (tonnes)	High (tonnes)	Low (tonnes)	Wairarapa total stream comp (%)
paper	34	13		3854	4047	3661	14
plastic	9	10		2202	2312	2092	8
glass	4	5		551	578	523	2
ferrous metal	4	8*		1927	2023	1831	7
non ferrous metal	1			275	289	262	1
organic (green) waste	8	5		12387	13007	11768	45
organic (kitchen) waste	28	44		1652	1734	1569	6
soil	1	5		1927	2023	1831	7
hazardous	2	2					
building/construction		2		2202	2312	2092	8
other (textiles)	9	8		551	578	523	2
TOTAL WASTE STREAM (tonnes)				**27528**	**28905**	**26150**	**100%**

* Includes ferrous and non-ferrous metals

WASTE QUANTITIES 2003

Table 3A Waste Quantities 2003

	Masterton District Council	Carterton District Council	South Wairarapa District Council
Greenwaste	7,497	532	935
Recycling	2449	230	653
Refuse to landfill	11,646	1636	1912
Cleanfill to landfill	7,039	2566	
Special hazardous waste		7	
Other waste stockpiled at landfill	599		
Imported landfill cover	643		
Total Waste	29,873	4,971	3,500
Total to landfill	19,927	4,202	1,912
Total Refuse to Landfill (excludes Cleanfill & Cover)	11,646	1,636	1,912
Total diverted from landfill	9,946	762	1,588
% Diversion	33%	15%	45%
% Diversion (excluding Cleanfill & Cover)	46%	32%	45%

Total Waste Stream (Refuse + Green waste + Recyclables, excluding Cleanfill)	21,592	2,398	3,500

Theoretical Waste Components	WAP data from MDC & CDC	Masterton District Council	Carterton District Council	South Wairarapa District Council
Paper & Kraft	14%	3,023	336	490
Plastic	8%	1,727	192	280
Glass	2%	432	48	70
Metal	8%	1,727	192	280
Greenwaste	45%	9.716	1,079	1,575
Organic	6%	1.296	144	210
Soil	7%	1.511	168	245
Hazardous	0%	0	0	0
Building	8%	1,727	192	280
Other	2%	432	48	70
Total		21,592	2,398	3,500

Actual Removal of Waste Components	Masterton District Council	Carterton District Council	South Wairarapa District Council
Paper & Kraft	1,132	35	256
Plastic	100	5	48
Glass	453	40	37
Metal	747	150	231
Greenwaste	7.497	532	935
Organic			
Soil			0
Hazardous			
Buildinq			48
Other	16		31
Total	9,945	761	1,586