

# **Central Otago District Council**

## **Solid Waste Minimisation Strategy 2007**

**Towards Zero Waste and a Sustainable Central Otago**

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## Foreword

Central Otago is affectionately called “Central” by those that know it well. It is a place where you can relax, soak up the atmosphere, take in breathtaking vistas, and the mountains are within an arm’s reach. It is a place of extraordinary contrasts. Central is a special part of the country and residents enjoy a lifestyle and physical environment that is unique.

Central Otago WasteBusters is a well known Community Organisation that actively promotes and undertakes waste reduction initiatives in our District. With the support and leadership of this voluntary organisation, our community recognises our responsibility to the environment.

Our unique natural and physical environment bears the residents a healthy respect and regard for its protection and enhancement. As such, we promote and advocate Waste Minimisation as a means to communities living in harmony with the natural environment.

Under the Local Government Act, all Territorial Local Authorities are required to have a Waste Management Plan. In March 2000 Council adopted a Solid Waste Management Plan, which has been progressively implemented. However, the District has grown and developed since this plan was developed, and so a new strategic solid waste plan is needed to address current and future waste challenges faced by the District. Additionally seven years on, there have been significant changes in the waste sector, with the development of the Central Government’s New Zealand Waste Strategy, amendments to the Local Government Act and the Green Party’s proposed Waste Minimisation Bill.

In light of these significant changes Council decided to update the Central Otago Solid Waste Management Plan 2000, The Waste Working Party was formed and developed this proposed Solid Waste Minimisation Strategy (SWMS) 2007 – Towards Zero Waste and a Sustainable Central Otago.

This proposed Strategy was notified using the Special Consultative Procedure as outlined in the Local Government Act. The results of this process are before you now.

This Strategy sets out new goals, requiring us to be smarter about environmental protection, social well being and economic development. The Strategy’s success lies in all our hands – in what we do individually and jointly. I ask you to play a part in making it happen.

His Worship The Mayor Malcolm Macpherson  
Central Otago District Council



## Executive Summary

The way we handle waste is crucial to our capacity to live sustainably. Reducing environmental stress means not only reducing the waste we generate, but also changing the way we think about our use of resources.

Inappropriate disposal of waste can lead to significant environmental effects. Numerous international reports show a clear correlation between waste disposal to land and climate change. Climate change will have significant impacts on our economy, environment and society<sup>1</sup>.

Central and the rest of the world face the challenge of using resources whilst ensuring that our environment and our health are not harmed (in either the short or long term). This plan has been developed to meet this challenge.

Under the Local Government Act 2002, each Territorial Local Authority is required to adopt a Waste Management Plan. The Central Otago District Council adopted a Solid Waste Management Plan in 2000. Since this time, there has been significant change in waste management in New Zealand, and the District has grown and developed. Accordingly, the Council has reviewed its plan and has prepared a new Solid Waste Minimisation Strategy to reflect these changes.

This Strategy covers Solid Waste, and recognises that moving *towards zero waste and a sustainable Central Otago* is a long-term challenge. The plan has six core objectives:

- Minimise the creation of waste
- Encourage more efficient use of resources
- Avoid or remedy adverse environmental impacts of waste
- Influence behavioural change among individuals and organisations
- Recognise the New Zealand Waste Strategy as a guiding document
- Encompass the purpose and principles of the Local Government Act 2002 and 1974 with regards to waste management

The Strategy is separated into two main sections:

### **Part A            New Direction**

This section introduces the challenge of waste, what waste is, why it matters and how we can move forward. It details the Strategy's overarching goal with respect to Waste Minimisation and Sustainability – Towards Zero Waste and a Sustainable Central Otago. Additionally, it documents the nine Regional Values that will direct Council as it implements this plan.

### **Part B            Action**

Action is needed in various areas for Central Otago to achieve effective and efficient waste minimisation, and move towards Zero Waste and Sustainability. This section details the actions to progressively achieve the plans vision.

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<sup>1</sup>The Ministry for the Environment, [www.4million.org.nz](http://www.4million.org.nz)

## Action Plans

The Action Plan categories reflect the Local Government Acts integrated waste hierarchy:

- **Reduction** - Lessening waste generation
- **Reuse** - Reusing products in their existing form for their original purpose, or for a similar purpose.
- **Recycling** - Reprocessing of waste materials to produce new products.
- **Recovery** - Extracting materials or energy from waste for further use or processing; this includes, but is not limited to, making materials into compost.
- **Treatment** - Subjecting the waste to any physical, biological, or chemical process to change the volume or character of the waste, so that it may be disposed of with no, or reduced, significant adverse effect on the environment.
- **Disposal** - Final depositing of waste on land set apart for the purpose.

Under each action plan there are policies and associated initiatives or methods to implement the policy. The tables below summarise the actions required to implement this Strategy:

### Waste Reduction

No.	Summarised Action	Council Role
A.1.1	Waste audits	Facilitator / Community Leader
A.1.2	Cleaner Production Programmes	Facilitator / Community Leader
A.1.3	Resource recovery/landfill differential charge	Regulator
A.1.4	School education programme	Service Provider
A.1.5	Solid waste bylaw	Regulator
A.1.6	Assistance/funding for community projects	Service Provider
A.1.7	Collaboration with territorial local authorities	Advocate
A.1.8	Active membership (WasteMinz, RONZ)	Advocate
A.1.9	Waste Minimisation Officer	Service Provider
A.2.1	Support the New Zealand Waste Strategy	Advocate
A.2.2	Extended Producer Responsibility	Advocate
A.2.3	National legislation for specific waste issues	Advocate
A.3.1	Adult education programme	Service Provider
A.3.2	Hazardous waste education campaign	Facilitator
A.4.1	Waste reduction campaign	Facilitator
A.4.2	National education programme	Advocate
A.4.3	Award/recognition programme	Facilitator
A.4.4	Council participation in waste minimisation	Community Leader
A.5.1	Database to monitor waste quantities	Service Provider
A.5.2	Waste composition analysis	Service Provider
A.5.3	Biannual surveys	Service Provider
A.5.4	Quadruple bottom line reporting	Community Leader
A.5.5	Budget to implement the SWMS	Service Provider

### Reusing Resources

No.	Summarised Action	Council Role
B.1.1	Investigate resource recovery initiatives	Facilitator
B.1.2	Resource recovery shed(s)	Service Provider
B.2.1	Waste exchange	Facilitator / Service Provider
B.3.1	Resource/building consents require a waste minimisation plan	Facilitator
B.4.1	Central Otago sustainable business network	Facilitator

## Recycling

No.	Summarised Action	Council Role
C.1.1	Recycling collection	Service Provider
C.1.2	Cooperation between transfer stations and resource recovery parks	Facilitator
C.1.3	Ban recyclables at transfer stations	Regulator
C.2.1	Network of recycling drop off centres	Service Provider
C.2.2	Public area recycling bins	Service Provider
C.2.3	Event recycling	Advocate / Facilitator
C.3.1	Support/establish sustainable markets for recyclables	Advocate
C.3.2	Identification of funding options for recycling	Service Provider
C.3.3	Local solution for recyclable products	Advocate / Facilitator

## Recovery

No.	Summarised Action	Council Role
D.1.1	Alternative uses and market opportunities for recoverable materials	Service Provider
D.1.2	Liaise with community groups and industry	Facilitator
D.2.1	Home composting	Facilitator
D.2.2	Collection and recovery of organic waste	Service Provider
D.2.3	Greenwaste operations/services	Service Provider
D.3.1	Recoverable materials campaign	Facilitator

## Treatment and Disposal

No.	Summarised Action	Council Role
E.1.1	Implement SWMS	Service Provider
E.1.2	Community management of waste/resource stream	Facilitator
E.2.1	Waste collection	Service Provider
E.2.2	Expansion of waste/recycling collections	Service Provider
E.2.3	Multiple stream kerbside collections	Service Provider
E.3.1	Risk analysis of landfill sites	Service Provider
E.3.2	Landfills listed on Hazardous Waste Register	Service Provider
E.3.3	Manage landfills	Service Provider
E.3.4	Investigate closure, rehabilitation and monitoring of landfills	Service Provider
E.3.5	Advocate to regional council to regulate landfills	Advocate
E.4.1	User pays charges	Regulator
E.4.2	Direct users charges	Regulator
E.5.1	Transfer stations evolve to recovery parks	Service Provider
E.5.2	Alternative refuse collection	Service Provider
E.5.3	Penalties for illegal dumping	Service Provider
E.5.4	Rural solid waste collection points	Service Provider
E.6.1	Future regional landfill	Service Provider
E.7.1	Disposal of hazardous waste	Facilitator / Service Provider
E.7.2	Investigate a haz-mobile service	Service Provider
E.7.3	Improved management of hazardous waste	Service Provider
E.7.4	Clean up of hazardous waste spillages	Service Provider

# **Part A      New Direction**

## Section One: Waste

### Central Otago

Central Otago is New Zealand's most inland region of Otago in the South Island. The area is commonly known as 'Central'. Local residents and visitors enjoy the most generous environmental footprint of all New Zealanders.

Central is dominated by mountain ranges and the upper reaches of the Clutha River and its tributaries. The wide flat plateau of the Maniototo lies between the upper reaches of the Taieri River and the Clutha's northern tributary the Manuherikia.

The area is a fragmented schist plateau in a semi-desert environment, Central Otago is a living museum, scattered with historic features preserved by a dry climate. The area boasts the hottest, coldest and driest of New Zealand's climate. These seasonal extremes have developed a unique and challenging environment for its residents.

Central Otago covers an area of 10,000km and has 16,647 permanent residents. It is fast becoming one of New Zealand's leading tourism destinations. Since the 19<sup>th</sup> century, economic activity has centred on sheep, stone fruit and tourism. In recent years deer farms and vineyards have increased the regions economic diversification. Central Otago is the world's southern-most commercial wine production region.

Despite such a vibrant environmental, social, cultural and economic setting, Central Otago still has problems that need addressing. Development of Central Otago resources has the potential to create waste (solid, liquid, gas) and result in inefficient or inappropriate use of resources. Economic growth in the region due to increasing tourism and visitor numbers, places seasonal pressure upon existing waste/recycling infrastructure. For example, the population of 114 in the rural township of Naseby increases to 2000 during the height of the summer season.

Central, and the rest of the world, face the challenge of using resources whilst ensuring that our environment and our health are not harmed in either the short or long term. This Strategy has been developed to meet this challenge.

Local residents enjoy the most generous environmental footprint of all New Zealanders. A unique world like no other. A different world of discovery, enterprise and magical lifestyles.



To represent this, and our values, the upper part of the symbol's circular form represents a solitary cloud whisked upward against a vast deep blue sky. The lower form represents both the landscape and the New Zealand native falcon, the Karearea

### Central Otago 'A World of Difference' logo<sup>2</sup>

<sup>2</sup> Central Otago District Council, [www.aworldofdifference.co.nz](http://www.aworldofdifference.co.nz)



## What is Waste?

This Strategy defines waste as:

**Any material, solid, liquid or gas, that is unwanted and/or unvalued, and discarded or discharged by its owner.<sup>3</sup>**

The definition recognises that what one person or organisation regards as a waste can be a useful resource when used again for a beneficial purpose. Waste can be created in many ways and can be difficult to define. It takes all forms – solid, liquid and gas.

- **Solid Wastes** are those generated as solids or converted to a solid form for disposal. They include common household wastes such as paper, plastic, glass, metals, appliances, and kitchen and garden wastes, as well as a range of industrial and commercial wastes, such as construction and demolition wastes, organic wastes from agriculture and food processing, mine and quarry tailings. Most solid wastes are disposed of in landfills or cleanfills. Some solid wastes, such as medical wastes generated by hospitals, are hazardous or potentially hazardous, and require controlled disposal, often through high temperature incineration.<sup>1</sup>
- **Liquid Wastes** are those generated as liquids, or disposed of into a liquid waste stream as suspended solids. Wastewater (or sewage) is collected by the sewerage system and piped to public wastewater treatment facilities before being discharged into rivers or coastal waters. This includes domestic food wastes, washing water and toilet wastes, as well as chemical and process wastes from industry. Not all wastewater is collected by the sewerage system. Some domestic wastes go into septic tanks, and some industrial plants have their own treatment facilities. Non-point source discharges include livestock excrement and agrichemicals that are washed from the land by rainwater, and urban stormwater, which collects wastes as it channels rainwater into waterways, and out to sea.<sup>1</sup>
- **Gaseous Wastes** consist of gases and small particles emitted from fires, incinerators, agricultural and industrial processes, and vehicles. Once gaseous wastes have been released into the environment, their effects are very hard to control. If gases are contained through pollution control devices before they enter the atmosphere, they can be controlled more easily.<sup>1</sup>

This Strategy specifically relates to Solid Waste. Liquid and gaseous wastes are managed under other legislation e.g. Trade Waste Bylaw<sup>4</sup>, District Plan<sup>5</sup> and Regional Plans<sup>6</sup>.

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<sup>3</sup>The Ministry for the Environment, *The New Zealand Waste Strategy*, 2002

<sup>4</sup>Central Otago District Council, *Trade Waste Bylaw*, 2001

<sup>5</sup>Central Otago District Council, *District Plan*, 2002

<sup>6</sup>The Otago Regional Council, *The Regional Plan: Air for Otago*, 2003, *The Regional Plan: Water for Otago* 2004

## Why Does Waste Matter?

Communities all around the world are grappling with the waste challenge. Inappropriate disposal of waste can lead to significant environmental effects. Numerous international reports show a clear correlation between waste disposal to land and climate change<sup>7</sup>.

Landfills generate methane, a harmful greenhouse gas. Increasing greenhouse gas emissions from human activity are causing the earth to heat at a faster rate, affecting our weather patterns and climatic conditions – climate change<sup>7</sup>.

Climate change will have significant impacts on our economy, environment and society. To prevent and/or limit our impact, we need to reduce our greenhouse gas emissions. It is estimated that 8% of New Zealand's emissions come from waste and industrial processes<sup>7</sup>. Minimising our waste to landfill will reduce our emissions.

Landfills also produce leachate. Uncollected leachate can contaminate our ground water, surface water bodies and soil<sup>8</sup>.

Landfills require a substantial amount of land with specific environmental characteristics. With increasing pressure from private developers, space for landfill operations will become sparse and increasingly expensive to establish and operate.

Burning waste may reduce volume, but releases hazardous and toxic substances into the atmosphere and leaves a residual product that requires further treatment and disposal<sup>8</sup>.

Waste incurs substantial economic cost from production to treatment and disposal. Producing unnecessary waste means we are not using resources sustainably.

Waste is not just an environmental issue. It can be looked at through a variety of social, cultural and economic lenses. As technologies have changed and shifts in lifestyles have occurred, a throwaway society has been developing in New Zealand<sup>9</sup>. From manufacturing to buying groceries almost every activity uses materials and energy that generates waste. About 93% of the raw materials we use are thrown away during the production process, and about 80% of the materials we buy are thrown away after one use<sup>8</sup>.

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<sup>7</sup>Ministry for the Environment, [www.4million.org.nz](http://www.4million.org.nz)

<sup>8</sup>Ministry for the Environment, *The New Zealand Waste Strategy*, 2002

<sup>9</sup>Parliamentary Commissioner for the Environment, *Sea Change: Learning and Education for Sustainability*, 2004

## The Waste Challenge

Nationally, we dispose of over 3.4 million tonnes of waste into our landfills every year. Similar amounts of waste from building and demolition activities are disposed of into cleanfill sites<sup>10</sup>. According to the Central Otago Landfill Tonnage figures for 2006, every person in Central Otago contributes 547 kilograms of waste per annum to landfill<sup>11</sup>. The national average is estimated to be 401 kilograms per person<sup>12</sup>.

An analysis of population figures against the waste tonnages collected by Council between 2001 and 2006 shows that the population increased by 15%, waste increased by 22.5%. Central Otago has a substantial seasonal transitional population (tourists and seasonal workers) that has the potential to significantly impact waste volumes. The total amount of waste disposed of to landfill from within Central Otago was 9776.5 tonnes in 2006. It is estimated that up to 45% of the total was produced by businesses as opposed to households. (See page 15, Waste and Recycling Tonnages Central Otago District).

There is a noted correlation between population figures, economic growth/prosperity and waste volumes. Similar trend patterns have been found between GDP rates and landfill tonnages - the wealthier the population the more rubbish they throw out.

Whilst most communities in New Zealand have similar waste compositions, there are differences between rural and urban and between communities in different industrial bases. QLDC undertook a waste composition analysis survey of Victoria Flats Landfill in 2006<sup>13</sup>. Analysis shows that of waste that entered the landfill - organic material is the largest component at 43.4% followed by paper at 15.9% and plastics at 13%. (See page 16, Waste Composition Analysis Victoria Flats Landfill)

## Council Services

The Council provides a weekly kerbside collection for domestic solid waste, through a wheelie bin service to townships and voluntary refuse collections to properties on vehicle travel routes. A weekly kerbside recycling collection service is carried out by Central Otago WasteBusters, a community based organisation, whom council supports both financially and morally. In addition, the District is serviced by four transfer stations, five recycling centres and five greenwaste sites.

The activity of solid waste, includes the service delivery and control of:

- Litter (fly dumping)
- Kerbside refuse collection through 240 litre wheelie bins
- Kerbside recycling collection through 70 litre crates
- Recycling Centres
- Transfer Stations
- Greenwaste Sites
- Landfills
- Education and Advocacy on waste minimisation

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<sup>10</sup> Ministry for the Environment, *The New Zealand Waste Strategy*, 2002

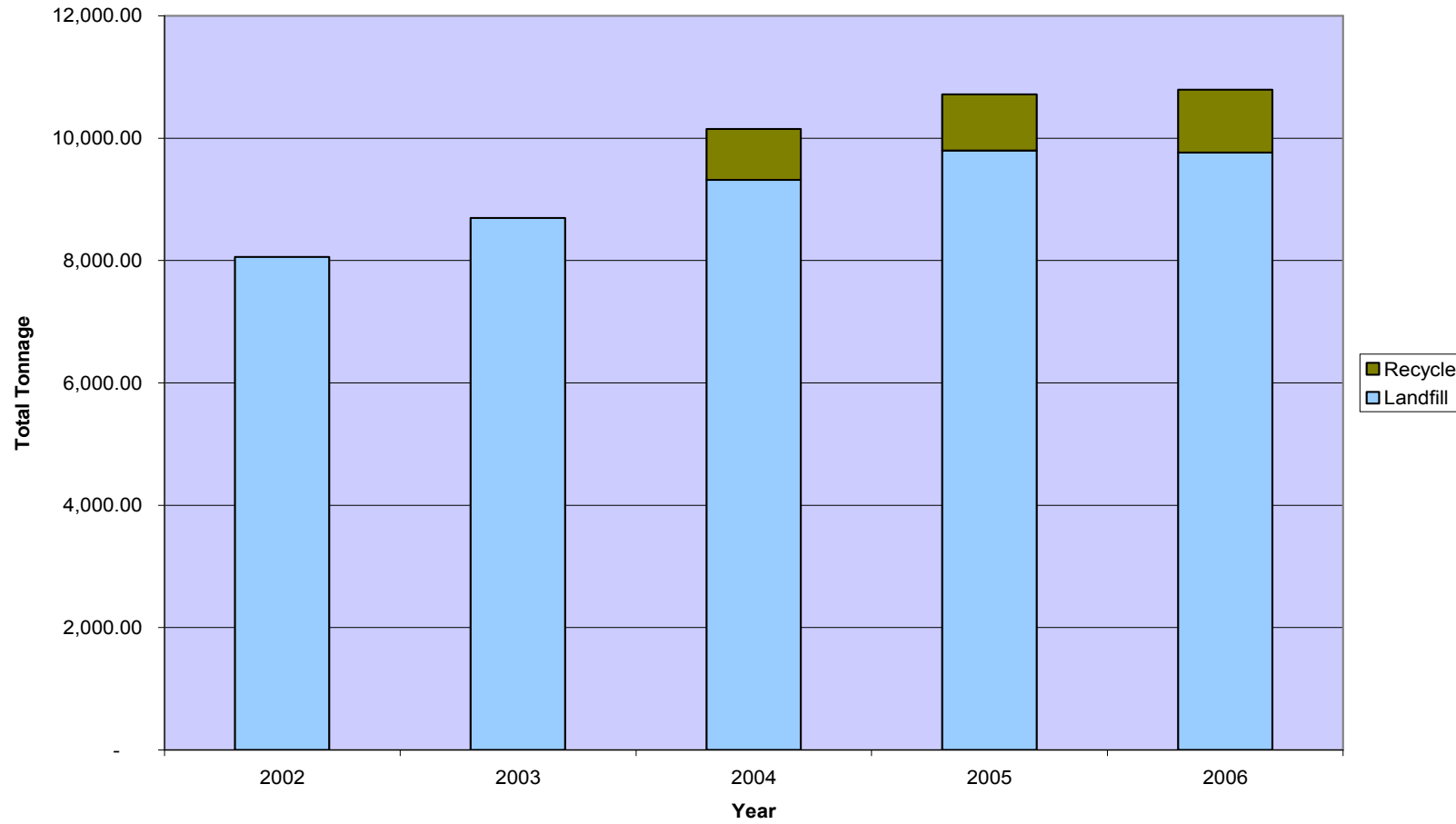
<sup>11</sup> Central Otago District Council, *Landfill Tonnages*, 2006

<sup>12</sup> The Ministry for the Environment, *National Waste Data Report*, 1997

<sup>13</sup> Queenstown Lakes District Council, *Solid Waste Analysis*, February 2006



### Waste and Recycling Tonnes: Central Otago District<sup>14</sup>



<sup>14</sup>Central Otago District Council, *Landfill & Recycling Tonnes*, 2006

Note. These figures do not account for private rural and farm landfill tonnages, or glass stockpile (ecobanked-glass).

### Waste Composition Analysis at Victoria Flats Landfill<sup>15</sup>

Primary Category	Secondary Category	Examples	Overall Waste % of Total
Paper	Recyclable	Cardboard packaging, newspaper	13.40
	Non-Recyclable	Multimaterials, food contaminated paper	2.50
Plastics	Recyclable	PET and HDPE containers	1.90
	Non-Recyclable	Eavestroughing, drainpipes	0.40
	Other	Plastic bags, film, multimaterials	10.20
Putrescibles	Kitchen Waste	Food scraps	20.40
	Greenwaste	Branches, lawn clippings	14.10
	Other	Meat processing waste, dead animals, large stumps	1.70
Ferrous Metal	C&D	Roofing iron, flashing	1.40
	Other	All other ferrous metals	2.60
Non-Ferrous Metals	C&D	Aluminium window frames, electrical wire	-
	Other	All other non-ferrous metals	1.00
Glass	Recyclable	Bottles, jars	5.00
	C&D	Sash window	0.10
	Other	All other glass	0.50
Textiles	C&D	Carpets, underlay	0.40
	Multimaterial/Other	Clothes, shoes, leather goods	2.40
Nappies and Sanitary	None	Disposable nappies, tissues	5.40
Rubble and Concrete	C&D	Fibrolite, plasticboard, rubble, concrete, C&D soil	7.20
	Other	Ash, other soil	0.90
Timber	C&D	Framing, offcuts, planks, sawdust, debris	4.40
	Other	Furniture, pallets, crates	1.60
Rubber	None	Tyres, latex mattresses	0.70
Potentially Hazardous	All Hazardous	Paint, cleaners, sludges	1.80
		<b>TOTAL</b>	<b>100%</b>

<sup>15</sup> Queenstown Lakes District Council, *Solid Waste Analysis*, February 2006

## Drivers for Change

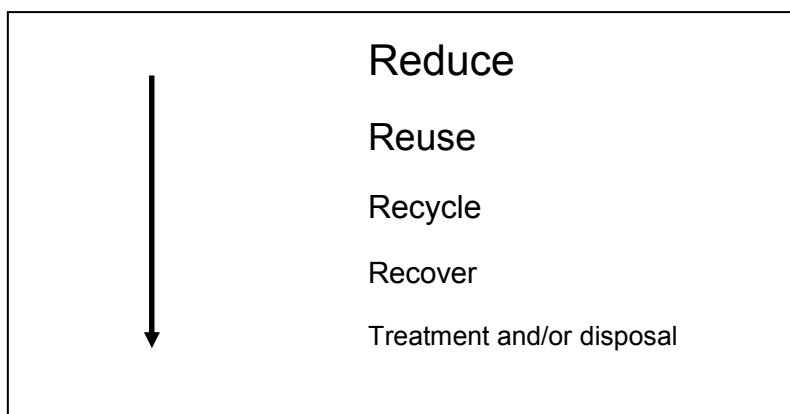
A major change that has occurred in the past decade is that waste minimisation has moved from being little more than something to provide a measure of satisfaction to environmental sensibilities, to now being recognised at the highest levels as an important part of waste management in New Zealand<sup>16</sup>.

Increasing public demand is requiring Councils to provide recycling services and Waste Minimisation initiatives. This is evident locally, in the success of the voluntary organisation of Central Otago WasteBusters and in the feedback from the Community Outcomes project – Central Prospects, where the community highlighted waste minimisation as a significant issue and aspiration for the district. In the neighbouring district of Queenstown Lakes, recent public consultation figures showed an 85% public approval and demand for recycling services.

## Legislative Requirement

The Local Government Act 2002 requires Local Authorities, “To promote the social, economic, environmental, and cultural well-being of communities, in the present and for the future” and promotes collaboration and cooperation between Local Authorities. The Act compels Local Authorities to plan for the provision of sanitary services, such as the collection and disposal of refuse, by producing a Waste Management Plan (WMP) by June 2005.

Every Territorial Local Authority is required to prepare a WMP under Part XXXI of the Local Government Act 1974. Section 537 requires that the WMP must consider, in order of priority, the reduction, reuse, recycling, recovery, treatment and/or disposal of waste (Figure 4.0). Section 538 requires a Territorial Local Authority to provide for the effective and efficient waste management within the territory. A Territorial Local Authority is required to consult with its community through the Special Consultative Procedure before adopting its statutory Waste Management Plan.



**The Waste Management Hierarchy<sup>17</sup>**

<sup>16</sup> Centre for Advanced Engineering, University of Canterbury, Christchurch *Resource Stewardship and Waste Minimisation – Towards a Sustainable NZ*, 2003

<sup>17</sup>The Local Government Act, 1974



Other legislative and regulatory requirements that Territorial Local Authorities are required to consider with respect to waste management include:

- Resource Management Act 1991
- National Environmental Standards
- Building Act 1991
- Energy Efficiency and Conservation Act 2000
- Hazardous Waste and New Organisms Act 1996
- Health Act 1956
- Litter Act 1979
- Regional Policy Statement and Regional Plans
- District Plan
- Local Bylaws.

## **International Obligations**

New Zealand's commitment to the Kyoto Protocol is to limit its total emissions of greenhouse gases to 1990 levels, on average, over the period 2008-2012. New Zealand also has obligations under other international environmental agreements, including the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (ratified by New Zealand in 1994) and the 1986 Convention for the Protection of Natural Resources and Environment of the South Pacific Region (ratified in 1990)<sup>18</sup>.

## **Long Term Council Community Plan and Annual Plan**

The Local Government Act 2002 requires each local authority to prepare a Long Term Council Community Plan, covering a period of not less than ten years, structured around the Council's activities (e.g. governing, planning, regulatory services, utility services, amenity and civil defence and emergency services).

Implementation of the local authorities waste plans will be coordinated directly through their 'Activity Plans' (and hence the Long Term Council Community Plan and Annual Plan).

## **New Zealand's Sustainable Development Programme**

In 2003 the Government released its programme of action for sustainable development in New Zealand, where sustainable development is defined as being "Development which meets the needs of the present without compromising the ability of future generations to meet their own needs"<sup>19</sup>.

The Government has a vision for New Zealand of, "A land where diversity is valued and reflected in our national identity; a great place to live, learn, work and do business; a birthplace of world-changing people and ideas; a place where people invest in the future"<sup>18</sup>.

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<sup>18</sup> Southland City Council, *Waste Management Plan, 2004*

<sup>19</sup> The New Zealand Government, *Sustainable Development Programme of Action, 2003*



## **New Zealand Waste Strategy**

In March 2002, the Government published the New Zealand Waste Strategy. The Strategy provides a vision for New Zealand moving “Towards Zero Waste and a Sustainable New Zealand”. The Strategy is predominantly focused on solid and liquid wastes<sup>20</sup>.

It sets out national targets for Waste Minimisation, organic wastes, hazardous wastes, construction and demolition wastes and waste disposal. Presently there is no statutory provision that obligates a local authority to adopt the Strategy, it is recommended by Central Government that local authorities take account of it in their WMPs.

## **Towards ‘Zero Waste’**

The Zero Waste New Zealand Trust has a vision of ‘Zero Waste’ to landfill by 2020<sup>21</sup>. The concept of ‘Zero Waste’ is focused on activities that minimise the quantities of solid waste disposed of to landfill i.e. reduce, reuse, recycle and resource recovery activities. Many local authorities have adopted the philosophy of Zero Waste and, through the Trust, have become Zero Waste Councils.

Central Otago District Council is a Zero Waste Council.

## **Central Prospects – Community Outcomes**

In response to the potential impact of the changes being experienced in the District and changes to the Local Government Act 2002, Council invited community views on people’s aspirations for the District.

Central Otago residents identified their priorities and goals for the community. These outcomes were developed through Central Prospects<sup>22</sup>, a district consultation process. The outcomes have been categorised into three key themes that in a sense capture what the community wants, which is, for Central, to be “A great place to live, work and play’.

The key themes are:

- The importance of a thriving economy
- The need for a safe and healthy community
- Sustainable environment.

Waste Minimisation was identified as a specific issue by the Community. The community identified that it wanted ‘waste production reduced’. Key actions identified include:

- Provision for special capital investments for recycling
- Review of the waste disposal strategy by 2006
- Establishment of an Otago wide recycling network to find the common problems and achieve common goals.

This plan has been developed in conjunction with meeting the Community’s desire to review the waste disposal strategy (Solid Waste Management Plan 2000).

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<sup>20</sup> Ministry for the Environment, *The New Zealand Waste Strategy*, 2002

<sup>21</sup>The New Zealand Zerowaste Trust, [www.zerowaste.co.nz](http://www.zerowaste.co.nz)

<sup>22</sup> Central Otago District Council, *Central Prospects*, 2003

The activity of Solid Waste contributes to each key theme:

Community Outcome	Contribution by Activity
<p><b>Thriving Economy</b> An expanding and diversified local economy would make it easy to do business in Central Otago.</p>	<p>Council will advocate retaining and enhancing the range of services and infrastructural needs i.e. refuse and recycling disposal.</p>
<p><b>Safe and Healthy Community</b> A safe and healthy community would be vibrant and alive, offer a full range of social and medical services, offer good facilities and be attractive to new arrivals.</p>	<p>The solid waste activity ensures the proper collection and disposal of solid waste, so that the environment and community wellbeing is not compromised.</p>
<p><b>Sustainable Environment</b> Expectations of a sustainable environment would include an environment that continues to support a good quality of life, and ensures that waste is disposed of in a manner acceptable to the community.</p>	<p>A reduction in waste going to landfill, with the residual waste disposed of in an appropriate engineered landfill.</p>

**Central Prospects<sup>23</sup>**

<sup>23</sup> Central Otago District Council, *Central Prospects*, 2003



## Section Two: New Direction

### *The Way Forward*

This Strategy has been developed under the Local Government Act 1974 and 2002. The Strategy also incorporates a broader scope than required by the LGA, by encompassing the principles of Zero Waste, Sustainability, the New Zealand Waste Strategy and Waste Minimisation.

To achieve this, the Strategy's definition for Solid Waste is derived from the New Zealand Waste Strategy;

**Any solid material, that is unwanted and/or unvalued, and discarded or discharged by its owner<sup>24</sup>.**

The structure of the SWMS is:

- The **Vision**, which is the overarching goal of Council with respect to waste management and sustainability
- **Guiding Values**, which are the regional values that will direct Council as it implements the adopted SWMS
- **Action Plans**, where Waste Minimisation activities are grouped according to the Integrated Waste Hierarchy and Zero Waste specific issues. The Strategy and associated methods are outlined under each Action Plan.

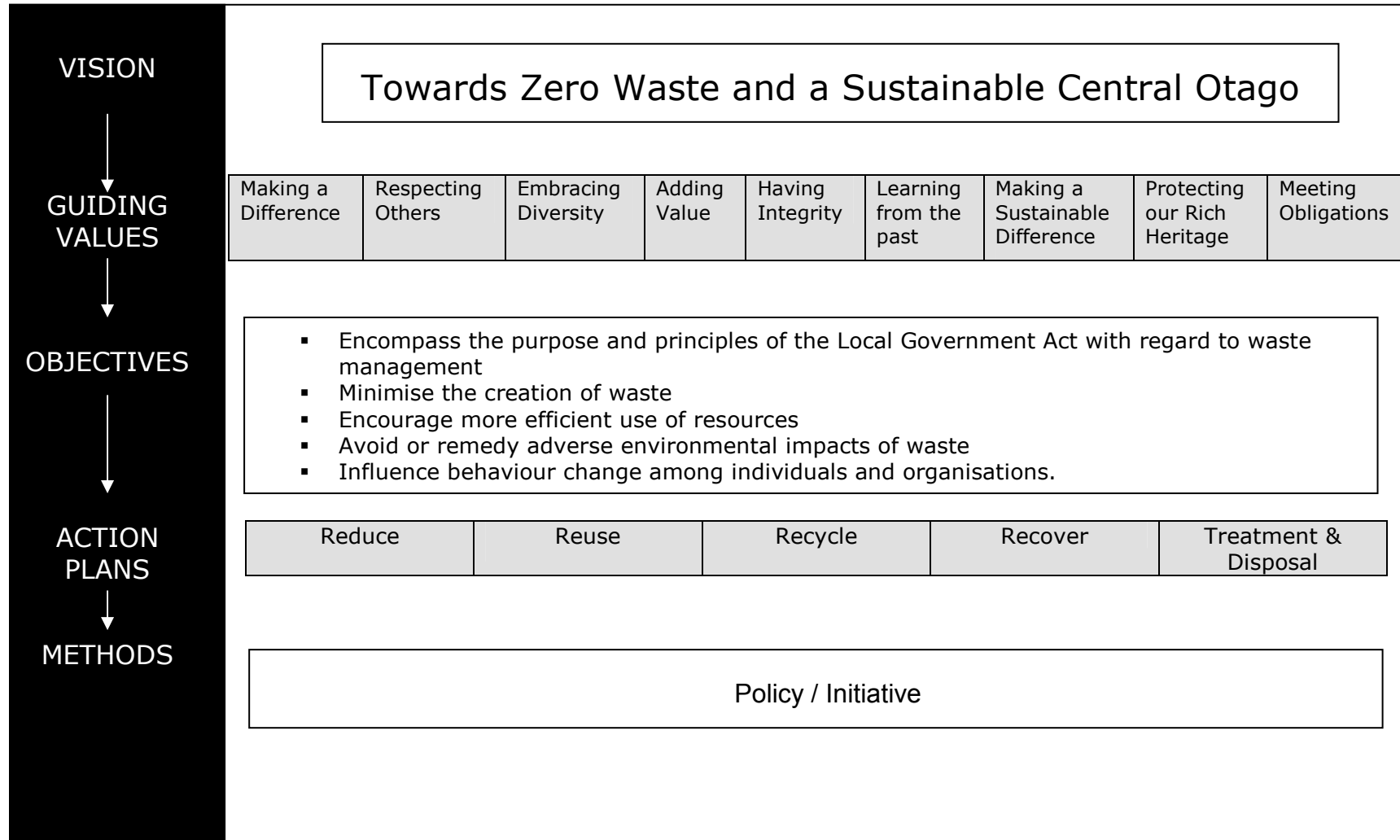
Methods for monitoring and reviewing implementation of the SWMS are included under the Actions Plans, rather than as a separate section.

By achieving the objectives identified in each Action Plan, Central Otago will move towards realising its vision – Towards Zero Waste and a Sustainable Central Otago.

This document will be reviewed in conjunction with the Long Term Council Community Plan. Council will include details in the Annual Plan about the progress achieved during the reporting period.

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<sup>24</sup>Ministry for the Environment, *The New Zealand Waste Strategy*, 2002



Outline of the Strategy's Structure: Central Otago District Council's Regional Values



## Vision

### *Towards Zero Waste and a Sustainable Central Otago*

The vision is derived from the New Zealand Waste Strategy vision *Towards Zero Waste and a Sustainable New Zealand*<sup>25</sup>.

It incorporates Council's philosophy of working towards Zero Waste through effective Waste Minimisation and encouraging individuals to use all resources more efficiently and at a sustainable rate.

This vision reinforces Council's commitment to Zero Waste. The aim of Zero Waste is to eliminate rather than just manage waste. It is a holistic approach to change the way materials flow through society – to ultimately lead to no waste. Council acknowledges that no system is 100% efficient; hence we are on a journey towards sustainability and continuous improvement.

Towards Zero Waste and a Sustainable Central Otago requires a new way of thinking at every level of the community. It will require a sense of personal responsibility. With everyone taking responsibility for reducing the waste that they generate, we can achieve our vision.

## Guiding Values<sup>26</sup>

Nine guiding values will guide the policy, decision making and action of Council as it seeks to implement the SWMS.

- ▶ **Making a Difference**  
We will inspire and lead others with our special point of difference.
- ▶ **Respecting Others**  
We will respect our cultural and personal difference.
- ▶ **Embracing Diversity**  
We will recognise differences and embrace diversity.
- ▶ **Adding Value**  
We will always ask ourselves if there is a better way – one that achieves a better outcome.
- ▶ **Having Integrity**  
We will seek to be open and honest.
- ▶ **Learning from the past**  
We will learn from past experiences with future generations in mind.
- ▶ **Making a Sustainable Difference**  
We will make decisions in business with the community in mind and in harmony with the natural environment.
- ▶ **Protecting our Rich Heritage**  
We will protect and celebrate our rich heritage in landscapes, architecture, flora and fauna and different cultural origins.
- ▶ **Meeting Obligations**  
We will meet legal obligations at both a local and national level.

<sup>25</sup> Ministry for the Environment, *The New Zealand Waste Strategy*, 2002

<sup>26</sup> Central Otago District Council, [www.aworldofdifference.co.nz](http://www.aworldofdifference.co.nz)



## ***Solid Waste Management Plan Objectives***

The Council requires a Plan for the integrated management and minimisation of waste now, and to facilitate future Waste Minimisation. The Strategy must provide the best options considering economic, social, cultural and environmental perspectives.

The objectives of the SWMS are to:

- Minimise the creation of waste
- Encourage more efficient use of resources
- Avoid or remedy adverse environmental impacts of waste
- Influence behavioural change among individuals and organisations
- Recognise the New Zealand Waste Strategy as a guiding document
- Encompass the purpose and principles of the Local Government Act 2002 and 1974 with regards to waste management

## Section Three: Taking Action

### *Action Plans*

Action is needed in various areas for Central Otago to achieve effective and efficient Waste Minimisation and move towards Zero Waste and Sustainability. The Action Plans within this Strategy have been developed collaboratively by the Waste Working Party, consultation with Focus Groups and Special Consultative Procedure. The Action Plans have been developed as a means of progressively achieving the vision of the SWMS.

The methods contained within the Action Plans will be implemented progressively as part of Council's Long Term Council Community Plan, Activity Plan and Annual Plan process.

### *Waste Management Categories*

The Waste Management Categories reflect the Local Government Act integrated waste hierarchy<sup>27</sup>, in order of priority – Reduce, Reuse, Recycle, Recover, Treatment and/or Disposal of Waste. The Local Government Act defines these terms as follows:

- **Reduce**  
Lessening waste generation
- **Reuse**  
The further reusing of products in their existing form for their original purpose or a similar purpose
- **Recycle**  
The reprocessing of waste materials to produce new products
- **Recover**  
Extraction of materials or energy from waste for further use or processing and includes, but is not limited to, making materials into compost.
- **Treatment**  
Subjecting the waste to any physical, biological, or chemical process to change the volume or character of that waste so that it may be disposed of with no or reduced significant adverse effect on the environment.
- **Disposal**  
Final deposit of waste on land set apart for the purpose. Local govt act

### *Structure of Action Plans*

Under each of the five Action Plans, specific issues and objectives have been identified, methods have been developed to address these issues and achieve these objectives. Council's role in achieving each action is categorised as one of the following: Service Provider, Regulator, Facilitator, Community Leader or Advocate.

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<sup>27</sup> Local Government Act, 1974

# Part B      Action

## Waste Reduction

### Lessening waste generation<sup>28</sup>

#### *Background*

The most efficient way to manage waste is not to produce it. The utilisation of resources has the potential to generate waste. Products can be designed, manufactured and used in ways that reduce the quantity and hazardous nature of the waste produced during their lifetime.

Council has an advocacy role in influencing effective waste reduction initiatives. This can be achieved through education and facilitation. Economic instruments such as user charges, local or regional waste levies and other such tools can be used as incentives or disincentives to waste reduction/production.

The amount of waste we produce is directly linked to the consumption of goods and services – the greater our wealth, the more we waste. Manufacturers, retailers, users and disposers all share responsibility for reducing the environmental impacts of products. By changing our consumption patterns, we can effectively reduce our waste

Council faces the challenge of balancing the true cost of waste disposal and the ability of the community to afford such a system, and the conflicting drivers of waste reduction initiatives versus commercial waste disposal operators requiring volumes of waste to make their businesses viable.

Just how fast the waste problem is growing is difficult to judge. Data on the size of the problem is inconsistent, difficult to compare, and in some cases, unknown. It is important to have accurate data to assist with future forecasting, long term planning (capital investment), targeted education campaigns and prioritising waste stream categories.

Broad issues with respect to waste reduction are:

- The requirement for knowledge in areas such as, how resources are used and their consequential waste
- Community support for waste reduction initiatives
- The conflict between waste reduction initiatives and business drivers to maximise volumes of waste for adequate returns
- Awareness and responsibility by the community with regard to resource stewardship and waste minimisation
- Leadership and guidance from community advocates

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<sup>28</sup> Local Government Act, 1974

REDUCTION				
Policy		Initiative/Method		Council Role
A.1.	To develop and implement tools and techniques to enhance Resource Stewardship and reduce waste generation by local government, businesses and individuals.	A.1.1	Actively encourage organisations and individuals to undertake <b>waste audits</b> to raise waste awareness and promote waste reduction.	Facilitator / Community Leader
		A.1.2	Encourage organisations to commit and undertake <b>cleaner production programmes</b> to actively reduce waste generation and enhance resource efficiency.	Facilitator / Community Leader
		A.1.3	Introduce a <b>resource recovery/landfill differential charge</b> to reward/discourage recycle/waste generators who separate their recoverable materials (e.g. recycling, greenwaste).	Regulator
		A.1.4	Develop a <b>district school education programme</b> on topics such as waste reduction, recycling, littering, composting and resource stewardship e.g. EnviroSchools.	Service Provider
		A.1.5	Develop a <b>Solid Waste Bylaw</b> that incorporates best practice initiatives for reducing waste e.g. waste levy	Regulator
		A.1.6	Provide assistance and <b>funding for Community Projects</b> that have a Waste Minimisation objective, initiated by schools, community groups and businesses.	Service Provider
		A.1.7	Work in <b>partnership with neighbouring Territorial Local Authorities</b> to enhance Waste Minimisation.	Advocacy
		A.1.8	Maintain <b>active membership</b> in appropriate associations (WasteMinz, RONZ) to keep apprised of new technologies and best practice methods.	Advocacy
		A.1.9	Employ suitably skilled staff to manage the effective implementation of the SWMS. Staff will liaise with community groups, adjoining Councils, businesses and individuals to encourage participation and implementation of initiatives.	Service Provider

A.2.	Develop 'Waste Minimisation' as a core business function similar to accounting and administration.	A.2.1	Advocate to Central Government to support and implement initiatives outlined in the <b>New Zealand Waste Strategy</b> .	Advocacy
		A.2.2	Advocate to Central Government to continue to work with sector groups to develop <b>Extended Producer Responsibility</b> schemes and to tighten waste minimisation standards and regulations.	Advocacy
		A.2.3	<b>Lobby for National Legislation</b> to address the specific waste streams for example <b>Container Deposit Legislation</b> to address glass recovery. Lobby through such organisations and associations as Zone 6 and LGNZ.	Advocacy
A.3.	Promote the benefits of reducing the quantity and toxicity of the waste stream.	A.3.1	Provide educational material and programmes to ensure that the Community is aware of the need to reduce, reuse, recycle and recover resources e.g. <b>Sustainable Living Programme</b> .	Service Provider
		A.3.2	Raise the Community's awareness of <b>Hazardous Waste</b> through a <b>Targeted Education Campaign</b> .	Facilitator
A.4.	Avoid/Reduce the consumption of resources at all levels – individual, household, business.	A.4.1	<b>Encourage the Community to reduce their waste</b> e.g. environmental purchasing, reusing resources, backyard composting, recycling and buy wise.	Facilitator
		A.4.2	Advocate for <b>National Education Programmes</b> to raise the Community's awareness of waste issues, and for individuals to take responsibility for the waste they generate.	Advocacy
		A.4.3	Establish an <b>Award and Recognition Programme</b> to recognise the efforts of individuals, community groups and businesses in reducing waste e.g. the Ministry for the Environment's 'Green Ribbon' award scheme.	Facilitator
		A.4.4	<b>Council will participate in Waste Minimisation and Cleaner Production Programmes</b> to actively avoid and reduce solid waste.	Community Leader

A.5.	Maintain adequate information and data systems to monitor the implementation of the SWMS.	A.5.1	Establish and maintain a <b>database to monitor and report</b> on trends in waste quantities and composition, for the purpose of policy development, evaluation and education programmes	Service Provider
		A.5.2	Carry out <b>waste composition analysis</b> on a bi-annual basis to establish a baseline and monitor the effectiveness of the SWMS.	Service Provider
		A.5.3	Undertake <b>biannual surveys</b> to monitor reduction and waste minimisation initiatives.	Service Provider
		A.5.4	Work towards replacing conventional financial bottom line reporting with sustainable <b>Quadruple Bottom Line Reporting.</b>	Community Leader
		A.5.5	Advocate for a <b>sufficient budget</b> to undertake the implementation of the SWMS.	Service Provider

## Reusing Resources\*

\*Waste is a resource

The further using of products in their existing form for their original purpose or a similar purpose<sup>29</sup>.

### Background

Reusing resources provides further opportunity to divert waste from landfill. Historically, reuse initiatives have predominantly been provided by the private sector and Community Groups through Second Hand Stores and Charity Organisations. Reuse can be achieved by trading in items at second hand stores for resale, having garage sales, donating pre-loved items to charity, and repairing items where possible instead of discarding them when they breakdown.

Construction waste is generated from surplus building and demolition material. Some is separated and collected for later reuse or recycling. The rest is sent to landfill. Materials recovered include timber, bricks, roofing tiles, corrugated iron, concrete and industrial materials, such as air conditioning units, lighting, fans and steel beams. The recovered waste is cleaned (and sometimes re-processed) for reuse.

Council has an advocacy role by encouraging the effective use of resource recovery centres. This can be achieved through education and facilitation, for example working in collaboration with Community Organisations and the private sector to provide an inorganic bulky item collection e.g. furniture and appliances. Establishment and operation of a waste exchange where individuals and organisations can utilise others' waste products.

Broad issues with respect to reuse:

- Limited data on the reuse of items
- Changing our current values of managing waste
- Access to facilities that recover items for reuse
- New Zealand has developed a culture of a 'throw-away' society. Approximately 80% of what we produce is discarded after a single use.<sup>30</sup>
- Central Otago is geographically distant from appropriate markets
- The economics of resource recovery can be difficult for the district

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<sup>29</sup> Local Government Act 1974

<sup>30</sup> Ministry for the Environment, *The New Zealand Waste Strategy*, 2002

REUSING RESOURCES				
Policy		Initiative/Method		Council Role
B.1.	Reduce the barriers to using recovered materials	B.1.1	Investigate <b>Resource Recovery Initiatives</b> e.g. bulky item collection (Second Hand Sunday)	Facilitator
		B.1.2	Establish the necessary infrastructure at transfer stations and in rural communities for the exchange, trade or sale of reusable items i.e. <b>Resource Recovery Shed</b> , to make recovery more accessible and convenient to the community.	Service Provider
B.2.	Waste is treated as a resource	B.2.1	Establish a <b>Waste Exchange Network</b> for businesses and the wider community to discourage a throw-away society, and encourage the exchange of reusable resources.	Facilitator / Service Provider
B.3.	Ensure resource stewardship (links with the first policy (tools & techniques))	B.3.1	Implement agreed actions with regard to resource and/or building consent conditions for the construction and demolition industry, by requiring a <b>Waste Minimisation Plan</b> .	Facilitator
B.4.	Encourage sustainable design and increased use of reusable products and resources	B.4.1	In partnership with local businesses investigate the establishment of the <b>Central Otago Sustainable Business Network</b> . The network will provide a support structure for those businesses working towards being resource sufficient and reduce waste.	Facilitator

Note: This action plan links with the following initiatives:

- A.1.2 Cleaner Production Programmes
- A.1.4 & A.3.1 School and Community Education
- A.1.6 Funding for Community Projects
- A.1.9 Waste Minimisation Officer
- A.2.2 Extended Producer Responsibility
- A.4.3 Award/Recognition Programme
- A.4.4 Council participation in Cleaner Production Programme

## Recycling

Reprocessing of waste materials to produce new products<sup>31</sup>.

### *Background*

Communities are increasingly concerned by the degree to which we waste valuable resources, and many people find the idea of burying potentially useful materials to be wasteful.

Recycling reduces the amount of waste disposed to landfill and raw materials extracted from the environment. Central Otago WasteBusters provide a kerbside recycling collection service to householders within the Alexandra, Clyde and Cromwell townships. The community organisation services the smaller communities of Oturehua, Ranfurly, Roxburgh and Tarras by the means of recycling drop off centres.

Many businesses produce waste that can be recycled relatively easily, including waste paper from offices. However, they often do not recycle at all, even though staff recycle at home. Therefore, there is a need to ensure that the recycling ethic is maintained whether people are at home or at work.

Most communities host special events e.g. Alexandra Blossom Festival, AMP Show, Wine & Food Festival, Thyme Festival. These public events pose a challenge to recyclers, because the waste contains large amounts of single use products and food scraps. Providing recycling at public events would generate good publicity for event organisers, reduce waste to landfill and reduce landfill disposal costs.

Recycling will work successfully if there are markets for the recyclable materials. There is an opportunity for the Government sector to provide assistance with securing sustainable local markets for recycled products, to have easy identification of products and to require manufacturers to have end of life strategies for their products.

Council's role is to provide an efficient and effective recycling collection service. This can be achieved through the kerbside collection of recyclables and the provision of recycling drop off centres.

Broad issues with respect to recycling:

- Participation levels of recycling for community and business
- Community awareness of the benefits of recycling and availability of services
- A consistent and extended recycling collection service
- Availability of recycling services for rural communities

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<sup>31</sup> Local Government Act, 1974

RECYCLING				
Policy		Initiative/Method		Council Role
C.1.	Encourage the community to separate their waste at source and thereby establish a culture of recycling.	C.1.1	Provide an effective, consistent <b>recycling collection</b> service.	Service Provider
		C.1.2	Facilitate the <b>cooperation and coordination between District Transfer Stations and Resource Recovery Parks</b> to encourage more material to be diverted from landfill through reuse, recycling and recovery.	Facilitator
		C.1.3	<b>Ban recyclables</b> from being disposed of at the Transfer Station and Landfill once alternative recycling methods are implemented.	Regulator
C.2.	Provide the majority of the population with access to community recycling facilities	C.2.1	Establish a <b>network of recycling drop off centres</b> within 20km of 80% of the population.	Service Provider
		C.2.2	Operate <b>Public Space Recycling Bins</b> to encourage the community and visitors to participate in recycling.	Service Provider
		C.2.3	<b>Event organisers</b> adopt a Zero Waste policy for their event and include a Waste Minimisation Plan in their consent application.	Advocacy / Facilitator
C.3.	Support the development of sustainable markets for recyclable products.	C.3.1	Lobby government to <b>support/establish sustainable markets</b> for recyclable products.	Advocacy
		C.3.2	Identify the <b>funding options for a range of recycling services.</b>	Service Provider
		C.3.3	<b>Develop and support local solutions</b> for recyclable products	Advocacy / Facilitator

Note: This action plan links with the following initiatives:

- A.1.3 Resource recovery/landfill differential charge
- A.1.4 School education programmes
- A.1.6 Funding for community projects
- A.1.9 Waste Minimisation Officer
- A.2.3 Lobby for national legislation to address specific waste streams
- A.4.1 Campaign to reduce waste
- A.4.3 Award/recognition programme
- B.3.1 Waste Management Plan for public events

## Recovery

The extraction of materials or energy from waste for further use or processing and includes, but is not limited, to making materials into compost<sup>32</sup>.

### Background

A lot of energy, materials and biomass in waste can be recovered before it is finally disposed of. The main areas for recovery of resources are composting, converting landfill gas to energy, use of waste oil as a fuel for high temperature incineration, and converting sewage sludge to a biomass suitable for use as fertiliser. Each of the waste-to-energy options has different advantages and limitations. Selection of the most appropriate technology for a region depends upon a number of factors, including population and waste composition and collection systems already in place or proposed.

Greenwaste is generated by households, commercial, industrial, local and central government properties in Central Otago. Greenwaste includes grass clippings, leaves, garden clearings, trimmings and tree prunings. There is no legislation or regulation that specifically regulates green waste or its separation. Council discourages the inclusion of greenwaste in the household refuse collection.

Disposing of organic waste in landfills generates methane and leachate. Methane is a greenhouse gas that is contributing to climate change and uncollected leachate has the potential to pollute the groundwater, surface water bodies and soil. Separating organic waste from the waste stream is important as it makes up a high proportion of total wastes, and is relatively easily diverted from landfill. Until organic components are separated, residential organic waste will take up valuable and unnecessary space in the Victoria Flats modern engineered sanitary landfill. If sorted at source, organic waste can be readily composted either at home or in a commercial facility to produce a rich compost product.

Home composting is a useful tool which targets compostables generated by the household. Home composting is not suitable for all households or commercial premises, alternative options will need to be considered to manage organic waste from these sources.

Central Otago is currently undergoing a development boom. With development comes the potential to create waste, for example construction and demolition waste. One method to appropriately manage construction and demolition waste is source separation. Separating materials into various categories, allows those materials to be recovered and/or reused.

Broad issues with respect to Recovery:

- Organic waste is one of the major components of waste being sent to landfill.
- Limited infrastructure with regard to the separation and beneficial use of recoverable material.
- Lack of awareness of home composting methods and benefits.

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<sup>32</sup> Local Government Act, 1974

RECOVERY				
Policy		Initiative/Method		Council Role
D.1.	Provide ways to divert recoverable materials from the waste stream	D.1.1	Investigate <b>alternative processes and market opportunities</b> for recoverable materials.	Service Provider
		D.1.2	<b>Liaise with relevant community groups and industry</b> to divert recoverable materials from the waste stream.	Facilitator
D.2.	Encourage and promote suitable composting systems to achieve significant reductions in the waste stream	D.2.1	<b>Encourage home composting</b> and other alternatives.	Facilitator
		D.2.2	Investigate the feasibility of service for the <b>collection and recovery of organic waste.</b>	Service Provider
		D.2.3	Review Council's <b>greenwaste operations and services.</b>	Service Provider
D.3.	Educate the wider community about recoverable materials	D.3.1	Develop a <b>Targeted Education Campaign</b> on recoverable materials.	Facilitator

Note: This action plan links with the following initiatives:

- A.1.3 Resource recovery/landfill differential charge
- A.1.4 & A.4.1 School and Community education programmes

## Treatment and Disposal

**Treatment**     subjecting the waste to any physical, biological or chemical process to change the volume or character of that waste so that it may be disposed of with no or reduced significant adverse effect on the environment<sup>33</sup>

**Disposal**       final deposit of waste on land set apart for the purpose<sup>34</sup>

### Background

The option of disposal of waste should only be employed after the higher elements of reduction, reuse, recycling, recovery and treatment have taken place. This will minimise the volume of waste to be disposed of at the landfill and hence reduce the true costs to the community and the environment.

The proper management of waste disposal facilities is vital to the health of the receiving environment and surrounding areas.

A landfill will need to be properly managed during its operational life, and appropriately rehabilitated when its capacity is reached. This is to ensure that the effects on the receiving environment such as leachate and landfill gas are mitigated. Small community refuse sites will need to be closed, appropriately rehabilitated and be subject to a long term monitoring programme.

Treatment of wastes is undergoing constant development, mainly overseas, since there are very few technologies that are commercially used on a large scale in New Zealand, with the exception of medical wastes and hazardous wastes. There are a number of methods to treat waste, including incineration, gasification, air-stripping of contaminated materials etc.

Hazardous waste constitutes a small part of the waste stream in the District, but has the greatest potential to adversely affect the environment if not properly handled or disposed of appropriately. Hazardous wastes that exist across the community in small quantities can frequently enter the waste stream undetected through the general waste collection and disposal system. The responsibility and ownership for generation and final disposal of hazardous and special wastes will need careful consideration.

Under the Local Government Act Council's role is to provide for the effective and efficient waste management, within the District. Under the Health Act 1956<sup>35</sup>, Council is to provide a solid waste collection and disposal service for the District Communities.

Broad issues with respect to Treatment and Disposal:

- Closure, rehabilitation and monitoring of the Central Otago Districts Landfills
- Environmental impacts of historical refuse sites
- Future capacity of the Victoria Flats Landfill and the potential need for a new regional landfill
- Lack of knowledge or information of difficult and hazardous wastes
- Management of hazardous waste
- Lack of community awareness of hazardous waste and its impact

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<sup>33</sup> Local Government Act 1974

<sup>34</sup> Local Government Act 1974

<sup>35</sup> Health Act, 1956

TREATMENT AND DISPOSAL				
Policy		Initiative/Method	Council Role	
E.1.	Ensure the appropriate management of solid waste in Central Otago	E.1.1	<b>Implement the Solid Waste Minimisation Strategy.</b>	Service Provider
		E.1.2	Provide <b>community management</b> of the waste (resource) stream, for the benefit of the wider community.	Facilitator
E.2.	Provide a cost effective and efficient resource recovery collection service in Central Otago	E.2.1	<b>Waste collections</b> will be carried out on a regular basis in the urban and semi-urban areas.	Service Provider
		E.2.2	Investigate the <b>potential expansion of the waste and recycling</b> collection service to all areas.	Service Provider
		E.2.3	Investigate a <b>multiple stream kerbside collection</b> e.g. organic waste, recycling, refuse and bulky items.	Service Provider
E.3.	Be proactive in the management of open and closed refuse / landfills.	E.3.1	Undertake a <b>Risk Analysis</b> of all known council refuse sites.	Service Provider
		E.3.2	List known refuse sites on the <b>Hazardous sites register.</b>	Service Provider
		E.3.3	<b>Manage Council open and closed landfills</b> as required by the resource consent conditions.	Service Provider
		E.3.4	<b>Investigate the closure, rehabilitation and monitoring of open landfills.</b>	Service Provider
		E.3.5	<b>Advocate to Regional Council</b> to appropriately regulate private landfills and onsite farm refuse sites.	Advocacy
E.4.	Recover costs for management of waste through user charges where costs are attributable to specific individuals, groups or businesses.	E.4.1	<b>Adopt User Pays Charges</b> which reflect true costs of waste disposal (e.g. solid waste management, hazardous waste handling) and resource use where appropriate.	Regulatory
		E.4.2	Continue to use <b>Direct User Charges</b> (either user pays or rated based) for disposal services and domestic refuse collection service.	Regulatory
E.5.	Council waste/recovery infrastructure will be designed and managed to enhance waste minimisation and to minimise adverse environmental effects.	E.5.1	Investigate the evolution of Transfer Stations into <b>Resource Recovery Parks.</b>	Service Provider
		E.5.2	Investigate <b>alternative household refuse collection</b> methods.	Service Provider
		E.5.3	Review <b>penalties for illegal dumping offences.</b>	Service Provider
		E.5.4	<b>Investigate rural collection points for solid waste.</b>	Service Provider

E.6.	Work with neighbouring TLA to secure a future landfill.	E.6.1	Investigate the potential for a <b>Regional Sanitary Landfill</b> .	Service Provider
E.7.	Appropriate management of Hazardous Waste in Central Otago	E.7.1	Work in partnership with neighbouring TLA to provide an appropriate <b>disposal option for domestic hazardous waste</b> .	Facilitator / Service Provider
		E.7.2	Investigate the establishment and operation of a regional <b>Hazardous Waste Service</b>	Service Provider
		E.7.3	Improve control measures at disposal sites to <b>identify and separate hazardous waste</b> for suitable disposal.	Service Provider
		E.7.4	<b>Clean up transport spillages of hazardous waste</b> and treat as an emergency matter.	Service Provider

## Glossary of Terms

<b>Advocacy</b>	To support, recommend and speak out on an idea or policy.
<b>Biosolids</b>	Biosolids are a by-product of sewage collection and treatment processes, which are beneficially reused as a soil conditioner.
<b>Cleaner Production</b>	Cleaner Production practices are those that reduce adverse environmental impacts by improving resource efficiency and reducing waste.
<b>Cleanfills</b>	Cleanfills are waste disposal sites that accept only inert waste. These include materials such as clay, soil, rock, concrete and bricks.
<b>Community Leader</b>	To implement the idea or policy to inspire others and show the way
<b>Construction and Demolition Waste (C&amp;D)</b>	Includes all waste generated from building/construction industry and demolition – waste building materials, tree stumps, rubble, plasterboard, wood, steel, brick etc.
<b>Disposal</b>	Final deposit of waste on land set apart for the purpose.
<b>Extended Producer Responsibility</b>	Extended Producer Responsibility puts the onus on businesses to look for, and capitalise on, opportunities for resource conservation and pollution prevention throughout a product's life cycle, including disposal.
<b>Facilitator</b>	The person or group of stakeholders responsible for leading or co-ordinating the work
<b>Gaseous Waste</b>	Gaseous waste consists of gases and small particles carried by air. It includes dust, fumes, smoke and vapour resulting from fires, industrial processes, vehicles and spray-drift.
<b>Greenwaste</b>	Garden waste
<b>Hazardous Waste</b>	Hazardous waste refers to materials that are flammable, explosive, oxidising, corrosive, toxic, ecotoxic, radioactive or infectious. Examples include unused agricultural chemicals, solvents and cleaning fluids, healthcare waste and many industrial wastes.
<b>Liquid Waste</b>	Liquid waste is waste generated, or converted to, a liquid form for disposal. It includes point and non-point source discharges, stormwater and wastewater.



<b>Trade Waste</b>	Trade waste refers to liquid wastes generated by business and disposed of through the sewerage system. Trade waste includes a range of hazardous materials resulting from industrial and manufacturing processes.
<b>Treatment</b>	Subjecting the waste to any physical, biological, or chemical process to change the volume or character of that waste so that it may be disposed of with no, or reduced significant adverse effect on the environment.
<b>Waste</b>	Any material, solid, liquid or gas that is unwanted and/or unvalued, and discarded or discharged by its owner.
<b>Waste Hierarchy</b>	The waste Hierarchy orders preferred waste management options. The most preferred option is Reduce, followed by Reuse, Recycle, Recover, Treatment and lastly Disposal.
<b>Waste Minimisation</b>	Waste minimisation refers to all activities aimed at reducing, reusing, recycling and recovery of materials.
<b>Waste Prevention</b>	Waste prevention refers to practices that avoid and reduce the generation of waste.
<b>Waste Stream</b>	The various categories of waste that are disposed of i.e. construction and demolition, hazardous waste, special waste, recyclables.
<b>Wastewater</b>	Wastewater is a by-product of sewage, and liquid trade waste collection and treatment processes.
<b>Zero Waste</b>	A goal to minimise and ultimately eliminate the generation of waste and conserve resources. Zero waste encompasses optimising resource use, reducing resource consumption, cleaner production, product redesign so products can be repaired, reused, recycled or composted, recycling and resource recovery and minimising residual waste requiring disposal.



## Abbreviations

CODC	Central Otago District Council
LGA	Local Government Act (1974 and/or 2002)
QLDC	Queenstown Lakes District Council
SWMS	Solid Waste Minimisation Strategy
TLA	Territorial Local Authority
WMP	Waste Management Plan

## Acknowledgements

**Christchurch City Council**, Draft Waste Management Plan 2005

**Dunedin City Council**, Resource Recovery and Waste Management Strategy 2006/2007-2015/2016, July 2006

**Hauraki District Council**, Waste Management Plan 2002

**Invercargill City Council**, Waste Management Plan 2004

**Manukau City Council**, Waste Management Plan 2005-2010

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