

Waste Management Strategy

Queenstown Lakes District

Towards Zero Waste and a Sustainable District

April 2003



Waste Management Strategy

Queenstown Lakes District

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Acknowledgment:

Thanks to the Waste Management Working Party, Rodney District Council and Waste Not Limited for their assistance in drafting this Strategy.

Executive Summary

The way we manage waste is crucial to our development as a sustainable district. A sustainable district is broadly defined as one that meets the needs of its community while not degrading the resource base upon which future generations will depend. The Queenstown Lakes District Council is required to prepare a Waste Management Strategy under the Local Government Amendment (No. 4) Act 1996. However, all members of the community must take responsibility for reducing waste and managing it appropriately.

A Waste Management Working Party was established to guide the Waste Management Strategy (the Strategy) process. Working party members were from a variety of parts of the community, and have a variety of experience and expertise in waste management: Councillor Christine Kelly (Chairperson), Councillor Wayne McKeague, Jude Battson (Wanaka Community Board and Wanaka Wastebusters), Michelle Buckham (Remarkable Wastebusters and Wakatipu Environmental Society), Chris Gregory (Imtech Limited), Tamati Wiringi (Wakatipu Waste Recyclers Limited), Jeff Collins (Otago Southland Waste Services), Peter Barnes (CivicCorp) and Vicki Jones (CivicCorp).

The District's waste problem is significant, and growing. The reduction of waste can only succeed if waste is managed from the point of generation, through to disposal.

This Strategy outlines the steps Council is taking towards implementing the initiatives and priorities identified through a public participation process. This process included six public workshops that were held throughout the District in July/ August 2002.

This Strategy is an evolving document. It will evolve step-by-step as infrastructure is developed and as the Council and community build upon experience. As we cannot do everything immediately, the Strategy prioritises where we should put our energy and resources according to the **volume and harm of waste, what we can realistically achieve, the level of public concern and cost effectiveness.**

This Strategy covers solid waste only, and recognises that moving towards Zero Waste is a long-term goal. The Strategy has eight core objectives (listed in no particular order):

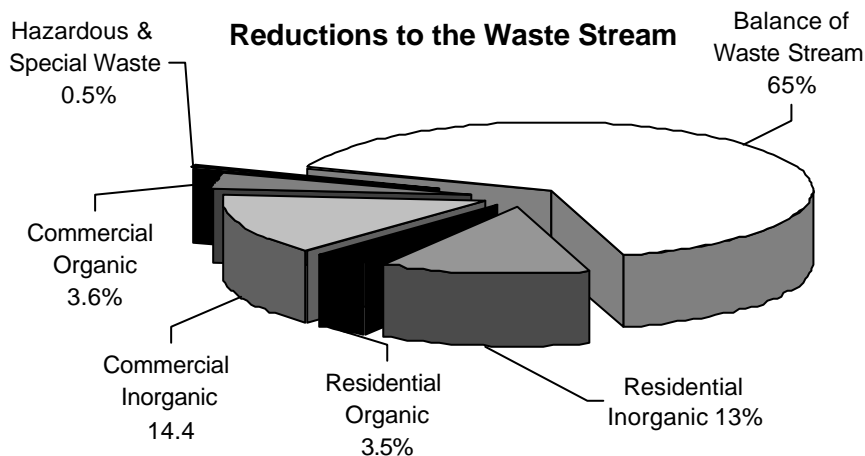
1. **Environmental:** Ensure that the District's special environment is respected.
2. **Convenience:** Ensure it is convenient for the public to minimise and recycle waste.
3. **Empower and Educate the Community:** Undertake initiatives and partnerships with community groups and private enterprise.
4. **Cost:** Develop cost-efficient systems for the community.
5. **Waste Reduction:** Reduce the amount of waste disposed of to landfill.
6. **Recycling:** Provide for the recycling of materials where markets exist, where potential markets exist, or where significant diversion from landfill can be achieved.
7. **Cost Recovery:** Ensure that those who produce waste meet the cost of waste management.
8. **Delivery of Services:** Develop new systems that maximise competition and efficiency in the provision of service delivery.

The Queenstown Lakes District Council will aim to implement a total of 43 Initiatives as part of this Strategy. These include:

- Employing an **Environmental Development Officer**.
- Becoming a **Zero Waste Council**.
- Establishing **Greenwaste Sites**.
- Establishing **Resource Recovery Centres**.
- Establishing **Kerbside Recycling** for Queenstown, Wanaka and Arrowtown.
- Investigating and establishing **Recycling Drop-Off Facilities** for Townships.
- Work towards introducing **'Polluter Pays'**.
- **Lobbying Central Government and/or Manufacturers** to Reduce unnecessary and bulky packaging materials.
- Establishing and implementing a **Buy Recycled and Recyclable Campaign**.
- Implementing **Construction and Demolition Recycling** programmes.
- Planning for a centrally located **Glass Stockpile Site**.
- Require the provision of **Recycling Facilities for Large Scale Events**.

It is estimated that with the programmed implementation of initiatives in the first 3 years (i.e. - up until 30 June 2006), the District could reduce waste to landfill by up to 35% in the third year. The reduction will come from the following components of the waste stream:

- Residential inorganic waste will contribute a 13% reduction
- Residential organic waste will contribute a 3.5% reduction
- Commercial inorganic waste will contribute a 14.4% reduction
- Commercial organic waste will contribute a 3.6% reduction
- Hazardous waste will contribute a 0.5% reduction



Our waste is our responsibility. As individual generators of waste within the District, we must acknowledge how much waste we generate, be prepared to pay for it, and stay informed about how best to reduce and manage it.

1.0 Introduction

1.1 Background

This is the first complete Waste Management Strategy (the Strategy) compiled for the Queenstown Lakes District. Consequently, the Strategy primarily contains guiding strategic policy only. Further detailed plans and programmes will be provided in due course. As the Council is committed to implementing initiatives as soon as practically possible, the Strategy also contains an implementation programme.

This Strategy covers solid waste, and includes hazardous waste. Waste is recognised as including solid, liquid and gaseous wastes. Gaseous and liquid waste form important parts of the waste stream within the District, and the management of these components will be outlined in future documents.

This Strategy states what the Council wants to achieve in the area of waste management, and is linked to the Annual Plan process, where funding details will be finalised each year. It is proposed that the Strategy will be reviewed each three years.

Definitions used in this document are consistent with the New Zealand Waste Strategy. A list of definitions is contained within the New Zealand Waste Strategy.

1.2 The Path Forward

The implementation of this Strategy will be undertaken in an open, transparent and accountable manner. Regular reporting on progress is essential to maintain the impetus and explain changes that may occur. The Council is committed to forming partnerships with communities, community groups and private enterprise wherever possible to bring about the best possible waste management outcomes.

Changes in waste management attitudes and practices take time. To be effective, strategies, promotion programmes and education must also be based on a long-term view with consistent messages and constant availability of key information. It is also necessary to regularly update programmes to target the most important issues and key groups.

Waste management contracts that Council enters into will be sufficiently flexible to allow contractors or Council to introduce technological and/or efficiency changes.

We cannot do everything immediately. Therefore, the Strategy prioritises where we should put our energy and resources according to the following criteria:

- **Volume and harm** - deal with wastes that pose the biggest environmental and social risks because of their large volumes or high toxicity.
- **Achievability** - focus on what we can realistically achieve.
- **Public concern** - make sure plans are in step with community views.
- **Cost effectiveness** - take measures that give the best value for money.

2.0 What is 'Zero Waste'?

For the purpose of this Strategy the concept of 'Zero Waste' indicates the direction that Council will head in its waste management objectives, by maximising the potential of reduction, reuse, recycling, and resource recovery activities. Council acknowledges that truly zero (nil) quantities of waste being disposed of to landfill are not necessarily achievable in the foreseeable future. However, this is a desirable target to strive for.

The Council intends to confirm its commitment toward a target of Zero Waste to landfill by 2020 by becoming a Zero Waste Council through the Zero Waste New Zealand Trust. This recognises that in all cases, the reduction or diversion of material that would otherwise be permanently discarded into landfills should be promoted.

In addition to adopting the philosophy of Zero Waste, once Council joins Zero Waste, sponsorship, funding and support is available to assist the Council and community in implementing our waste management initiatives.

3.0 Why Do We Need a Strategy?

3.1 A Legislative Requirement

Every Territorial Authority must prepare a Waste Management Plan under the Local Government Amendment (No. 4) Act 1996. The Waste Management Plan must make provision for the collection and reduction, reuse, recycling, recovery, treatment or disposal of waste in Queenstown Lakes District. The Plan must also provide for the effective and efficient implementation of initiatives, at a broad strategic level. As a first step in the provision of a Waste Management Plan, this Strategy sets out the direction for the Council to follow.

The Resource Management Act 1991 (RMA), the Hazardous Substances and New Organisms Act (1996), and the Health Act (1956) all place legal requirements on the Council's management of solid and hazardous waste. The management of the solid and hazardous waste stream should reflect the need for sustainable management of the natural and physical resources of the District as defined in the RMA.

3.2 Enhancing Our Special Environment

The unique and special environment that makes up the Queenstown Lakes District is one that the Council wishes to protect and enhance. By efficiently utilising resources, and conserving landfill space, we are all assisting in doing this.

Sustainable communities and the environment are at the centre of waste management. Our overarching goal is sustainable development. The search for sustainable development may be described as the task of reconciling development (i.e. meeting the community's needs) with limited natural resources and the capacity of the environment to absorb the effects (e.g. pollution).

The ways in which wastes are managed should respect environmental limits, take account of community values and conditions, and foster community responsibility for waste management.

The removal of some items from the waste stream and their recycling is often not "viable" in the purely commercial sense of creating a cash profit. The long term environmental benefits (which

often include substantial costs savings for the community) usually require initial funding and/or ongoing subsidising by the community. This recognises that the benefit to the District of removing some items from the waste stream is not dependent on there being a profitable market for them.

3.3 Kaitiakitanga/Stewardship

The relationship of Maori with their ancestral resources is a matter of national importance under the RMA and the management and disposal of waste is an important issue for both Ngai Tahu and Kai Tahu. The planning for, and activities associated with waste management should recognise and provide for the relationship of Ngai Tahu and Kai Tahu with the natural and cultural resources of the District.

3.4 New Zealand Waste Strategy

The New Zealand Waste Strategy was released in March 2002, and provides the Council and community with guidelines for managing the District's waste.

The New Zealand Waste Strategy contains five action areas:

- 1. A sound legislative base for waste minimisation and management.** This suggests legislative change and clarifies the roles of central and local government.
- 2. Efficient pricing.** Suggested pricing policies to reflect the full costs of waste disposal
- 3. High environmental standards.** Environmental performance standards for implementation and monitoring
- 4. Adequate and accessible information.** Setting up national information systems to keep the public informed
- 5. Efficient use of materials.** Greater efficiency in material use, encouraging more reuse and recycling

The objectives set out in this Strategy have been intentionally closely aligned with those set out in the national strategy. The New Zealand Waste Strategy, as with this Strategy, sets a series of targets for the government and local authorities to work towards. Targets cover each of the five components of the waste stream: residential inorganic, residential organic, commercial inorganic, commercial organic and hazardous waste.

4.0 Current Situation

4.1 Collection Systems, Transfer Stations and Landfill

At the time of writing, collection systems in the District comprise of plastic bag and wheelie bin collection services for Queenstown, Arrowtown, Wanaka, and wheelie bin collections for the Township Communities such as Makarora, Kingston, Glenorchy, Luggate, Hawea and Albert Town. Township Communities receive wheelie bins in lieu of having a transfer station.

Waste which may be unsuitable for bags or wheelie bins is also accepted at two transfer stations which are located at Frankton and Wanaka. Transfer station land is owned by Council, and facilities were financed, developed and are owned by Otago Southland Waste Services (OSWS) for the duration of the contract period. At the end of the contract period the facilities are transferred to Council ownership. OSWS have a 20 year contract with Council which commenced July 1999.

The District's sole landfill is located near Victoria Bridge at the southern entrance to the Kawarau Gorge. It is a modern and well-engineered and sealed sanitary landfill that has operated from July 1999. The landfill design includes considerable landscaping and plantings to minimise environmental effects.

The landfill land is owned by Council, and Scope Resources Limited have a 20 year (plus a 10 year right of renewal) contract to manage the landfill on behalf of Council. Scope Resources financed the construction of the landfill, and own the capital improvements. In addition to the District's waste (both domestic and commercial), the landfill receives waste from Central Otago District, by contract with Council.

The average annual rate of fill for the landfill in its first two years of operation was approximately 27,000 tonnes year. Approximately 18,000 tonnes of this is from Queenstown Lakes, and 9,000 tonnes from Central Otago District.

The Council accepts vehicles for disposal at the landfill, subject to the vehicle being adequately prepared (i.e all oil and rubber being removed etc). All vehicles abandoned on Council land are considered illegally disposed of, and are dealt with by way of enforcing by-laws. Abandoned vehicles for which an owner cannot be traced are collected and disposed of at a cost to the ratepayer.

The amount of waste being generated is increasing, along with the economic and population growth of the District. For example, waste received at the District's two transfer stations between 2000/01 and 2001/02 increased by 22% in Wanaka and 10% in Queenstown. This Strategy seeks to de-couple waste generation and disposal from that economic and population growth.

4.2 Community Groups and Private Enterprise

The District is fortunate to have both community groups and private enterprise that are proactive and integrally involved with the District's waste management.

Two Wastebusters groups are actively operating within the District. Wanaka Wastebusters, with the assistance of Council and other funding sources, operate a well patronised recycling and resource recovery business in Wanaka. Their operation employs both part-time and full-time staff. Remarkable Wastebusters focuses on waste education and awareness in the Wakatipu area. The group has been active in political advocacy for waste minimisation initiatives and has also held one-off recycling days.

Wakatipu Waste Recyclers Limited, a private business that is based in Queenstown, receives both domestic and commercial waste for which markets exist.

5.0 Queenstown Lakes - A Unique District

Queenstown Lakes is fortunate to not have a significant amount of industry or intensive farming that can potentially create significant amounts of hazardous waste. However, household hazardous waste, which can make up a significant amount of the total hazardous waste, has been found to be on-par with other Districts.

Given the District's location, and climate (warm temperatures and high precipitation in parts), considerable amounts of greenwaste can be generated. In addition, as the District is such a

popular visitor destination, accommodation and hospitality providers generate significant amounts of waste, including glass. The film industry has also been found to generate proportionately high volumes of waste.

Waste generated from construction and demolition activities are also presently very dominant in the District. Given the significant areas of land zoned for future residential growth in the District, the population and visitor growth, and the steady demand for housing sections and rental accommodation, it is likely that construction will continue to be a key industry. This is reinforced by the 2001 Census figures that show Queenstown Lakes to have the fastest growth rate (7.1%, including transients) of any District in New Zealand.

The District's high amenity and scenic values mean there is a high level of responsibility upon the Council and community to maintain and enhance these values with good waste management practices.

With a high proportion of visitor numbers, transients and new residents within the District's population, we will face unique challenges with the implementation of waste management initiatives. For example, with a high turnover of residents, the introduction of initiatives will have to be very 'user friendly', and waste education initiatives will have to be well targeted and reinforced on a regular basis.

6.0 Objectives

This Strategy aims to address eight objectives. Methods for implementing objectives are detailed in sections 9.0 to 13.0. The Objectives of this Strategy, in no particular order, are as follows:

- 1. Environmental**
Ensure that the District's special environment is respected and enhanced.
- 2. Convenience**
Ensure that it is convenient for the public to minimise and recycle waste.
- 3. Empower and Educate the Community**
Undertake initiatives and partnerships with community groups and private enterprise wherever possible.
- 4. Cost**
Develop cost-efficient systems for the community.
- 5. Waste Reduction**
Reduce the amount of waste disposed of to landfill.
- 6. Recycling**
Provide for the recycling of materials where markets exist or are evolving ¹and uphold 'Towards Zero Waste' philosophies.
- 7. Cost Recovery**
Ensure that those who produce waste meet the cost of waste management.

¹ With the exception of glass. Glass will be collected and stored as an initiative of this Strategy, despite a market not existing for it. This is because glass is deemed to warrant particular management given the District's circumstances.

8. Delivery of Services

Develop new systems that maximise competition and efficiency in the provision of service delivery and achieve a consistently high level of service across the District.

7.0 Five Key Action Areas

Action is needed in many different areas for the District to achieve effective and efficient waste minimisation and to move towards Zero Waste. Five key action areas have been identified in order to organise all initiatives.

1. Take Direct Action

Actions that will deal directly with the physical and infrastructural needs of the waste stream (e.g. recycling facilities, greenwaste operations and dedicated hardfill sites).

2. Change the Rules

Economic and legal incentives (and disincentives) that may be implemented inside or outside of the District. The Council will work towards waste diversion and the reduction of waste (e.g. changes to landfill and transfer station levy's and the introduction of environmental purchasing policies).

3. Foster New Ideas

Mechanisms and structures to support the development and trialing of new waste management initiatives (e.g. waste minimisation awards).

4. Communicate and Educate

Initiatives that will inform and empower the community, and provide avenues for them to participate and provide feedback (e.g. large event recycling and visitor awareness campaign)

5. Monitor and Feedback

The gathering of data and information on the District's waste stream, and the dissemination of it to the community (e.g. undertaking waste analysis surveys).

Action is required in all five areas to allow a systematic and holistic programme to progress over time towards the Council's targets. These five key areas are mutually supportive of each other. The division into these areas helps to order the initiatives and clarify their purpose.

8.0 Parts of the Waste Stream

There are a variety of different components to the waste stream, as stated in the New Zealand Waste Strategy. One challenge that the District faces is to determine how the 43 initiatives should best be applied across these different components, each with their own circumstances and issues. In addition, the District has its own characteristics and poses unique challenges when it comes to applying these initiatives.

In order to be consistent with the New Zealand Waste Strategy, this Strategy has broken the waste stream into five major components:

- **Residential Inorganic:** Waste originating from households that is not bio-degradable.

- **Residential Organic:** Waste originating from households that is bio-degradable.
- **Commercial Inorganic:** Waste originating from businesses that is not bio-degradable
- **Commercial Organic:** Waste originating from businesses that is able to be composted
- **Hazardous Waste:** Waste that requires special treatment before it can be safely disposed of or recycled

The following sections detail a summary of the programme proposed by Council to significantly reduce waste to landfill over the next 20 years.

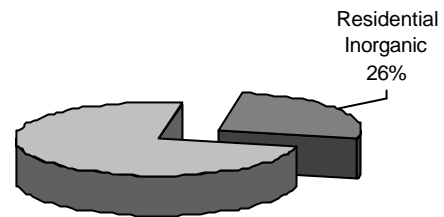
Each of the five major components, as listed above, are separated into the five 'Key Action Areas' in the following pages. The initiatives are listed in priority. An order for implementation is required for the Strategy to work. The priorities for implementation can be seen on the 'Programme for Action' table in section 14.0.

In May/June 2002 the Council undertook a Waste Analysis Survey of the District's waste stream at each of the two transfer stations (4 days each), and the Victoria Flats Landfill (6 days). The survey was undertaken using Ministry for the Environment guidelines. This data provided a picture of what waste is being disposed of to landfill, and what parts of the community it was originating from. It is this data that has been utilised in the following sections (9.0 to 13.0), to describe and set targets for the different components of the waste stream. Targets that have been set are for a net reduction, they do not take into account population growth.

Some initiatives are common to more than one of the five parts of the waste stream. In the reading of the following sections (9.0 to 13.0), to avoid repetition, each initiative is stated in full the first time it is used, and from that point on, its heading is used with a cross-reference in brackets to show where a full explanation can be found.

9.0 Residential Inorganic

Residential inorganic waste includes plastic, paper, cardboard, timber, concrete and glass. It also includes large inorganic appliances such as whiteware, old furniture and car bodies. Together these materials make up 26% of the District's waste stream (including 7% paper and 7% plastics).



The majority of these materials can be recycled or re-used. We will focus on this part of the waste stream through the following initiatives.

9.1 Take Direct Action

1. Facilitate **co-ordination and co-operation between the Wanaka Transfer Station and the Wanaka Wastebusters Resource Recovery Centre** to encourage more materials to be diverted from landfill and reused/recycled through Wanaka Wastebusters.
2. Investigate and establish **Resource Recovery Centres** in strategic and accessible locations within Queenstown and Wanaka (the current Wanaka centre may be utilised). These operations may be managed by Council-funded community groups, private enterprise or contractors. These centres will provide a public drop-off point for recyclables, as well as a site for sorting and processing of kerbside recyclables (once established), and reusable materials.
3. Establish **Recycling Drop off Facilities for Makarora, Glenorchy and Kingston**. These facilities will enable the Township communities, who are not serviced by kerbside collections, to recycle certain recyclable materials. The Council will provide resources for facilities to be maintained and serviced by the local communities themselves and/or contractors.
4. Determine and facilitate a **cost efficient method of collecting and transporting recyclables** from Makarora, Glenorchy and Kingston to a Resource Recovery Centre in Wanaka or Queenstown.
5. Establish **Residential Inorganic Kerbside Collection Systems** for Queenstown, Wanaka and Arrowtown (once resource recovery centres are established). Wanaka collections may be established first, given established resource recovery centre. These will target and collect commodities such as plastic containers, paper, metal and glass. .
6. Monitor and provide a collection system to **Collect Large Inorganic Waste Items**, such as whiteware, from Makarora, Kingston and Glenorchy.

9.2 Change the Rules

1. Introduce a **'Polluter Pays'** pricing structure. 'User charges' for waste disposal so that waste generators pay true cost, with incentives to reduce waste. E.g. introduce a levy

on household refuse bags to assist in the initial implementation of kerbside recyclable collections.

2. **Ban recyclables from being disposed of at the transfer stations and landfill** once alternative recycling methods/initiatives are implemented.
3. Establish **Transfer Station/Landfill Differential Charges**. This will ensure people who separate recyclable materials, such as greenwaste, are rewarded.
4. **Lobby Central Government and/or Manufacturers** to reduce unnecessary and bulky packaging materials.
5. **Lobby Central Government and/or Manufacturers** to address the problem of glass not being cost effective to recycle.
6. Impose a **Landfill/Transfer Station Levy** in addition to operational charges on waste entering landfill. The levy will assist with waste minimisation and education initiatives.

9.3 Communicate and Educate

1. Employ an **Environmental Development Officer**. This position is to be funded by Council to co-ordinate the implementation and promotion of all waste minimisation initiatives, as well as broader environmental issues. The Officer would liaise with community groups, adjoining Councils and businesses to encourage participation and implementation of initiatives.
2. Provide **Education Material and Programmes**. These programmes will ensure that the community is aware of the need to reduce, re-use and recycle our waste materials. E.g. 'Enviroschools' programmes may be utilised for primary and secondary schools.
3. Continue to undertake **Public Consultation** to ensure the community has its say. This will ensure that feedback from the community is incorporated into the Strategy, and that the community has the opportunity to be involved on an ongoing basis.
4. Establish and implement a **Buy Recycled and Recyclable Campaign**. A campaign to encourage the community, businesses and visitors to make environmental purchasing choices. For example, buying products that will 'close the loop', and in doing so, assist in creating markets for material that are recycled.

9.4 Foster New Ideas

1. By joining Zero Waste New Zealand, **Become a Zero Waste Council**. Council will adopt targets, philosophies and guidelines on moving 'Towards Zero Waste'. Council will also work with other Zero Waste Councils.
2. Provide assistance and funding for **Community Waste Minimisation Projects** initiated by schools, community groups and businesses. The Council will assist in applying for Central Government Funding to trial systems or new technology that will potentially recover a significant part of the waste stream. Encourage local businesses' and communities' participation in *Green Globe 21*, an international standard for

certification in sustainable travel and tourism. Support education and awareness for *Green Globe 21* objectives.

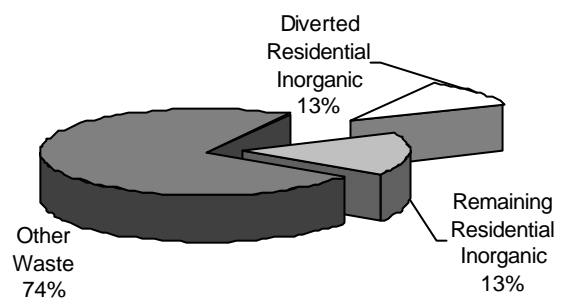
3. Provide **Awards for Waste Minimisation**. Awards will recognise the efforts of individuals, community groups and businesses in reducing waste going to landfill.

9.5 Monitor and Feedback

1. **Set, Monitor and Report on Waste Reduction Targets**. These targets will assist the District in diverting waste from landfill.
2. Maintain **Waste Analysis Data**. Conduct biennial surveys of the waste stream to measure progress towards waste reduction targets. Waste Analysis results will also assist in identifying areas where action is required.
3. **Triple Bottom Line Reporting**. Continue to replace the conventional 'financial bottom line' reporting with 'sustainability' reporting on environmental, social and economic outcomes.

9.6 Likely Achievements

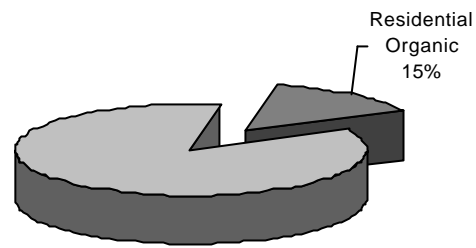
It is expected that the above initiatives, implemented in combination, will reduce the District's total waste stream by up to 13% by 30 June 2006.



10.0 Residential Organic

Residential Organic waste includes greenwaste (e.g. garden waste) and food waste. These materials make up 15 % of the District's waste stream. Separating this organic component out of the waste stream is important as it makes up a high proportion of total waste, and is relatively easily diverted from landfill. Consequently, until these items are separated, residential organic waste will take up valuable and unnecessary space in the District's modern and well-engineered and sealed sanitary landfill. At present, these materials create greenhouse gasses such as methane, as well as leachate when they are deposited in the landfill.

This part of the waste stream will be addressed through the following initiatives.



10.1 Take Direct Action

1. Establish **Greenwaste sites** in Queenstown and Arrowtown (NB: Wanaka is already operational). Support community initiatives to administer greenwaste sites in Glenorchy, Kingston, Makarora and Hawea. These sites will allow residents to drop off greenwaste, and with the use of a mobile chipper/mulcher and storage facilities, re-purchase it as garden mulch or similar. .
2. Investigate and introduce a range of **Composting Initiatives** for food waste and greenwaste. This could include the promotion of good practice backyard composting and investigating and supporting (by way of provision of land and resources etc) large scale composting operations to process large volumes of organic waste. Large scale composting may provide for sewage sludge..
3. Planning and Investigating for **Residential Organic Kerbside Collection Systems** with the aim of establishing in the long term. The service will be provided for householders that do not have the space to compost at home (e.g. High Density Residential areas).

10.2 Change the Rules

1. Encourage the Establishment of **Transfer Station/Landfill Differential Charges** (as detailed in section 9.2).
2. Introduce a '**Polluter Pays**' pricing structure (as detailed in section 9.2).
3. **Ban recyclables from being disposed of at the transfer stations and landfill** (as detailed in section 9.2).
4. Impose a **Landfill/Transfer Station Levy** on waste entering landfill (as detailed in section 9.2).

10.3 Communicate and Educate

1. Employ an **Environmental Development Officer** (as discussed in section 9.2).

2. Provide **Education Material and Programmes** (as discussed in section 9.3).
3. Continue to undertake **Public Consultation** (as discussed in section 9.3).

10.4 Foster New Ideas

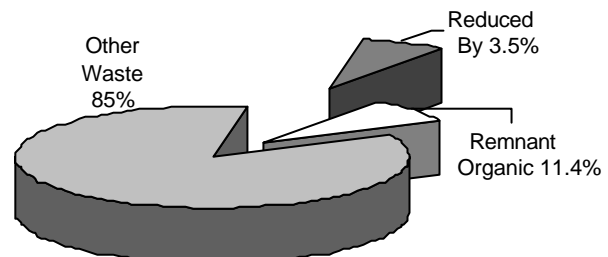
1. By joining Zero Waste New Zealand, **Become a Zero Waste Council** (as detailed in section 9.4).
2. Provide assistance and funding for **Community Waste Minimisation Projects** initiated by schools, community groups and businesses (as detailed in section 9.4).
3. Provide **Awards for Waste Minimisation** (as detailed in section 9.4).

10.5 Monitor and Feedback

1. **Set, Monitor and Report on Waste Reduction Targets** (as detailed in section 9.5).
2. Maintain **Waste Analysis Data** (as detailed in section 9.5).
3. Work Towards **Triple Bottom Line Reporting** (as detailed in section 9.5).

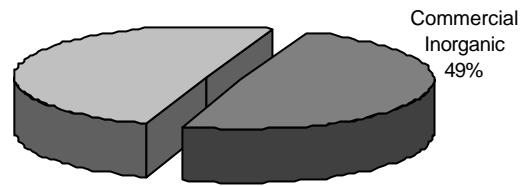
10.6 Likely Achievements

We expect that the above initiatives, implemented in combination, will reduce the District's total waste stream by up to 3.5% by 30 June 2006.



11.0 Commercial Inorganic

Commercial Inorganic waste includes paper, plastic, metal, glass and construction and demolition waste. These materials make up 49% of Queenstown Lakes District waste stream (this includes 11% rubble, concrete and brick, 8% timber, 7% paper, 6% glass and 6% plastics). This is a very high proportion of the District's waste stream, and is attributable, to a large extent, to construction and demolition activities that are very dominant in the District at present.



A large proportion of this waste is recoverable. The Council will address this component of the waste stream through the initiatives set out below.

11.1 Take Direct Action

1. Facilitate **co-ordination and co-operation between the Wanaka Transfer Station and the Wanaka Wastebusters Resource Recovery Centre** (as detailed in section 9.1).
2. Implement **Construction and Demolition Recycling** programmes. This will include encouraging best practice recycling for the building and construction industry. This will also include developing infrastructure to process construction and demolition materials such as timber and iron.
3. Facilitate the use of established **Hardfill Disposal Sites** to accept soil, concrete and brick from the public. This will include developing acceptance criteria to ensure that material is not contaminated.
4. Utilise part of the landfill land for a **Glass Stockpile Site**. This will allow this potential resource to be used once trials and technology advances bring about a demand for the material.
5. Install **Town Centre Recycling Bins** in Queenstown and Wanaka. These will be sited in highly visible locations in Town Centres, and will provide for core recyclables such as plastic, paper and metal.
6. Require **Large Scale Events, such as the Queenstown and Wanaka Winter Festivals, to provide an outline plan approval for appropriate recycling facilities and infrastructure**. Protocols, facilities and infrastructure will be established to ensure large scale events manage their own waste appropriately.
7. Establish **Commercial Kerbside Inorganic Collection Systems**. Such a service could be provided for businesses that produce recyclable waste that markets exist for, such as paper, plastic, glass and metals.
8. Move towards requiring **Film Companies operating within the District to appropriately manage** their own waste.

9. Establish a **Waste Exchange Database**. This database could be on-line, and will be planned and set up to enable businesses and organisations to swap unwanted materials. This will be based upon successful models in Auckland, Ashburton and other areas in New Zealand.

11.2 Change the Rules

1. **Purchasing Policies**. Council will modify its purchasing policies and encourage suppliers and contractors to do the same. Council will also encourage its contractors to practise 'cleaner production' and operate with satisfactory good waste minimisation practices.
2. Establish **Transfer Station/Landfill Differential Charges** (as detailed in section 9.2).
3. **Ban recyclables from being disposed of at the transfer stations and landfill** (as discussed in section 9.2).
4. Impose a **Landfill/Transfer Station Levy** on waste entering landfill (as detailed in section 9.2).
5. Investigate **Imposing Resource or Building Consent Conditions**, through an amendment to the District Plan, **for demolition and construction materials to be disposed of appropriately**, and recycled where possible.
6. Implement District Plan provisions for **Businesses to Allocate Space for Recycling**.

11.3 Communicate and Educate

1. Employ an **Environmental Development Officer** (as detailed in section 9.3).
2. Provide **Education Material and Programmes** (as discussed in section 10.3).
3. **Buy Recycled and Recyclable Campaign** (as discussed in section 9.3).
4. Undertake **Cleaner Production Programmes with key industries/businesses**. Investigate the introduction of Cleaner Production programmes for businesses. Waste from restaurant, accommodation and hospitals/rest homes are a particular issue in the District. Programmes that specifically address these will be a priority.
5. Promote **Visitor Participation in Waste Management Initiatives**, possibly via subtle signage in transit and accommodation areas frequented by visitors.

11.4 Foster New Ideas

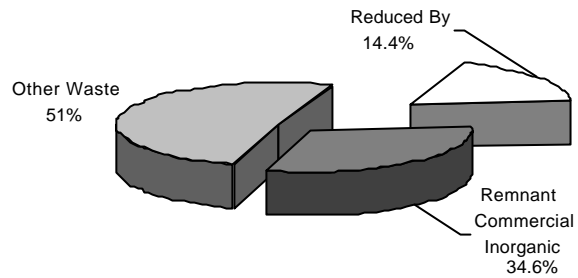
1. By joining Zero Waste New Zealand, **Become a Zero Waste Council** (as detailed in section 9.4).
2. Provide **Awards for Waste Minimisation** (as detailed in section 9.4).

11.5 Monitor and Feedback

1. **Set, Monitor and Report on Waste Reduction Targets** (as detailed in section 9.5).
2. Maintain **Waste Analysis Data** (as detailed in section 9.5).
3. **Triple Bottom Line Reporting** (as detailed in section 9.5).

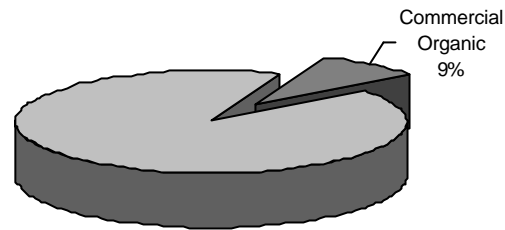
11.6 Likely Achievements

We expect that the above initiatives, implemented in combination, will reduce the District's total waste stream by up to 14.4% by 30 June 2006.



12.0 Commercial Organic

Commercial Organic waste within the District includes a significant amount of food waste from the hotel and hospitality industries, as well as greenwaste such as hedge clippings. Commercial food waste and greenwaste equate to 9 % of the District's waste stream.



Separating this organic component out of the waste stream is important as, until it is separated, organic waste will take up valuable and unnecessary space in the District's sanitary landfill. At present, these materials create greenhouse gasses such as methane, as well as leachate when they are deposited in the landfill.

We will address this part of the waste stream through the following initiatives.

12.1 Take Direct Action

1. Investigate a range of **Composting Initiatives** (as detailed in section 10.1).
2. Plan and Investigate the provision of **Commercial Kerbside Organic Collection Systems**. Such a service could be provided for businesses that produce large amounts of food waste.

12.2 Change the Rules

1. Encourage the Establishment of **Transfer Station/Landfill Differential Charges** (as detailed in section 9.2).
2. Introduce a **'Polluter Pays'** pricing structure (as detailed in section 9.2).
3. **Ban recyclables from being disposed of at the transfer stations and landfill** (as discussed in section 9.2).
4. Impose a **Landfill/Transfer Station Levy** on waste entering landfill/transfer station (as detailed in section 10.2).

12.3 Communicate and Educate

1. Employ an **Environmental Development Officer** (as detailed in section 10.3).
2. **Consult Directly with the Hotels, Restaurants, Hospitals and Rest homes** to identify and plan for user-friendly initiatives to minimise organic waste.
3. Provide **Education Material and Programmes** (as detailed in section 9.3).
4. Undertake **Cleaner Production Programmes** (as detailed in section 11.3).
5. **Visitor Waste Management Awareness Campaign** (as detailed in section 11.3).

12.4 Foster New Ideas

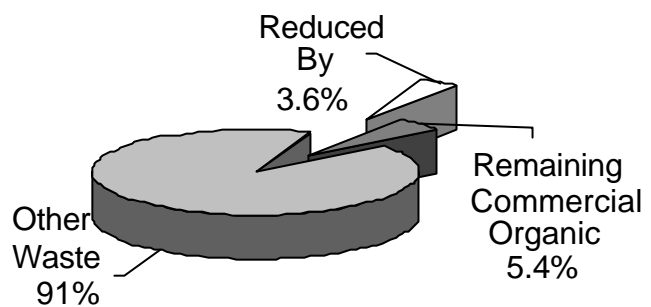
1. Council to join Zero Waste New Zealand and **Become a Zero Waste Council** (as detailed in section 9.4).
2. **Awards for Waste Minimisation** (as detailed in section 9.4).

12.5 Monitor and Feedback

1. **Set, Monitor and Report on Waste Reduction Targets** (as detailed in section 9.5).
2. Maintain **Waste Analysis Data** (as detailed in section 9.5).
3. **Triple Bottom Line Reporting** (as detailed in section 9.5).

12.6 Likely Achievements

We expect that the above initiatives, implemented in combination, will reduce the District's total waste stream by up to 3.6% by 30 June 2006.



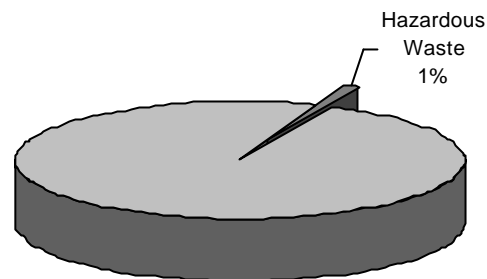
13.0 Hazardous Waste

Unlike other districts, Queenstown Lakes is fortunate in that it does not have major industries that can produce large quantities of hazardous waste.

Hazardous waste in the District's waste stream includes residential and commercial items such as:

- Glue/paint
- cleaners
- chemicals
- batteries,
- fat/oil
- aerosols
- lighters.

These materials make up 1% of the District's waste. Although this is a small percentage of the overall waste stream, best practice management of this waste is essential given that it is potentially dangerous to the community and environment.



The landfill is not designed to accept hazardous waste, and Council does not officially accept hazardous waste at the transfer stations or landfill. Public education is required, and is incorporated as part of this Strategy, to ensure the community is aware of options available for disposing of such waste. It is important that hazardous waste is separated from the landfill wherever possible. It is not satisfactory or good practice for hazardous waste to be disposed of in the District's landfill.

Council will address this component of the waste stream through the initiatives set out below.

13.1 Take Direct Action

1. **Work in partnership with Otago Regional Council** to investigate the hazardous waste issue, and work towards providing appropriate disposal solutions for the community.
2. Continue the current programme to **Manage and Monitor the District's Seven Closed Landfill Sites**: Makarora, Hawea, Wanaka, Luggate, Kingston, Tuckers Beach and Glenorchy. This programme is required to manage potential leachate and landfill gasses such as methane.

13.2 Change the Rules

1. **Ban recyclables from being disposed of at the transfer stations and landfill** (as detailed in section 9.2).
2. **By-laws for Non Compliance and Enforcement.** Enforce relevant local and national legislation which relate to hazardous waste management.

13.3 Communicate and Educate

1. Employ an **Environmental Development Officer** (as detailed in section 9.3).
2. Provide **Education Material Programmes** (as detailed in section 9.3).
3. Undertake **Cleaner Production Programmes** (as detailed in section 9.3).

13.4 Foster New Ideas

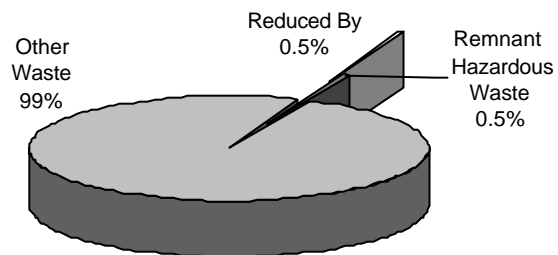
1. By joining Zero Waste New Zealand, **Become a Zero Waste Council** (as detailed in section 9.4).
2. Provide **Awards for Waste Minimisation** (as detailed in section 9.4).

13.5 Monitor and Feedback

1. **Set, Monitor and Report on Waste Reduction Targets** (as detailed in section 9.5).
2. Maintain **Waste Analysis Data** (as detailed in section 9.5).

13.6 Likely Achievements

We expect that the above initiatives, implemented in combination, will reduce the District's total waste stream by up to 0.5% by 30 June 2006.



14.0 A Programme for Action

The total of 43 initiatives (as detailed in the sections 9.0 to 13.0) have been ranked according to four factors: the volume and harm of waste, what we can realistically achieve, public concern and cost effectiveness.

Ranking incorporated feedback gained from the public participation process. The suggested timeframes can be adjusted over time according to circumstances.

The table at the end of this Strategy sets out a 20 year programme for the 43 waste initiatives. The programme uses the financial year, which runs from 30 June through to 1 July. The Strategy can be implemented in this manner, or adjusted according to circumstances and over time towards the goal of Zero Waste to landfill by 2020.

The three stages used to graphically show the implementation of initiatives (as shown on the key of the table itself) are:

- **Investigate** - background research into viability and options available.
- **Set up** - establish processes and infrastructure.
- **Operate** - full operation of initiative.

15.0 Proposed Budget

A proposed programme budget is provided to give an idea of costs in the first financial year. The budget is a summary and estimate only, using examples and advice from other comparable Councils around the country. The budget is listed by Key Action Area.

The Annual Plan process is to be used year by year to allocate funding for initiatives that are scheduled to be implemented as part of the implementation programme.

Key Action Area	Proposed Budget for 2003/2004
Take Direct Action	\$327,760
Change the Rules	\$5,580
Communicate and Educate	\$75,580
Foster New Ideas	\$12,580
Monitor and Feedback	\$13,580
TOTAL	\$435,080

