

KEY

	Residential Waste		Recycling Collection (Private Contractor)
	Council Residential Recycling Collection		Commercial Hazardous Waste Collection (Private Contractor)
	Council Kerbside Recycling Collection		Hazardous Waste Treatment Facility
	Residential Hazardous Waste		Medical Waste (Private Contractor)
	Council Hazmobile		Medical Waste Treatment Facility
	Chemicals		Cleanfill Collection (Private Contractor)
	Metals		Public Services
	Hazardous Waste that cannot be treated in New Zealand		Private Contractor Services
	Battery Recycling Centre (Private Business)		Council Services
	Council Rubbish Collection		Sold (Private Business)
	Personal trips to Landfill		Treatment Overseas (Private Business)
	Recycling Processing Facility (Private Business)		Clean Landfill (Private Business)
	Rubbish Collection (Private Contractor)		Landfill (Council)
	Green Waste Collection (Private Contractor)		Composting Plant (Wellington City Council)
	Commercial/Industrial Waste		



*Baling corrugated
cardboard for recycling*

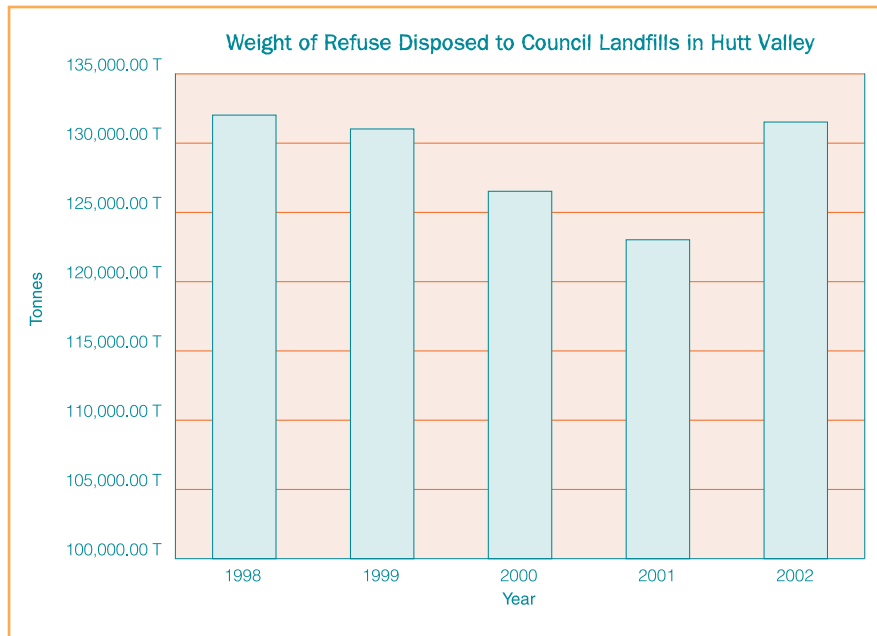
2.2 SOLID WASTE

2.2.1 Solid Waste Composition

Hutt City Council uses the Landfill 3000 computer system to record the quantity of waste entering the Silverstream and Wainuiomata Landfills. Figure 2.2.2 below shows the amount of waste measured by weight entering the landfills on an annual basis since 1998.

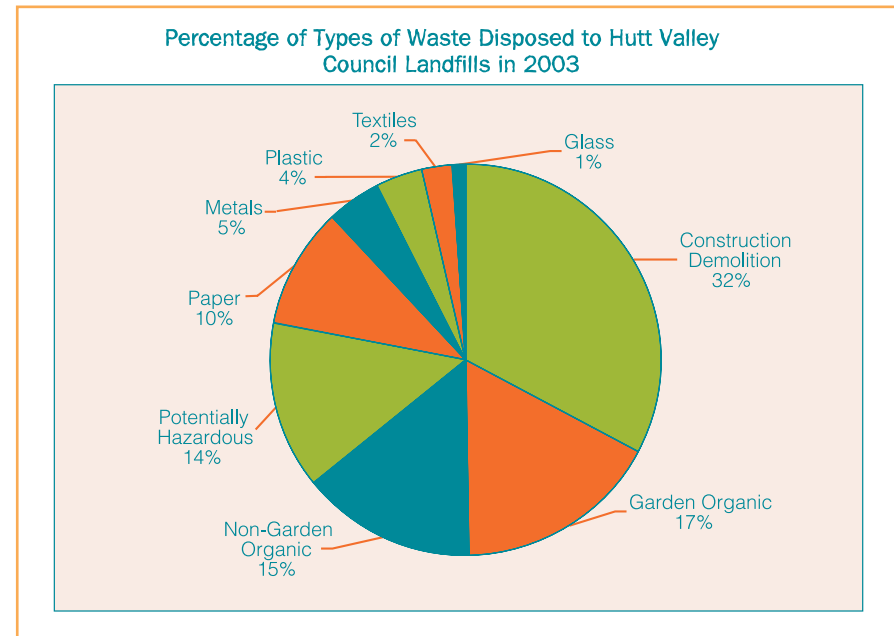
From 1998 to 2001 the amount of waste entering the landfills decreased slightly each year from 132,000 tonnes in 1998 to 123,000 tonnes in 2001. In 2002 the quantities increased to close to the 1998 level of 131,000 tonnes. This was primarily due to the opening of the Hutt Valley Sewage Treatment Plant (grade A biosolids in pelletised form 3,600 tonnes per year), and an increase in volume from a limited number of businesses involved in waste processing in Hutt City.

Figure 2.2.2



A survey of the types of waste entering the landfills has been undertaken approximately every three years. This information is important for waste minimisation and management planning. The most recent survey was undertaken early in 2003. Two previous surveys were carried out in 1998 and 1994. Figure 2.2.3 shows the percentages of the different types of waste entering the landfill in 2003.

Figure 2.2.3



The changes in quantities of the different types of waste landfilled since 1994 are shown in the following graphs.

Figure 2.2.4

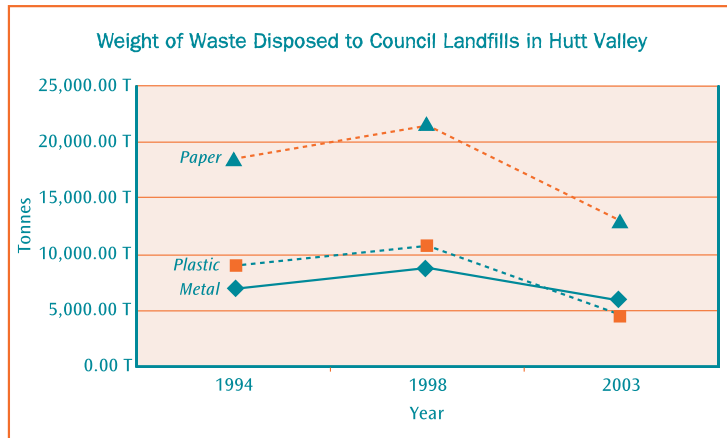
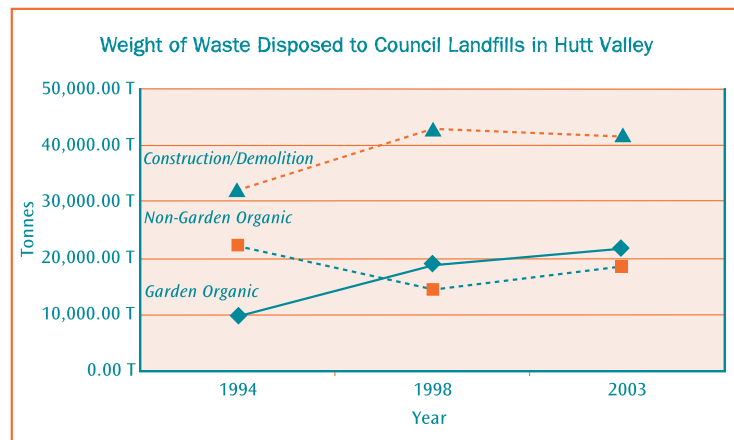


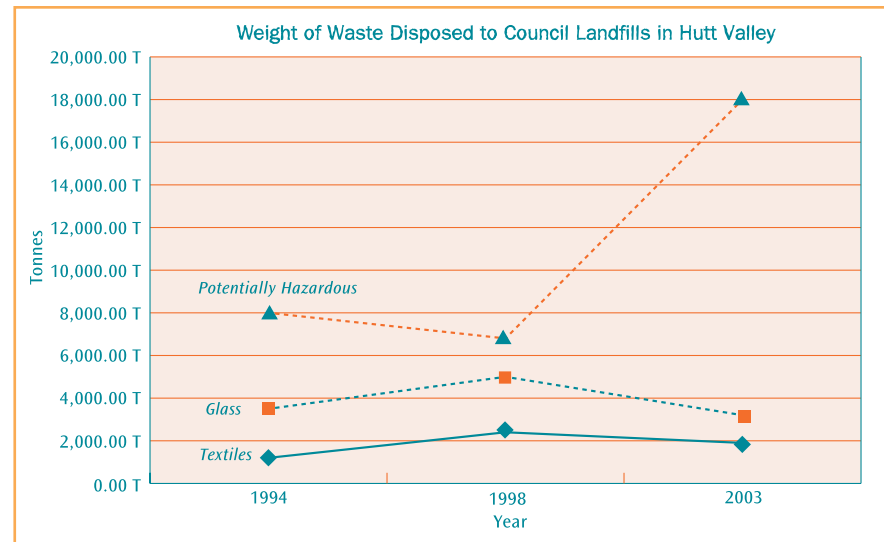
Figure 2.2.5

The weight of paper, plastic and metal that is sent to landfill has decreased over the last five years.



Non-garden organic waste includes approximately 3,600 tonnes per annum of sewage pellets. This is likely to account for the increase in non-garden organic waste from 1998 to 2003. The amount of garden waste disposed to landfill continues to climb with approximately 23,000 tonnes per annum currently being landfilled. Currently around 42,000 tonnes of construction and demolition waste is disposed of at the landfill each year.

Figure 2.2.6



The increase in the amount of potentially hazardous waste received at the landfill is largely due to increased business activity of waste treatment facilities in the Hutt Valley. The weight of glass disposed of at the landfills has decreased over the last five years. The weight of textiles disposed of at the landfill has recently decreased.

2.2.2 Current Solid Waste Services

This section of the WMP describes in more detail the current waste management systems operating in the Hutt Valley, as outlined in the flow chart on page 8.

Recycling

Existing recycling services include the collection of paper, cardboard, plastics, glass and cans.

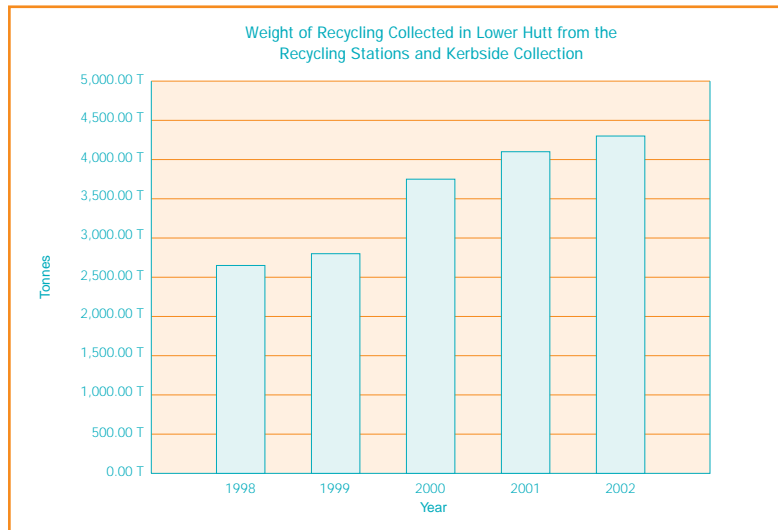
Hutt City

Provides weekly kerbside recycling service. Residents may use green recycling bins or plastic bags. Provides five Community Recycling Stations, and stations at both the Wainuiomata and Silverstream landfills.

Upper Hutt City

Provides weekly residential and commercial kerbside collection of recyclables that have been put into plastic bags. Tied up paper and cardboard are also collected.

Figure 2.2.7



As shown in Figures 2.2.7 and 2.2.8, the weight of recycling materials collected each year is increasing.

Kerbside Waste

Hutt City

Provides weekly residential kerbside collection and twice weekly commercial collection.

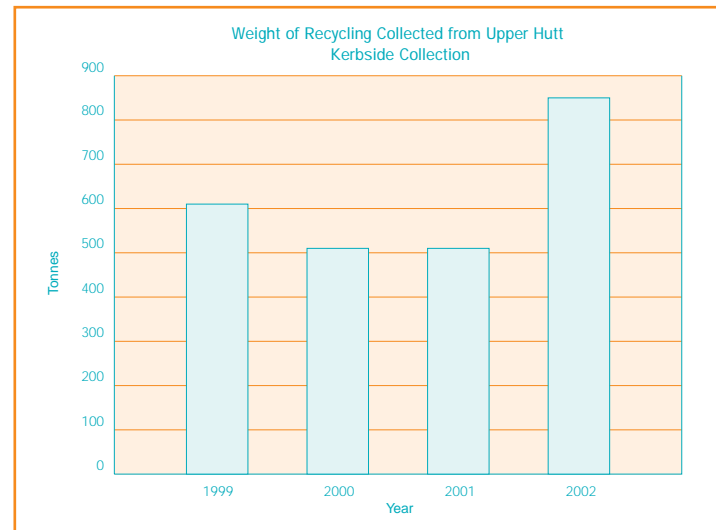
Upper Hutt City

Provides weekly residential kerbside collection and twice weekly commercial collection.

Landfill

The existing Silverstream and Wainuiomata Landfills are available to all Hutt Valley residents.

Figure 2.2.8



Household Hazardous Waste

The Hazmobile pilot programme was run in the Hutt Valley during September 2002. Seven tonnes of household hazardous waste was dropped off at the Hazmobile, making this collection a very successful event. This programme will be undertaken again in the Hutt Valley in the 2003/2004 financial year.

Education/Promotion Programme

Hutt City

Council has an ongoing range of educational and promotional programmes targeting residents, businesses and schools.

Upper Hutt City

Council has an ongoing range of educational and promotional programmes targeting residents and schools.

Inorganic Waste

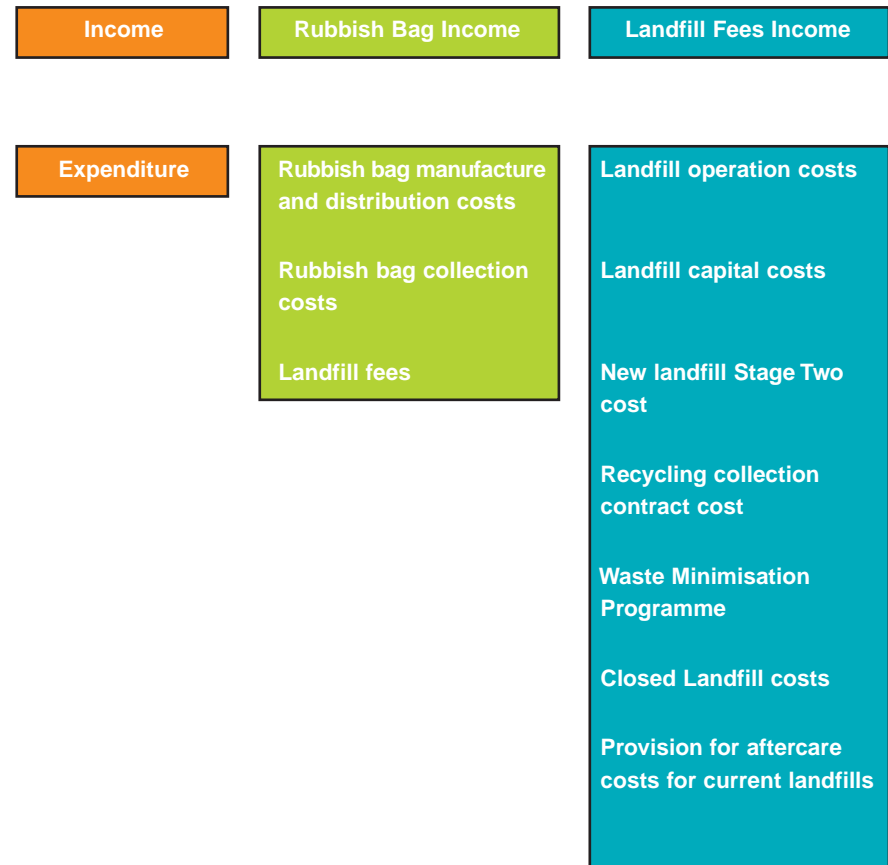
Hutt City Council provides a small fund for community groups to undertake kerbside inorganic waste collections.

Private Contractors

Refuse is also collected kerbside in wheelle bins, skips and drums, provided on an individual contract basis by a number of privately owned and operated waste collection companies within the Hutt Valley.

2.2.3 Cost/Funding Structure

Waste collection and disposal services are provided on a 'user pays', 'pay as you throw' basis. Below is an income and expenditure summary of how the Hutt Valley waste management system is funded.



Refer to Appendix A and B for more detailed information

2.2.4 Landfill Management and Capacity

Current Management Practices

Hutt City Council owns two landfills (one in Silverstream and a second in Wainuiomata) where residents and businesses can dispose of residual waste. With respect to the Silverstream Landfill the relationship between Hutt City and Upper Hutt City Councils is governed by a deed signed in 1972. Overall operations at both landfills are governed by Hutt City Council's Landfill Asset Management Plan, which includes specified levels of service and long term financial strategies.

Operation of both landfills is contracted out, currently to Excell Corporation Ltd at Silverstream, and Dimac Contractors Ltd at Wainuiomata. Performance requirements within these contracts ensure that landfill operations are undertaken in a manner which will allow Council to meet its various resource consent obligations at each site. Greater Wellington/Wellington Regional Council undertakes annual compliance audits to monitor performance.

Hutt City is also a minor (7%) shareholder in the Silverstream Landfill Gas Joint Venture. This business collects methane gas from the landfill and uses it as a fuel for the production of electricity which is sold into the national grid.

All ongoing operating and capital costs, closure costs for Stage One and development costs for Stage Two at Silverstream, and provision for all aftercare costs, are met from user charges. These are reviewed annually and are set to meet all costs as well as in consideration of market rates elsewhere in the region and the country.

Plans for future development of landfills

Current estimates of remaining capacity are for Wainuiomata to be full in approximately 2015/2016, while the existing stage of Silverstream is expected to close in 2006/2007.

A new landfill site is required to maintain Hutt Valley's solid waste disposal service. A review has identified that extension of the Silverstream Landfill is the preferred option (referred to as Stage Two). A recent study undertaken by MWH Consultants, commissioned by Porirua City, Hutt City and Wellington City Councils, states that optimal long term operation of the landfills in the region is to retain one landfill at

Wellington Southern and one at Silverstream. Location, access advantages, site size, and commercial/economic benefits (including the benefits of utilising existing infrastructure at the site) are all reasons why this is a favoured option.

Hutt City Council has commenced a programme of consultation, environmental investigations, and preliminary design for the proposed Stage Two extension of the Silverstream Landfill.

Hutt City Council's objective, subject to the outcome of consultation, environmental investigations and preliminary design processes, is to lodge resource consent applications for Stage Two by September 2003. If consent is granted, construction could commence in late 2005, with Stage Two programmed to open in early 2007.

Stage Two of the Silverstream Landfill would be designed, built and operated to current best practice standards. The general features of the proposed facility are shown schematically on page 15 in Figure 2.2.9.

Stage Two of the Landfill would comprise important features that make it safe for the environment. These include engineered systems to:

- **install** a complete landfill liner to ensure capture of all leachate
- **cover** the waste in the landfill
- **divert** and control stormwater flow
- **collect and manage landfill gas.**

Stage Two of the Landfill would be built in five separate phases, each lasting between five and eight years. The overall development would be capable of accepting waste for the next 30 to 40 years. Only a small area of the landfill would be open at any time (typically less than one hectare). The working face would be kept small and waste compaction, cover application, litter and odour control would be to a high standard, so that off-site nuisance is minimised.

Figure 2.2.9

