

Waitakere City Council
Solid Waste Management Plan
Adopted 7 November 2005

Part 2

Action Plan

Solid Waste Management Plan Part 2 Action Plan

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1. Introduction to the Action Plan

This Action Plan forms Part 2 of Waitakere City Council's Solid Waste Management Plan and outlines the programme of action that will be undertaken to achieve the vision, target and goals as presented in Part 1: Zeroing in on Waste. The Action Plan generally covers a three-year period, but it is anticipated that it will be updated each year as part of the Council's Annual Plan process, following a period of public consultation as required by the Local Government Act 2002.

Part 1 and Part 2 will be more fully reviewed concurrently within a five-year period from the time of adoption. Any significant changes resulting will be incorporated into the Council's Long Term Council Community Plan process and subject to public consultation.

The Action Plan has been designed to meet the requirements of the Local Government Act 1974, 1996 and 2002, the Council's Long Term Council Community Plan 2003/2013, the Waste Management Plan 2003, the NZ Waste Strategy 2003, the Water and Sanitary Services Assessment 2005, the Waitakere City Council Waste Bylaw 2005 and the Annual Plan 2005/2006.

This Action Plan should be considered in conjunction with Part 1 Zeroing in on Waste.

2. Funding Structure

The development of a Waste Reduction Fund has been proposed in order to fund the implementation of actions as outlined in the Solid Waste Management Plan 2005. The Waste Reduction Fund would be made up of surplus revenue over costs (as obtained through user charges or other revenue) and funds from the proposed waste levy.

The Council may, in the future, support a similar regional fund.

The actions to be implemented utilising the Waste Reduction Fund include but are not limited to the following:

Waste Reduction Initiative	Cost Estimates (for the purpose of s 544 LGA 1974)
Waste Minimisation Learning Centre	\$85,000
Education and promotion	\$55,000
Zero Waste project and pilot scheme funding	\$500,000
Sponsorship of Waste Reduction Events	\$10,000
Total Cleaner Production costs	\$350,000
Waste audits	\$35,000
Resource Recovery Centre (wages, computer, contractor, maintenance etc)	\$100,000
Kerbside recycling based on 2003/04 tonnages including paper @ \$100 per tonne	\$1,200,000
Food waste collection for 10,000 tonnes @ \$150 per tonne	\$1,500,000
Transfer Station recycling and recovery of values from the waste stream destined to landfill	\$650,000
Hazardous waste management and disposal	\$50,000
Total	\$4,535,000

Litter Costs	For the purpose of s151 LGA 1974
Litter, illegal dumping, stream cleaning (excludes abandoned vehicles)	\$530,000
Litter and waste minimisation administration costs (wages, vehicles etc)	\$300,000
Proposed Town Centre representatives (2) monitoring litter in the City (wages, vehicles etc)	\$140,000
Total	\$970,000

3. Action Plan Tables

The following pages include a set of tables that list the specific actions to be undertaken for each priority area.

Avoidance and Reduction of Waste Generation

Avoidance of producing waste in the first instance and reduction in waste that is produced relies on effective education programmes, and on lobbying for national initiatives or legislation to address the issue.

The Waitakere Waste Minimisation Learning Centre, opened in April 1999, is located at the Recycling and Refuse Transfer Station. The Learning Centre's education programme is aimed at school children aged 8-12 years in the belief that the best way to change public attitudes about the solid waste problem is by educating school children. The programme caters for school groups and includes a tour of the transfer station so the students can see that much more can be done with waste than just burying it. Students are given hands on experience in making compost and worm farming. They are taught what can be recycled and what is made from the material they recycle.

Schools are also encouraged to take their own waste minimisation initiatives, particularly by installing worm farms to handle the organic waste that their school generates.

The Learning Centre is a valuable resource for demonstrating good practice and is sponsored by Onyx through paper recycling and by the Zero Waste NZ Trust. A total of 4750 visitors attended the Learning Centre during 2002, including some international/senior citizen groups.

Cleaner Production works closely with businesses and schools to assist them with resource efficiency, waste minimisation, recycling, and implementing safer environmental practices. Currently, one school in Waitakere City is also trialling the EnviroSchool programme, as part of a national programme.

Cleaner production is also piloting the nationally developed Sustainable Households Programme. This programme takes householders through fortnightly modules focusing on sustainability around the home and includes waste minimisation.

Council's partnership with Ecomatters Trust advocates and assists the community to raise awareness of the problem with litter and dumping.

Waitakere City Council Waste Bylaw 2005 enables the Council to licence all operators of waste management facilities and collectors and transporters of waste, and require information on waste movements. The bylaw also provides for a levy to be imposed on waste collected, transported or disposed of within the district covered by the bylaw. The levy will be used to enforce the licence provisions and to fund waste minimisation initiatives identified in this Action plan.

Action Category	Actions: Avoidance and Reduction	Indicative Timeframe for Implementation	Indicative Funding Source
Direct Action	*Zero Waste project and pilot scheme funding.	2007	Waste Reduction Fund
	Introduce a community initiatives grant fund.	2006	Rates and/or Waste Reduction Fund
	*Continue to fund Trash to Fashion, Clean Streams, Keep Waitakere Beautiful and similar events.	On-going	Rates
	Provide a demonstration project in a new subdivision for good waste management practice and separation of waste streams at source.	2007	Rates and/or Waste Reduction Fund
	Continue to operate the Refuse and Recycling transfer Station to maximise diversion of waste away from landfill.	On-going By 2010 divert 30% or more of waste received away from landfill	Rates and user charges
	Continue to support and fund national and regional Cleaner Production partnership waste minimisation initiatives.	On-going	Rates and/or Waste Reduction Fund
Economic Instruments	Continue user-pays policy for household waste collection and disposal.	On-going	User charges
	*Introduction of a levy on waste to landfill.	2006	Waste Reduction Fund

Regulation	*Implement a waste operator and waste facility licensing system to enable the collection of information on all waste and adherence with standards set out in the waste bylaw and licence conditions.	August 2005	Licence fee
Advocacy and Education	*Continue and expand the education and advocacy programmes through the Waste Minimisation Learning Centre.	On-going	Rates and/or Waste Reduction Fund
	*Lobby for Extended Producer Responsibility and Product Stewardship legislation, and support local delivery of these means.	On-going	Rates
	Develop a Waste Communication Plan.	2006	Rates
	Cleaner Production will continue to work with businesses and the community to encourage waste minimisation.	On-going	Rates and/or Waste Reduction Fund
Leading by Example	Annual waste audit of Council owned sites.	First audit in 2002	Rates
	Preparation of a Corporate Sustainability Strategy.	2006	Rates
	Implement the waste minimisation actions in the Corporate sustainability Strategy	On-going	Rates
Measuring Progress	Undertake an annual solid waste analysis protocol (SWAP) analysis to determine the composition of waste in the household collection and in the overall waste stream.	On-going since 1993	Rates and/or Waste Reduction Fund
	Measure residents' satisfaction with the refuse and recycling collection service is surveyed annually.	On-going since 1993	Rates
	The Council participates in regional surveys of all waste to landfill, co-ordinated through the Auckland Waste Managers Forum.	Every five years	Rates

Reuse of Construction and Demolition Waste

Approximately 3,000 tonnes of construction and demolition waste per year are received by the transfer station via domestic vehicles. Concrete and rubble, steel, cardboard and seasonal firewood are separated and extracted as it arrives. Reusable timber, non-ferrous metals, glass bottles and bric-a-brac are also separated and extracted from the tipping floor. This represents only a fraction of the building waste generated. The issue is how to encourage separation of materials so as to increase the opportunity for processing at the transfer station. This will require discussion with builders and to find some way to ensure collection without mingling of materials. At this stage, the emphasis is on designing a process that will allow builders and sub-contractors to participate with minimum disruption.

Reuse of Inorganic and Special Wastes

By assisting businesses to review their business practice, Cleaner Production has supported several companies participating in the cleaner production printing industry project, to take producer responsibility for special wastes. Two companies collect waste ink that would otherwise be disposed of, and refine it for sale as recycled black ink. One of the companies also works with its customers to introduce mineral-oil free inks as an alternative product to mineral-based inks. As a result of that initiative, all of Council's preferred printers make at least some use of mineral-free inks, with some using them for all print jobs.

Through the boat-building project, Cleaner Production has been working with suppliers and recyclers to identify opportunities for producer responsibility with local boat building businesses and their suppliers.

Note that the Refuse Transfer Station currently recycles the special waste categories of tyres, gas bottles and some computer parts. Useful vehicle parts including tyres, magnesium-wheels and metals are extracted and recycled from delivered derelict vehicles and the abandoned vehicles collection programme.

Reuse of Hazardous Waste

A hazardous waste collection depot operates at the Council's transfer station, and is free to residents of Waitakere City. More than 90% by weight of the hazardous waste received by the transfer station is car batteries, waste oil and paint, which can be reused or recycled. This service collected 9,503 kg of waste for recycling or safe disposal to licensed facilities in 1999/2000.

The hazardous depot at the transfer station is not licensed to accept organochlorines or PCBs.

A sample of domestic rubbish bags in 2002 found that around 2% of household waste collected in domestic rubbish bags is potentially hazardous.

Council operates a Cleaner Production hazardous substances project that helps businesses to manage their hazardous substances and reduce hazardous waste.

Action Category	Specific Actions: Reuse	Indicative Timeframe for Implementation	Indicative Funding Source
Direct Action	*Transfer Station currently separates and extracts concrete, rubble and steel as it arrives.	On-going By June 2008 70% of all construction and demolition waste arriving at the RTS is recycled for further use	Waste Reduction Fund and Cost recovery from sales
	*Bring the Resource Recovery Centre into full operation	2006	Waste Reduction Fund /Cost recovery from sales.
	Establish an alternative inorganic collection system to the current annual kerbside collection	2007	Rates/ cost recovery from sales at the Resource Recovery Centre
	A hazardous waste collection depot operates at the Transfer Station and 90% (by weight) of hazardous waste collected (car batteries, oil and paint) is reused or recycled.	On-going	Rates and/or Waste Reduction Fund Some cost recovery from sales
	Tyres, gas bottles, some computer and vehicle parts will continue to be recycled through the Transfer Station.	On-going	Rates/weighbridge charges/ cost recovery from sales.
Economic Instruments			

Regulation			
Advocacy and Education	*Support the introduction of bans or limits for types of C & D waste to landfill as further recovery options become available.	2006	Rates
	*nclude clauses relating to minimising waste and separating waste streams in contracts for Council building projects.	2006	Rates
	Advocate for more resource centres for schools to be able to access re-useable resources (e.g. West Auckland Resource Centre).	2006	Rates and/or Waste Reduction Fund
	*Cleaner Production C & D project.	2005	Rates/ Waste Reduction Fund
	Cleaner Production Hazardous Substances project.	On-going	Rates/ Waste Reduction Fund
Leading by Example	*The Council will trial construction and demolition recycling from its own development projects.	2006	Rates
	Include clauses relating to minimising waste and separating waste streams in contracts for Council building projects	On-going	Rates
Measuring Progress	Annual audit of waste entering the transfer station.	On-going	Rates/ Waste Reduction Fund

Recyclables and Organic Waste

Householders and commercial premises within the city are provided with 140-litre recycling bins for setting out recyclables for collection on a fortnightly basis. The materials collected are glass bottles and jars, aluminium and tin cans, plastic containers (class 1 or 2) and paper and cardboard.

Green waste is separated on its arrival at the transfer station, with most being diverted to the Vertical Composting Units. The ten Vertical Composting Units (VCU) were installed at the transfer station in May 2001. The VCUs are capable of processing 30 tonnes of green waste into organic compost per cycle, and 7,500 tonnes are composted per year.

Now under a consent granted in 2003 from Auckland Regional Council, food waste can be co-mingled and processed with the green waste... The composting unit requires a certain ratio of green waste to food waste in order to operate properly. The existing consent only provides for the composting of domestic quantities of food waste. In order to compost commercial quantities of food waste, a larger composting facility and significantly more green waste would be needed.

The Solid Waste Analysis Protocol (SWAP) analysis undertaken once year indicates that organic material is the largest proportion of waste found in domestic rubbish bags entering the transfer station, and is a significant landfill management issue when disposed of as it generates methane on breaking down. Methane is one of the greenhouse gases contributing to climate change. For that reason, it is considered a priority in terms of minimising waste. Approximately 10-11,000 tonnes of kitchen organic waste per year are transferred directly to landfill from the transfer station.

It is anticipated that once the waste levy is in place, there will be sufficient funding available by the end of 2006 to pilot a kitchen waste collection to feed into the composting operation.

Council's Cleaner Production partnership with a local food waste collector has resulted in an estimated 500 tonnes of food waste from commercial operators per year being diverted from landfill and used for stock feed.

Action Category	Specific Actions: Recyclables and Organic Waste	Indicative Timeframe for Implementation	Indicative Funding Source
Direct Action	*Introduction of a household kitchen waste collection for composting.	December 2006	Waste Reduction Fund
	*Continue with the provision for green waste collection for composting at the Transfer Station.	On-going	Rates
	Continue with selling subsidised compost bins to households.	On-going	Rates
	*Continue to provide a free kerbside recycling collection service to all households and businesses.	On-going	Rates/ Waste Reduction Fund
	Liaise with contractors, businesses and other organisations to secure markets for additional recyclable materials.	On-going	Rates/ Waste Reduction Fund
	Tyres, gas bottles, some computer and vehicle parts will continue to be recycled through the Transfer Station.	On-going	Rates/weighbridge charges/sales
	*Cleaner production works with local businesses to identify opportunities for recycling special wastes or using alternatives.	On-going	Rates/ Waste Reduction Fund
Economic Instruments			
Regulation	*Investigate and impose bans or limits on green waste going to landfill.	On-going	Rates
	District Plan provisions to incorporate space allocation requirements for recycling facilities in multi-unit residential and commercial buildings as is the case for medium density housing.	2005	Rates

Advocacy and Education	Continue to educate school children on “hands-on” methods of composting and worm farming at the Waste Minimisation Learning Centre. The participating schools are also provided with free worm farms and worms to compost food waste at schools.	On-going	Rates/ Waste Reduction Fund
	*Continue to work with businesses that produce organic waste to promote reduction and recycling initiatives.	On-going	Rates/ Waste Reduction Fund
	*Encourage schools to reduce their organic waste through composting, worm farming and the EnviroSchools programme.	On-going	Rates/ Waste Reduction Fund
	*Extend the availability of the EnviroSchools and Sustainable Households education programmes.	2006	Rates/ Waste Reduction Fund
	Lobby for national waste legislation that addresses organic waste reduction.	On-going	Rates
	Support industry groups and government agencies to promote development of suitable national standards for organic composting and products.	On-going	Rates
	Support research and development of new markets for recovered materials and technologies for reducing organic waste and to support beneficial use.	On-going	Rates
	Advocate for cooperation between TLAs in waste management planning, policy and service implementation as appropriate with respect to organics, and continue membership in the regional Organic Waste Working Group.	On-going	Rates

Leading by Example	The Council's food waste fed to the on-site worm farms.	On-going	Rates
Measuring Progress	Conduct an annual residents' satisfaction survey regarding provision of waste services including organic waste collection.	On-going	Rates
	Regular auditing and reporting of the Council's waste streams, tonnages and diversion rates...	On-going	Rates

Recovery, Residual Waste and Closed Landfills

Excluding kerbside recycling, the amount of domestic waste together with litter and dumping generated from Waitakere City and deposited at the transfer station equates to 154 kg per person or 450 kg per household. This figure has been decreasing since the 1998/99 peak of 218 kg per person. A substantial proportion of this waste (25% in 2004/05) is recycled or composted, with the remainder (75%) currently going to landfill outside the City.

The main types of waste by weight that do not go to landfill are metal (both from the recycling collections and metal recovered from the tipping floor) and green waste, which is separately collected at the gate and composted.

Target

By 2010, 30% or more waste entering the Refuse and Recycling Transfer Station (from within and outside the city) is diverted from landfill through recycling, recovery or composting.

There are no longer any active landfill sites in Waitakere City since the balefill at Kays Road was closed. The Council currently manages 47 confirmed historic landfill, balefill and cleanfill sites and has identified another 14 potential sites which will require verification. Management of these sites is currently carried out by Council's Aftercare section.

Action Category	Specific Actions: Recovery, Residual Waste and Closed Landfills	Indicative Timeframe for Implementation	Indicative Funding Source
Direct Action	Continue to provide a competitive, user-pays domestic waste collection and disposal service available to all properties through private contractors.	1 July 2005 By 2010 volume per capita of litter, dumping and household waste (excluding recyclables) generated from Waitakere City and deposited at the RTS is less than 145 kg.	User charges
	Continue to use private sanitary landfills that meet legislative requirements for waste disposal through contracts with private operators.	1 July 2005	User charges
	Continue to provide user-pays waste drop-off and transfer services at the Refuse and Recycling Transfer Station at The Concourse.	On-going	User charges
	Continue monitoring and aftercare of closed landfills on council-owned land, in accordance with legislative requirements to ensure environmental and public health risk is minimised.	On-going	Rates
	Continue to provide litter bins and litter collection for public areas, stream cleaning, illegal dumping and abandoned vehicle collection.	On-going	Rates
	Investigate and consider provision of additional resource recovery, recycling, composting and alternative processing facilities to further divert waste from landfill to beneficial use as funding becomes available.	On-going	Rates and/or Waste Reduction Fund

	Transfer Station currently separates and extracts timber for firewood on a seasonal basis.	On-going	Rates/ Waste Reduction Fund
	Provision and enhancement of the litter and illegal dumping collection and enforcement programmes.	On-going	Rates and/or Waste Reduction Fund
Economic Instruments	*Implement a levy on waste to landfill to increase the incentive to reduce residual waste to landfill, and to fund additional programmes and services aimed at reducing waste.	2006	Provides income source for a Waste Reduction Fund
Regulation	*Impose bans or limits on specific residual materials being sent to landfill, as options for reuse or recycling become available.	2006	Rates
	*Licensing of all waste collectors operating within Waitakere City to ensure a quality collection service is provided to residents and ratepayers.	2005	Licence fee
Advocacy and Education	*Lobby central government for national waste legislation that addresses the reduction of residual waste.	On-going	Rates
	Encourage Local Government New Zealand to set up a working party to support the New Zealand Waste Strategy and carry out any investigations necessary to support its implementation.	On-going	Rates

	Continue to support research, networking and partnerships with respect to waste minimisation.	On-going	Rates
	Advocate for co-operation and partnership between neighbouring districts and industry as appropriate with respect to developing waste disposal alternatives in the medium to long term.	On-going	Rates
Leading by Example			
Measuring Progress	Implement a programme to more accurately identify residual waste quantities, such as, through the waste operator licensing system. Report on tonnage information annually.	2005	Rates and/or licence fee

Note: *Priority actions