

## SOLID WASTE

### Description of Services Provided

Both the Council and various private and community organisations provide a range of waste management and minimisation services to residents and businesses throughout the Waitakere district which relate to waste collection, handling, recycling, reuse, composting and education. These services are described in more detail in the following sections.

The Council owns and operates one solid waste transfer station in the district. It is located at 50 The Concourse in Henderson and is open to the general public seven days a week.

Weekly household refuse and recycling collections, daily commercial collections and yearly inorganic collections to residential properties are contracted out by the Council. Council also fund and provide for a range of waste minimisation initiatives and litter collection services. Further, the Council manages 64 of the 143 closed landfill sites in the city. Table 15 summarises the extent of solid waste services in Waitakere City that are controlled by the Council.

**Table 15: Council Waste Services**

WCC Solid Waste Services	WCC Role
• Weekly Domestic Refuse Collection	Service Provider
• Weekly Commercial 'Household' Refuse Collection	Service Provider
• Weekly Domestic / Commercial Recycling Collection	Service Provider
• Yearly Domestic Inorganic Collection	Service Provider
• Litter Management	Service Provider
• Abandoned Vehicle Collection & Management	Service Provider
• Illegal Dumping Collection & Management	Service Provider
• Household Hazardous Waste Drop-off at RTS	Service Provider
• Refuse Recycling Transfer Station at The Concourse (WCC RTS)	Service Provider
• Waste Minimisation Learning Centre at WCC RTS	Service Provider
• Closed Landfill Management	Service Provider
• Cleaner Production Programmes	Advocate/Facilitator
• In-vessel Vertical Composting Units (VCU) at WCC RTS	Advocate/Facilitator + Service Funder

### Assessment of Risks to the Community

An assessment has been carried out of solid waste collection, recycling and disposal services as well as closed landfill sites.

No risks have been identified with regard to any of these services.

### Assessment of Quality, Quantity and Adequacy of Services Provided

Council keeps records of any complaints registered against the Refuse Transfer Station at The Concourse. Since 1998, 5 air discharge complaints have been recorded and 10 complaints regarding noise concerns (less than 1 per year and 1.5 per year, respectively). These frequencies of complaints are not considered to present a significant public health threat. Air quality discharge issues have also been dealt with by ARC since 2000 and the ARC Air Quality department confirmed there had been no verified complaints regarding air discharge issues over the period from 2000 to current (2004).

The total amount of waste generated in Waitakere City during 2004 was 136,172 tonne. The composition of the waste streams is as shown in the table below.

**Table 16: Waste Streams Handled by WCC Transfer Station**

No.	Waste Streams	Description of Waste/Material	% of 2004 Category 1 Waste Stream
1	Kerbside Recycling Collection (excl. paper)	Recyclable materials from 60L kerbside recycling bins	8
2	Household Refuse Collection	Refuse from bag collection service to domestic properties	24
3	Green Waste	Accepted green waste material is composted on-site in the Vertical Composting Units (VCU).	9
4	Council Commercial Collection	Refuse from bag collection service to commercial properties	1.5
5	Organic Waste Kerbside Collection	Kerbside food waste collection; to begin 2006	N/A
6	Inorganic Kerbside Collection	Inorganic materials collected from residential kerbside once per year	6
7	Illegal Dumping (SWBU)	Dumped materials collected by SWBU	0
8	Illegal Dumping in Parks, Beaches (Techscape)	Dumped materials collected by Techscape	1
9	Litter Collection	Refuse collected from litter bins - Council Contracted Service	0
10	Car Bodies	Abandoned vehicles - Council Contracted Service	0.5
11	Domestic vehicles waste (Waitakere only)	Refuse taken to RTS by domestic vehicles	9
12	Industrial / commercial waste (Waitakere city only)	Refuse taken to RTS by industrial vehicles	41

Notes: 1. Waste streams with the largest proportions are shaded.

2. Percentages are based on 2004 waste quantity data provided by B. Somaratne (2004). Refer Appendix C for detailed calculations.

The latest Key Performance Indicators (KPI) Council Services Survey (undertaken in 2003) included two 'Zero Waste' KPIs. These provide a basic indication of the community's impression as to the level of service provided by Council with respect to solid waste services. 88% of residents who responded to the survey were satisfied with the weekly domestic refuse collection service, and 65% are satisfied with Council's dealings with litter (WCC, August 2004). Both these results meet or exceed Council's Zero Waste KPI targets of 85% and 65%, respectively.

## Statement of Current and Estimated Future Demands for Services

The range and extent of solid waste services that will be required in the future will be influenced by various factors including:

- Population and industry growth / trends;
- National and regional influences;
- Zero Waste vision; and
- Regional landfill capacity.

High, medium and low population growth projections have been produced for Waitakere City Council by the Auckland Regional Council for the planning horizon from 2006 to 2046 using data from Statistics NZ (refer Appendix A). The average growth rate for the Medium projection is 1.2% per year up until 2046. The population is therefore projected to increase from a Usual Resident Population of 176,220 in 2001 to approximately 300,000 in 2046. This is a total increase of approximately 70%.

The New Zealand Waste Strategy: Towards Zero Waste and a Sustainable New Zealand (MfE, 2002) is a joint waste minimisation initiative between the Ministry for the Environment and Local Government New Zealand.

The Waitakere City Council Waste Management Plan, which was adopted in June 2003, acknowledges the NZ Waste Strategy and the various targets it proposes.

The Waste Management Plan states that its purpose is the following:

*“A short-term operational guideline of how the Council intends to manage the waste it generates, collects and receives at its Refuse and Recycling Transfer Station over the next three to five years. However, a more comprehensive review is anticipated before the end of 2005 to fully review pricing and other tools to take the city towards **zero waste** to landfill”.*

A Memorandum of Understanding (MOU) exists between Waitakere City Council, North Shore City Council and Rodney District Council with the purpose of pursuing a cooperative approach towards waste policy work, specifically in relation to waste management plans, waste bylaws and regulatory functions.

One of WCC's nine strategic platforms (or community outcomes) as outlined in WCC's Long Term Council Community Plan (LTCCP 2003 – 2013) is *Zero Waste*. The 2020 Vision statement for this platform is that “*Waitakere will be a clean and attractive City that turns all its waste into resources*”. Council believes Zero Waste does not necessarily mean no rubbish will be produced but rather to deal with it in such a way that, to the greatest possible extent, it is turned back into useful resources and not produced in the first place.

The influence that this vision will have on the types of services provided by the Council and the community in Waitakere over the next few decades will be significant. The existing plan has a considerable focus on waste minimisation actions and initiatives. For example, the existing plan intends to implement a food waste kerbside collection to residents in 2005 which provide additional organic materials for the Vertical Composting Units at the RTS. The Cleaner Production Unit will continue to promote resource efficiency, waste minimisation and pollution prevention in specific industries (e.g. boat-building, cafes and restaurants). Other initiatives included in the existing plan are undertaking construction and demolition recycling site trials, establishment of a Resource Recovery Centre at the RTS, license all refuse and recycling collectors operating in Waitakere City.

Future demand forecasting for waste collection, re-use, recycling and disposal services will be influenced by all of the factors discussed in the sections above. For the purpose of this assessment, four scenarios have been developed, each representing the same medium-level population growth projections (approximately 1.6% per year until 2020) but each with differing degrees to which the Zero Waste Vision will be achieved. The four scenarios are illustrated in Table 17.

**Table 17: Future Solid Waste Scenarios**

<b>Scenario 1</b>	Medium-Level Population Growth; Recovery rates remain at 2004 rates
<b>Scenario 2</b>	Medium-Level Population Growth; Increased Recovery Rates to Achieve <i>Low Level Zero</i> Waste Vision by 2020
<b>Scenario 3</b>	Medium-Level Population Growth; Increased Recovery Rates to Achieve <i>Medium Level Zero</i> Waste Vision by 2020
<b>Scenario 4</b>	Medium-Level Population Growth; Increased Recovery Rates to Achieve <i>Zero Waste</i> Vision by 2020

**Table 18: Summary of Solid Waste Demand Forecast (2021)**

<b>Summary</b>	<b>2004 (EXISTING)</b>	<b>2021 (SCENARIO 2)</b>	<b>2021 (SCENARIO 2)</b>	<b>2021 (SCENARIO 3)</b>	<b>2021 (SCENARIO 4)</b>
Total Waste Generated in Waitakere City (Category 1 + 2, t)	136,172	178,871	178,871	178,871	178,871
Total Waste Generated Handled by WCC RTS (Category 1 + 3, t)	146,340	193,108	193,108	193,108	193,108
Category 1: Waste from Waitakere City to WCC RTS (t)	87,463	110,666	110,666	110,666	110,666
Category 2: Waste from Waitakere City to Other RTS/landfills (estimate, t)	48,709	68,204	68,204	68,204	68,204
Category 3: Non-Waitakere waste handled WCC RTS (estimate, t)	58,877	82,442	82,442	82,442	82,442
Total Recycled/Recovered Materials from WCC (Category 1 + 2, t)	20,883	26,423	56,689	75,676	149,511
Total Recycled/Recovered Materials at WCC RTS (Category 1 + 3, t)	20,883	26,423	56,689	75,676	161,898
Category 1: Waitakere Waste Recovered at WCC RTS (t)	20,883	26,423	56,689	75,676	90,173
Category 2: Waitakere Waste Recovered at Other RTS (t)	0	0	0	0	59,338
Category 3: Non-Waitakere Waste Recovered at WCC RTS (estimate, t)	0	0	0	0	71,725
Percentage Recovered Materials from WCC's Waste (Category 1 and 2, %)	15%	15%	32%	42%	84%
Percentage Recovered Materials from WCC RTS Waste (Category 1 and 3, %)	14%	14%	29%	39%	84%
Category 1: Percentage Waste Recovered	24%	24%	51%	68%	81%
Category 2: Percentage Waste Recovered	0%	0%	0%	0%	87%
Category 3: Percentage Waste Recovered	0%	0%	0%	0%	87%
Total Waste to Landfill from Waitakere City only (excl. outside Waitakere) (t)	115,289	152,447	122,182	103,194	29,360

**Statement of Options Available to Meet Current and Future Demands**

A basic analysis of Auckland Region’s waste disposal landfill capacity suggests there is sufficient capacity to continue to handle reuse from the Waitakere City Council’s Refuse Transfer Station for at least the 10-year planning horizon of this assessment and beyond.

Based on an analysis of landfill capacity it is estimated that the four landfills that serve the Auckland Region: Redvale in Silverdale; Greenmount in Whitford; Tirohia near Paeroa and Hampton Downs in the Waikato, will have an annual combined landfill capacity of approximately 1,300,000 tonnes per annum.

The estimated annual waste sent to landfill from the Auckland Region (including Rodney, North Shore, Auckland, Waitakere, Manukau, Papakura and Franklin) is approximately 800,000 t.p.a (115,000 tonnes of which is from Waitakere City). Even accounting for future population growth, these figures suggests sufficient future landfill capacity beyond the 10-year planning horizon.

However, Council is concerned that this is a very short timeframe for the planning horizon and it is essential that zero waste programmes are accelerated to avoid a future shortage of landfill space with consequent significant price increases due to reduced capacity.

Council considers that current demand is adequately catered for, but the best option to meet future demand is to aggressively pursue a zero waste strategy.

**Statement of Council’s Intended Role**

Waitakere City Council currently takes on various roles with respect to existing solid waste services ranging from a ‘Service Provider’ (e.g. weekly domestic recycling collection) through to Advocate/Facilitator (e.g. promoting home composting). The future actions proposed in the existing Waste Management Plan (excluding those which involve the continuation of existing services) and the roles that Council intend to take for each are presented in table 19 below.

**Table 19: Council’s Intended Roles**

Proposals	Advocate/ Facilitator or Regulator	Service Funder	Service Provider
Waste demonstration project	✓	✓	
Waste Communication Plan	✓	✓	✓
EnviroSchools & Sustainable Households	✓	✓	
License refuse and recycling collectors	✓		
LGNZ working party	✓		
Secure more recyclable markets	✓		
Establish a Resource Recovery Centre	✓	✓	✓
Additional resource recovery bays	✓	✓	✓
Establish a kerbside food waste collection	✓	✓	✓
Continue Cleaner Production Programme	✓	✓	
C&D waste recycling trial sites	✓	✓	
Corporate Sustainability Strategy	✓	✓	

### **Statement of Councils Proposals for Meeting Current and Future Demand**

Council will continue to provide solid waste services at the current level of service and in the short term promote new initiatives to optimise recycling, such as the new kerbside recycling wheelie bins. Within the next 10 years solid waste will continue to be disposed of at landfills, but as space will eventually run out it is essential that progress toward Zero Waste is accelerated.

In order to achieve the Zero Waste vision, there will be numerous initiatives and services which will begin to be introduced and implemented over the next 10-years to help work towards the vision. This will require significant investment and participation from all sectors of the community.

In order to achieve the recovery rates necessary to reduce total waste to landfill (assuming no reduce in waste generation occurs over the coming decades), it has been assumed that a range of initiatives are implemented.

The options that will help to work towards the Future Forecast Scenarios 1 to 4 (i.e. low to high achievement of the Zero Waste Vision) are based on those initiatives listed in 2003 Waste Management Plan, including the implementation of the following new initiatives:

- Provide a demonstration project in a new subdivision for good waste management practice
- Develop a Waste Communication Plan
- Extend EnviroSchools and Sustainable Household education programmes
- License refuse and recycling collectors operating in Waitakere City
- Set up a working party in LGNZ to support NZ Waste Strategy
- Liaise with community, businesses and other councils to secure recyclable markets
- Establish a Resource Recovery Centre
- Develop additional bays for resource recovery at the transfer station
- Establish a kerbside food waste collection
- Continue Cleaner Production Programme
- Trial construction and demolition waste recycling at own development sites
- Prepare a Corporate Sustainability Strategy to address corporate waste management at Council and include clauses relating to waste minimisation in contracts for new Council buildings.

To achieve the Zero Waste Vision it is recognised that further funding and initiatives will be required to address those waste categories that get transported to locations outside Waitakere City as well or waste that comes from outside Waitakere City but handled at the transfer station (i.e. Waste Categories 2 and 3). Such initiatives are represented by the recovery rates proposed in Scenario 4. Further detailed decision-making and strategic planning and cost analysis will be undertaken as part of the WCC Waste Plan review in 2005 and 2006.

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