

Kaipara District Council

Waste Minimisation and Management Plan 2010



Kaipara te Oranganui

**KAIPARA
DISTRICT**

Two Oceans Two Harbours

Quality Information

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Prepared by	Daniel Wood
	AECOM Senior Planner
Reviewed by	Ian Martin
	AECOM Associate Director
Approved by	Fiona Vessey
	Community Infrastructure Assets Manager, Kaipara District Council
	Michael Fleming
	Finance Manager, Kaipara District Council
	Jack Mc Kerchar
	Chief Executive, Kaipara District Council

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1 Introduction

1.1 What is the Waste Minimisation and Management Plan (WMMP)

Under the Waste Minimisation Act 2008 a Territorial Authority must 'promote effective and efficient waste management and minimisation within its district'¹. A WMMP is prepared and adopted as a requirement to achieve that purpose. Under section 43 of the Waste Minimisation Act 2008, a plan must contain the following:

- Objectives, policies and methods for achieving the above purpose;
- Details of funding; and
- Any framework for awarding grants or advances (if any) to promote waste management or minimisation.

Kaipara District Council's (Council) 2008 Refuse Asset Management Plan (AMP) determines standards, levels of service and funding levels to maintain a sustainable and affordable refuse service across the district. This will become the document on which future Refuse Asset Management Plans will be based.

1.2 Goals and Vision

1.2.1 Mission Statement for Kaipara District

We will work with the community to preserve our heritage, enhance our environment, and provide the best possible services and facilities to make Kaipara an excellent place to live.

Council recognises that its first responsibility is to the people of the district. We are a service provider to the community and a facilitator to achieve the defined Community Outcomes. Council will, in partnership with the community, facilitate, plan and encourage growth and achieve these Community Outcomes:

Sustainable economy

Waste minimised by affordable user-pays charges on waste collection and disposal

Strong communities

Communities have a specific collection day on which they may place their user-pays bagged refuse for collection

Safety and good quality of life

Communities are able to dispose of refuse in a hygienic and sustainable manner

Special character and healthy environment

Transfer stations, landfills and removal of illegally dumped rubbish minimise possible environmental impacts

¹ Section 42 of the Waste Minimisation Act 2008

1.2.2 Goal of this plan

Council aims to produce a plan that targets the major products produced in the community, embraces the principle of user pays and focuses on reducing the quantities of waste produced.

The vision of this Waste Management and Minimisation Plan is:

To provide for the waste management needs of Kaipara District and promote working towards zero waste through efficient and effective waste management in the community.



2 Background and Context

2.1 Legislative Context

The following legislation requirements provide context for this WMMP.

Waste Minimisation Act 2008 (WMA)

This is the key legislation behind the WMMP. This Act aims to promote waste minimisation and lessen waste disposed of in landfills to protect the environment and provide associated benefits. A key aspect to the Act is the differentiation of diverted material from waste; waste is that which is discarded.

Part 4 of the Act sets the responsibilities of Council. This is to 'promote effective and efficient waste management and minimisation within its district.' In respect to this WMMP the Act provides requirements for content, the process of preparation, and the funding of the plan and waste management activities. Part 3 of the Act establishes a levy at the rate of \$10 per tonne or equivalent. A share of 50% of the total levy may be paid back to the territorial authority for use in waste minimisation activities. This share is based on the district population, and the adoption or review of a WMMP.

In relation to preparation of a WMMP plan, section 44 of the Act sets out what is required when preparing a plan:

44 Requirements when preparing, amending, or revoking plans

In preparing, amending, or revoking a waste management and minimisation plan, a territorial authority must—

(a) consider the following methods of waste management and minimisation (which are listed in descending order of importance):

- (i) reduction;*
- (ii) reuse;*
- (iii) recycling;*
- (iv) recovery;*
- (v) treatment;*
- (vi) disposal; and*

(b) ensure that the collection, transport, and disposal of waste does not, or is not likely to, cause a nuisance; and

(c) have regard to the New Zealand Waste Strategy, or any government policy on waste management and minimisation that replaces the strategy; and

(d) have regard to the most recent assessment undertaken by the territorial authority under section 51; and

(e) use the special consultative procedure set out in section 83 of the Local Government Act 2002 and, in doing so, the most recent assessment undertaken by the territorial authority under section 51 must be notified with the statement of proposal.

Prior to reviewing the WMMP Council is required to undertake a waste assessment (s50). This was last undertaken in 2004. Section 51 relates to this waste assessment and states:

51 Requirements for waste assessment

(1) A waste assessment must contain—

(a) a description of the collection, recycling, recovery, treatment, and disposal services provided within the territorial authority's district (whether by the territorial authority or otherwise); and

(b) a forecast of future demands for collection, recycling, recovery, treatment, and disposal services within the district; and

(c) a statement of options available to meet the forecast demands of the district with an assessment of the suitability of each option; and

(d) a statement of the territorial authority's intended role in meeting the forecast demands; and

(e) a statement of the territorial authority's proposals for meeting the forecast demands, including proposals for new or replacement infrastructure; and

(f) a statement about the extent to which the proposals will—

(i) ensure that public health is adequately protected:

(ii) promote effective and efficient waste management and minimisation.

(2) An assessment is not required to contain any assessment in relation to individual properties.

(3) Information is required for an assessment to the extent that the territorial authority considers appropriate, having regard to—

(a) the significance of the information; and

(b) the costs of, and difficulty in, obtaining the information; and

(c) the extent of the territorial authority's resources; and

(d) the possibility that the territorial authority may be directed under the Health Act 1956 to provide the services referred to in that Act.

(4) However, an assessment must indicate whether and, if so, to what extent, the matters referred to in subsection (3)(b) and (c) have impacted materially on the completeness of the assessment.

(5) In making an assessment, the territorial authority must—

(a) use its best endeavours to make a full and balanced assessment; and

(b) consult the Medical Officer of Health.

Local Government Act 2002 (LGA 2002)

Part 6 of this Act requires the identification of community outcomes and the compiling of a Long Term Council Community Plan, which affects this WMMP. Other parts of this Act contain provisions that allow for the making of bylaws and set down the consultation procedure for assessing and approving this plan.

Health Act 1956

This Act contains provision for a local authority to be required to provide certain sanitary works (including refuse collection) if necessary.

Resource Management Act 1991

The Resource Management Act 1991 is perhaps the most widely encountered legislation in New Zealand today. This requires the creation and controls the contents of district plans, all dealings with resource consents, and generally effects on the environment. It has the accepted definition of the environment, effect and sustainability.

This Act controls the environmental effects relating to waste management. It therefore influences the effects of the actions in the WMMP. This is particularly relevant to land uses and discharges associated with waste.

Hazardous Substances and New Organisms Act 1996

This Act relates to waste through controls on import, handling, production and disposal of hazardous substances. Where certain quantities of hazardous substances are collected and/or stored, this Act sets out requirements for storage and management (including training and certification).

Climate Change Response Act 2002

Waste disposal falls under part 6 of the 3rd Schedule of this Act which qualifies those undertaking waste disposal as participants. The waste sector does not come under the Act until 1 January 2011. Voluntary reporting can occur until 31 December 2011.

2.2 New Zealand Waste Strategy (NZWS) and Reviews

Central Government has the ability to directly affect the amount of waste generated or reused by industry through voluntary accords, legislation, and national standards. In March 2002, Central Government published the NZWS. This Strategy adopts the vision:

“Towards Zero Waste and a Sustainable New Zealand”

The strategy sets targets, although councils are encouraged to set their own targets in line with the strategy. These targets address waste minimisation (in regard to reducing quantities), organic waste (in regard to diversion), special wastes (relating to businesses taking responsibility for their waste), hazardous wastes, contaminated sites, organochlorines, trade wastes, and waste disposal (regarding fees and charges, and upgrading and closing landfills).

The strategy recognises that previously waste has been addressed with ‘end of pipe’ solutions,² and that a more effective approach would be to produce less waste in the first place. In the past there has been a direct link between the rate of economic growth and the amount of waste we produce. The long term challenge is to break this link.³ The NZWS has three goals that underpin the national vision:

- Lower waste’s environmental and economic costs and risks to society.
- Reduce environmental damage from disposal of waste.
- Increase economic benefit by using material resources more efficiently.

With these goals are five core policies for waste management. These are:

- A sound legislative basis for waste minimisation and management (addressed by the Waste Minimisation Act).
- Efficient pricing (reflecting the true cost of waste disposal as far as practicable).
- High environmental standards (to protect the environment and public health).
- Adequate and accessible information, recognising that information is vital for the success of initiatives.
- Efficient use of materials (which offers to have the biggest long-term impact on waste reduction).

2.3 Local and Regional Stakeholders

Northland Regional Council has a responsibility to:

- Control discharges to the environment from landfills through issuing and enforcing Resource Consents (including leachate, odour and landfill gas).
- Monitor the environmental effects of activities such as landfills in relation to water and air.
- Prevent or mitigate any adverse effects of the storage, use, disposal, or transportation of hazardous substances.
- Promote environmentally acceptable waste disposal methods such as sanitary landfills and transfer stations.
- Provide opportunities for waste minimisation that are consistent across geographical areas, and provide an integrated workable framework.

Council takes the view that waste produced by a person or business remains ultimately the responsibility of that person or business. However, some processes of waste production are beyond the influence of Council. Therefore Council emphasises the need to assist with the responsibility of using resources efficiently and reducing and dealing with waste by:

² New Zealand Waste Strategy, MfE March 2002

³ New Zealand Waste Strategy, MfE March 2002

- Enabling refuse collection and disposal services.
- Promotion of waste reduction, reuse, recycling and resource recovery.
- Providing policy direction in the Kaipara District Plan and Waste Minimisation and Management Plan.
- Preventing and mitigating “nuisances” such as pests, litter and odour.
- Controlling the use, development and protection of land to prevent or mitigate any adverse effects of the storage, use, disposal, or transportation of hazardous substances.
- Managing landfills in accordance with resource consents from Northland Regional Council and Kaipara District Council.

Central, Regional and Local Government can only do so much under legislation and generally is limited to managing waste already created. Other groups which can play a key role in waste minimisation are discussed below.

2.3.1 Industry, Retailers and Individuals

More effective than any of the initiatives in this plan, is the decision of each individual or organisation to proactively minimise the amount of waste they produce. Individuals, households, businesses and manufacturers have the responsibility to ensure resources are used efficiently and to reduce their waste. Much can be undertaken by organisations early in the supply chain and by consumers. This is one of the key principles of the NZWS.

It is the choice of manufacturers whether to produce items in a form that can be readily reused and which minimises potential waste through packaging and production. Retailers are a conduit for these to be supplied and to inform consumers of the alternatives to items that produce more waste.

Consumers should consider the implications of the products and services they purchase or invest in. Many incentives within this plan rely on behaviour and choices of users of products or services, and the resultant waste generated. Consumer choice can minimise waste through purchasing goods that can be reused, recycled or recovered.

Decisions made every day by individuals affect the amount of waste produced. For example, putting used paper out for recycling instead of in a rubbish bin, or choosing items with minimal packaging. Consumer choice in purchasing greatly influences waste production. The success in achieving the goals of this plan relies heavily on the consumer subscribing to the values underpinning it.

2.3.2 Kaitiakitanga/Stewardship

Council supports the view of the NZWS, in that the Maori concept of Kaitiakitanga or Guardianship expresses an integrated view of the environment and recognises the relationship between all things. It represents the obligation of current generations to maintain the life sustaining capacity of the environment for present and future generations. Fulfilling this obligation means managing waste to reduce the potential to have adverse environmental effects. Values important to Maori shall be recognised in all waste management activities.

2.4 Relationship with other Documents

Document	Summary
Regional Context	
Regional Policy Statement (RPS)	<p>This is a document detailing the overall policies managing the environment in the region. It includes policies that relate directly to waste and hazardous substances, and also to land use in general.</p> <p>The RPS for Northland includes objectives relating to reduction of waste produced and associated requirements for disposal, and promotes efficient and environmentally sound management of waste. These are detailed in section 25 of the RPS.</p>
Regional Water and Soil Plan for Northland	<p>This plan, and the following air plan, reiterate and implement the policies established in the RPS. Section 8 of the Plan relates to discharges. This summarises sources including sewage, industrial and solid waste (landfill) discharges. The plan then details issues relating to these discharges and formulates objectives and policies in regard to them, as well as specific policies relating to solid waste. Rules in relation to solid waste are detailed in Section 19.</p>
Regional Air Plan (RAP)	<p>As above this plan reiterates and implements the RPS. Of particular relevance to waste management, RAP Rule 12 requires no odour or dust to be apparent at the boundary of the property.</p>
Local Context	
Long Term Council Community Plan (LTCCP) Long Term Plan (LTP)	<p>As a mandatory requirement of LGA 2002, this strategic plan must be adopted every 3 years and cover a planning period of at least 10 years. It sets out Council's funding and financial policies for the long-term management of Council's assets, and analyses the impact strategic goals will have on levels of service and long-term funding needs. The Asset Management (AM) Plan's financial projections are incorporated in the LTCCP consultation process. The LTP:</p> <ul style="list-style-type: none"> • Describes the activities of Kaipara DC and Community Outcomes • Provides integrated decision making and co-ordination of resources • Provides a long-term focus for Council's decisions and activities
Annual Plan	<p>A document produced annually to update information reported on within the LTCCP including its objectives, intended activities, performance, income and expenditure. This is an action plan on Council's projects and finances for each particular year between the review years of the LTP, detailing events considered of sufficient community impact or interest to affect LTP policies. The Annual Plan shows how that year of the LTCCP will be funded and will provide detailed financial forecasts for the first 3 years, with summary forecasts provided for years 4 to 10.</p>
Long Term Funding Impact Statement (LTFIS)	<p>Council's LTFIS includes financial projections. The financial projections for Council's asset groups are taken from the financial forecasts in the AM Plan.</p>
District Plan	<p>This core document incorporates policies and objectives for landuse in Kaipara District, and designations for future works incorporated in the AM Plan.</p>
Bylaws, Standards and Policies	<p>These tools for asset creation and subsequent management are needed to support asset management tactics and delivery of service.</p> <p>Part 4 of the General Bylaws relate in particular to Solid Waste, including household refuse, trade refuse and recycling.</p>

Ministry for the Environment (MfE) Guidelines

This is a selected list of publications. For a full list refer to <http://www.mfe.govt.nz/issues/waste>

Ministry for the Environment Guidelines	Purpose ⁴
Calculation and payment of the Waste Disposal Levy: Guidance for Waste Disposal Facility Operators.	This is a guide to help waste disposal facility operators meet their obligations under Part 3 of the WMA and the Regulations. It includes examples of how to calculate the tonnage of waste the levy must be paid on, submit the returns, and make payments to the levy collector.
A Guide To The Management of Cleanfills.	Outlines the regulatory framework for cleanfills, definitions of cleanfills and cleanfill material, and sets out siting, design and operation considerations.
A Guide To Landfill Consent Conditions.	Assists in the development and effective enforcement of appropriate and effective resource consent conditions for landfills. This outlines approaches setting consent conditions for operating and closed landfills
A Guide To Closing and Closed Landfills.	To increase awareness of risks associated with closed landfills and outline the best practical methods to manage closed landfill sites effectively.
Landfill Full Cost Accounting Guide for New Zealand.	To assist decision-makers to implement a consistent full cost accounting approach to landfill management.
Waste Management and Minimisation Planning: Guidance for Territorial Authorities	Guidance to territorial authorities on the development of a waste management and minimisation plan.
Solid Waste Analysis Protocol and Summary Procedures	To facilitate the collection of consistent and reliable data on solid waste.
Environmental Performance Indicators. Summary of Proposals for Waste, Hazardous Substances and Toxic Contaminants.	A summary of environmental indicators proposed for monitoring waste and hazardous substances, and the effects of toxic contaminants on land, air, water and the health of ecosystems and people.
What's in Your Waste? A Resource for Trade Businesses.	Provides information for businesses and regulators on types of wastes produced from different trade businesses, and ways they can be disposed of.
Hazardous Waste Guidelines. Landfill Waste Acceptance Criteria and Landfill Classification.	Outlines a nationally consistent approach to the disposal of waste to landfills.
The New Zealand Waste Strategy. Towards Zero Waste and a Sustainable New Zealand.	Sets in place a framework for addressing minimisation and management of waste.
The 2002 Landfill Review and Audit.	Provides a clear picture of the risks associated with landfills by assessing relative risks on a consistent basis nationwide.
Review of Targets in the New Zealand Waste Strategy (2006).	Reviews targets set in the NZWS 2002 with amendment based on assessment of current progress.

2.5 The Waste Hierarchy

Section 44 of the WMA refers to the requirements of a WMMP and considerations for its documented methodology. The accepted hierarchy, discussed in the New Zealand Waste Strategy, is shown in Figure 1. Note that the term 'treatment' is also included in the Act, but this has been removed as there is minimal treatment involved in solid waste management. The exception to this is hazardous waste, although this is not undertaken by the Kaipara District Council.

⁴ Courtesy of MfE website, <http://www.mfe.govt.nz/issues/waste>

The effective waste hierarchy, often referred to as the “5R’s” (Reduction, Reuse, Recycling, Recovery and Residual waste disposal), is used to reduce the residual component of the waste stream towards zero. The 5R’s are listed in descending order of desirability. Reducing waste is the most desirable method of addressing waste problems, while residual waste disposal is the least desirable.

The 5 'R's of Waste Management

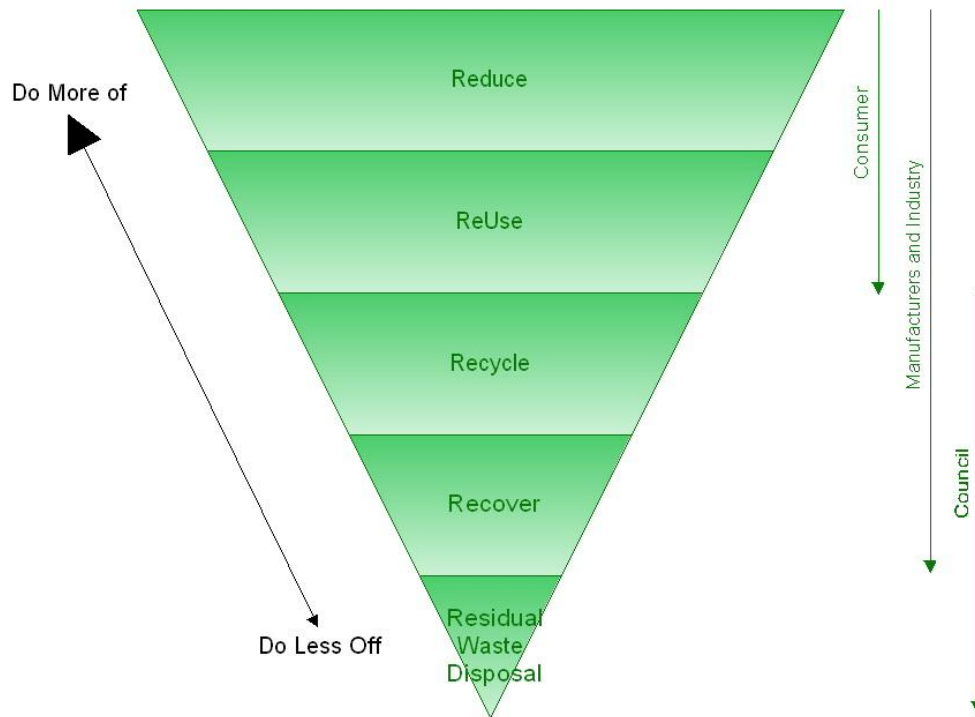


Figure 1 The Waste Hierarchy

Each step downwards involves additional expense, less efficient use of resources and results in more waste entering landfill. It is therefore desirable to do more of the upper tiers. Council influence over waste management occurs below reuse. In this respect the most effective measures to minimise waste and use resources efficiently are governed by the choices made by manufacturers and industry, and more significantly by the consumer.

Key Principles to Guide Waste Management Approaches

In developing the WMMP, nine key principles were used to cover the District’s solid waste management issues:

1. Waste minimisation initiatives will be applied in the priority order stated in the waste hierarchy.
2. Education will be provided to all members of the Community, enabling and encouraging them to attain the District’s solid waste mitigation objectives.

3. Community responsibility will be fostered to encourage the Community to take ownership of disposal of its waste.
4. Commitment to protect and enhance the environment will be demonstrated. Council will avoid, remedy or mitigate adverse effects involved with solid waste management.
5. Application of the waste management strategy will be across the District, but will be flexible and integrate with regional initiatives.
6. Costs and charges will be transparent, and as far as practicable, people who are disposing of solid waste should meet the costs of managing the waste they seek to dispose of.
7. Consultation will be undertaken to provide the public with information on the issues, and possible options, in order to involve them in developing the WMMP. Council will work towards the attainment of wider community economic benefits, as well as protecting the environment and ensuring affordability.
8. Central Government policies will be utilised in this WMMP. Submissions on Government policies related to this WMMP will be made.
9. Measurements and reporting will be undertaken to show how effective initiatives are to date.

3 Existing Services and Facilities

Council provides two refuse disposal sites where waste can be dropped off. These are at the transfer stations located at Awakino Road (Dargaville) and the closed landfill site at Hakaru. These sites include limited recycling facilities. Weekly refuse bag collections are made in urban centres and some rural areas, with kerbside recycling in the urban areas. The continued use of recycling services, particularly those at Council facilities, is evidence of community interest in waste minimisation initiatives. In addition these have been established with limited financial support from Council. This indicates that the services are economically viable with cost to the operator regained through the sale of bags and collected materials.

Council also owns a number of closed landfills that require ongoing maintenance and monitoring.

Illegal dumping is an issue in the District. There is a high level of awareness of this issue and frequent service requests are generated. Council also provides an abandoned vehicle service in conjunction with the Solid Waste activity.

3.1 Refuse and Recycling Collection

The Council provides weekly refuse collection service for the urban settlements of Dargaville, Te Kopuru, Kellys Bay, Glinks Gully, Baylys Beach, Pouto, Mangawhai, Ruawai, Paparoa, Tangiteroria, Maungaturoto and Kaiwaka. This refuse must be left at the collection point in an approved bag. An extended collection service is also provided in parts of Mangawhai during the Christmas holiday period. The collection also extends to some properties on easily accessible rural roads. Alternatively householders may take household refuse to the Dargaville Transfer Station in an approved bag where it is accepted at no charge.

Kerbside recycling was implemented in 2008 as a private initiative. It is collected along with the refuse in Dargaville, Paparoa and Maungaturoto. Recycling collects plastics 1-7, paper and cardboard, cans and glass. As with refuse this must be left at the collection points in the approved bag which is sold by the recycling contractor.

Refuse collection is undertaken under contract to Council. This operates under a user-pays system, which covers the cost of the service. This is implemented through the purchase of the bags which are distinctive for refuse and recycling. Recycling is not contracted through Council, but has been undertaken as an independent initiative with a limited subsidy. As recycling is undertaken as a commercial operation with a set subsidy the actual quantities are commercially sensitive and have not been able to be quantified in this plan.

Collection points

In a number of locations collection 'cages' have been constructed. These are located at:

- | | |
|--|--|
| 1) Bull Road, Mangawhai | 13) Redhill Road, Aratapu |
| 2) Tangowahine Settlement East Road, Tangowahine | 14) Aranga Coast Road, Maunganui Bluff |
| 3) Pouto Road, Pouto Point | |
| 4) Waihue Road, Waihue | |
| 5) Omamari Road, Omamari Beach | |
| 6) King Road, Mangawhai | |
| 7) Coal Hill Road, Mangawhai | |
| 8) Heatley Road, Whakapirau | |
| 9) Hoanga Road, Hoanga | |
| 10) Tara Road, Mangawhai | |
| 11) Petley Road, Paparoa | |
| 12) Glinks Road, Glinks Gully | |



The purpose of these is to provide an “animal-proof” location for placement of refuse and recycling for collection. This enables a more efficient collection in these small and/or spread out settlement with periodic occupation outside of the day of collection. Problems have arisen in connection with these cages, including vandalism and illegal dumping. For this reason any cages that are damaged or destroyed will not be replaced.



Funding

Kerbside refuse collection is funded in its entirety through bag sales. Litter collection (below) is funded through rates.

3.2 Litter Collection

Litter bins are provided throughout the settlements identified above and cleared weekly in conjunction with refuse collection. They are also located in key reserves. More frequent clearances of bins in Mangawhai occurs during holiday periods. Litter control is also provided in urban centres. This activity is funded by Council out of rates income (the Uniform Annual General Charge (UAGC)).

3.3 Landfills

The Council no longer operates a landfill within the district. All residual waste is transported from transfer stations or refuse collection to the landfill at Redvale in Rodney District.

3.4 Transfer Stations

The Council operates transfer stations in Awakino Road, Dargaville and on the site of the Hakaru landfill (now closed). Both sites are designated under the RMA.

No weighbridge is currently installed at either site. All quantities are initially estimated through volume. On collection from the transfer station truck scales are used to confirm quantities.

3.4.1 Resource Recovery (Re-Use)

A limited number of items are manually removed from the waste stream on arrival. These are generally inorganic items that can be reused. In some instances where economical these items are stored for sale at the landfill site. No recoverable material is collected with the household refuse collection.

3.4.2 Recycling

The total volume of material currently recycled within the District is not accurately known. From past audits and observation it is expected to be less than 10 percent of the waste stream. All recyclable material is accepted with a charge except for some metals, as described below. These are accepted without charge and sold on to recover costs.

Paper and Cardboard

Paper and cardboard are collected and stockpiled for collection and recycling by Kaipara Recyclers.

Glass

Glass is accepted and stored for collection in bins by Kaipara Refuse.

Plastic

Plastics are separated at the Transfer Stations and sorted for collection by Kaipara Recyclers.

Metals

Non-ferrous metals are separated at the transfer stations. This includes white-ware. Scrap steel is separated at the Awakino Road facility and transported to Auckland. Hakaru collects scrap steel, including roofing iron, which is collected by a private contractor and removed from the site.

General Waste

General and remaining waste is accepted at the stated gate charge and disposed of in bins which are removed to landfill.



Metal being collected at Dargaville Transfer Station

3.4.3 Greenwaste

Greenwaste is accepted with mixed refuse at transfer stations. There are currently no facilities to separate greenwaste for diversion.

The most recent solid waste audit prepared by WasteNot (February 2004) showed that the proportion of greenwaste in household refuse bags is low (3.5% by weight $\pm 2.3\%$). It is therefore likely that most greenwaste is already diverted from landfill.

3.4.4 Hazardous Waste

Household quantities of selected hazardous wastes are accepted at transfer stations at a charge, although bulk quantities are not. Hazardous wastes are stored on site in secure containers away from the areas of activity and disposed of by Northland Regional Council.

3.4.5 Other

Batteries

Lead acid car batteries are collected at the Transfer Stations. These are stored before being sold to a private contractor.



General waste prior to removal to landfill

Silage wrap

This is an initiative undertaken by the Northland Regional Council in addition to a twice yearly collection. Awakino Road transfer station is a drop off point for silage wrap. Wrap is received at \$20 per full liner.

More information can be found at www.nrc.govt.nz/Environment/Waste-and-pollution/For-farming/Silage-wrap-collection

3.5 Closed Landfills

Closed landfills are governed in accordance with resource consents issued by Northland Regional Council under Council's Refuse Asset Management Plan. A number of illegal landfills have also been identified, and for which no consents are currently in place. All are visited on a regular basis. The following landfills are known to the Council:

Location	Consent #	Capped	Lined	Fenced	Leachate collection	Comments
Omamari	4814	✓	✓	✓		
Dargaville (Awakino Road)	4433		✓	✓		Partially capped. Site of transfer station.
Parawanui	4811	✓	✓	✓		Site is partially forested.
Glinks Gully	4810	✓	✓			
Te Maire		✓	✓	✓		Consent for this landfill has expired
Ruawai (Access Rd)	7234	✓	✓	✓		
Pahi	2257	✓	✓	✓		
Mosquito Gully	7227	✓	✓			
Kellys Bay	7226	✓	✓			
Tinopai	4812	✓	✓	✓		Fenced but needs gate
Kaiwaka	4809	✓	✓	✓		
Hakaru	7562			✓	✓	Site of Transfer Station
Mangawhai	4816	✓	✓	✓		
Kaihu						Noted as illegal landfills - no Regional Council Consent
Tangiteroria						Noted as illegal landfills - no Regional Council Consent
Pouto Point						Noted as illegal landfills - no Regional Council Consent
Ruwai (Te Kowhai)						Noted as illegal landfills - no Regional Council Consent

Only Hakaru landfill has a leachate collection system. This involves collecting and removing leachate for disposal at an appropriate treatment facility. Currently this system collects additional surface flow from the surrounding area. This system is to be modified to be more efficient and minimise the cost of removal and treatment by eliminating uncontaminated water prior to collection on site.



Glinks Gully closed landfill

4205.01

60097822 AEAD KDC WMMP 2010 final to client 240910.doc

3.6 Enforcement

3.6.1 Illegal Dumping

Illegally dumped refuse is any item or items deposited together on public property by a person without Council's permission, and includes hazardous waste. This differs from litter in that it usually involves intent and larger quantities.

In Kaipara, illegally dumped material is removed as required by Council contractors. Where the amount is small or located at a collection point, this may be referred to the refuse collection service to reduce cost. Collection of illegal dumping can be expensive as the District is large and has a low population density. Rate payers are encouraged to note illegal dumping activities and report them to Council. If possible details relating to the dumper should be noted. To date the community understanding of illegal dumping is high and reporting has been actively undertaken.



3.6.2 Abandoned Vehicles

Council has a yearly budget and staff tasked to manage abandoned vehicles. These are inspected and assessed. Vehicles beyond reuse are collected at minimal charge from a contractor who sells them on as scrap. Where this is not the case they are towed and secured in storage by Council staff for a set period, then disposed in the same manner as scrap. Where the owner is located and they are required to remove the vehicle from public areas.

In recent years the requirement for this service has been minimal. Increases in the value of scrap metal have led to wrecks that would normally be dumped being recovered by the owner as scrap metal.

3.7 Other Initiatives

There are a number of initiatives targeting specific waste in the district. This plan has minimal influence over these projects as they are undertaken by independent operators. However these projects do influence waste management and minimisation and are therefore encouraged by Council.

3.7.1 Recycling

All recycling in Kaipara is undertaken as a private initiative. Refer section 3.1 above.

3.7.2 Greenwaste

Householders are encouraged to undertake their own composting initiatives for household organic waste. In addition to this, there are occasional greenwaste recovery initiatives undertaken as commercial operations within the District.

3.7.3 Silage Wrap

In addition to the Awakino Road transfer station, silage wrap is collected by the Northland Regional Council on a twice yearly basis. Further in support of this Northland Regional Council has additional collection points at:

- J De Boer Haulage (Awakino Point East Road)
- Kaurilands Ruawai Depot
- Phoenix Landscaping (Mangawhai)

Northland Regional Council should be contacted directly in regard to this service prior to drop off.

3.7.4 Agrichemical Collection

Northland Regional Council offers a free collection and disposal of agrichemicals, and including empty containers. For further information contact them on 0800 002 004. Details of the service is available on the NRC website; www.nrc.govt.nz/Environment/Waste-and-pollution/For-farming/Silage-wrap-collection

4 Waste Audits and Quantities

4.1 Waste Statistics and Composition

To provide Council with data for its waste management planning process, an audit of kerbside refuse was conducted in the District by WasteNot Ltd in 2004. This audit was conducted in accordance with the Ministry for the Environment's Solid Waste Analysis Protocol (2002). The audit was undertaken from Monday 9 February to Friday 13 February 2004. A sample of 300 refuse bags was undertaken over three days collected for the kerbside refuse audit. The sample was collected from throughout the District and from both urban and rural households. The sample is equivalent to approximately 2.3 tonnes of domestic refuse, representing the refuse output from 172 households. The contents were sorted into the 12 primary categories recommended by the Protocol and 12 categories based on the recyclability of the material.

In 2004, recyclable materials accounted for 38.2% of the domestic kerbside refuse. Since that time recycling of selected waste streams has been implemented. Collection of recycling serves conservatively 30% of the resident population. The quantities diverted from total waste indicate a 12% diversion rate, suggesting that recycling is being successfully diverted through kerbside collection. Additional collection could be implemented through increased collection territories. This will need to be assessed as to sustainability, but the subscription to the service appears successful where it is available.

Compostable materials account for 27% of material, as indicated in Table 2. No initiative for collection has been undertaken and it is assumed that this remains in the waste stream.

Since 2004 the population has grown marginally (2%) although total quantities of waste (estimated since 2007) have remained relatively static. The approximate 5% decrease in waste to landfill has been accredited to diversion.

Table 1 Refuse Composition 2004

Primary category	Proportion of total	Mean weight/ household set out
Paper	18.0%	2.42 kg
Nappies & sanitary	8.3%	1.11 kg
Plastic	14.1%	1.89 kg
Glass	15.8%	2.13 kg
Ferrous metal	5.3%	0.71 kg
Non-ferrous metal	2.9%	0.39 kg
Putrescible	29.6%	3.99 kg
Rubble & concrete	0.8%	0.10 kg
Timber	0.7%	0.09 kg
Rubber	0.2%	0.02 kg
Textiles	3.7%	0.50 kg
Potentially hazardous	0.7%	0.10 kg
TOTAL	100%	13.45 kg

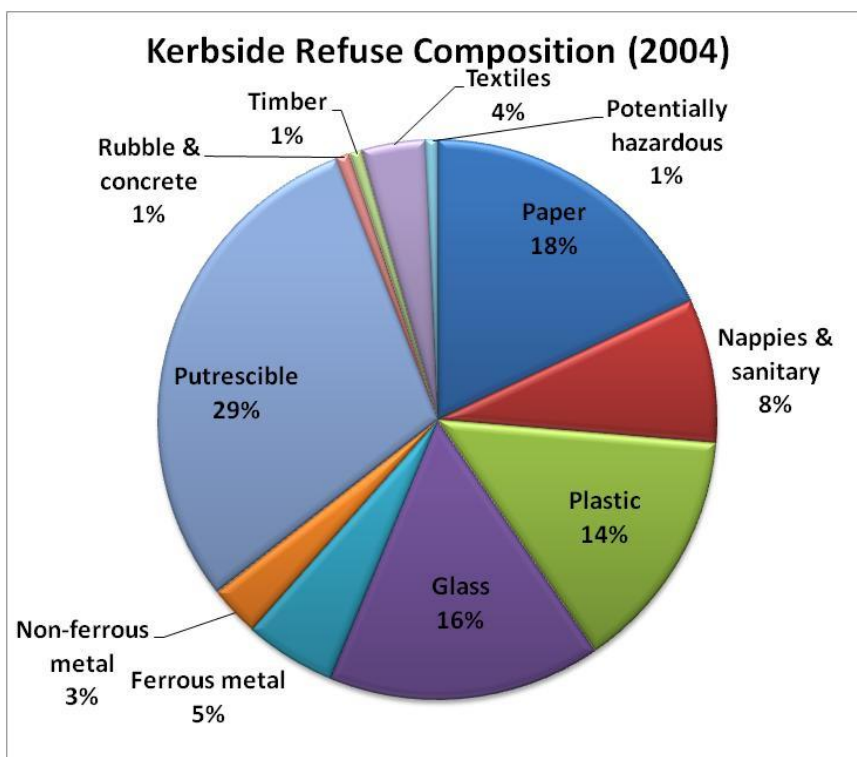


Table 2 Divertible Proportion of Refuse

	Proportion of total	Weight/ household
Recyclable materials		
Paper – recyclable	15.2%	2.03 kg
Plastic – PET - #1	1.8%	0.25 kg
Plastic – HDPE - #2	1.5%	0.20 kg
Glass – bottles/jars	14.9%	2.01 kg
Ferrous metal – steel cans	3.8%	0.50 kg
Non-ferrous metal – aluminium cans	1.0%	0.14 kg
Total recyclable	38.2%	5.13 kg
Compostable materials		
Putrescibles – kitchen waste	23.8%	3.20 kg
Putrescibles - greenwaste	3.5%	0.47 kg
Total compostable	27.3%	3.67 kg
Total divertible (recyclable + compostable)	65.5%	8.80 kg

The proportion of glass bottles measured during the audit may have been abnormally high due to the audit occurring immediately after the Waitangi Day long weekend. Consumption of alcoholic beverages, and hence generation of glass containers, is generally higher during long weekends.

4.2 Future Trends and Demands

4.2.1 Waste Quantities

Waste quantities have not been measured effectively in the past, when waste was landfilled within Kaipara District. With the closure of both Awakino and Hakaru landfills quantities of materials leaving the site are able to be better estimated. Both transfer stations act as measuring points for landfilled waste and recycling. Additionally with collecting of recycling and subsequent sorting these quantities can be measured against the waste audit to measure effectiveness.

Recycling quantities are approximate only, due to the commercial nature of the collection. These are estimated at 300 tonnes per year, or 6 tonnes per week.

Table 3 - Residual Waste

Site	2006	2007	2008	2009
Awakino	2400*	2231	2222	2132
Hakaru	1150*	1150*	1150*	1200
Total to Landfill	3550 tonnes	3381 tonnes	3372 tonnes	3332 tonnes
Diverted		300* tonnes	300* tonnes	300* tonnes
Total	3550 tonnes	3681 tonnes	3672 tonnes	3632 tonnes

* indicates estimated or extrapolated quantities.

4.2.2 Growth in Kaipara District

Kaipara's population is forecast to increase by 150 persons in the years 2007-11⁵ to approximately 18,750 persons. All but high estimates from Statistics New Zealand projections indicate a decrease in population after 2016 or before. However numbers of households are projected to continue increasing, if to a lesser amount, past this time. Projections of population (based on the medium series) indicate a decrease in all age groups below 60 and increase in all above over the years 2006 to 2031⁶. Potentially this demographic change is less likely to produce large amounts of waste compared to households with children. Again, the effect of this is lessened due the current household structure of 2.6 people⁷ currently in the District.

4.2.3 Conclusion

There are no indicators to suggest predictable increases in waste quantities likely to occur in the life of this plan.

Currently there appear to be few apparent drivers to indicate any significant change in the production of waste in Kaipara District in the lifetime of this plan. Existing waste diversion appears to be successful based on estimated quantities. It is therefore desirable that the current practice remain in place. Additional recycling 'territories' are likely to return a similar proportion, and these should be reviewed to determine the likely sustainability of any estimated services to offer a further decrease in waste to landfill.

⁵ Statistics New Zealand figures released December 2007

⁶ Ibid.

⁷ 2001 Census, Statistic New Zealand

5 Review of Progress

5.1 LTCCP Progress and Goals

The LTCCP identifies the contribution of refuse management in regard to Community Outcomes and sets the following Key Performance Indicators (KPI's):

Table 4 - LTCCP KPI's

Contribution to Community Outcomes	Performance measure	Performance Targets (for the financial year) Bold figures indicate results achieved				
		Baseline 2008/09	2009/10	2010/11	2011/12	2012/13 - 2018/19
Rubbish collected and disposed to landfill in a safe and affordable manner	Percentage satisfaction with refuse collection service (NRB)	73%	75%	75%	75%	75%
	Percentage satisfaction with transfer disposal facilities (NRB)	73%	75%	75%	75%	75%
Minimising illegally dumped rubbish for a cleaner, healthier environment	Volume of illegally dumped rubbish	80m3 (200 m3)	75m3	74m3	73m3	72m3

Bold indicates confirmed figures

This indicates further effort is required to raise satisfaction levels around safe and affordable rubbish collection and disposal, and also to reduce the volume of illegally dumped rubbish (although evidence suggests that this is trending downwards with existing measures).

5.2 Annual Plan

The Annual Plan sets and analyses targets associated with performance against the provision of refuse collection in the District. These are discussed below.

Performance Targets	2007-8	2008-9	Comment
Provision of user-pays domestic refuse collection on a weekly basis in locations agreed to by the contractor	Achieved	Achieved	Domestic collections in all urban areas of the District.
Provision of a user-pays disposal in both the west and east of the District	Achieved	Achieved	Facilities in Dargaville and Hakaru.
No abatement notices issued for any publicly available refuse disposal facility in the District	Achieved	Achieved	
No abatement notices issued for any closed Council operated refuse disposal site	Achieved	Achieved	
Monthly random audit of litter removal contractor shows at least 90% compliance with contract specifications.	Not measured	Not measured	Other measures indicate that targets are being met. Contractor is met monthly and compliance issues discussed.

5.3 New Zealand Waste Strategy Targets

The NZWS set targets for the national implementation of the strategy. These were then reviewed nationally in 2006, and some amendments made. The tables below present the progress where applicable to working towards national compliance with this strategy.

5.3.1 Waste Minimisation

To Be Implemented By	Ministry for the Environment Targets	National Progress (2006 review) ⁸	Kaipara progress 2010
2001-02	Local Authorities will report their progress on waste minimisation / management for their Annual Reports in 2001-02, and quantitatively annually from then onwards.	Good progress but not fully achieved. 86% of territorial authorities report their waste management and minimisation activities to their communities.	Achieved. Annual reports include details of the activities associated with Refuse, which includes waste minimisation/management.
December 2005	At least ten major businesses will be participating with Central and Local Government to develop and promote waste minimisation programmes within their sector.	Target achieved ahead of due date.	Not applicable to Council
December 2005	95% of the population will have access to community recycling facilities.	Target achieved. 97% of the New Zealand population have access to community recycling facilities.	Achieved in Kaipara. In addition to kerbside collection of refuse and recycling, there are two transfer stations in the district.
December 2005	Territorial Local Authorities will ensure that building regulations incorporate reference to space allocation for appropriate recycling facilities in multi-unit residential and commercial buildings.	Target unable to be achieved nationally. However, progress on space allocation for recycling facilities is being made.	Not applicable to Council
December 2005	All Councils will ensure that waste minimisation procedures have been addressed for all facilities and assets they manage, and set target reductions based on public health, environmental and economic factors.	Target not achieved. 72% of territorial authorities and regional authorities have implemented waste minimisation strategies as of 2006.	Achieved. Implemented through this and the previous plan.

5.3.2 Organic Wastes

To Be Implemented By	Target	National Progress (2006 review)	Kaipara progress 2010
December 2003	All Territorial Authorities will have instituted a measurement programme to identify existing organic waste quantities and set local targets for diversion from disposal.	Target not achieved. Only 41% of territorial authorities have implemented a formal measurement regime.	Not applicable to Council

⁸ Targets in the New Zealand Waste Strategy: 2006 Review of Progress, MfE, April 2007

To Be Implemented By	Target	National Progress (2006 review)	Kaipara progress 2010
December 2005	60% of garden waste will be diverted from Landfill and beneficially reused, and by December 2010 the diversion of garden waste from Landfill to beneficial use will have exceeded 95%.	Unable to be measured. Only a small portion of organic waste in New Zealand is handled by territorial authorities, yet a sizeable portion is diverted from landfill (estimated that 55%). A sizeable portion of green waste is composted by processes outside the measureable stream, such as home composting.	Not achieved. No diversion. 2004 waste audit identified a low proportion of green waste suggesting household recycling is in place.
December 2007	A clear quantitative understanding of other organic waste streams (kitchen waste) will have been achieved through the measurement programme established.	Target achieved ahead of date. Solid waste analysis in 2004 showed 23% waste to landfill was organic. Subsequent studies have provided additional data and understanding.	Achieved through waste audit.
December 2007	More than 95% of sewage sludge currently deposited of to landfill will be composted, beneficially used or appropriately treated to minimise the production of methane and leachate.	Unable to be measured.	Unable to be measured.
December 2010	The diversion of commercial organic waste from Landfill to beneficial use will have exceeded 95%.	Future target date. There is little data as much of this leaves the measurable waste stream through alternatives to landfill disposal implemented outside the influence of the territorial authority.	Future target date. As yet no data.

5.3.3 Special Wastes

To Be Implemented By	Target	National Progress (2006 review)	Kaipara progress 2010
December 2005	Businesses in at least eight different sectors will have introduced extended producer responsibility pilot programmes for the collection, reuse, recycling or appropriate treatment and disposal of at least eight categories of special waste.	Target achieved nationally.	Not applicable to Council. Target achieved nationally.

5.3.4 Construction and Demolition Wastes

As waste of this type is low and is likely to be transported directly to landfill outside the district, construction waste is difficult to measure. There are small amounts arriving at transfer stations but these are not of a quantity to allow for efficient diversion and collection.

To Be Implemented By	Target	National Progress (2006 review)	Kaipara progress 2010
December 2005	All Territorial Authorities will have instituted a measurement programme to identify existing construction and demolition waste quantities, and set local targets for diversion from Landfills.	Target not achieved. Variations in quantity and disposal to landfill outside the ownership of territorial authority lead to a lack of data.	Not achieved. Low quantities of construction waste arriving at transfer stations do not allow for efficient collection.
December 2008	There will have been a reduction of construction and demolition waste to Landfills of 50% of December 2005 levels measured by weight.	Unable to be measured. As above.	Unable to be measured definitively. Quantities collected at transfer stations minimal.

5.3.5 Hazardous Wastes

To Be Implemented By	Target	National Progress (2006 review)	Kaipara progress 2010
December 2005	An integrated and comprehensive national hazardous waste management policy will be in place that covers reduction, transport, treatment, and disposal of hazardous wastes to effectively manage risks to people and the environment.	Target achieved. <i>Policy Framework to Reduce and Safely Manage Hazardous Waste</i> was published in 2004 and updated in 2006.	Nationally achieved. Not applicable to Council
December 2004	Hazardous waste will be appropriately treated before disposal at licensed facilities and current recovery and recycling rates will be established for a list of priority hazardous waste.	Not fully achieved, but significant progress to realisation.	Achieved. Domestic quantities of hazardous waste are collected and stored at transfer stations. These are then collected by Northland Regional Council for disposal.
December 2012	Recovery and recycling rates for priority hazardous waste will increase 20%.	Future target date. Limited data available through MfE documentation.	Unable to be measured.

5.3.6 Waste Disposal

To Be Implemented By	Target	National Progress (2006 review)	Kaipara progress 2010
December 2003	Local Authorities will have addressed their Revenue and Finance Policy to ensure that full cost recovery can be achieved for all waste treatment and disposal processes.	Target achieved. The implementation of LTCCP's has set in place a transparent process in consultation with the community in which finances are considered in conjunction with the local community.	Achieved. All refuse collection and disposal is self funded through bag sales.

December 2005	Operators of all Landfills, clean fills and wastewater treatment plants will have calculated user charges based on the full costs of providing and operating the facilities, and established a programme to phase these charges in over a timeframe acceptable to the local community.	Target achieved. 51% of TA's charge on a user pay basis for refuse, and 98% charge for access to landfill. There are constraints in charging, but these are managed at a local level.	Not applicable to Council. No active landfills.
December 2005	All clean fills will comply with clean fill disposal guidelines.	Unable to be measured. With this being a 'permitted activity' in many parts of New Zealand, many smaller sites are operated without monitoring or measurement of quantities conditional on certain thresholds.	Not applicable to Council
December 2010	All substandard Landfills will be upgraded or closed.	Future target date. There has been a significant improvement both in the number of lined and compliant landfills, and the closer of many substandard landfills.	Achieved. All landfills in the District Have been closed. All but two sites have been capped and those that have not been are monitored. Private landfills are subject to Regional Plan.

6 Strategic Direction

Through new legislation and direction from Central Government, and a growing awareness in the community, Council is looking at the way we approach refuse. The primary incentive is to provide an efficient and affordable means to implement a healthy, clean collection and disposal service to residents across the District. This will achieve positive public health outcomes. In addition, options for reducing, reusing, recycling and recovery of resources will reduce the impact of solid waste on the environment. All objectives and policies need to be considered with the limitations of the District. Kaipara has a small population which is located in numerous small settlements spread over the District, with no high density housing. This is unlikely to change during the life of this plan. Initiatives need to be both sustainable and economically feasible.

6.1 Objectives

- 1 To provide environmentally sustainable and hygienic refuse collection and disposal, in accordance with statutory requirements
- 2 To promote awareness of, encourage and facilitate waste minimisation and a decrease in waste to landfill in order to decrease adverse environmental impact and increase environmental, social economic and cultural benefits.
- 3 To create affordable opportunities to reduce waste or divert it from the waste stream.
- 4 To increase the available information regarding waste management to increase diversion of waste. This includes waste composition, funding regimes and the real cost of waste.
- 5 To ensure that waste producers and individuals take responsibility for their own waste.

6.2 Policies

6.2.1 Towards Zero Waste

Waste should not be considered inevitable or someone else's problem. The NZWS presents a vision of minimising waste and optimising waste management, aimed at the ultimate goal of zero waste to landfill. This vision is considerate of the environment and resources. Three goals representing a commitment to sustainable development underpin this vision:

- **Society** - lower waste's costs and risks to society
- **Environment** - reduce environmental damage from generation and disposal of waste
- **Economy** - increase economic benefit by using material resources more efficiently.

All waste has a cost associated with it. While the initial cost of products that avoid waste may be above those that don't, the subsequent waste that is generated incurs cost as a later stage.

Policies

- | | | |
|-----|--|-------------|
| 1.1 | Council will encourage cleaner production and other waste minimisation initiatives in Kaipara District where these have clear benefits towards Zero Waste | Obj 2 |
| 1.2 | Council will lead by example through internal purchasing supportive of waste minimisation (reduction, reuse, recycling and recovery) where this is economically feasible. | Obj 2, 3, 4 |
| 1.3 | Council will promote safety and good quality of life outcomes by providing communities with the ability to minimise waste and to dispose of refuse in a hygienic and sustainable manner. | Obj 1 |
| 1.4 | Council will emphasise that responsibility for waste lies upon the producer of that waste and will undertake waste management on that basis. | Obj 2, 5 |
| 1.5 | Council will encourage education initiatives aimed at raising awareness of waste minimisation and zero waste. | Obj 2 |

Methods

Awareness Raising

Awareness of the waste diversion options available and the benefits of moving towards zero waste is important to further the incentives for waste minimisation in this plan. Both these and private initiatives, where these are sustainable, have many positive benefits both economically and environmentally. It will also clarify the true cost of waste and emphasise the value of waste minimisation. Behaviour change is required to make this plan a success.

Businesses and industries that take the initiative and pursue these goals within the District will be recognised as working towards zero waste in the District. This may include mention on the Council website.

Leading by example

In order to lead by example and where it is deemed to be economically viable, the Council will endeavour to purchase products and services that encourage and result in waste minimisation and use green production methods.

6.2.2 Refuse and Litter Collection

Refer section 3.1 for details of refuse collection. The Council is committed to continuing the current level of service. Council also encourages any increase in the recycling currently undertaken.

Policies

- | | | |
|-----|--|--------------|
| 2.1 | That Council will continue to provide a sustainable district wide refuse collection and be able to meet community expectations | <i>Obj 1</i> |
| 2.2 | Council will provide and fund litter collection in urban areas | <i>Obj 1</i> |

Methods

Refuse Collection

Communities have a specific collection day on which they may place their user-pays bagged refuse for kerbside collection. In addition some collective refuse collection points are specified. In some instances these have a cage to allow for placement and protection of approved refuse bags at times other than the specified day. However this has proven problematic due to illegal dumping at these points which is difficult to police. Some of these cages have been destroyed and will not be replaced.

Litter Bins

Litter within litter bins is collected by the contractor during the scheduled refuse collection. As these are used by the wider community and provide common benefit they are funded through rates.

6.2.3 Illegal Dumping

Illegal dumping can be due to a lack of convenient waste management services and disposal facilities or the cost of using those services. Materials prohibited from land fill may also be dumped unless alternative management programmes are readily available and attractive. A study of the costs and benefits to illegal dumpers found that to reduce the volume of illegal dumping, the cost of legal disposal would need to be decreased and the cost of illegal dumping penalties increased. However, other research undertaken indicates that socio-economic factors are not an adequate predictor of illegal dumping and that some individuals will choose to engage in illegal dumping despite the convenience or efficiency of the collection and disposal services.

Policies

- | | | |
|-----|--|--------------|
| 3.1 | Council will endeavour to provide a convenient and cost effective household refuse and domestic waste collection service covered by user charges available to all residents of Kaipara District. | <i>Obj 1</i> |
| 3.2 | Council will take an aggressive approach to the issue of illegal dumping, with a view to prosecuting those people who illegally dump. | <i>Obj 5</i> |

Methods

Service Availability

Household refuse and recycling collection is available in urban areas and where economically feasible. Transfer stations are open in both the east and west of the district. These accept domestic quantities of waste and recyclables and are sized and operated to most cost effectively achieve their purpose.

Enforcement

Kaipara District polices and controls refuse and illegal dumping through bylaws and the Litter Act 1979. Signage is placed in areas which have a known history of illegal dumping. Where dumping occurs Council arranges for its removal. .

Illegally Dumped Refuse Removal

Where illegally dumped refuse is reported an assessment is made of the urgency of removal. If the waste is a hazard or located in a remote location, removal may be implemented immediately using Council staff. Where the waste presents no risk to health and safety, and/or located on a waste collection route, use of a collection contractor may be used and the waste collected on a scheduled collection run.

Abandoned Car Removal

Kaipara District Council undertakes an abandoned car removal operation. The vehicle is first assessed and the owner located. In the first instance the owner is asked to remove the vehicle. If not and if the vehicle is of minimal value it is removed and recovered as scrap. Valuable vehicles are stored to enable further assessment to be made.

6.2.4 Reduction

Reduction is the first and most effective form of waste minimisation. Overall this is the most effective means of minimising waste and associated cost of management. It relies on the consumer choice to implement through purchasing products in both the households and business that avoid the creation of waste. In this aspect it is also the most cost effective means of waste minimisation. All other means have a direct cost associated with them in spite of some income from recycling.

Policies

- 4.1 Councils will make residents and visitors aware of the waste that they produce and encourage them to take responsibility for the waste they generate. Obj 5
- 4.2 The cost of total waste generated will be determined and distributed on a user pays basis. Obj 5

Methods

Personal Responsibility

Council relies on people's civic duty in taking responsibility for their waste. Visitors to the District and recreation sites such as beaches are expected to remove any litter that they generate. The District includes many isolated and secluded locations where there are few opportunities to police or influence this behaviour. A lack of disposal options in these areas and an awareness of responsibility for waste is intended to emphasise the convenience of reducing waste at source.

User Pays

A user pays approach is intended to cover all aspects of waste minimisation. This will be implemented wherever waste passes from the consumer to the Council (i.e. refuse collection, transfer stations and enforcement). This will encourage individuals and organisations to take responsibility for any waste that they generate. As the generation of waste (and its eventual removal from the household) incurs a financial disincentive, reduction and reuse of waste overall is

the primary inclination. Reduction is the most cost effective means for this cost to be minimised in the community. In addition this policy also encourages recycling of waste, through cheaper disposal options (i.e. bags) as recycling compared to refuse for landfill.

Education

Education and awareness raising is a key aspect of waste minimisation. Education creates awareness of how the Council is acting to work with the community to create opportunities for working towards Zero Waste. As all action towards this goal is based on the cooperation and subscription of the community this is a key element of this plan. Council may consider the introduction of an education programme where this would be effective and economical.

6.2.5 Reuse

Reuse of items represents not only an environmental and community good in waste diversion, but also offers a direct benefit to members of the community.

6.2.5.1 Policies

- 5.1 Suitable items will be offered at no charge at the transfer station to the public for removal and reuse *Obj 2*
- 5.2 Where waste categories suitable for reuse become definable, facilities for affordable systematic removal from the waste stream and collection at the transfer station will be implemented. *Obj 2, 3*

Methods

Transfer Stations

Items identified and assessed as being of a condition that will require minimal repair are removed from the waste stream on arrival at the transfer station. Currently this is limited in types of items, but as new classes of items are identified this practice will be expanded. Items are made available for removal by visitors to the transfer station. Items which have been diverted from the waste stream and not taken within a realistic time are disposed of.

Potential items that may be collected for reuse in the future include furniture, tools, electronic appliances, and books.

6.2.6 Recycling and Recovery

Waste volumes to landfill will decrease, as public awareness of initiatives such as recycling increases. Recycling is encouraged but plays a relatively minor role in waste minimization due to low volumes of materials produced, and the high costs of collection, transport and sorting. The private recycling operation relies on sufficient quantities to maintain current service levels. Council will also support regional or national initiatives intended to reduce the production of 'problem' wastes at source.



Policies

- 6.1 Council will encourage the operation of kerbside recycling in a sustainable and efficient manner *Obj 2, 3, 5*
- 6.2 Council will provide for transfer stations in Dargaville and Hakeru that will accept and store recyclable or recoverable items. *Obj 1, 2, 3*
- 6.3 Council will support recycling initiatives in the District and seek central government support for them through incentive schemes where applicable *Obj 2, 3*

- | | | |
|-----|---|-------------|
| 6.4 | Council will encourage consideration of new incentives and markets for recycled or recovered waste. | Obj 2 |
| 6.5 | Council will encourage and promote kerbside recycling throughout the community. | Obj 1, 2, 3 |

Methods

Kerbside Recycling

Kerbside recycling has occurred in Kaipara District since 2008 as a private venture. This involves purchase of an approved recycling bag from the recycling contractor which partially funds the service. This is left alongside the approved refuse bag on collection day where the service is available.

Transfer Stations

Both transfer stations accept recyclable and recoverable items at a cost. This is waived for some materials, and for prepaid approved bags. Recyclable or recoverable items are stored until a suitable quantity is accumulated for removal.

Council recycling

Council will endeavour to include waste minimisation principles in its purchasing and other practices where economically viable. This will include adopting recycling practices for relevant items used in its offices.

Additional options

Additional options for recycling and recovering will be considered as they are identified. This may include additional collection and storage at transfer stations if suitable quantities are found within the waste stream. Potential items include tyres, car bodies, firewood, clothing and electronic devices.

6.2.7 Residual Waste Disposal

All residual waste, including household refuse bags, is taken to the approved landfill facility; the Redvale Waste Facility at Dairy Flat in Rodney District. A new refuse facility planned in Whangarei including a regional resource recovery park may offer Kaipara an alternative with reduced transportation costs.

Increasing statutory requirements results in Council facing greater compliance and monitoring for any new, existing and closed landfills.



Policies

Waste being collected for residual disposal

- | | | |
|-----|--|----------|
| 7.1 | Council will use existing landfill facilities outside the District for all residual waste disposal, and not establish a landfill for municipal use within the District | Obj 1, 2 |
| 7.2 | Waste will be sent for deposit only at an appropriately approved and consented landfill. | Obj 2 |
| 7.3 | All closed landfills will be monitored in accordance with consent conditions and will be maintained compliant with those consents. | Obj 2 |
| 7.4 | All closed landfills without consent will be routinely maintained and remedial works undertaken as required. | Obj 1 |

Methods

Landfill

No new municipal landfill is proposed within Kaipara District. Domestic quantities and including trailers of waste are collected at transfer stations and transported to the Redvale facility in trucks. There are contractual agreements in place to facilitate this.

Closed landfills

There are a number of closed landfills around the District. These are all identified, consented and monitored. The most recently closed was the landfill at Hakaru. Wherever possible, closed landfills are fenced. Monitoring is undertaken as per the requirements and conditions of the associated resource consents. Remedial actions are undertaken as necessary and with available funds.



6.2.8 Difficult and Hazardous Waste

Parawanui closed landfill

Council at present has no particular involvement in the provision of hazardous waste storage and disposal facilities other than for domestic quantities. It advises people on the storage of hazardous wastes and endeavors to ensure that such wastes are not disposed of where they will reach landfill. Signage is maintained at transfer stations advising of the prohibition on hazardous waste disposal under Council's bylaws. The signage directs people to the specific storage and disposal facilities.

Policies

- 8.1 Council will receive selected hazardous waste in domestic quantities only at transfer stations. *Obj 1, 5*
- 8.2 Council will encourage independent and approved initiatives to collect and dispose of hazardous waste where this can be demonstrated as sustainable. *Obj 1, 5*

Methods

Transfer Stations

Domestic quantities of hazardous waste are collected at transfer stations and stored for collection when a suitable quantity is amassed. This is then removed by the Regional Council for appropriate disposal.

6.2.9 Monitoring

An effective and cost-efficient monitoring and reporting system is essential for measuring progress in implementing the Strategy and achieving its targets. Council currently has no weighbridge. Quantities are estimated through volume and using truck scales.

Policies

- 9.1 Waste quantities, including diverted waste, will be monitored and recorded to ascertain trends and opportunities and monitor the effectiveness of this plan *Obj 4*
- 9.2 Waste composition will be monitored to determine opportunities for further diversion from the waste stream. *Obj 4*

Methods

Waste audits and quantities

Waste quantities are measured as they are sent to landfill. Recycling is collected through a private incentive and quantities are commercially sensitive. At time of writing a new waste audit is pending. This will include the contents of refuse bags which will be sampled and the contents measured and categorised.

6.2.10 Funding

Pricing policies are crucial to comprehensively managing and minimising waste. The environmental effects of production, distribution, consumption and disposal of goods and services incur cost. In spite of returns for recycling and recovery, neither activity is cost neutral. Wherever possible the effects and costs are determined. The producer is then charged as closely as possible to the point they occur. In the case of refuse this is covered through the cost of bags. Recycling is funded through bags with additional funding through rates to recognise the value this brings to the wider community. In both instances bags may be deposited at transfer stations at no additional charge.

This principle encourages minimisation of environmental effects by ensuring full environmental costs are reflected in product and service prices, and paid as closely to their source as possible. The cost to the user should not create a deterrent to using the service. To be sustainable user pays charges must be affordable.

Full cost accounting guidelines and charging policies have been developed by Central Government.

Policies

- | | | |
|------|---|--------------------|
| 10.1 | Pricings for all waste activities will reflect the full costs associated with waste management and disposal, but take into account the ability for the user to pay. | <i>Obj 5</i> |
| 10.2 | Council will provide for refuse collections through sales of refuse bags. | <i>Obj 1, 2, 5</i> |
| 10.3 | In calculating the pricing for waste management the costs of implementing waste minimisation throughout Kaipara District will be considered. | <i>Obj 3, 5</i> |

Methods

Collection

Refuse collection is funded entirely from the cost of the bags. Unofficial bags are not received. The cost of litter bin collection is funded through rates and collected concurrently with refuse. In consideration of the value to the wider community, recycling is partially subsidised through rates.

Transfer Station charges

Where waste is delivered in a prepaid approved bag, it is considered that this cost has been covered by the sale of that bag. In these instances no additional charge will be required. All other waste, including reusable, recyclable and recoverable items, deposited at transfer stations will be charged in consideration of the costs of disposal relevant to the Council.

Waste levy

The waste levy charge will be passed on to those using the service at the point of contact. Income returned from the waste levy will be utilised to promote waste minimisation throughout the District.

7 Implementation

The following details the progress made in waste management and minimisation since the last plan in 2005.

7.1 Facilities and Development

Preparation and Maintenance of a Waste Management and Minimisation Plan

The preparation and future reviews of this plan are to promote effective and efficient management of waste minimisation in Kaipara District.

Closure of Hakaru and New Transfer station

Since the last plan Hakaru landfill has been closed and an additional transfer station has subsequently been developed on the site. This closure has created additional opportunities for assessing waste prior to disposal. Previously all material went directly onto the landfill. Transport out of the District now requires a preliminary assessment of the waste and opportunities for diversion from the waste stream. Additionally the interface with waste management staff when depositing material at the transfer station and the incurrance of the charge emphasises the ownership of the waste and the obligations therein.

New Dargaville Transfer and Recycling Facility

This is now consented and operational on the site of the Awakino Landfill. New consents are currently being sought for renewal. The facilities include refuse collection and diversion of material for recycling and recovery. There is limited and some ad hoc reuse collection in site. Hazardous substances in domestic quantities are also collected and stored appropriately for removal once a suitable quantity has amassed. Refuse is collected in bins located in a concrete enclosure. These are then collected and transported out of the district to landfill.

Currently the consents for this facility are being renewed.

Awakino and Hakaru Landfill Capping

This work is scheduled for 2012 to 2014. No capping has been implemented. A leachate collection system has been installed at Hakaru. This is collected and disposed of in an appropriate treatment facility.

Closed Landfills

The number of closed landfills were not addressed in the previous plan. These are numerous and widespread. Consents are in place for all that were previously the direct responsibility of the Council. There remain a number for which the Council has no previous responsibility but which have been noted and inspected regardless.

Additional Collection

The District now has kerbside recycling. This is undertaken through a private incentive with partial cost recovery through bag sales plus a subsidy from Council. Recycling is left in an official bag alongside the official refuse bag on collection day.

7.2 Education and Promotion

Council does not currently have any education strategies or programmes relating to waste minimisation, although this is acknowledged as a key aspect of this plan which will therefore be made available as a public document. Dependent on demand, available funding and staff, education programmes on key issues for the District may include:

- School visits and material for inclusion in school curriculum activities on waste and recycling
- Fact sheets available on the council website and civic locations. These could also be included in local or community newspapers
- Advertisements (radio, newspaper)
- Website materials, such as this plan.

Issues that can be identified to assist in public subscription to zero waste include:

- The benefits of the diversion of waste and an awareness of the true cost of waste
- The availability of diversion opportunities at both transfer stations and through kerbside collection
- Green purchasing and its benefits
- Packaging and reuse

7.3 Auditing, Data Collection and Reporting

7.3.1 Waste Audits

The most recent waste audit was undertaken in 2004 by WasteNot. This was conducted in accordance with the Ministry for the Environment's Solid Waste Analysis Protocol (2002). A new waste audit will be required to assess the effectiveness of this plan in the next 2 years.

7.3.2 Gate Audit and Record Keeping

Past records are not complete. This has now been addressed. All waste to landfill must pass through either Hakaru or Awakino including that collected at the kerb. A record of all waste passing through these points is used to determine quantities and can be used to assess the effectiveness of waste minimisation incentives. Further diversion and additional measurement is required to record quantities and the effectiveness of this plan.

7.4 Funding

Wherever practical and equitable, waste management is funded on a user pays basis, and to address the true cost of waste. A number of waste management activities are funded from the general rates, where producer of the waste is broad. Management of this waste typically provides a 'good' to the wider community in general, rather than a benefit to a select group. This includes recycling and recovery of waste. Council considers that the provision of environmentally acceptable, low risk closed landfill facilities, and litter control, confer a district-wide benefit to all ratepayers, which is the rationale for this funding.

An example of this is litter bins. These are provided for use at no charge the producer of the waste. They serve the function of collecting waste that would normally cause nuisance or health concerns to members of the public. Closed landfills are similar. These present a risk to the community if not managed appropriately. The responsibility for these lies in the community of the past, as this group gained the benefits of easy disposal. Unfortunately the cost of managing the site has passed to the current community who must do so to minimise the potential effects to both themselves and future generations.

Funding has not differed significantly compared to the previous plan. Both litter collection (including public bins) and illegal dumping (including abandoned vehicles) remain funded out of the general rates, or uniform annual charge (UAC). An additional subsidy is now paid to partially fund and maintain kerbside recycling to ensure the service remains viable and recognise the value this offers the greater community.

User pays services (in relation to point source payment) are currently:

- Household refuse collection – This is now paid for via an official bag. This entirely funds the collection of refuse from the kerbside to the landfill.
- Recycling is paid for in a similar bag purchase, but does not involve the Council⁹. All bag sales are undertaken by a private contractor.
- Landfill/ transfer station disposal – users of these facilities pay disposal charges which cover some of the costs of running the facilities. Where a deficit occurs between the contracted cost and the revenue from disposal fees the difference is recouped by rating.

⁹ Except for provisional of a small subsidy from rates

7.4.1 Privately Funded Services

Some waste management services are provided and controlled by the private sector. Companies that provide these services charge the recipients of the service directly. Users of private waste collection services are often businesses. Examples of services provided include:

- Commercial refuse collections
- Kerbside recycling collections – as above.
- Private commercial organic refuse collection (pig food)

8 Future Options in Waste Minimisation and Management

8.1 Future Directions

Quantities of waste and diverted material remain low. While reduction of overall waste is a key aim of this plan, the current levels of recycling are sustainable providing a quantity of material that allows a commercial operation to operate with minimal subsidy from Council. The main area of overall potential waste reduction is the increase in separation of recoverable and recyclable materials in the waste stream. Associated with this is the encouragement to minimise or eliminate non-recoverable items used by the consumer. This relies on the consumer as the immediate generator of this waste. Current national initiatives to highlight this need to be coordinated with a local awareness of the cost of waste. Current subscription to recycling, where available, indicates a good level of awareness of this service.

Opportunities therefore remain for material that is currently not diverted from the waste stream. Refuse that is currently left for kerbside collection may still contain either recyclable material that is not separated and therefore 'lost' to the landfill, or waste that could be replaced with a divertible alternative. This can be addressed in two ways; Firstly increased awareness on the part of the waste producer. This includes a knowledge of services and the value of utilising them. Financial incentives of cheaper bags for recycling emphasises this further, and is currently practiced.

Secondly additional opportunities for diversion can be created. This involves offering a collection point for these items. The opportunity for undertaking this currently exists at transfer stations, where storage areas for select items can be created. This provides a hub for collection for reuse, recycling or recovery. The remaining waste to landfill can then be further analysed to determine quantities for further recovery.

8.2 Future Options

8.2.1 Education

Spreading the philosophy of the 5 R's (reduction, reuse, recycling, recovery and residual waste) is important for moving towards zero waste. Each element represents a tier in addressing the true cost of waste in both economic and physical resources. Currently waste issues are addressed at school level to a satisfactory standard, and no additional material at this level is planned. If requested to do so by the school, Council will provide a staff member to talk to pupils in support of this if staff are available.

Where a new incentive is created, such as diversion of a new waste classification, this will be publicised as appropriate. In order to promote zero waste in a broader sense, Council will utilise existing material from Central Government sources. This will be either promoted directly on enquiry or through a link on the Council Website.

8.2.2 Transfer Station Development

The transfer stations offer an effective means to intercept waste destined for landfill not disposed of in refuse bags. Sites provide the opportunity for sorting and storing material for more efficient collection. Improvements that are being considered are as follows:

Reuse store

Both sites offer the opportunity for collection of common household items such as books, kitchenware, tools and clothing. These will be held for an appropriate period during which they will be offered for sale at a minimal cost or donation and removal by members of the public.

Additional diversion areas

At present there are some opportunities for diversion. These include metal for recovery, paper and glass for recycling, car batteries and hazardous material for treatment. Additional diversion categories that are being considered for collection and storage are:

- Silage wrap – these are collected at various locations in the District including Awakino Road. If it should prove efficient to do so Hakaru will also accept this material for the same charge. This will require coordination with Northland Regional Council.
- E-waste – this is an identifiable group which includes all waste associated with computers and mobile phones. There is a yearly E-waste day with various collection points through New Zealand. Transfer stations may be able to collect this waste all year and store it for disposal with the coordinated collection on that day.
- Tyres – Tyres are a significant waste item for which there are organised disposal options. By collecting these at the transfer stations the Council may be able to effect a more effective and efficient disposal.
- Refrigerant Gases – gases within the cooling systems of household refrigerators and freezers may be ozone depleting. White ware will be collected and disposed of as per the current practice. Removal of the refrigerant in a cost effective manner will be investigated.
- Greenwaste – this offers benefits to residents but requires significant investment for efficient and safe collection, processing and storage. Collection and processing of compostable material will require significant outlay to implement. It would first require a suitable facility, consented and maintained. Additionally quantities arriving at transfer stations appear from current investigation to be low suggesting household composting. Collection of useful quantities of waste may prove expensive. It is preferable that private initiatives, subject to the appropriate consents, be encouraged. Inclusion of such waste in kerbside bags can also be discouraged through increased cost, although this may lead to additional problems of illegal dumping. Ideally encouragement of home composting through information may lead to a better result. This waste category will be monitored to assess the feasibility of collection at a future time

8.2.3 Waste analysis

Information is important to assess the waste types entering the waste stream, and the effectiveness of Councils initiatives. As waste is currently being taken out of the District, quantities to landfill are constantly recorded. Similarly quantities of diverted waste from transfer stations are recorded on collection. Recycling from kerbside collection is a private initiative with only partial Council subsidy and therefore quantities are commercially sensitive, but known in general magnitude. The most significant area for analysis is the contents of kerbside refuse. This will be investigated in regard to options for monitoring.

A new waste audit is required and should be undertaken within 2 years of this plan being accepted. Further sorting for diversion will assist in this and measuring the effectiveness of this plan.

8.2.4 Closed Landfills

Closed landfills present a challenge for management. They offer no alternatives for cost recovery but incur expense due to legal requirements. Options for payment of true cost exist where the landfill is active and collecting gate fees. However this is a modern realisation and traditional waste management techniques in New Zealand did not typically take this into account.

Improvement of Hakaru leachate collection system

Being the most recently closed landfill and actively decomposing, Hakaru generates leachate which is collected. This incurs expense through collection and disposal. It has become apparent that while effective in containing the leachate, an amount of additional seepage is increasing the quantity unnecessarily. Modifications to the collection system are being considered to eliminate uncontaminated flows into the system.

Awakino and Hakaru Landfill Capping

Neither Awakino or Hakaru landfills are currently capped. Significant expenditure is required in 2012/13 to cap Awakino in Dargaville and in 2013/14 to cap Hakaru.

9 Definitions

9.1 Waste

Council has chosen to adopt the NZWS definition of waste. These are as follows:

WASTE is any material, solid, liquid or gas that is unwanted and/or unvalued, and discarded or discharged by its owner.

GREEN WASTE includes lawn clippings, weeds, branches, plants or other vegetable matter. Shreddable green waste means uncontaminated green waste with a diameter less than 200mm but excludes flax, bamboo, toi toi or noxious weeds. There can be no containments, e.g. no rocks, steel, timber, dirt, concrete, rope or rubbish etc, within the green waste.

HAZARDOUS WASTE can be solid, liquid or gaseous in nature, and may present hazards to human health, the environment and property requiring special management controls. Hazardous waste includes chemicals, infectious and radioactive materials, and by nature are often complex mixtures of substances. A national definition of hazardous waste is being developed to provide consistency in defining hazardous waste.

ORGANIC WASTE includes food, green or garden waste and biosolids.

SOLID WASTE is generated as solids or converted to a solid form for disposal. Solid waste includes common household waste, e.g. paper, plastic, glass, metals, appliances, and kitchen and garden waste, as well as a range of industrial and commercial waste, e.g. construction and demolition waste, organic waste from agricultural and food processing, and mine and quarrying tailings. Most solid waste is disposed of in Landfills or cleanfills. Some solid waste, e.g. medical waste generated by hospitals, is hazardous or potentially hazardous and requires controlled disposal, often through high temperature incineration.

9.2 Other Terms

CLEANFILL MATERIAL means material that does not undergo any physical, chemical or biological transformations that will cause adverse environmental effects or health effects once it is placed in a clean fill, i.e. inert material such as clay, soil, gravels, concrete and rubble.

DISPOSAL means final deposit of waste on land set apart for the purpose. (LGA 1974)

HOUSEHOLD REFUSE includes wrapped cold ashes, sweepings, dust, paper, bottles, wrapped bones, and waste food, cans, cartons, or other food containers, or other refuse resulting from domestic housekeeping. Official Council rubbish bags are intended for the disposal of 'household rubbish', i.e. domestic waste which cannot be recycled or composted and is non hazardous.

HSNO means the Hazardous Substances and New Organisms Act 1996.

ILLEGALLY DUMPED REFUSE means any item, or collection of items deposited together, deposited on public property by a person without Council's permission.

INORGANIC REFUSE means all refuse arising from residential properties of an inorganic nature, including but not restricted to furniture, appliances, cut up motor vehicles or parts, carpet, bric-a-brac and other discarded items. Inorganic Refuse excludes non-complying items.

KERBSIDE RECYCLING means the roadside collection of materials separated for the purposes of recycling.

LANDFILL means a controlled site for the deposition of solid waste on land.

LITTER includes any refuse, rubbish, animal remains, glass, metal, garbage, debris, dirt, filth, rubble, ballast, stones, earth, or waste matter, or any other thing of a like nature (from the Litter Act 1979).

MULTI-UNIT BUILDING means a building which contains more than one separate household or family.

NON-COMPLIANT BAG means any refuse bag that does not display the official Kaipara District Council logo, or does not meet the requirements for collection, e.g. the bag is not out by 7.30am, contains unwrapped sharp objects, heavy items and exceeds the maximum weight of 10kg, contains garden refuse, hot ash, corrosive or inflammable liquids, dangerous substances or is not securely tied.

NON-COMPLYING MATERIALS are materials that are not allowed to be put at a Transfer Station as the site is not designed for the material or is inappropriately presented.

RECOVERY means extraction of materials or energy from waste for further use or processing, and includes, but is not limited to, making materials into compost (LGA 1974).

RECYCLING is the reprocessing or remanufacturing of material into a new or different product, e.g. old newspapers can be reprocessed to make egg cartons

REDUCTION means lessening waste generation (LGA 1974).

REFUSE BAG means any refuse in a refuse bag that is placed on the kerbside for collection and disposal. This bag displays the official Kaipara District Council logo.

REUSE is the repeated or continued use of a product or item in its original form.