

Hauraki Gulf Islands SECTION



Waiheke
Island
and
Great Barrier
Island
Sub Sections

Waste Management Plan

AUCKLAND CITY

Auckland City Council's Waste Management Plan is in three sections: Isthmus, Central Area and Hauraki Gulf Islands. The underlying principles and goals are the same throughout, but there are variations in approach between sections, reflecting their different characteristics.

ISBN 0-908834-39-X

Copyright © 2000, City Planning, Auckland City Council.

Cover Photo: Householders and businesses in the City of Auckland create enough waste to fill a rugby field to a height of five storeys, every month

Contents

Introduction Page 2

WAIHEKE ISLAND SUB SECTION

SECTION A

A1 Current Situation Page 5



SECTION B

B1 Vision Page 6

B2 Key Points Page 7

B3 Targets Page 9

B4 Household Waste Page 10

B5 Business Waste Page 14

B6 Community Service Waste Page 16

B7 Litter and Marine Waste Page 17

B8 Hazardous Waste Page 19

B9 Treatment and Disposal Page 21

B10 Monitoring Page 23

B11 Roles and Responsibilities Page 25



SECTION C

C1 Waste Management Plan Process Page 29



GREAT BARRIER ISLAND SUB SECTION

SECTION A

A1 Current Situation Page 30

SECTION B

B1 Vision Page 31

B2 Key Points Page 32

B3 Targets Page 34

B4 Household Waste Page 35

B5 Business Waste Page 38

B6 Litter and Marine Waste Page 39

B7 Hazardous Waste Page 41

B8 Treatment and Disposal Page 42

B9 Monitoring Page 44

B10 Roles and Responsibilities Page 46



SECTION C

C1 Waste Management Plan Process Page 50

C2 Glossary of Terms Page 51

Appendix A Page 55



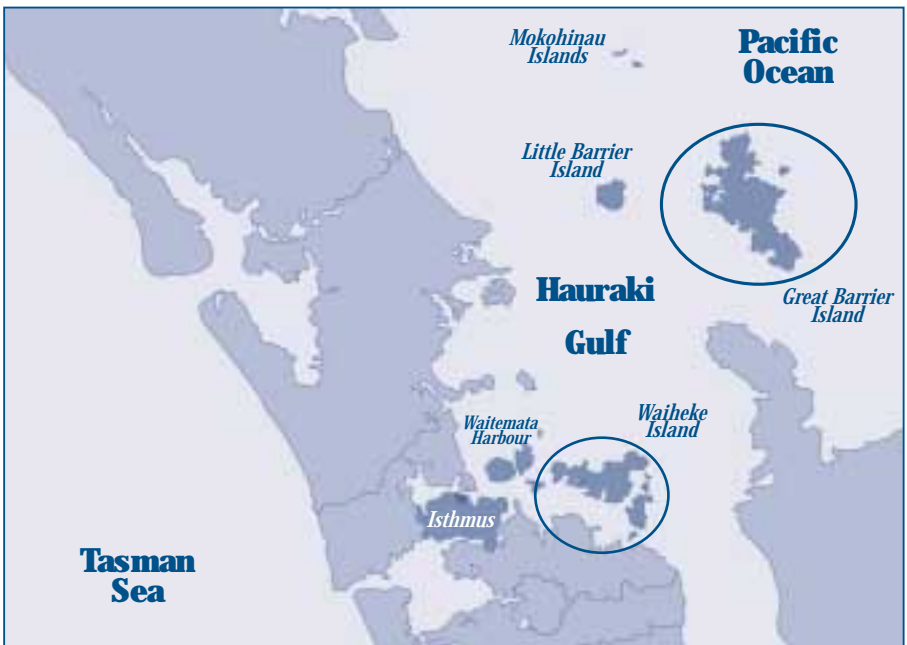
INTRODUCTION

The development of a waste management plan by councils is a statutory requirement under the Local Government Amendment Act (No. 4) 1996. It must follow a special consultative procedure as set out in the Local Government Act 1974.

The waste management plan for the City of Auckland focuses on solid waste. It consists of three sections - the Isthmus, the Central Area and the Hauraki Gulf Islands (see map). This document is the Hauraki Gulf Islands section of the waste management plan, which is separated into two subsections, Waiheke Island and Great Barrier Island, due to the uniqueness of the two islands.

Both subsections were compiled with the help of the respective communities and present targets and set out a series of policies and methods while providing background information to assist in the understanding of issues associated with waste.

The Plan's objective is to provide for effective and efficient waste management on the



Hauraki Gulf Islands, which has regard to environmental and economic costs and benefits, and ensures that its management does not cause a nuisance or is injurious to health.

The vision of Auckland City Council's Strategic Plan is to make Auckland an outstanding city. The community believes that to achieve the vision, the City must be clean and green. Much work is needed before we can claim to be clean and green, especially in the area of waste.

Currently each person in the City of Auckland produces, on average, a tonne of waste a year that goes to landfill. And with population growth predicted to continue steadily over the next few decades, we need to plan ahead and allow time to implement effective measures to reduce waste quantities so that we no longer use natural resources wastefully. We need to protect and conserve our natural resources for the sake of future generations.

Legislation in New Zealand now emphasises this change in thinking and prioritises the need for councils, through waste management plans, to reduce waste - which is a significant change from simply requiring councils to be responsible for collection and disposal. Options to reduce waste are ranked in a "hierarchy". The first and most obvious approach is to avoid creating waste in the first place and, where it is created, to reuse it in some way. The hierarchy is defined as follows, in order of priority:

REDUCTION means lessening waste generation;

REUSE means the further using of products in their existing form for their original purpose or a similar purpose;

RECYCLING means the reprocessing of waste materials to produce new products;

RECOVERY means the extraction of materials or energy from waste for further use or processing; and includes, but is not limited to, making materials into compost;

TREATMENT means, in relation to waste, subjecting the waste to any physical, biological or chemical process to change the volume or character of that waste so that it may be disposed of with no, or reduced, significant adverse effect on the environment;

DISPOSAL means final deposit of waste on land set apart for the purpose.

The Local Government Amendment Act (No 4) 1996 provides councils with a number of ways of achieving the objectives of their waste management plans. These include:

- making bylaws to regulate and license the collection, transportation and disposal of waste;
- providing support in the form of grants of money or loans;
- allocating the costs of implementing the plan in a way that establishes economic incentives or disincentives; and
- providing waste minimisation education programmes.



WAIHEKE ISLAND SUB SECTION

CURRENT SITUATION

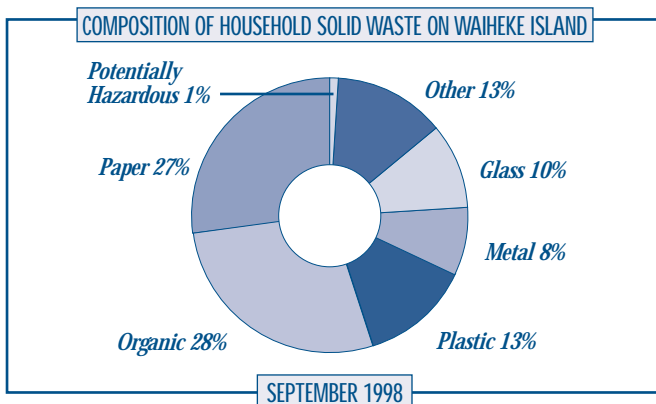
Current figures show Waiheke Islanders have produced approximately 5000 tonnes of waste this year (1998/99)². Based on actual population figures this equates to just over 750kg of waste produced per person per year. It is important to note however, that Waiheke Island's population increases from approximately 6500 to between 20,000 and 30,000 at peak times which has a significant impact on waste tonnages. So true waste per head of population figures are difficult to accurately gauge.

A waste analysis survey was carried out by the Waiheke Waste Resources Trust (WWRT) in 1998 to identify the composition of household waste in order to target educational programmes. The results although useful in general terms, can only be used as indicative as the survey is a snap shot of waste composition on Waiheke Island on one particular day but is broadly consistent with similar surveys carried out elsewhere.

The division between household and business waste is also difficult to gauge, as there are currently no means for weighing large quantities of waste on Waiheke Island. All tonnage figures are generated after the waste has been barged off the Island bound for one of four commercially operated landfills in the Auckland Region. If these commercial operations were to close, Councils in the Auckland Region would be responsible for making sure disposal facilities were available so that waste did not cause a nuisance or be injurious to health.

There is no solid waste landfill site currently licensed on Waiheke Island, hence the need to transfer all solid waste to the city disposal sites. The previously used site is now full but ongoing funding is required for its remediation.

The legacy of all of the city's old tip sites - which need to be cleaned up at an estimated cost of \$8.5 million - shows the need for responsible waste management. In this case the present generation is dealing with problems inherited from the past. This point is now being addressed by sustainable management which ensures we are not leaving further problems for future generations.



² This is waste to landfill only and does not include organic waste sent for composting or any recycled material.

VISION



TO SIGNIFICANTLY REDUCE WASTE ON WAIHEKE ISLAND, BY TREATING IT AS A RESOURCE

To achieve this the options in the Waste Management Plan must:

- be sustainable,
- be consistent with the Waste Management Hierarchy,
- be supported by an informed community,
- include methods that have the most environmental benefits or least adverse effects to the environment,
- be culturally and socially acceptable and responsible, and
- be economically viable.



KEY POINTS

The Waste Management Plan is a statutory document which sets out the Auckland City Council's and the Waiheke Community's waste management goals. The Plan takes into consideration the Waste Management Hierarchy and is based on the principle that discarded materials are not waste but resources.

It is for this reason that any financial or human resources are allocated proportionality to where an action appears in the Waste Management Hierarchy eg: A waste reduction initiative would receive more investment than a waste disposal initiative.

As Council's statutory document, the Waste Management Plan contains a number of points that must be followed whether waste management contracts are managed directly by Auckland City Council or, in the future, by someone else on Council's behalf.

The Key Points are:

▶ EDUCATION

- The development of a community based education programme on waste prevention, reduction and separation at source
- Education on buying back recycled products in an effort to close the recycling loop
- An education strategy to encourage people to stop littering
- Local community groups, Auckland City Council, Auckland Regional Council and boating organisations to working in partnership to encourage people to eliminate the disposal of waste into the sea
- Lobbying of Central Government to include education on waste prevention and reduction in the school syllabus
- The promotion of non hazardous alternatives where possible
- Investigation into an education officer role

▶ REDUCTION

- There is a target to reduce all waste generated by 40% by 2004
- Auckland City Council will lead by example in waste reduction at its own properties
- The provision of waste minimisation initiatives in event tenders
- A waste management plan which is regularly updated and improved to encourage reduction
- Advocating for the development of national waste reduction legislation
- The elimination of hazardous waste to landfill

▶ REUSE AND RECYCLING

- The investigation into a regular user friendly kerbside recyclables collection for Waiheke Island
- The development of a Resource Recovery Estate
- The investigation of incentives/disincentives that encourage people to maximise the opportunities for reuse/recycling by separating their waste at source
- The requirement in waste collection contracts to recover as much material as possible for reuse, recycling etc

▶ RECOVERY

- The encouragement of home composting by providing advice and support to householders
- Investigation into the improvement of the existing commercial composting facility on Waiheke Island

▶ TREATMENT AND DISPOSAL

- To use processes to dispose of residual waste which avoid or minimise adverse effects on the environment

▶ MONITORING

- The provision of ongoing waste information
- Effective monitoring of actions and outcomes in the Waste Management Plan to track progress towards reaching waste reduction targets





TARGETS

Waste reduction targets provide a clear focus to strive for and something against which achievements can be measured. Targets also play a part in setting the goals and direction, and in focussing programmes to reduce waste.

In its Strategic Plan, Auckland City Council has waste reduction goals to be achieved by 2000, however it has only one waste reduction target: a 10% diversion of household waste from landfill through kerbside recycling. Due to the difficulty of differentiating between different sources of waste on the Island, this plan recommends that the following reduction target from all waste sources is adopted using 1998/99 figures as the baseline.

TARGET

A 40% reduction, at a target rate of 10% per annum, in the quantity of waste disposal per head of population by 2004, with a baseline amount of 750kg per person per annum.



HOUSEHOLD WASTE

The majority of households on Waiheke Island have a weekly waste collection managed by Auckland City Council but subcontracted to private companies, for which provision is made in the rates. Unlike residents on the Auckland City Council's Isthmus, Waiheke Islanders are not provided with Mobile Garbage Bins (MGB's) for their waste but provide their own bags.

A kerbside recycling scheme is currently running on Waiheke Island. Residents are not provided with a separate receptacle but households can leave recyclables in a separate bag for collection. Although there is a public perception that not all of the recyclables put out in these collections are separated from the general waste stream, in the 1998/99 year it is estimated that residents will divert 600 tonnes of recyclables. Based on tonnage per head of population this is more than Auckland City Council's Isthmus residents who have an 'official scheme'

An assumption could be made therefore, that if the recyclable collection was to be formalised materials diverted from landfill could be substantially increased and materials sent for final disposal could be substantially decreased.



4.1 Goal

Waste generated by households is reduced as appropriate to achieve the Waste Management Plan targets. (see section B3)

4.1.1. Actions

- Auckland City Council will facilitate the development of a community based education programme on waste prevention and reduction
- Auckland City Council will implement a system offering a set of official rubbish bags per year with any extra rubbish bags residents require being at their own cost and that the cost of the 52 rubbish bags be transparent in the rates bill
- Auckland City Council and local community groups will develop a strategy to deal with waste from transient residents of Waiheke
- Auckland City Council and local community groups will develop and implement a strategy to discourage the use of public litterbins for household waste disposal

Explanation

Education is seen as key to encouraging the residents of Waiheke Island to prevent waste from being generated in the first instance, and then to reducing the quantity over all. The working group believe that this educational role ultimately lies with community groups in order for it to be well received and effective. Another approach is to introduce direct charges for waste generation which can be used to give householders a greater incentive to reduce their waste. The combination of the two tend to give the best results of waste prevention/reduction.

Rubbish bags are the obvious choice for household waste collection. MGB's are considered unsuitable because of the island topography and narrow roading system, the transient population, the marine environment ie faster degradation of bins, etc.. Investigation will be needed into the most suitable transparent charging system using bags.

Unofficial reports suggest that a large percentage of waste collected in litter bins on Waiheke Island is from household waste. A comprehensive strategy will need to be developed to tackle this issue and one idea for dealing with this is outlined in Section B7- Litter and Marine Waste: 7.1.1 Actions.

4.2 Goal

The diversion of a significant amount of materials from the domestic waste stream through reuse, recycling and recovery, as appropriate to achieve the Waste Management Plan targets.

4.2.1 Actions

- Auckland City Council will undertake investigation to develop a regular user friendly recyclables collection for Waiheke Island
- Auckland City Council and local community groups will educate householders to separate their waste from recyclables
- Auckland City Council and local community groups will encourage householders to buy back recycled products in an effort to close the recycling loop
- Auckland City Council will investigate and provide advice and support on the economics of investing in recycling technologies on the Island

Explanation

A collection of recyclables which is convenient, ie: a kerbside service, is a successful way of diverting recoverable material from landfill. However placing materials on the kerb to be recycled is only the first step in the recycling process. In order for recycling to be successful and economically viable, we need to encourage householders to buy recycled products back, therefore closing the recycling loop.

Investigation is needed into technologies for recycling which can be developed on the Island for reprocessing recyclable materials.

4.3 Goal

Inorganic material is managed in a manner that promotes maximum recovery and there are options available for people to take products for reuse and recycling.

4.3.1 Actions

- Auckland City Council will encourage and assist local community groups or individuals in developing a Resource Recovery Estate with appropriate collection/dropoff systems
- Auckland City Council will provide seed funding where appropriate to implement a Resource Recovery Estate
- Auckland City Council will maintain its rates funded inorganic collection every 2 years
- Auckland City Council will work with contractors to ensure that as much material as possible collected in the inorganic collections is recovered for reuse or recycling

Explanation

Resource Recovery Estates which are dedicated to separating, reprocessing and the repairing of larger materials (eg: appliances, building materials etc.) thereby adding value to them, are successful in not only prolonging the life of a resource, but also providing the social benefit of creating local employment. Householders would be able to drop off materials they no longer wanted all year round.

For the inorganic two year collection system to support the vision of this Plan it is crucial that the Council modifies contracts to specify the need to recover materials collected for reuse and recycling wherever possible.

4.4 Goal

The significant reduction and recovery of kitchen waste from the domestic waste stream as appropriate to achieve the Waste Management Plan targets.

4.4.1 Actions

- Auckland City Council and local community groups will encourage home composting by providing advice and support to householders
- Auckland City Council will investigate and provide advice and support to improve the existing commercial composting facility on Waiheke Island
- Auckland City Council's organic waste working party identify methods for enabling Waiheke Island residents to deal with their bulky organic waste

Explanation

It is estimated that approximately a third of Waiheke Island's household waste going to landfill is kitchen and garden (organic) waste. This organic waste should be seen as a valuable resource, particularly on Waiheke Island where soils could benefit greatly from the application of this recovered material.

Home composting or vermicomposting is an effective way of processing kitchen and garden waste at home, however this method may not suit the needs of all residents. Auckland City Council and local community groups will need to investigate and promote other methods, eg. using local community groups to help in setting up composting programmes, using commercial collectors for garden waste and promoting home or commercial vermicomposting (worm composting) for kitchen waste.

Investigation is also needed into further development of the existing composting facility and the possibility of other on Island technologies for recycling.



BUSINESS WASTE



Businesses can reduce their waste by reviewing their operations and making changes to processes, products and services (often known as cleaner production programmes), and by using resource exchange and recycling services. Research shows that it is mostly the larger type businesses that implement these initiatives. It is for this reason that education is crucial to encouraging smaller businesses, like most on Waiheke Island, to take part in these programmes.

Waste tonnages from approximately 400 businesses on the Island are unable to be distinguished from the general waste, due to the lack of a weigh bridge at the transfer station. The majority of business waste on Waiheke Island is collected by private contractors on a user pays basis, however Auckland City Council will pick up household type business waste if put out for collection.

5.1 Goal

Waste generated by businesses is reduced as appropriate to achieve the Waste Management Plan targets. (see section B3)

5.1.1 Actions

- Auckland City Council and local community groups will adopt an advocacy role, and assist and educate businesses to identify the types of waste produced in order to identify where waste reductions and cost savings can be made
- Auckland City Council will investigate incentives/disincentives that encourage businesses to maximise the opportunities for reuse/recycling by separating their waste at source
- Auckland City Council and local community groups will facilitate the means of effective communication between retailers, consumers etc
- Auckland City Council will include in waste collection contracts the requirement to recover as much material as possible for reuse, recycling etc
- Auckland City Council will ensure that transfer station charges reflect the true costs of waste disposal

Explanation

Many businesses know little about the types and amounts of waste they produce, and there are few incentives to reduce waste. A monitoring system is the first step in identifying wastes.

Once again education is key in informing businesses of alternatives to producing and then disposing of their waste. Businesses often find that by implementing small waste reduction programmes, their costs for disposal are significantly reduced. In the same light the introduction of economic incentives and disincentives can be used to encourage businesses to reduce the amount of waste they produce, and this would be even more successful at a national level.

It may be important to either add into contracts, or licence waste collectors to recover materials for reuse or recycling. There is currently little or no charge for waste disposal at the transfer station. An increase in these charges is an example of an economic disincentive which encourages waste reduction.





COMMUNITY SERVICE WASTE

Community Services are those services that are central or local government run eg; councils, hospitals, schools, non profit organisations, community facilities and sports clubs etc.

As with all of the other sectors on Waiheke Island there are no accurate figures on the amount of waste produced by this group. Their importance in the Waste Management Plan however, lies in their ability to provide models and set standards for the community at large.

6.1 Goal

Waste generated by community services is reduced as appropriate to achieve the Waste Management Plan targets. (see section B3)

6.1.1 Actions

- Auckland City Council will identify the types and quantities of waste produced by its council operated properties on Waiheke Island in order to identify where waste reductions and cost saving can be made
- Auckland City Council to encourage community services to develop education strategies and waste management plans to encourage waste reduction
- Auckland City Council to investigate incentives to encourage Community Services to reduce their waste
- Auckland City Council will investigate incentives/disincentives that encourage Community Services to maximise the opportunities for reuse/recycling by separating their waste at source
- Auckland City Council and local community groups to lobby Central Government to include education on waste prevention and reduction in the school syllabus

Explanation

For Auckland City Council to promote waste minimisation, it must lead by example and reduce the environmental impact of its own actions. Operational decisions will be made with direct regard to environmental performance. A policy that provides direction for purchasing decisions will provide a foundation and stimulant for further environmental improvements by Auckland City Council.

Currently the national school syllabus does not have any official waste reduction content. As education has been identified as key to reducing waste on the Island participation from schools is seen to be vital as importance is placed on receiving messages early in life.



LITTER AND MARINE WASTE

Litter is most commonly defined as small waste materials carelessly dropped in public places. On Waiheke Island, Auckland City Council provides a number of litter bins and rubbish drums for people to dispose of litter. Although Waiheke experiences large population increases during the summer months, the amount of litter bins and drums remain the same but the frequency of emptying is increased.

Material swept off the street contains litter, dust, organics and a concentration of heavy metals and other potential hazardous pollutants from vehicle emissions and operations. Such material is unsightly and can have environmental health implications - and in addition is costly to manage. This material enters street drains in the Auckland Region, including Waiheke Island, and makes its way into the Hauraki Gulf where it ends washed up on beaches or polluting the marine environment. Auckland City Council does not have a current budget for regular street cleaning on Waiheke Island.

Marine waste also consists of rubbish dumped overboard by people on boats which eventually ends up on the beach. Auckland City Council currently provides a waste barge for boaties to drop their waste off during the Christmas/New Year Period. This barge is situated in Man-o-War Bay to service those boaties anchoring at and around Waiheke, Ponui and Pakatoa Islands.

Auckland City Council also undertakes a litter collection on the beaches that can't be reached by land every three or four months, and many local residents clean beaches of litter on a voluntary basis.

7.1 Goal

Litter is reduced or eliminated.

7.1.1 Actions

- Auckland City Council will adopt a policy that requires event managers to include the provision of waste minimisation initiatives in their event tenders
- Auckland City Council and local community groups to develop an education strategy to encourage people to stop littering
- Auckland City Council and local community groups to investigate disincentives to littering
- Auckland City Council will investigate litter receptacles which provide for the separation of materials for reuse and recycling
- Local community groups will encourage residents to take an active role in street improvement and beautification projects eg: Keep NZ Beautiful and Beach Care etc
- Auckland City Council will investigate prosecuting, where appropriate, violations of the planning and bylaw controls for littering
- Auckland City Council will continue to only undertake street cleaning where necessary

Explanation

Unofficial reports suggest that a large percentage of waste collected in litter bins on Waiheke Island is household waste. This can be explained in part by the number of holiday homes and tourists that use these facilities. Two options have been identified to improve this situation, an education campaign to reduce waste in the first place, and the provision of separation bins which would encourage these people to at least sort their waste into waste and recyclables .



Street beautification and beach clean up projects are seen as an effective way to encourage people not to litter. These voluntary methods also reduce the need for regular street cleaning - something not provided for in current budgets.

Large quantities of litter are produced at specific events. Many overseas event management companies are required to specify how they will manage the waste generated at these events by using a range of waste minimisation techniques. This aspect becomes a criteria for these companies to be evaluated on when tendering.

7.2 Goal

Marine waste is reduced.

7.2.1 Actions

- Local community groups, Auckland City Council, Auckland Regional Council (ARC) and boating organisations will work in partnership to implement an education strategy that encourages people to eliminate the disposal of waste into the sea
- Auckland City Council will investigate a system to catch litter and sediments before they enter storm water drains and ultimately end up in the Gulf
- ARC and Auckland City Council will investigate disincentives to boaties disposing of waste into the sea

Explanation

As the waters of the Hauraki Gulf do not come under Auckland City Council's jurisdiction, it is crucial that any implementation of an education strategy is worked in conjunction with the ARC and the Local Community. Boating organisations have been identified as a good medium for this type of communication to be channelled through.



HAZARDOUS WASTE

There is no tonnage figure on hazardous waste available for the City of Auckland, and more specifically Waiheke Island. The term covers a range of wastes most of which require specific treatment or disposal.

Auckland City Council needs to be concerned not only with reducing hazardous waste, but also with reducing the risks represented by hazardous waste, especially in the long term.

At present there is no storage or disposal facility on Waiheke Island for hazardous material. The provision of such a facility is currently being investigated by ARC and Auckland City Council.

8.1 Goal

The elimination of hazardous waste going to landfill and the use of disposal processes which avoid or minimise adverse immediate and long term effects on the environment.

8.1.1 Actions

- Auckland City Council will advocate for Auckland Regional Council to contract specialist experts to identify and quantify hazardous materials for specialist treatment and disposal
- Auckland City Council and Auckland Regional Council will provide for the handling, storage and disposal of hazardous material, exceeding the standards outlined in HSNO (Hazardous Substances and New Organisms Act)
- Auckland City Council and local community groups will promote the use of non hazardous alternatives where possible
- Auckland City Council and Auckland Regional Council will provide information to the community on what materials are potentially hazardous and advice on how best to dispose of these materials
- Auckland City Council and local community groups will lobby central government to set national regulations which require national manufactures and importers of hazardous materials to take back their products for proper treatment
- Auckland City Council will monitor, investigate and prosecute, where appropriate, violations of planning and bylaw controls for hazardous waste
- Auckland City Council will review its hazardous substances and facilities provisions in the Hauraki Gulf Islands Section of the Auckland District Plan

Explanation

Identifying which wastes are hazardous is key, as is information on how and where to treat and dispose of such wastes. Education for households and businesses alike is of great importance. The ultimate goal is to encourage the use of environmentally safe and healthy alternatives which do not create hazardous waste.

Auckland City Council is currently reviewing its hazardous substances and facilities provisions in the proposed Central Area and Operative Isthmus District Plans, there also needs to be a review of provisions in the HGI section. The provisions outlined in these two plans are aligned with the intent of the HSNO (Hazardous Substances and New Organisms Act) which is to protect the environment and health and safety of people and communities by preventing and managing the adverse effects of hazardous substances and new organisms. The Working Group see a need that these intentions are not only met but exceeded in order to preserve the unique character of Waiheke Island.





TREATMENT AND DISPOSAL

Ninety-five percent of the waste produced in the Auckland Region goes to landfill. The remainder - quarantine and medical waste - is incinerated. Disposal to land is the most common management practice for the waste which is not reused or recycled. Auckland City Council only owns and operates a landfill on Great Barrier Island. Auckland City Council also employs contractors to run a transfer station and small composting operation at Ostend on Waiheke Island. This provides a place where waste is collected and compacted on site before being barged to the mainland and then on to one of the region's landfills. Garden waste is separated and then composted on site (refer 4.3.1 Actions under the Household Waste Section).

The majority of Waste from Waiheke Island goes to the Greenmount Landfill which is a commercial operation run by a private company. Situated in East Tamaki, Manukau City, Greenmount only has a life expectancy of the year 2003 but if waste volumes begin to decline could stay open longer. There are three other landfills in the region: Redvale, Rosedale and Whitford and they too are commercial operations run by private companies. While the combined capacity of these sites will provide landfill space for some years, a shortage of space could still become an issue about the turn of the century as resource consents expire and Greenmount and Rosedale close. Redvale and Whitford will continue to operate, but both are constrained by consent in the amounts of waste they can take. Whitford can not take more than 200,000 tonnes of waste a year while Redvale is constrained by the number of vehicle movements.

The issue of the development of a new landfill disposal site on Waiheke Island is one that requires careful consideration. The costs of establishing and maintaining an approved site are high and the economics of a commercial operation may be unattractive if the goals proposed in this plan are achieved.

9.1 Goal

To use processes to dispose of residual waste which avoid or minimise adverse effects on the environment.

9.1.1 Actions

- Auckland City Council will investigate new and emerging waste treatment and disposal technologies, along with existing practices, on an ongoing basis and consistent with changing needs, and the quality and quantity of waste
- Auckland City Council will require consent applications for any new waste disposal or treatment facilities to include projections of waste reduction

- Auckland City Council will redesign contracts to reflect a coordinated waste disposal policy which takes advantage of new and existing treatment and disposal technologies, and consistent with changing needs, and the quality and quantity of waste
- Auckland City Council and local community groups will investigate a sorting system to ensure that any material sent for final disposal has been checked for its reuse, recoverable and recyclable value and sent to the appropriate contractor before disposal
- Auckland City Council and local community groups will investigate opportunities for an environmentally acceptable method of land storage of potentially useful materials which can not currently be reused, recycled or recovered
- Auckland City Council will redesign contracts to ensure that waste treatment and disposal contractors operate in a way that is consistent with reuse, recycling and recovery initiatives
- Auckland City Council will work with other council's in the Auckland Region to investigate the implications for waste management in emergency situations

Explanation

Although this Plan has focussed commitment to reducing waste it is recognised that at least in the short term there will still be a need for disposal facilities. At present landfills are used to dispose of residual waste for which alternative recovery methods have not been found. This and other methods of dealing with residual waste have differing environmental effects, however it is hoped that these effects will be minimised as the need for final disposal methods is reduced.

Land storage can be seen as an alternative to disposing of those materials that have limited value now but may have potential in the future. By storing these materials they are kept separate for recovery at a later date once markets and/or technology have been developed to make use of them.

In the event of a major disaster emergency, specialised waste disposal facilities may be needed. There is a need for a regionally coordinated approach to deal with such situations.

9.2 Goal

Outside burning will be discouraged.

9.1.1 Actions

- Auckland City Council Consolidated bylaw currently restricts outside burning

Explanation

Outside burning is not seen as an effective method of waste disposal as it wastes valuable resources and can cause air pollution through emissions of smoke and other contaminants. It is therefore important to educate on the more environmentally friendly methods of waste management available.



MONITORING

An effective monitoring programme is essential to provide information against which the Plan's performance can be measured. Waste information can include what wastes are produced, by whom, in what quantities and the hazardous nature of the waste. Over time this information will show the extent of change in the community's behaviour and this in turn will provide an indication of waste generation in the future. It will also show whether or not policies are succeeding and whether change is needed.

There is currently a lack of information on the sources and composition of waste on Waiheke Island. This type of information is crucial to the success of future monitoring and needs development.

10.1 Goal

An effective monitoring programme is established to provide accurate and timely data.

10.1.1 Actions

- Auckland City Council will ensure that actions in the Waste Management Plan are effectively monitored to track progress towards reaching waste reduction targets
- Auckland City Council will integrate waste monitoring into the Auckland City Council-wide monitoring programme and publicise it through the Annual Plan and the State of the Environment Report
- Auckland City Council will ensure that a monitoring system is incorporated into the development of any new or ongoing waste programmes
- Auckland City Council will implement a monitoring programme 3 months after the adoption of the final plan to accurately measure waste quantities and types, including those materials that are reused or recycled
- Auckland City Council will investigate and implement a business waste monitoring programme, in conjunction with the Regional Waste Managers' Forum that assesses the different types and quantities of waste generated

10.2 Goal

The provision of ongoing waste information.

10.2.1 Actions

- Auckland City Council and local community groups will profile all waste on the Island in terms of source, seasonality, composition and volume on a regular basis

10.3 Goal

To monitor the performance of the Waste Management Plan.

10.3.1 Actions

- Auckland City Council will use the data generated from the monitoring programme to measure progress towards achieving the Waste Management Plan goals





ROLES & RESPONSIBILITIES

In almost everything we do we create waste; indeed it's hard to think of an activity that doesn't involve it. For this reason, we ALL have a responsibility and a role in managing waste - and to achieve the Plan's targets, will require a strong commitment from households, businesses and local community groups to listen, accept, implement and amend the Plan as necessary.

- **HOUSEHOLDS, BUSINESSES AND MANUFACTURERS** have the responsibility to use resources more efficiently and to reduce their waste by seeing it as a resource.
- **LOCAL COMMUNITY GROUPS** can play a major part in coordinating the efforts of the community, spreading the waste minimisation message and conducting research.
- **THE WASTE AND RECYCLING INDUSTRY** has a responsibility for providing systems that give generators the chance to reduce their waste through the reuse and recycling of materials, and by looking for business opportunities which result in more materials being recovered.
- **AUCKLAND CITY COUNCIL** is required to develop a waste management plan which prioritises waste reduction and to coordinate and stimulate waste minimisation efforts in the community. It has a further role in informing people about the full costs and opportunities for reduction associated with waste and its management. This responsibility includes leading by example. Auckland City Council also has a role in ensuring that tendering processes for waste management contracts reflect the Waste Management Plan aims.
- **AUCKLAND'S LOCAL AND REGIONAL COUNCILS AND OTHER GOVERNMENT AGENCIES** have a responsibility to provide opportunities for waste minimisation that are consistent across geographical areas and that ensure integration of waste reduction initiatives.
- **CENTRAL GOVERNMENT** is uniquely placed in that it has the ability to directly affect the amount of waste generated or reused by industry through legislation and national standards. Local councils on the other hand have statutory powers which deal mainly with the disposal and recycling of waste; and can only work to reduce the amount of waste created through education, advocacy and leading by example. Central Government therefore must ensure that there is a nationally coordinated approach to waste minimisation and must take responsibilities for national guidelines on waste management practices.

11.1 Outcome

Waste reduction education will be provided to all sectors of the community.

11.1.1 Role/Responsibility: Householders, Businesses & Auckland City Council

- Auckland City Council and local community groups will provide information on how householders and businesses can reduce the waste they create and investigate methods to further advance education on waste reduction in the Community
- Auckland City Council will investigate an education officer role to educate residents and businesses on Waiheke Island on how to reduce, reuse, recycle and recover their waste

Explanation

Educating households and businesses on how they can minimise waste will provide them with opportunities to reduce the cost of waste disposal. As education has been identified as key to the success of waste reduction on the Island it may be beneficial to have a dedicated person or team to educate businesses and residents on the Island.

11.2 Outcome

The introduction of national waste reduction legislation.

11.2.1 Role/Responsibility:

Auckland City Council, local community groups & Central Government

- Auckland City Council and local community groups will advocate for the development of national waste reduction legislation that includes the setting of waste reduction targets and incentives to do so, and clearly sets out the approach to a comprehensive national strategy that takes into account the Waste Management Hierarchy
- Auckland City Council will lobby Central Government to introduce a tax on businesses for the waste they produce
- Auckland City Council will encourage producer responsibility among manufacturers and the adoption of the Packaging Accord

Explanation

It is clear that there is a role for Central Government to provide nationally coordinated direction and to set regulations when this is not appropriate at local level. For example, controls and standards on the amount of packaging materials used would need to be imposed at a national level to be effective.

11.3 Outcome

Promotion and support for community initiated research into methods of achieving waste reduction for all sectors.

11.3.1 Role/Responsibility: Auckland City Council

- Auckland City Council will provide support in whole or in part, and include funding for approved community initiated waste reduction projects that will help achieve the objectives of the Plan

Explanation

The Local Government Amendment Act (No4) 1996 enables councils to provide funds for community-based projects to achieve waste reduction aims.

11.4 Outcome

A regulatory environment that promotes the Plan's aims.

11.4.1 Role/Responsibility: Auckland City Council

- Auckland City Council will research regulatory barriers to waste minimisation and implement changes to remove these if required
- Auckland City Council will initiate Plan Changes which will include consideration of the Waste Management Plan as an assessment tool in appropriate planning applications

Explanation

There is concern that some local government regulations may run counter to waste minimisation efforts. Research is needed to identify these barriers, and efforts will then be made either to remove conflicting regulations, or to find a compromise between the original intent of the regulation and waste minimisation efforts.

11.5 Outcome

A waste management plan which is regularly updated and improved to encourage reduction.

11.5.1 Role/ Responsibility:

Auckland City Council & Local Community and Industry Groups

- Auckland City Council will allow minor changes to be made, if required, through the Annual Plan process as long as these do not affect or contradict the Plan's goals or targets. In 2005, a full review of the Plan will be completed by an external working group. This will be done on a regular basis thereafter
- Auckland City Council will integrate the Waste Management Plan with the ongoing development of the City's Strategic Plan
- Auckland City Council, local community and industry groups will establish an independent forum where current issues regarding waste on Waiheke Island can be discussed
- Auckland City Council will consult with Iwi when reviewing this Plan.

Explanation

It is essential that allowance is made for a formal review of the Plan. By the year 2005, one year after the 2004 40% reduction target date, programmes will need to be in place and be shown to be working. As required by legislation, a community consultation and participation process will be undertaken to review the targets and set the direction for the following four years.

A mechanism for minor changes to the Plan is also necessary for fine tuning without the need for a full consultation process each year.

At a more informal level, it has been suggested by members of the working group that the establishment of a forum, set up to discuss current waste issues, would be of benefit. It is anticipated that such a forum would take place every couple of months, and that it would bring together the expertise and knowledge of local community members, industry groups and council staff to work through any current waste issues on the Island. This would support the direction of the Plan which has strong community involvement as a key element.

11.6 Outcome

Auckland City Council will implement a comprehensive monitoring system.

11.6.1 Role/ Responsibility: Auckland City Council

- Auckland City Council will undertake or facilitate ongoing monitoring of programmes developed in response to this Waste Management Plan and regularly inform the community of progress

Explanation

Effective monitoring is essential to gauging the success of all programmes developed in response to the goals and outcomes of the Plan. It is crucial that monitoring systems are set in place in the development stage of any new programme.

11.7 Outcome

A coordinated, regional approach to integrated waste management.

11.7.1 Role/Responsibility:

Auckland City Council & Councils in the Auckland Region

- Auckland City Council will work with other councils in the Auckland Region and through the Regional Waste Managers' Forum to ensure consistency

Explanation

The Regional Waste Managers' Forum provides a platform for communication, information sharing and project development between councils in the Auckland Region. The emphasis is on coordinating efforts.



NB: For linkages and inputs to the Waste Management Plan see Appendix A (page 54)



Waste Management Plan Process

PUBLICITY

The community invited to send Auckland City Council solid waste management issues for use in community workshop

WORKSHOP ON WASTE

Run by Waiheke Waste Resource Trust, Auckland City Council presented Waste Management Plan information and asked for volunteers for a Working Group

WORKING GROUP

Consisted of 20 people from within the community, community board members and ACC staff.
Aim - to draft the Waiheke Waste Management Plan

COMMUNITY DISCUSSION

Opening Planning Day for residents to comment on goals and actions recommended by the Working Group

WORKING GROUP

Reviewed comments made at the Community Open Day. Draft Plan finalised by Working Group

POLITICAL ENDORSEMENT FOR CONSULTATION

Draft Plan to City Works Committee to be endorsed for public consultation

PUBLIC SUBMISSION

Draft Plan released for public submission
Submissions open **28/6/99**, close **6/8/99**

HEARINGS

Submissions heard

FINAL ENDORSEMENT

Final Plan to full Council for endorsement

IMPLEMENTATION/EDUCATION

The plan will be accompanied by a full implementation plan with community involvement

GREAT BARRIER ISLAND SUB SECTION

CURRENT SITUATION

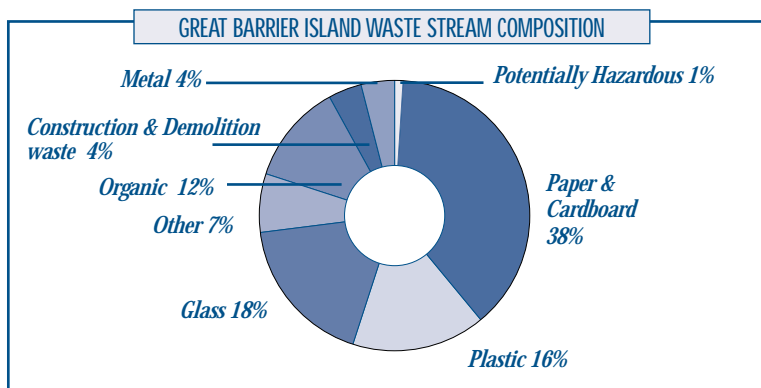
There are no accurate figures of waste generation on Great Barrier Island, due to the lack of a weigh bridge facility. For the purposes of obtaining baseline figures consultants were employed to undertake a small scale Waste Analysis Protocol Survey on the Island. The survey was used to determine indicative refuse tonnages and the approximate composition of the waste stream. The results of the survey are as follows.

The refuse tonnage is estimated at around 435 tonnes per year which takes into consideration waste from residents, boaties and visitors to Great Barrier Island. In terms of waste tonnage per person, this equates to 0.7 kg per person per day for final disposal to landfill. Aucklanders typically produce nearer to 2kg per person per day, however this figure includes commercial and industrial waste. The figure for Great Barrier residents reflects the lack of commercial and industrial activity on the Island.

Paper, which includes cardboard is the largest component of the waste stream. This can be explained in part by residents having to ship their supplies to the Island from Auckland in cardboard boxes. Glass and plastic are the next largest components of the waste stream followed by organic waste (see pie graph below). The majority of these materials could be recycled rather than going to landfill.

It is estimated that approximately 10% of all waste produced on Great Barrier Island is recycled, however it is important to reiterate that these figures are only indicative, as the survey was a snap shot of waste tonnages and composition on Great Barrier Island in one week.

Most of the waste disposed of on the Island goes to the Claris Landfill for final disposal. It is estimated that just over half of this waste originates in Tryphena, approximately one quarter from Port Fitzroy and fewer than 10% from each of Claris, Okiwi and Whangaparapara.



VISION



**TO SIGNIFICANTLY REDUCE WASTE
ON GREAT BARRIER ISLAND, BY
TREATING IT AS A RESOURCE**

**To achieve this we must make more efficient use of resources,
and change our thinking so that we view our waste as
a resource for others**

KEY POINTS



The Waste Management Plan is a statutory document which sets out the Auckland City Council's and the Great Barrier Island Community's waste management goals. The Plan takes into consideration the Waste Management Hierarchy and is based on the principle that discarded materials are not waste but resources.

As Council's statutory document, the Waste Management Plan contains a number of elements that must be followed whether waste management contracts are managed directly by Auckland City Council, or, in the future, by someone else on Council's behalf.

The Key Points are:

▶ EDUCATION

- The development of a community based education programme on waste prevention, reduction and separation at source
- Education on buying back recycled products in an effort to close the recycling loop
- An education strategy to encourage people to stop littering
- Auckland City Council, Auckland Regional Council, the local community, and boating organisations working in partnership to encourage people to eliminate the disposal of waste into the sea
- Lobbying of Central Government to include education on waste prevention and reduction in the school syllabus
- The promotion of non hazardous alternatives where possible

▶ REDUCTION

- There is an initial target to reduce all waste generated on Great Barrier Island by 50% by 2005
- Landfill charges be implemented where appropriate
- Auckland City Council will lead by example in waste reduction
- The provision of waste minimisation initiatives in event tenders
- A waste management plan which is regularly updated and improved to encourage reduction
- Advocating for the development of national waste reduction legislation
- The reduction of hazardous waste to landfill

► REUSE AND RECYCLING

- The improvement of recycling dropoff facilities on Great Barrier Island
- The development of a Resource Recovery Estate
- The investigation of incentives/disincentives that encourage people to maximise the opportunities for reuse/recycling by separating their waste at source
- The requirement in waste collection contracts to recover as much material as possible for reuse, recycling etc
- The development of a strategy to deal responsibly with abandoned cars on Great Barrier Island

► RECOVERY

- The encouragement of home composting and vermicomposting by providing advice and support to householders.
- Investigation into an organic waste processing facility for Great Barrier Island

► TREATMENT AND DISPOSAL

- To use processes to dispose of unrecoverable waste which avoid or minimise adverse effects on the environment
- The management of the Claris Landfill in accordance with the conditions of its designation under the RMA

► MONITORING

- The provision of ongoing waste information.
- Effective monitoring of actions in the Waste Management Plan to track progress towards reaching waste reduction targets



TARGETS



Waste reduction targets provide a clear focus to strive for and something against which achievements can be measured. Targets also play a part in setting the goals and direction, and in focussing programmes to reduce waste.

In its Strategic Plan, Auckland City Council has waste reduction goals to be achieved by 2000, however it has only one waste reduction target: a 10% diversion of household waste from landfill through kerbside recycling. This plan recommends that the following target is adopted using the figures identified in the Opus Consultants Report 6/10/99 as the baseline.

TARGET

A 50% reduction in the quantity of waste disposed of per head of population by the year 2005, and over 80% by the year 2010, with a baseline amount of 260kg per person per annum.



HOUSEHOLD WASTE

The majority of households in the populated part of Great Barrier Island have a weekly waste collection in the winter and a twice-weekly collection in the summer. These services are managed by Auckland City Council but subcontracted to private companies, for which provision is made in the rates. Unlike residents on the Auckland City Council's Isthmus, these households are not provided with Mobile Garbage Bins (MGB's) for their waste but provide their own bags. Householders in remote locations on the Island are provided with large communal refuse skip bins located at eight locations around the Island. The skip bins are emptied once a week although they may be cleared up to three times a week depending on the location or refuse volumes.

There is no kerbside recycling scheme on Great Barrier Island but there are a number of recycling drop off facilities around the Island. These facilities provide for cardboard boxes, glass, aluminium cans and car batteries. Materials are collected and shipped to the mainland for recycling. The drop off facilities are located near most communal refuse skip bins, the Claris Landfill, and at schools, sports clubs and some shops.

4.1 Goal

Waste generated by households is reduced as appropriate to achieve the Waste Management Plan targets. (See section B3)

4.1.1. Actions

- Auckland City Council will facilitate the development of a community based education programme on waste prevention and reduction
- Auckland City Council will develop a strategy to deal with waste from transient residents of Great Barrier Island
- Auckland City Council will work with contractors to provide more effective and efficient refuse collection methods.
- Auckland City Council will investigate methods for improving its refuse dropoff service for householders in remote parts of Great Barrier Island

Explanation

Education is seen as key to encouraging the residents of Great Barrier Island to prevent waste from being generated in the first instance, and then to reducing the quantity over all. The community clearly described this as a method for improving waste reduction amongst householders on the Island.

MGB's are considered unsuitable for household kerbside collections because of the island topography and narrow roading system, the transient population, the marine environment i.e. faster degradation of bins, etc. It is for these reasons that a kerbside (blue bin) recycling system is also considered unsuitable for Great Barrier Island. Investigation will be needed into improvements to the communal refuse facilities that are provided for residents that don't receive a refuse collection and into more efficient refuse collection methods.

4.2 Goal

The diversion of a significant amount of materials from the domestic waste stream through reuse, recycling and recovery, as appropriate to achieve the Waste Management Plan targets

4.2.1. Actions

- Auckland City Council will investigate methods of improving recycling drop off facilities on Great Barrier Island
- Auckland City Council will educate householders to separate their waste from recyclables
- Auckland City Council will encourage householders to buy back recycled products in an effort to close the recycling loop
- Auckland City Council will encourage contractors to implement on Island recycling methods.
- Auckland City Council will include in waste collection contracts the requirement to recover as much material as possible for reuse, recycling etc.
- Auckland City Council will develop a strategy, consistent with the Waste Management Plan goals, to deal with abandoned cars on Great Barrier Island.

Explanation

Improving recycling drop off facilities around the Island will encourage people to recycle. It will also ensure that the quality of the material dropped off for recycling is improved through better separation, which will result in less contamination of the materials.

In order for recycling to be successful and economically viable, we need to encourage householders to buy recycled products back, therefore closing the recycling loop.

Investigation is needed into technologies for recycling which can be developed on the Island for reprocessing recyclable materials. It is important however that viable markets are also found for any reprocessed materials. Contractors will be encouraged to implement these systems. It may also be important to either add into contracts, or licence waste collectors to recover materials for reuse or recycling.

The problem of old abandoned cars on Great Barrier Island is immense. It is estimated that there are over 2000 cars stored at the landfill and another 800 abandoned around the Island. There is need for the development of a strategy or policy to deal with these cars on an ongoing basis. However any strategy that is developed must be consistent with the goals of this Waste Management Plan and could include means of enforcement.

4.3 Goal

Inorganic material is managed in a manner that promotes maximum recovery and there are options available for people to take products for reuse and recycling.

4.3.1 Actions

- Auckland City Council will encourage and assist local community groups or individuals in developing a Resource Recovery Estate with appropriate collection/drop off systems
- Auckland City Council will provide initial seed funding where appropriate to implement a Resource Recovery Estate
- Auckland City Council will maintain its rates funded inorganic collection every two years.
- Auckland City Council will work with contractors to ensure that as much material as possible collected in the inorganic collections is recovered for reuse or recycling.

Explanation

Resource Recovery Estates which are dedicated to separating, reprocessing and the repairing of larger materials (e.g. appliances, building materials etc.) thereby adding value to them, are successful in not only prolonging the life of a resource, but also providing the social benefit of creating local employment. Householders would be able to drop off materials they no longer wanted all year round.

For the two year inorganic collection to support the vision of the Plan it is crucial that the Council modifies contracts to specify the need to recover materials collected for reuse and recycling wherever possible.

4.4 Goal

The significant reduction and recovery of garden and kitchen waste from the waste stream as appropriate to achieve the Waste Management Plan targets.

4.4.1 Actions

- Auckland City Council will encourage home composting and vermicomposting by providing advice and support to householders.
- Auckland City Council will undertake a feasibility study on providing an organic waste processing facility on Great Barrier Island

Explanation

It is estimated that approximately 12% of waste going to landfill on Great Barrier Island is kitchen and garden (organic) waste. This organic waste should be seen as a valuable resource as soils on the Island could benefit from the application of this recovered material.

Home composting or vermicomposting is an effective way of processing kitchen and garden waste at home, however this method may not suit the needs of all residents. Auckland City Council will need to investigate and promote other methods, e.g., using local community groups to help in setting up composting programmes, using commercial collectors for garden waste and promoting home or commercial vermicomposting (worm composting) for kitchen waste.

A feasibility study is also needed into the possibility of investing in an organic waste processing facility (e.g.: an In Vessel Composting Unit) and other on Island technologies for recycling.

BUSINESS WASTE

Businesses can reduce their waste by reviewing their operations and making changes to processes, products and services (often known as cleaner production programmes), and by using resource exchange and recycling services. Research shows that it is mostly the larger type businesses that implement these initiatives. It is for this reason that education is crucial to encouraging smaller businesses, like most on Great Barrier Island, to take part in these programmes.

There are approximately 100 businesses on Great Barrier Island. These businesses are able to put two rubbish bags out for household collection and then are responsible for transporting any extra waste to the Claris Landfill at their own cost. The amount of waste produced by this sector is unable to be distinguished from household waste, as they do not have a separate refuse collection and no weigh bridge at the Claris landfill.

5.1 Goal

Waste generated by businesses is reduced as appropriate to achieve the Waste Management Plan targets. (See section B3)

5.1.1 Actions

- Auckland City Council and local community groups will adopt an advocacy role, and assist and educate businesses to identify the types of waste produced in order to identify where waste reductions and cost savings can be made.
- Auckland City Council will investigate incentives/disincentives that encourage businesses to maximise the opportunities for reuse/recycling by separating their waste at source
- Auckland City Council will include in waste collection contracts the requirement to recover as much material as possible for reuse, recycling etc.
- Auckland City Council will investigate the feasibility of appropriate charging for business waste at the Claris Landfill.

Explanation

Many businesses know little about the types and amounts of waste they produce, and there are few incentives to reduce waste. A monitoring system is the first step in identifying wastes. As there is currently no charge for any waste disposal at the Claris Landfill, implementing a charge is an example of an economic disincentive, which encourages waste reduction.

Education is key in informing businesses of alternatives to producing and then disposing of their waste. Businesses often find that by implementing small waste reduction programmes, their costs for disposal are significantly reduced. In the same light the introduction of economic incentives and disincentives can be used to encourage businesses to reduce the amount of waste they produce, and this would be even more successful at a national level.



LITTER AND MARINE WASTE

Litter is most commonly defined as small waste materials carelessly dropped in public places. On Great Barrier Island, Auckland City Council provides a number of litter bins and rubbish drums for people to dispose of litter. These litter bins are emptied three times a week during summer, or as often as required, and twice a week in winter.

Marine waste also consists of rubbish dumped overboard by people on boats, which eventually ends up on the beach. Auckland City Council currently provides a waste barge, situated at Port Fitzroy, for boaties to drop their waste off during the Christmas/New Year Period. The waste collected from this barge is transported to the Claris Landfill for final disposal.

6.1 Goal

Litter is reduced

6.1.1 Actions

- Auckland City Council will work with the Department of Conservation (DOC) to develop an education strategy to encourage people to stop littering
- Auckland City Council will investigate litter receptacles that meet public requirements and which provide for the separation of materials for reuse and recycling.
- Auckland City Council will encourage residents to take an active role in area improvement and beautification projects e.g.: Keep NZ Beautiful and Beach Care etc.
- Auckland City Council will investigate prosecuting, where appropriate, violations of the bylaw controls for littering.
- Auckland City Council will adopt a citywide policy that requires event managers to include the provision of waste minimisation initiatives in their event tenders

Explanation

With the large increase in population on Great Barrier Island over the summer months it is crucial that litter is kept to a minimum. It is therefore important that an education strategy is not only aimed at residents of the Island but also visitors to the Island. As DOC owns and manages a percentage of land on Great Barrier Island it is seen as beneficial to work together to produce effective education material for residents and visitors.

Area beautification and beach clean up projects are seen as an effective way to encourage people not to litter.

Large quantities of litter are produced at specific events. Many overseas event management companies are required to specify how they will manage the waste generated at these events by using a range of waste minimisation techniques. This aspect becomes a criteria for these companies to be evaluated on when tendering.

6.2 Goal

Marine waste is reduced.

6.2.1 Actions

- Auckland City Council, Auckland Regional Council (ARC), the Local Community and boating organisations will work in partnership to implement an education strategy that encourages people to eliminate the disposal of waste into the sea
- Auckland City Council will raise with the Hauraki Gulf Island Forum the need to develop a Gulf wide strategy, which may include advocating for legislation, to discourage fishing boats and other sea going vessels from disposing of waste into the sea.
- Auckland City Council will continue to run the Summer Rubbish Barge for boaties at Port Fitzroy in the short term, but will consider investigating alternative facilities as a longer term strategy.
- Auckland City Council will encourage local initiatives through the GBI Community Board, with approval sought from ARC, to provide for regular clean ups of the seabed in areas frequented by seacraft.

Explanation

As the waters of the Hauraki Gulf do not come under Auckland City Council's jurisdiction, it is crucial that any implementation of an education strategy is worked in conjunction with the ARC and the local community. Boating organisations have been identified as a good medium for this type of communication to be channelled through.

Although a popular waste disposal facility for boaties, the Summer Rubbish Barge does not provide for the separation of waste for reuse or recycling, and is quite costly to operate. It is considered that this facility will remain in the short term but investigation will continue in to a more cost and environmentally effective alternative that will satisfy the aims of this Plan.





HAZARDOUS WASTE

There is no tonnage figure on hazardous waste available for the City of Auckland, and more specifically Great Barrier Island. The term covers a range of wastes most of which require specific treatment or disposal.

Auckland City Council needs to be concerned not only with reducing hazardous waste, but also with reducing the risks represented by hazardous waste, especially in the long term.

At present car batteries are the only hazardous materials accepted at the landfill and the onus is on the individual to arrange disposal of any other hazardous material.

Auckland City Council is currently undertaking investigation into the types and quantities of hazardous waste disposed of on Great Barrier Island. The information generated will be used to plan for the appropriate handling, storage and disposal of the materials identified.

7.1 Goal

The reduction of hazardous waste going to landfill and the use of disposal processes which avoid or minimise adverse immediate and long term effects on the environment

7.1.1 Actions

- Auckland City Council will promote to households and businesses the use of non hazardous alternatives where possible (e.g.: rechargeable and solar powered batteries)
- Auckland City Council and Auckland Regional Council will investigate the provision for the handling and storage on and disposal off Great Barrier Island of hazardous materials including used oil.
- Auckland City Council will investigate appropriate charging mechanisms for hazardous waste collection and storage on Great Barrier Island.
- Auckland City Council and Auckland Regional Council will provide information to the community on what materials are potentially hazardous and advice on how best to dispose of these materials
- Auckland City Council and local community groups will lobby central government to set national regulations which require national manufactures and importers of hazardous materials to take back their products for proper treatment
- Auckland City Council will monitor, investigate and prosecute, where appropriate, violations of bylaw controls for hazardous waste
- Auckland City Council will review its hazardous substances and facilities provisions in the Hauraki Gulf Islands Section of the Auckland District Plan

Explanation

Identifying which wastes are hazardous is key, as is information on how and where to treat and dispose of such wastes. Education for households and businesses alike is of great importance. The ultimate goal is to encourage the use of environmentally safe and healthy alternatives, which do not create hazardous waste

Auckland City Council is currently reviewing its hazardous substances and facilities provisions in the Proposed Central Area District Plan. There also needs to be a review of provisions in the Hauraki Gulf Island (HGI) Section. The provisions need to be aligned with the intent of the HSNO (Hazardous Substances and New Organisms Act) which is to protect the environment and health and safety of people and communities by preventing and managing the adverse effects of hazardous substances and new organisms.

TREATMENT AND DISPOSAL



Ninety-five percent of the waste produced in the Auckland Region goes to landfill. The remainder - quarantine and medical waste - is incinerated. Disposal to landfill is the most common management practice for the waste which is not reused or recycled. Auckland City Council only owns and operates one landfill (Claris Landfill) which is situated on Great Barrier Island.

The Claris Landfill situated approximately 1km north of the Claris Airport and covers an area of approximately 2 hectares. It has been operating for just under 20 years and during that time has been used as a public tip for domestic refuse and is consented for septic tank sludge. Bulky items such as old cars of which there are large numbers on Great Barrier Island are stored at the Landfill site until they can be barged off the Island to the mainland.

The life of this landfill has been estimated at approximately ten years, although there is the possibility that this estimation could be increased by better efficiencies in operational practices, or a significant reduction in current refuse levels. The existing resource consents for refuse disposal and leachate discharge expire in the year 2027.

8.1 Goal

To use processes to dispose of unrecoverable waste which avoid or minimise adverse effects on the environment.

8.1.1 Actions

- Auckland City Council will manage the Claris Landfill in accordance with the Operational Management Plan and the conditions of its designation under the RMA
- Auckland City Council will investigate the development of one or more refuse and recycling transfer stations on Great Barrier Island
- Auckland City Council will develop a long term remediation strategy for the Claris Landfill
- Auckland City Council will investigate and implement a landfill charge where appropriate
- Auckland City Council will work with the Department of Conservation to investigate the feasibility of expanding the existing landfill as part of a long term strategy to deal with unrecoverable waste.
- Auckland City Council will investigate new and emerging waste treatment and disposal technologies, along with existing practices, on an ongoing basis and consistent with changing needs, and the quality and quantity of waste
- Auckland City Council will investigate a sorting system to ensure that any material sent for final disposal has been checked for its reuse, recoverable and recyclable value and sent to the appropriate contractor before disposal

- Auckland City Council will investigate opportunities for an environmentally acceptable method of land storage of potentially useful materials which can not currently be reused, recycled or recovered
- Auckland City Council will redesign contracts to ensure that waste treatment and disposal contractors operate in a way that is consistent with reuse, recycling and recovery initiatives
- Auckland City Council will work with other Councils in the Auckland Region to investigate the implications for waste management in emergency situations

Explanation

Although this Plan has focussed commitment to reducing waste it is recognised that at least in the short term there will still be a need for disposal facilities. At present landfills are used to dispose of residual waste for which alternative recovery methods have not been found. This and other methods of dealing with this residual waste have differing environmental effects, however it is hope that these effects will be minimised as the need for final disposal methods is reduced. It is important to also consider aftercare of the Landfill and it is recommended that a long term remediation strategy be developed for the Claris Landfill.

There is currently no charge for waste disposal at the Claris Landfill. Implementing a charge is an example of an economic disincentive, which encourages waste reduction. It is important however to undertake further investigation into an appropriate level of charging as increase charging can result in higher levels of illegal dumping. Any investigation into charging mechanisms will also need to take into consideration Great Barrier Island's economic climate, and in particular the higher level of unemployment.

Land storage can be seen as an alternative to disposing of those materials that have limited value now but may have potential in the future. By storing these materials they are kept separate for recovery at a later date once markets and/or technology have been developed to make use of them.

In the event of a major disaster/emergency, specialist waste disposal facilities may be needed. There is a need for a regionally co-ordinated approach to deal with such situations.

8.2 Goal

Outside burning will be discouraged

8.2.1 Actions

- The Auckland City Consolidated bylaw currently restricts outside burning.

Explanation

Outside burning is not seen as an effective method of waste disposal as it wastes valuable resources and can cause air pollution through emissions of smoke and other contaminants. It is therefore not only important to educate on the more environmentally friendly methods of waste management available.

Great Barrier Island has all year round restrictions on outside burning and no person shall light a fire without a permit which is administered under the Forrest and Rural Fires Act 1977.



MONITORING

An effective monitoring programme is essential to provide information against which the plan's performance can be measured. Waste information can include what wastes are produced, by whom, in what quantities and the hazardous nature of the waste. Over time this information will show the extent of change in the community's behaviour and this in turn will provide an indication of waste generation in the future. It will also show whether or not policies are succeeding and whether change is needed.

There is currently a lack of information on the sources and composition of waste on Great Barrier Island. This type of information is crucial to the success of future monitoring and needs development

9.1 Goal

An effective monitoring programme is established to provide accurate and timely data.

9.1.1 Actions

- Auckland City Council will ensure that actions in the Waste Management Plan are effectively monitored to track progress towards reaching waste reduction targets
- Auckland City Council will integrate waste monitoring into the Auckland City Council-wide monitoring programme and publicise it through the Annual Plan and the State of the Environment Report
- Auckland City Council will ensure that a monitoring system is incorporated into the development of any new or ongoing waste programmes
- Auckland City Council will implement a monitoring programme 6 months after the adoption of the final plan to accurately measure waste quantities and types, including those materials that are reused or recycled

9.2 Goal

The provision of ongoing waste information.

9.2.1 Actions

- Auckland City Council will profile all waste on the Island in terms of source, seasonality, composition and volume on a regular basis

9.3 Goal

To monitor the performance of the Waste Management Plan.

9.3.1 Actions

- Auckland City Council will use the data generated from the monitoring programme to measure progress towards achieving the Waste Management Plan goals and inform the community of progress.

Explanation

Effective monitoring is essential to gauging the success of all programmes developed in response to the goals and outcomes of the Plan. It is crucial that monitoring systems are set in place in the development stage of any new programme.





ROLES AND RESPONSIBILITIES

In almost everything we do we create waste; indeed it's hard to think of an activity that doesn't involve it. For this reason, we ALL have a responsibility and a role in managing waste - and to achieve the Plan's targets, will require a strong commitment from households, businesses and local community groups to listen, accept, implement and amend the plan as necessary.

HOUSEHOLDS, BUSINESSES AND MANUFACTURERS have the responsibility to use resources more efficiently and to reduce their waste by seeing it as a resource.

LOCAL COMMUNITY GROUPS can play a major part in co-ordinating the efforts of the community, spreading the waste minimisation message and conducting research.

THE WASTE AND RECYCLING INDUSTRY has a responsibility for providing systems that give generators the chance to reduce their waste through the reuse and recycling of materials, and by looking for business opportunities which result in more materials being recovered.

AUCKLAND CITY COUNCIL is required to develop a waste management plan which prioritises waste reduction and to co-ordinate and stimulate waste minimisation efforts in the community. It has a further role in informing people about the full costs and opportunities for reduction associated with waste and its management. This responsibility includes leading by example. Auckland City Council also has a role in ensuring that tendering processes for waste management contracts reflect the Waste Management Plan aims.

AUCKLAND'S LOCAL AND REGIONAL COUNCILS AND OTHER GOVERNMENT AGENCIES have a responsibility to provide opportunities for waste minimisation that are consistent across geographical areas and that ensure integration of waste reduction initiatives.

CENTRAL GOVERNMENT is uniquely placed in that it has the ability to directly affect the amount of waste generated or reused by industry through legislation and national standards. Local councils on the other hand have statutory powers that deal mainly with the disposal and recycling of waste; and can only work to reduce the amount of waste created through education advocacy and leading by example. Central Government therefore must ensure that there is a nationally co-ordinated approach to waste minimisation and must take responsibilities for national guidelines on waste management practices.



10.1 Outcome

Waste reduction education will be provided to all sectors of the community

10.1.1 Role/Responsibility: Householders, Businesses & Auckland City Council

- Auckland City Council will provide information on how householders and businesses can reduce the waste they create and investigate methods to further advance education on waste reduction in the Community

10.2 Outcome

The introduction of national waste reduction legislation

10.2.1 Role/Responsibility: Auckland City Council, Local Community & Central Government

- Auckland City Council will advocate for the development of national waste reduction legislation that includes the setting of waste reduction targets and incentives to do so, and clearly sets out the approach to a comprehensive national strategy that takes into account the Waste Management Hierarchy.
- Auckland City Council will lobby central government to introduce a tax on businesses for the waste they produce.
- Auckland City Council will encourage producer responsibility among manufacturers and the adoption of the Packaging Accord

Explanation

It is clear that there is a role for central government to provide nationally co-ordinated direction and to set regulations when this is not appropriate at local level. For example, controls and standards on the amount of packaging materials used would need to be imposed at a national level to be effective.

10.3 Outcome

Promotion and support for community initiated research into methods of achieving waste reduction for all sectors.

10.3.1 Role/Responsibility: Auckland City Council

- Auckland City Council will provide support in whole or in part, and include funding for approved community initiated waste reduction projects that will help achieve the objectives of the Plan

Explanation

The Local Government Amendment Act (No4) 1996 enables councils to provide funds for community-based projects to achieve waste reduction aims

10.4 Outcome

A regulatory environment that promotes the Plan's aims.

11.4.1 Role/Responsibility: Auckland City Council

- Auckland City Council will research regulatory barriers to waste minimisation and implement changes to remove these if required.
- Auckland City Council will initiate Plan Changes which will include consideration of the waste management plan as an assessment tool in appropriate planning applications.

Explanation

There is concern that some local government regulations may run counter to waste minimisation efforts. Research is needed to identify these barriers, and efforts will then be made either to remove conflicting regulations, or to find a compromise between the original intent of the regulation and waste minimisation efforts.

10.5 Outcome

A Waste Management Plan which is regularly updated and improved to encourage reduction.

10.5.1 Role/ Responsibility: Auckland City Council & Local Community and Industry Groups

- Auckland City Council will allow minor changes to be made, if required, through the Annual Plan process as long as these do not affect or contradict the Plan's goals or targets. In 2005, a full review of the Plan will be completed by an external working group. This will be done on a regular basis thereafter.
- Auckland City Council will integrate the Waste Management Plan with the ongoing development of the City's Strategic Plan.
- Auckland City Council will consult with Iwi when reviewing this Plan.

Explanation

It is essential that allowance be made for a formal review of the Plan. By the year 2006, one year after the 2005 50% reduction target date, programmes will need to be in place and be shown to be working. As required by legislation, a community consultation and participation process will be undertaken to review the targets and set the direction for the following four years.

A mechanism for minor changes to the Plan is also necessary for fine tuning without the need for a full consultation process each year.

10.6 Outcome

- Auckland City Council will adopt measures to implement waste management plan objectives in its own practices.
- Auckland City Council will identify types and quantities of waste produced by its council properties on Great Barrier Island in order to identify where waste reductions and cost savings can be made
- Auckland City Council will develop an environmental purchasing policy as part of its Environmental Policy

Explanation

For Auckland City Council to promote waste minimisation, it must lead by example and reduce the environmental impact of its own actions. Operational decisions should be made with regard to environmental performance. A policy that provides direction for purchasing decisions will provide a foundation for further environmental improvements by Auckland City Council.

10.7 Outcome

A co-ordinated, regional approach to integrated waste management.

10.7.1 Role/Responsibility:

Auckland City Council & Councils in the Auckland Region

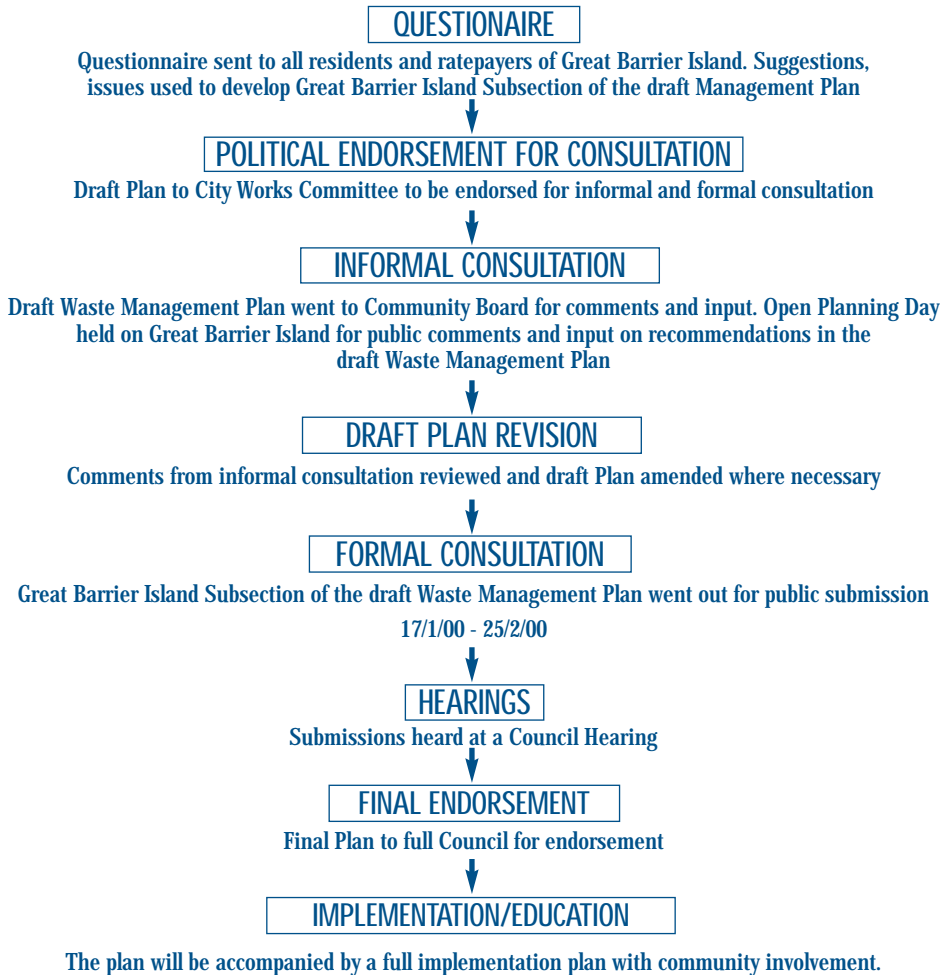
- Auckland City Council will work with other councils in the Auckland Region and through the Regional Waste Managers' Forum to ensure consistency.

Explanation

The Regional Waste Managers' Forum provides a platform for communication, information sharing and project development between councils in the Auckland region. The emphasis is on co-ordinating efforts.

NB: For linkages and Inputs to the Waste Management Plan see Appendix A (page 55)

Waste Management Plan Process



GLOSSARY

ARC

Auckland Regional Council

Auckland Regional Waste Managers' Forum

A forum consisting of the region's seven territorial local authorities and the ARC.

Avoidance

Avoiding (or reducing) waste generation by not creating waste in the first place.

Baseline

The starting point for measurement.

City of Auckland

Residents and workers within the boundaries of Auckland City Council.

Cleaner Production

The reduction of pollution by, eg, changing processes and/or raw materials, reusing or recycling wastes.

Compost

Material resulting from the controlled microbiological transformation of organic materials under aerobic and thermophilic conditions.

Disposal

The final deposit of waste on land set apart for the purpose.

HGI

Hauraki Gulf Islands

HSNO

Hazardous Substances and New Organisms Act 1996.

Inorganic

Substances without carbon, so specifically excluding kitchen and garden waste.

Integrated Waste Management

The provision of a range of services to manage waste, including options to reduce waste and recover materials.

Landfill

Waste disposal site used for the controlled deposit of solid waste onto or into land. (Landfill Guidelines, Ministry for the Environment, 1992)

Leachate

Liquid effluent from a landfill which usually contains substances derived from the materials deposited in it.

LGAA (No.4)

Local Government Amendment Act (No.4) 1996

MfE

Ministry for the Environment

MGB

Mobile Garbage Bin

Mulch

Dead organic matter that has been evenly distributed in a thin layer on the ground that has naturally and gradually decomposed.

Organic Waste

Waste derived from animal waste or vegetable matter.

Policy

A framework for action, used to set objectives and targets.

Reduction

Reducing (or avoiding) waste generation by not creating waste in the first place.

Recovery

The extraction of materials or energy from waste for further use or processing; and includes but is not limited to, making materials into compost.

Recyclables

Material sorted for recycling.

Recycling

The processing of waste materials to produce new products.

RENEW

Resource Exchange Network for Eliminating Waste. An information exchange database designed to help businesses reuse resources. It can be accessed by calling 0800 RENEW (0800 733823).

Resource Recovery Estate

A place where people can take any items they no longer want, which can be repaired for reuse or sent for recycling. Resource Recovery Estates work on the basis that 'one persons trash is another persons treasure'.

Reuse

The further using of products in their existing form for their original purpose or a similar purpose.

RMA

Resource Management Act 1991

Special Wastes

Any waste requiring special handling such as scrap tyres, used motor oil, hospital wastes or household hazardous wastes. Also referred to as "controlled wastes".

Strategy

A long-term plan that specifies outcomes.

TIA

Territorial Local Authority.

Transfer Station

A facility set up to act as an intermediary between the waste generator and final deposit site, where waste is compacted for more efficient transfer.

Treatment

In relation to waste, subjecting the waste to any physical, biological, or chemical process to change the volume or character of that waste so that it may be disposed of with no or reduced significant adverse effect on the environment.

Vermicompost

To carry out composting with worms or a mixture of partially decomposed organic waste, bedding, worm castings, cocoons, worm associated organisms.

WAP

Waste Analysis Protocol - a Survey to determine the makeup of the waste stream.

Waste Audit

A process to ascertain the quantity and types of waste generated at a given source.

Waste Hierarchy

The LG Act requires Council to consider the waste hierarchy (reduction, reuse, recycling, recovery, treatment, disposal) within its waste management plans, starting with waste reduction as the highest priority.

The hierarchy is based on the concept that, in order to efficiently utilise resources, the amount of waste generated needs to be reduced. This will in turn reduce the rate at which landfills are filled, thus extending their life and delaying the need for alternative sites or technologies. The key to waste management is to avoid producing waste in the first place, which also avoids the costs associated with disposal and recovery.

Waste Stream

The flow of waste material from generation to disposal.

Waste Management Plan

In relation to a district, any plan for the management of waste in the district, being a plan developed after consideration, in the following order or priority, of the following methods (which methods are listed in their order of importance): Reduction, Reuse, Recycling, Recovery, Treatment, Disposal.

WMNZ

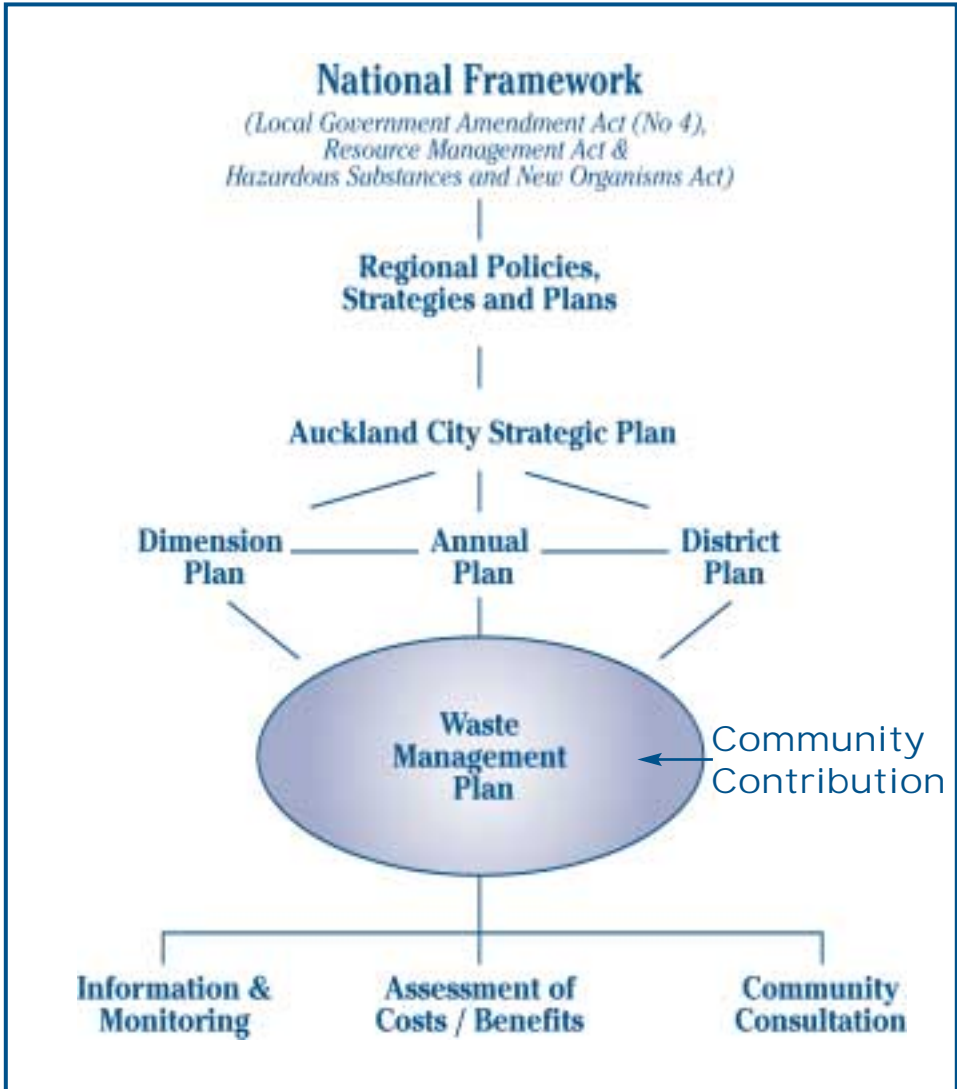
Waste Management Institute of New Zealand

WWRT

Waiheke Waste Resource Trust – is a charitable trust working with the Waiheke Community to reduce waste and create employment



Linkages & Inputs to the Waste Management Plan



NOTES