

# Appendix 1

## Waste Assessment



# Appendix 1: Whakatāne District Council Waste Assessment 2015

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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION.....</b>	<b>3</b>
1.1	Whakatāne District .....	3
1.2	Background .....	4
1.3	Purpose of this Waste Assessment.....	4
1.4	Scope.....	4
1.4.1	<i>General</i> .....	4
1.4.2	<i>Council Controlled and non-Council Controlled Waste Streams</i> .....	5
1.4.3	<i>Consideration of Solid, Liquid and Gaseous Wastes</i> .....	5
1.5	Overview of Waste and Recycling Systems in Whakatāne.....	5
<b>2.0</b>	<b>WASTE FACILITIES SERVICING WHAKATANE DISTRICT .....</b>	<b>7</b>
2.1	Disposal.....	7
2.2	Cleanfill Facilities .....	8
2.3	Transfer Facilities.....	8
2.4	Recycling and Processing Facilities .....	11
<b>3.0</b>	<b>WASTE SERVICES AVAILABLE IN WHAKATANE DISTRICT .....</b>	<b>13</b>
3.1	Council Contracted Services .....	13
3.2	Other WDC programs and services.....	14
3.3	Private Services.....	14
3.4	Waste Sources and Destination.....	14
3.5	Waste Education .....	16
<b>4.0</b>	<b>WASTE DATA .....</b>	<b>17</b>
4.1	Waste to landfill.....	17
4.2	Composition data and diversion potential from waste going to landfill.....	18
4.3	Composition data and diversion potential from council kerbside collection.....	19
4.4	Recycling and recovery .....	20
4.5	Refuse and Recycling Participation.....	21
4.6	Summary and Conclusions.....	22
4.6.1	<i>Compostable Material</i> .....	22
4.6.2	<i>Dry Recyclables</i> .....	22
4.6.3	<i>Rural Waste Management</i> .....	22
<b>5.0</b>	<b>FUTURE DEMAND .....</b>	<b>23</b>
5.1	Future Demand .....	23
5.1.1	<i>Population Growth</i> .....	23
5.1.2	<i>Household Trends</i> .....	23
5.1.3	<i>Economic Growth</i> .....	24
5.1.4	<i>Recycling Markets</i> .....	24
5.1.5	<i>Central Government Policy</i> .....	25

5.1.6	<i>Changes in lifestyles and consumption</i> .....	25
5.2	Gap Analysis.....	26
5.2.1	<i>Service Review</i> .....	26
5.2.2	<i>Recycling Infrastructure</i> .....	26
5.2.3	<i>Organic Waste Infrastructure</i> .....	26
5.2.4	<i>Alternative Technologies</i> .....	27
5.2.5	<i>Disposal Infrastructure</i> .....	27
5.2.6	<i>Rural waste management</i> .....	27
5.2.7	<i>Waste Education</i> .....	27
5.2.8	<i>Public Place Recycling</i> .....	27
5.2.9	<i>Non-Council controlled wastes</i> .....	27
<b>6.0</b>	<b>STATEMENT OF OPTIONS</b> .....	<b>23</b>
6.1	Waste Reduction, Communication, Consultation and Partnerships.....	23
6.2	Organic Waste .....	24
6.3	Recycling.....	25
6.4	Transfer Station Wastes .....	27
6.5	Liquid, gaseous and hazardous wastes.....	28
6.6	Refuse collection, treatment and disposal (including cleanfill) .....	29
6.7	Measuring and Monitoring.....	31
<b>7.0</b>	<b>COUNCIL'S PREFERRED OPTIONS</b> .....	<b>32</b>
<b>8.0</b>	<b>PROTECTION OF PUBLIC HEALTH</b> .....	<b>33</b>
8.1	Issues raised by MOH in response to the Draft Waste Assessment and Council's response.....	33

## 1.0 INTRODUCTION

### 1.1 Whakatāne District

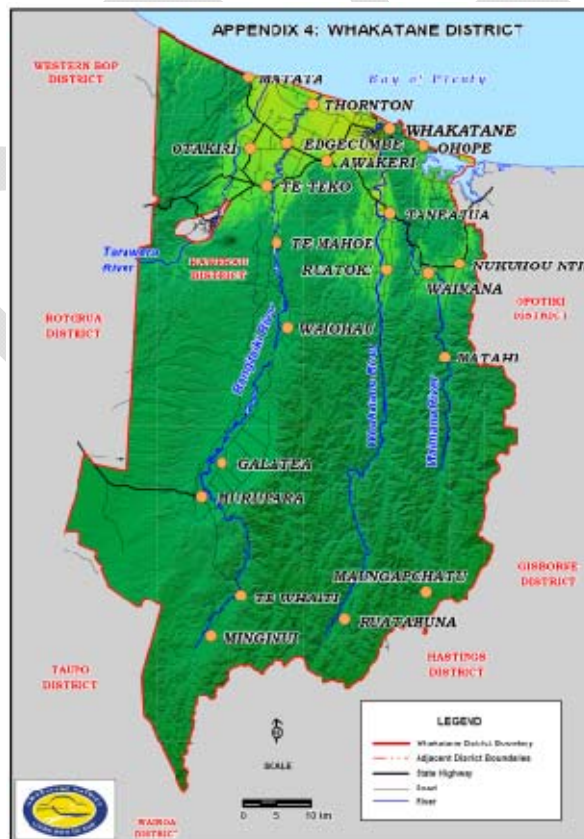
The Whakatāne District in the Eastern Bay of Plenty is one of the most diversely beautiful areas in New Zealand. Sandy beaches are predominant along the 54 kilometres of coastline that stretches from Otamarakau in the west to Ōhiwa in the east. Central areas include fertile lowlands and farming areas on the Rangitāiki Plains through to Murupara. Te Urewera National Park in the south makes up 41% of the district. This is protected native forest and is home to a rich array of flora and fauna. The total area of the district covers 433,000ha or 4,442km<sup>2</sup>. According to the 2013 census, the current population of the District is approximately 34,700 residing in 12,195 occupied households.

The main commercial centre for the District is the Whakatāne township, incorporating Ōhope and Coastlands. Other centres include Edgecumbe, Matatā, Tāneatua, Te Teko, Wainui and Murupara.

The economy of the district is largely based on agriculture (dairying), forestry, and wood processing. Industry in Whakatāne tends to be relatively light and targeted at supporting the local community, with heavier industry more likely to be based nearby but out of the district at Kawerau.

The predominantly rural nature of the district has implications for waste management service provision. Commercial and industrial wastes streams are less significant compared to more urban areas, with household and agricultural waste streams likely to play a proportionately bigger role. In addition, servicing of rural properties is more problematic and expensive compared to areas with higher housing densities.

Figure 1: Map of Whakatāne District





## 1.2 Background

The Waste Minimisation Act 2008 (WMA) requires all Territorial Authorities to produce a Waste Management and Minimisation Plan (WMMP) which should be reviewed every 6 years (or earlier). The Council's current WMMP is due for review in 2016, however, the Council have decided to align the WMMP with the Long Term Plan (LTP) timeframes and review the plan in 2015.

Section 50 of the Waste Minimisation Act 2008 (WMA) requires all Territorial Authorities to prepare a 'Waste Assessment' before reviewing their WMMP, while Section 51 dictates the contents of the assessment. The Waste Assessment is the first step and a major input into the review process.

In 2000, the Council made a commitment to the 'Zero Waste' philosophy of waste management. The Council then produced a Waste Management Plan in 2003, in line with the requirements of the Local Government Amendment Act (No. 4) 1996. This was followed by a WMMP produced in 2010 in accordance with the WMA, which continued the commitment to the philosophy of Zero Waste.

The overall long term target of the 2010 WMMP was to reduce the amount of waste sent to landfill by 80% per person by 2025. The overall short term target was to reduce waste sent to landfill per person by 30% during the period of the plan. This was based upon a figure of 404kg per person per year from 2009/2010.

During the financial year 2013/14 the Council disposed of a total of 11,178 tonnes of waste to landfill. This equates to 322Kg per person per year, or a 20% reduction. The Council has therefore not met the overall short term target from the previous WMMP, although it should be noted that the period of that plan extended to October 2016. Closer analysis of data held by the Council has since shown that the baseline of 404kg per person was based on inaccurate data.

## 1.3 Purpose of this Waste Assessment

This waste assessment has been undertaken with reference to the 'Waste Management and Minimisation Planning: Guidance for Territorial Authorities' prepared by the Ministry for the Environment (MfE) and to section 51 of the WMA, which outlines that a waste assessment must include:

- A description of the collection, recycling, recovery, treatment, and disposal services provided within the territorial authority's district
- A forecast of future demands
- A statement of options
- A statement of the territorial authority's intended role in meeting the forecast demands
- A statement of the territorial authority's proposals for meeting the forecast demands (including infrastructure), and
- A statement about the extent to which the proposals will protect public health, and promote effective and efficient waste management and minimisation

The primary purpose of the assessment is to provide focus for how Council can progress waste management and minimisation in an informed and effective manner. It should provide the information necessary to identify the key issues and priority actions to be included in a draft WMMP.

## 1.4 Scope

### 1.4.1 General

Legal opinions obtained by various Councils around New Zealand have made it clear that, under the WMA, the Waste Assessment must go beyond those waste and material streams managed directly by

the Council; including an assessment of current commercial and industrial waste streams, a forecast of future demand, consideration of options to meet forecast demand, and determine The Council's intended role in meeting that demand.

WDC therefore, like all Councils, has a responsibility to plan for all waste generated in the District when considering waste infrastructure and services.

#### **1.4.2 Council Controlled and non-Council Controlled Waste Streams**

The Council has detailed information on the collections and facilities operated by them or on their behalf. While the vast majority of waste going to landfill from the District first passes through Council transfer stations, there is an unquantified amount that is collected, processed and disposed of, by private operations. Furthermore, due to recent changes in private practices the Council is no longer in control of all waste transfer facilities in the District. The impact of this recent change is for approximately 1300 tonnes per annum to now leave the District without passing through a Council-managed transfer station. While data is required from these private operations to provide a true waste assessment for the district, the Council believes there is sufficient data from Council controlled waste to identify the areas that should be prioritised and provide input to the waste strategy, targets and actions of the WMMP.

#### **1.4.3 Consideration of Solid, Liquid and Gaseous Wastes**

The guidance provided by the Ministry for the Environment on preparing Waste Management and Minimisation Plans states that:

*“Councils need to determine the scope of their WMMP in terms of which wastes and diverted materials are to be considered within the plan”.*

The guidance goes on to suggest that liquid or gaseous wastes which are directly managed by the Council, or are disposed of to landfill, should be seriously considered for inclusion in a WMMP.

The Council manages most liquid and gaseous wastes through other strategies, including assessments of services. This Waste Assessment therefore focuses on solid wastes, and excludes liquid and gaseous wastes, except where these are considered to have implications for solid waste management. These exceptions include gas from landfills, and some liquid hazardous wastes.

#### **1.5 Overview of Waste and Recycling Systems in Whakatāne**

WDC provides many waste management and minimisation services throughout the Whakatāne District, which ranges from the urban areas of the Whakatāne and Ōhope commercial and residential centres, to relatively sparsely populated outlying areas.

Since the Burma Road Municipal Landfill closed in December 2009, there has been no landfill open to the public in the District. The vast majority of solid waste going to landfill is first processed through one of the Council's transfer stations, and then transferred to Tirohia Landfill near Paeroa.

Solid waste management services are funded partly through a general charge applied to all rates bills (for waste disposal operations and closed landfill management) and through targeted rates for 'waste service packages'. The provision of services, and the charges levied for these services, varies depending where in the District customers are located.

The requirements of businesses and households that desire waste management services beyond those supplied by the Council to Whakatāne ratepayers are met by the private sector.

There are only a small number of private companies providing waste management services in the Whakatāne District. While some of them use the Council's transfer stations, Handee Can Services and Foote Bins are using a transfer station owned by the owners of Handee Can Services and hauling waste directly to Tirohia.

The Council provides their 'waste service package' to ratepayers who are on current collection routes and who wish to use them. The Council's waste services are described in section 3.1. Ratepayers can also choose to pay for additional packages.

The services provided by private companies in Whakatāne are targeted at those for whom the Council service is, for some reason, unsuitable. This may be because their waste volumes are so high that the Council service is not competitive, or because they have a specific single-material waste stream that can be better dealt with through a private collection.

A measure of control over the handling of waste in the District is obtained through the Solid Waste Bylaw (2006). This bylaw largely focuses on the management of waste on private properties, such as accumulation and storage issues. The Bylaw also aims to protect the general public from waste creating a nuisance or annoyance or becoming a danger to health and provides for the protection of waste collectors and the public by prohibiting hazardous materials being placed out for collection. There are also controls relating specifically to access to, and behaviour at, landfill facilities.

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## 2.0 WASTE FACILITIES SERVICING WHAKATANE DISTRICT

The tables in this section provide a summary of key strategic waste facilities that currently service households and businesses in the Whakatāne District.

### 2.1 Disposal

There are no sanitary landfills, cleanfills or other disposal facilities available in the District open to householders and businesses.

The nearest landfills to the District are listed below.

**Table 1 - Disposal Facilities**

Name/Operator	Type	Key Services/Waste Streams	Location	Capacity & Estimated Operational Life
Rotorua District Council	Municipal Landfill	Non-hazardous residential, commercial and industrial waste, including special wastes (although bylaw may be reviewed to exclude these in future).	SH 30, Rotorua	Consented to 2030
H G Leach	Municipal Landfill	Non-hazardous residential, commercial and industrial solid waste, including special wastes. Sludges with less than 20% solid by weight are prohibited.	Tirohia, Paeroa	Consented to approx. 2035
Envirowaste Services Ltd	Municipal Landfill	Non-hazardous residential, commercial and industrial solid waste, including special wastes. Sludges with less than 20% solid by weight are prohibited.	Hampton Downs, North Waikato	Consented to 2030

There are a number of private landfills near the District, but these are used only by the owners and only for very specific materials – such as the Carter Holt Harvey mono-fill for wood processing wastes near Kawerau. These are not an option for future landfill disposal for the Whakatāne District.

Kawerau District Council owns a landfill for which consents are still current, however the landfill is considered to have reached capacity and it no longer accepts any waste.

Because of these factors, and considering the distances required to access any other facilities and the charges that would be incurred, the preferred disposal option for the Whakatāne District currently is the Municipal Landfill in Tirohia. The Council have negotiated very favourable disposal rates with Tirohia until 2020. This is partly due to the Council’s commitment to a minimum quantity of 8,000 tonnes per annum of residual waste.

## 2.2 Cleanfill Facilities

The Ministry for the Environment’s Cleanfill Guidelines define cleanfill material and cleanfills as follows:

### ***“Cleanfill material***

*Material that when buried will have no adverse effect on people or the environment. Cleanfill material includes virgin natural materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of:*

- *combustible, putrescible, degradable or leachable components*
- *hazardous substances*
- *products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices*
- *materials that may present a risk to human or animal health such as medical and veterinary waste, asbestos or radioactive substances*
- *liquid waste”*

### ***Cleanfill***

*A cleanfill is any landfill that accepts only cleanfill material as defined above.*

There are no known consented cleanfill sites in the Whakatāne District that are open to the public.

## 2.3 Transfer Facilities

There are two transfer facilities in the District which are owned by the Council and operated on their behalf by contractors, and one private transfer station.

There are also transfer stations nearby that are similarly owned by the relevant Councils and operated on their behalf. These are included in the list below.

**Table 2 - Transfer Facilities**

Name/Operator	Type	Key Services/Waste Streams	Location
Whakatāne Refuse and Recycling Park – Waste Management NZ Ltd	Council owned waste transfer and recycling centre	Accepts most waste and a wide range of recyclables (no liquid wastes accepted and a very limited range of hazardous materials)	Te Tahī Street, Whakatāne

Harvey Family Trust (owners of Handee Can Services) refuse transfer station	Waste transfer	Accepts residual waste, compacts and transfers to landfill	Mill Road, Whakatāne.
Murupara Transfer Station – Rex Merriman Ltd	Council owned waste transfer and recycling centre (no charges, free drop off for Ruatahuna and Minginui)	Accepts most waste and a wide range of recyclables (no liquid wastes accepted and a very limited range of hazardous materials)	Murupara
Ruatahuna Transfer Station	Community run waste transfer and recycling centre	Accepts most waste (not hazardous) and a wide range of recyclables	Ruatahuna
Minginui Transfer Station	Community run waste transfer and recycling centre	Accepts most waste (not hazardous) and a wide range of recyclables	Minginui
Ōpōtiki District Council	Waste transfer and recycling centre	Accepts all waste and a wide range of recyclables	Ōpōtiki
Kawerau District Council	Waste transfer and recycling centre	Accepts all waste and a wide range of recyclables	Kawerau

The materials accepted, and fees and charges applied, at the Whakatāne Refuse and Recycling Park (RRP) are as follows:

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**Table 2 - Fees & Charges, Whakatāne RRP (2014/15 Financial Year)**

Item	Charges from 1 July 2014 (GST inclusive)
<b>General refuse</b>	
Refuse Bag	\$4
Car and station wagon	\$32
Ute and small (single axle) trailer	\$47
Large tandem (twin axle) trailer	\$62
All other loads over weigh-bridge	\$240 per tonne
<b>Green waste</b>	
Car and station wagon	\$9
Ute and small (single axle) trailer	\$17
Large Tandem (twin axle) Trailer	\$22
Bulk green waste (Bulk load)	\$55
<b>Concrete</b>	
Clean and steel-free: Concrete Masonry Rock	\$35 per tonne
<b>Car bodies</b>	
Un-stripped	\$50
Stripped	\$40
<b>Tyres</b>	
Charges apply per tyre - no bulk weights	
<i>Type of vehicle / weight of tyre</i>	
a) Farm bike, motorcycle - under 6.5 kgs	\$4 each
b) Passenger car - 6.5 kg - 9.5 kgs	\$8 each
c) 4x4 light utility - more than 9.5 kgs	\$11 each
d) Truck tyres - more than 28 kgs	\$27 each
f) Long-haul vehicle - 50 - 80 kgs	\$60 each
g) Agricultural - up to 100 kgs	\$75 each
<b>Recyclable and reusable items</b>	
<b>Recyclable items</b>	
<ul style="list-style-type: none"> <li>• Clean Plastics – <i>grades 1 and 2 only, no motor oil or chemical containers</i></li> <li>• Glass</li> </ul>	Free

<ul style="list-style-type: none"> <li>Aluminium cans</li> <li>Cardboard</li> </ul>	
<b>Reusable items</b> Please take reusable items to <u>CRew</u> (Community Resources Whakatāne) at 40 Te Tahi Street. Phone 07 308 5963 for opening hours.	Free
<b>Hazardous Substances</b>	
Waste oil, paints and agricultural chemicals only. No commercial volumes accepted. Must be in original, undamaged containers.	Free
<b>Weighbridge</b>	
Tare weight (only) usage charge for weighbridge	\$10

Council has also implemented recycling practices at the transfer station that divert waste from landfill and these include:

- Green waste bins for commercial and residential customers
- Recycling bins for, plastics bottles, cans, paper, card-board and co-mingled
- Hazardous substance, LPG bottle and battery collection
- Scrap metal separation and recycling
- Timber separation which is hogged and used as fuel
- Concrete and rubble separation – used for roading and construction projects
- Tyre collection and reprocessing
- Diversion of products for re-use and re-sale to a community run organisation (CRew)

## 2.4 Recycling and Processing Facilities

There are a number of waste processing and recycling facilities available in the region or in neighbouring regions. These are listed below.

**Table 3 - Recycling & Processing**

Name/Operator	Type	Key Services/Waste Streams	Location	Capacity & Estimated Operational Life
CRew (Community Resources Whakatāne)	Re-use, re-purposing and re-selling of second hand items.	E-waste, furniture, construction materials, household items etc.	Whakatāne	NA
Waste Management	Liquid Waste dewatering and	Liquid waste from Ōpōtiki, Kawerau and Whakatāne	Whakatāne	NA



Technical Services	transfer	Districts		
WormTech	Vermicomposting in static windrows	Pig manure	Outskirts of Kawerau	5,200 tpa. Restricted by consent conditions.
Full Circle Recycling	Paper and Cardboard	Paper and Cardboard	Nationwide pick-ups	NA
McCaulay Metals	Scrap metal	All scrap metal	Whakatāne	NA
Industrial Traders	Scrap metal	All scrap metal including de-gassing white ware	Whakatāne and Kawerau	NA
NZ Remediation/Materials Processing Ltd	Green waste composting	Green waste	Te Muanga, Tauranga	Additional capacity available.
Envirofert	Organic waste processing	Green waste and some putrescible wastes	Tuakau, North Waikato	Unspecified, additional capacity available
Ecocast	Organic waste processing	Green waste and bio-solids	Kawerau	28,000 tpa of bio-solids consented to 2024. No consent for green waste

### 3.0 WASTE SERVICES AVAILABLE IN WHAKATANE DISTRICT

The tables in this section provide a summary of key waste services currently available to households and businesses in Whakatāne.

#### 3.1 Council Contracted Services

**Table 4 - Summary of Services**

Service	Provision	Service Provider
Residual waste collection usually from 80L mobile garbage bins (MGBs)	Weekly to approximately 13,300 customers (72.8% urban, 20.4% rural and 6.8% commercial)	Waste Management Ltd under contract to WDC until June 2016
Dry recyclables collection of glass bottles/jars, plastic grades 1 & 2, aluminium/tin/steel cans, paper, and cardboard collected from a 60L recycling crate	Weekly to approximately 13,300 customers	Waste Management Ltd under contract to WDC until June 2016
Green waste collection from 240L MGBs	Fortnightly to approximately 9700 (urban) customers	Waste Management Ltd under contract to WDC until June 2016
Whakatāne Recycling Park	Operation of refuse and recycling drop-off facility	Waste Management Ltd under contract to WDC until June 2016
Murupara Transfer Station	Operation of refuse and recycling drop-off facility	Merrimans Ltd under contract to WDC until June 2016
Waste Transfer	Cartage of residual waste from Whakatāne	Priority Logistics under contract to WDC until June 2016
Waste Disposal	Disposal of residual waste	H G Leach under contract to WDC until 1/1/2020
Fly Tipping	Removal from public spaces	Various providers on behalf of WDC
Litter Removal from 60L litter bins or public spaces	From litter bins and MGBs in public spaces	Various providers on behalf of WDC
Hazardous Waste	Waste accepted at Whakatāne and Murupara transfer stations	R&S McGregor Ltd on behalf of WDC as and when required

Inorganic collections for unwanted bulky items and appliances are not normally provided.

A charge of \$379.18 per annum (in the 2014/15 financial year) per 'waste service package' is added to rates bills to cover the costs of these services, for each separately used or inhabited part of a rating unit to which Council provides the weekly service. Rural and commercial properties pay \$306.80 per year as no green waste service is included. Any ratepayer can access these services, including businesses. Properties may purchase more than one service. (The charges are slightly higher for Ōhope; \$382.31 and \$309.93 respectively.) There is also an additional Uniform Annual Charge for each rated unit for waste disposal operations and closed landfill management.

Additional 60L recycling crates are provided at a one-off charge of \$15 each.

The service packages are available to all ratepayers on current collection routes, with one charge per service package.

### 3.2 Other WDC programs and services

In addition to these services, there are other programs or services provided by the Council or by a partnership supported by WDC. These cover the following:

- Agrecovery – The Council provide support to enable the service to be extended to the Whakatāne District
- Pride Whakatāne Group (coordinating Clean Up New Zealand week activities)
- Daily litter patrol
- Para Kore – marae based recycling and waste minimisation education
- Conscious Consumers – business accreditation programme for recycling
- Paper for Trees – School based recycling education

### 3.3 Private Services

There are a limited number of services available in Whakatāne besides those provided by the Council.

Waste Management Ltd, as well as being contracted to the Council, also provides waste collection services (residual waste and recycling). There are three other local companies that also provide rubbish collections; Handee Can Services, Foote Bins, and Blue Rock Bin Hire. None of these companies currently offer recycling services. A variety of residual waste receptacles are available through these companies, ranging from 44 gallon drums to various sizes of skip bins, along with a variety of collection frequencies including on-demand collections.

These companies largely target business and industrial customers, where volumes of waste are unsuitable for the Council collection services and rural customers that have chosen not to use the Council collection service or are unable to access the service. Handee Can Services currently services a number of rural residential properties in areas that are not serviced by the Council's kerbside collection service. Their service includes supplying metal drums with liners and collecting the refuse from the kerbside with a charge per-empty.

In addition, there are the usual complement of second-hand and charity stores in Whakatāne. These include CReW (Community Resources Whakatāne) who are a community based organisation who re-use, recycle and re-sell waste items. The Council works closely with CReW and diverts waste materials to them from the transfer station.

### 3.4 Waste Sources and Destination

The previous sections outline the solid waste sources and services available in the district. The table below outlines the relationship between these two.

**Table 6 - Processing and destination of different waste sources**

Waste Source	Processing	Destination
<b>Council Kerbside Collected Household and Commercial Refuse</b>	Offloaded at Whakatāne Transfer Station and dispatched to landfill	Tirohia Landfill
<b>Kerbside Collected Recycling</b>	Some separation at the kerbside and some at the Whakatāne Transfer Station Separation of glass, paper and cardboard, plastics,	Glass transported to Auckland for processing. Paper and cardboard sent to regional paper mills Co-mingled recycling sent to

	metals and co-mingled recycling	Tauranga for separation and forwarded for processing  Metal wastes forwarded to recyclers in Auckland
<b>Kerbside Collected Green Waste</b>	Offloaded at Whakatāne Transfer Station and mixed with public/commercial drop-offs	Green waste composting facility in Kawerau
<b>Commercial Refuse (includes both commercially collected waste and that dropped off by commercial organisations)</b>	Offloaded at Whakatāne, Murupara, and Harvey Family Trust Transfer Stations and dispatched to landfill	Tirohia Landfill
<b>Commercial Recycling (includes both commercially collected recycling and that dropped off by commercial organisations)</b>	Some separation at Whakatāne and Murupara Transfer Stations  Separation of glass, paper and cardboard, plastics and co-mingle recycling	Glass from Whakatāne transported to Auckland for processing and that from Murupara to Rotorua  Paper and cardboard sent to regional paper mills  Murupara co-mingle is sent to Whakatāne Transfer Station. All co-mingle recycling is then sent to Tauranga for separation and forwarded for processing
<b>Commercial Green Waste (includes both commercially collected green waste and that dropped off by commercial organisations)</b>	Offloaded at Whakatāne and Murupara Transfer Station and mixed kerbside drop-offs	Green waste composting facility in Kawerau
<b>Public drop-off refuse</b>	Whakatāne and Murupara Transfer Stations	Tirohia Landfill
<b>Public drop-off Recycling</b>	Some separation at Whakatāne and Murupara Transfer Stations  Separation of glass, paper and cardboard, plastics and co-mingle recycling	Glass from Whakatāne transported to Auckland for processing and that from Murupara to Rotorua  Paper and cardboard sent to regional paper mills  Murupara co-mingle is sent to Whakatāne Transfer Station. All co-mingle recycling is then sent to Tauranga for separation and forwarded for processing
<b>Commercial and public drop-</b>	Separated at Whakatāne	Timber sent to paper mills

<b>off Construction and Demolition (C&amp;D) wastes</b>	and Murupara Transfer Stations	<p>for fuel when required, or sent to Tirohia landfill when large backlogs occur</p> <p>Non-commercial loads of concrete (without steel) and clean-fill used in council construction projects</p> <p>Community Resources Whakatāne collect and re-sell used C&amp;D wastes</p> <p>Public are allowed to re-use C&amp;D wastes</p>
<b>Commercial and public drop-off metals</b>	Separation at Whakatāne and Murupara Transfer Stations	Metal wastes forwarded to recyclers in Auckland
<b>Commercial and public drop-off tyres</b>	Separation at Whakatāne and Murupara Transfer Stations	Tyres are collected and transported to either Waikato or Auckland for reprocessing
<b>Commercial and public drop-off hazardous waste</b>	Whakatāne and Murupara Transfer Stations	Collected and transported to Auckland for processing

### 3.5 Waste Education

Council provides educational material on its website and supports other educational programmes such as the 'Paper for Trees' programme, Para Kore and Conscious Consumers.

#### 4.0 WASTE DATA

The Council holds historical data from the 2006/07 financial year onwards for waste collected and sent to landfill, waste collected through recycling collections and subsequently re-processed, green waste, and litter and fly tipping removal. Incorrect recording of green waste volumes for 2010/11 and 2011/12 have led to estimated totals.

**Table 7 - Total waste streams annually**

Waste Type	Recycling	Green Waste	Construction and Demolition	Waste To Landfill	Total
<b>2006/07</b>	4,000	3,474	NA	9,509	<b>16,983</b>
<b>2007/08</b>	4,166	4,994	NA	14,261	<b>23,421</b>
<b>2008/09</b>	3,705	4,989	NA	14,909	<b>23,603</b>
<b>2009/10</b>	4,096	4,631	NA	13,892	<b>22,619</b>
<b>2010/11</b>	5,382	4,400 E	NA	13,244	<b>23,026 E</b>
<b>2011/12</b>	4,244	4,280 E	622	12,476	<b>21,662 E</b>
<b>2012/13</b>	4,121	4,164	761	11,962	<b>21,008</b>
<b>2013/14</b>	3,979	4,315	1,106	11,178	<b>20,578</b>

\* Note: 'E' indicates an estimated amount

The various waste streams are discussed in more detail below.

#### 4.1 Waste to landfill

This waste stream includes all Council controlled waste sent to landfill from the District – including the kerbside residual waste collections and all residual waste delivered directly to the Council's transfer stations.

Residual waste volumes appear to increase significantly between 2006/07 and 2007/08, then reduce from this time. However analysis of data recorded monthly over the period 2006-2008 suggests that this is due to changes in the way waste data was being recorded, with the first few months of the 2006/07 year particularly inaccurate as recording systems were introduced. Due to this anomaly, for practical purposes the 2006/7 data should be excluded from any analysis. The overall general trend over the period above is a continued decrease in waste sent to landfill, demonstrating Council's progress towards the overall target for waste minimisation.

Residual waste to landfill has two main sources; the Council kerbside collections and transfer station waste. The amount dropped off at the transfer stations is higher than the amount collected at kerbside. The amount deposited at the transfer station during 2013/14 has decreased significantly due to Handee Can Services and Foote Bins processing and transporting their own refuse to landfill representing a reduction of approximately 1300 tonnes per annum passing through the Whakatāne transfer station

Other changes to practices over the last few years, such as an increase in reusable material being diverted through the CReW Reuse Centre and alternative uses being found for waste concrete and timber, may also have resulted in a reduction in waste to landfill.

**Table 8 - Residual Waste streams**

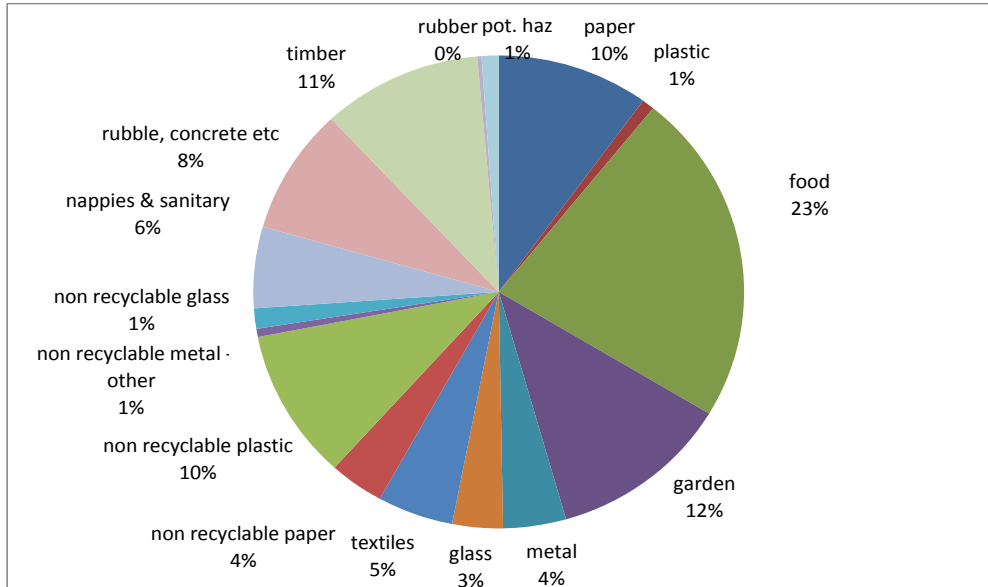
Residual Waste Source	Council Kerbside Collection	Waste Delivered To Transfer Station
<b>2007/08</b>	6,048	8,213
<b>2008/09</b>	6,069	8,840
<b>2009/10</b>	5,981	7,911
<b>2010/11</b>	5,125	8,119
<b>2011/12</b>	4,834	7,642
<b>2012/13</b>	4,914	7,048
<b>2013/14</b>	4,922	6,256

#### 4.2 Composition data and diversion potential from waste going to landfill

The composition of the waste that goes to landfill was analysed in 2007 and to an extent reflects the composition of kerbside collected refuse; see Fig 2. Some slight differences, such as a higher proportion of timber and rubber (tyres), are expected due to commercial drop-offs directly to the transfer station. The Council believes that the composition of landfill waste today has not changed significantly from that of 2007 and that the costs for undertaking another detailed composition assessment at this time were not justified. The Council also believes these results closely reflect the composition of landfill waste today and as such the potential for diverting waste from landfill is the same as in 2007.

The most significant change is likely to be seen in construction and demolition material, as the Council has introduced a new concrete diversion programme and the CREW Reuse Centre has opened.

Figure 2 – Composition of Waste to Landfill (September 2007)

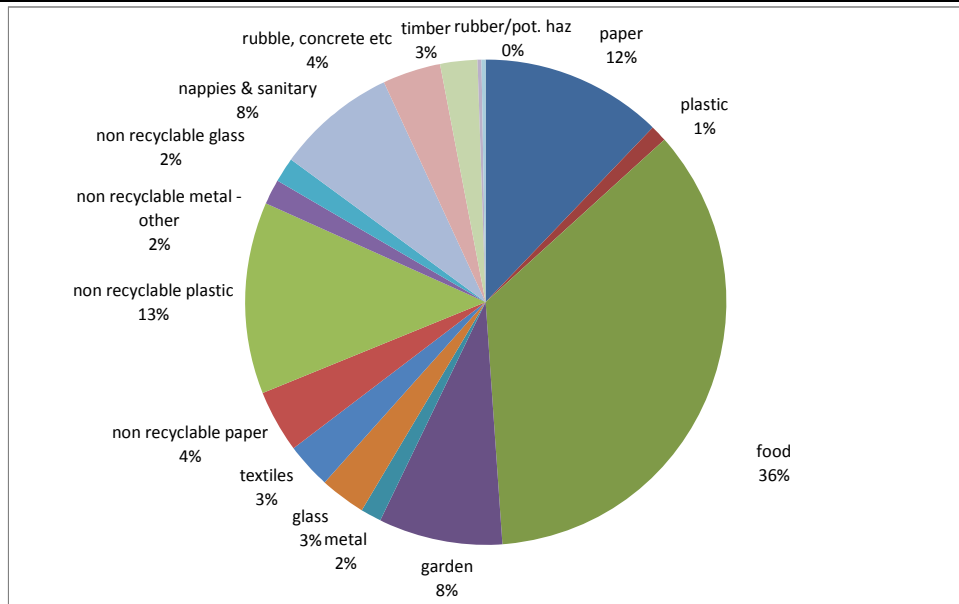


#### 4.3 Composition data and diversion potential from council kerbside collection

The Council undertakes kerbside collections for both businesses and residential properties. While no detailed analysis of kerbside refuse was undertaken for this assessment, there was an analysis of residential kerbside refuse undertaken in 2007. The Council believes that composition of waste today has not changed significantly from that of 2007 and that the costs for undertaking another detailed composition assessment at this time were not justified; although it is noted that this composition data only represents urban Whakatāne residential properties and therefore does not represent rural residential waste. The results of the 2007 composition assessment are shown below.



Figure 3 – Composition of Household Kerbside Refuse Collection (September 2007)



While the recycling rates have improved since this time, the Council believes that many characteristics of this data still apply today and that elements such as food waste, paper, nappies and non-recyclable plastics still make up a major part of the waste.

The data from this survey showed that at the time, 17.5% of kerbside refuse could have been recycled while 40.3% was compostable. This data and observations made of refuse collected at the kerbside show that many householders still do not separate all their recyclable waste. While it is not practically possible to divert 100% of any waste stream, recycling rates could be improved through education, changing household practices, and modifying the kerbside recycling collection.

The Council has a successful green waste kerbside collection and composting programme. Once again, as any contaminated or strongly odorous loads of green waste are diverted to landfill, it would not be feasible to divert 100% of green waste from landfill.

Due to public opposition, the Council does not intend to include food waste in the proposed green waste composting facility. However, food waste remains a major constituent of the kerbside and commercial refuse streams. Grades 1 and 2 plastics are currently recycled through kerbside collections.

#### 4.4 Recycling and recovery

Recycling quantities peaked in 2010/11 and have since fallen noticeably. Similarly, green waste quantities were highest in 2008/09 and have since declined. There are no clear reasons for this reduction and there is uncertainty about the accuracy of some data shown in Table 7. There may have been an impact from the increasing popularity of the CReW Reuse Centre over the last few years, and it is possible that residents may be improving their own waste management practices. Recovery of construction and demolition material has increased significantly over the last few years following a successful recovery programme introduced at the Whakatāne transfer station.

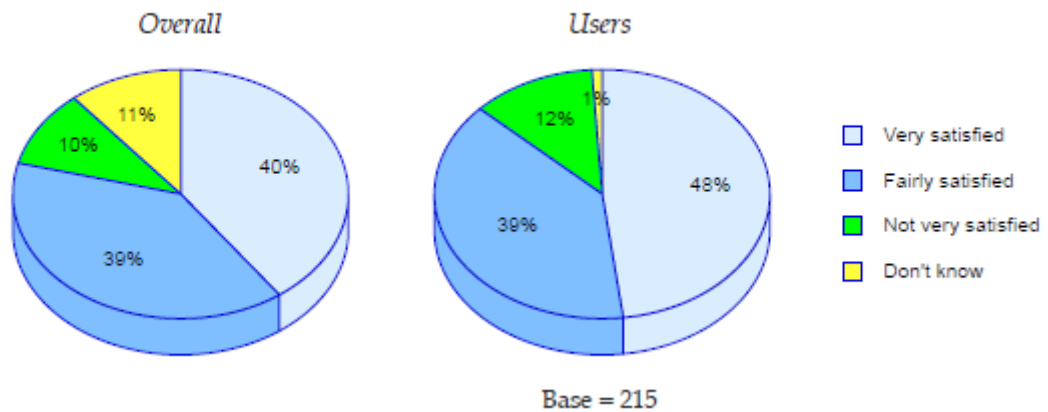
Waste to landfill, as a proportion of the total waste stream in the District, has been steadily reducing over the last few years. This means, conversely, that recovered and recycled materials may be making

up an increasing proportion of the total waste stream. Without further data it is not possible to analyse these waste streams further.

#### 4.5 Refuse and Recycling Participation

The most recent customer satisfaction survey for the Council was conducted in 2014 through a telephone survey of 300 residents throughout the district.. The results are shown below:

##### Satisfaction with transfer station disposal facilities:



The results show that 79% of residents were satisfied with transfer station disposal facilities, including 40% who were very satisfied, 10% were not very satisfied and 11% were unable to comment. The percent not very satisfied with these services is similar to the national average.

72% of the households surveyed had used a transfer station facility in the previous 12 months, of these, 87% were satisfied and 12% not very satisfied.

There were no notable differences between different areas of the district or between socio-economic groups, in terms of those residents that were not very satisfied. However, it appears that rural residents were slightly more dissatisfied.

##### Satisfaction with kerbside collections (recycling, green waste and residual):



The results show that 87% of residents were satisfied with kerbside collection services, including 62% who were very satisfied, 8% who were not very satisfied and 5% were unable to comment. The percent not very satisfied with these services is similar to the national average.

94% of residents were provided with a regular kerbside collection service in the previous 12 months, of these 91% were satisfied and 7% not very satisfied. The main reasons for dissatisfaction were:

- recycling issues/extending the range of recyclables – mentioned by 2% of residents
- rubbish not always collected - mentioned by 2% of residents
- poor service from contractors/leaving rubbish behind - mentioned by 2% of residents

#### **4.6 Summary and Conclusions**

Per capita waste generation 2013-14 (refuse and recycling) was calculated to be 211Kg per capita per annum through kerbside collections and 593Kg per capita per annum in total.

While the kerbside collection figure is higher than many other districts, this may reflect a tendency for more non-residential customers to use the Council-provided kerbside collections. Many Councils in New Zealand do not provide kerbside collection services to non-residential customers.

WDC is responsible for the transport and disposal of most of the solid waste from the District. The Council therefore has a level of risk associated with its current financial exposure, should the costs of transport and disposal increase unexpectedly and cost recovery at the transfer stations is not adequately achieved. However, the Council negotiated very favourable long term landfill fees until 2020. WDC currently pays a total of about \$70 per tonne for haulage and disposal at landfill. This is very favourable compared to other Councils and sites, for example, Rotorua landfill disposal fees alone are currently \$138 per tonne for commercial users.

As most of the district's waste is in Council control, this also gives the Council much greater opportunity to divert waste from landfill compared to many other local authorities.

##### **4.6.1 Compostable Material**

If disposed of in a landfill, compostable waste breaks down in the anaerobic environment producing methane. Methane is a greenhouse gas around 21 times more powerful than CO<sub>2</sub> and therefore this is a significant waste management issue for the District in terms of potential environmental impacts.

The analysis from 2007 showed that the largest feasibly divertible fraction remaining in the kerbside collected waste was organic waste. The two main materials were food waste and garden waste. The Council diverts over 4,000 tonnes of green waste per annum for composting and does not include food waste in the composting process.

The Council submitted a Resource Consent application to operate its own green waste composting facility in July 2014. Due to public opposition and concerns over odours and vermin, the Council has excluded food waste from this application.

##### **4.6.2 Dry Recyclables**

There is still some recyclable material in the household residual waste stream that could be recycled through the kerbside recycling collection. Observations at the transfer stations show that there is also recyclable material currently going to landfill from non-household sources.

While capture of recyclable material that is easily retrieved from waste (wood, metals and plastics) occurs at the transfer station, much of the material that would be recycled is mixed with other waste and therefore not retrievable. To increase the recovery rate of recyclables, separation at source by the generator is the key.

##### **4.6.3 Rural Waste Management**

There is little data relating to rural waste composition, and surveys have shown that Council's services are used less in these areas. Recent research in the Bay of Plenty suggests that much rural waste is managed within properties, sometimes in less than ideal ways. National experience suggests there

may be issues specifically with this customer group relating to agricultural chemical containers, silage wrap, and on-site disposal or burning of wastes.

Anecdotal evidence suggests that many rural residents in Whakatāne either use private collection services, which generally do not include a recycling collection, or deliver their waste directly to the transfer station. However the lack of data specifically relating to the Whakatāne District makes it difficult to assess what the key issues are, and how serious they might be.

## **5.0 FUTURE DEMAND**

### **5.1 Future Demand**

A wide range of factors can affect future demand for waste and resource recovery services and infrastructure and these can vary over time. This means that predicting future demand has inherent uncertainties. Key factors which could affect Whakatāne's waste minimisation and management outcomes are outlined below.

#### **5.1.1 Population Growth**

The population of the Whakatāne District is projected to remain approximately stable until around 2033, experiencing both minor growth and decline until 2029 and falling to approximately 33,408 in 2033. Beginning around 2036, the increased decline reflects both an accelerated shift from natural increase to natural decline, and net migration across the entire period.

At the 2013 census, the District had a population of 32,691 (a decrease of 1.8% since 2006). The largest urban area is Whakatāne (including Ōhope). A total of 68% of the population live in the urban areas of Whakatāne, Edgecumbe, Murupara, Te Teko, Tāneatua and Matatā. Overall, rates of growth in the Whakatāne urban area have slowed since the 1990s but there is a strong growth in particular nodal areas such as Coastlands. This is symptomatic of a general trend, both nationally and internationally, of people moving closer to the coast.

There has been a clear trend which points to an increasing aging population (65+ years) and a decreasing younger population (0-14 years), that reflects the national trend. This is predicted to continue, over one-third of Whakatāne's population will be aged 65+ years by 2033 (up from 15.5% in 2013). This is driven primarily by the net migration loss of reproductive age adults and also initial gains at older ages.

It is not envisaged that population growth or decline, will have any significant effect on future demand for waste minimisation and management services within the district during the term of the WMMP.

#### **5.1.2 Household Trends**

Household growth is primarily a function of population growth. However the number of households is projected to increase, while population decreases, due to a trend towards smaller household and family sizes. This will have an impact on waste generation due to the fact that more waste per capita is generated from smaller households than from larger ones.

The National Institute of Demographic and Economic Analysis (NIDEA) provide projections for the number of households. It is predicted that despite a static and potentially declining population, the demand for housing is predicted to grow until around 2031. Ōhope, Whakatāne town and Coastlands are expected to have the greatest increase in households over the next ten years. The data estimates a steady increase in the number of family and one-person households, until 2033, before declining, partially due to the aging population. However, there is likely to be a decrease in the occupancy rate. This mirrors a current national trend with smaller families and a larger proportion of individuals living on their own (due in part to an aging population). As of the 2013 census, there are 2,757 one-person households making up 23.8 percent of all households in the Whakatāne District. In New Zealand, one-

person households make up 23.5 percent of all households. The average household size in the Whakatāne District is 2.7 people, which is the same as the average for all of New Zealand.

Residential development is occurring in a number of areas around the District, particularly in coastal areas. The nature of this includes both intensification of currently populated areas and extending into the lesser-populated 'greenfield' areas". Included in this are a number larger lifestyle blocks around Whakatāne. At present, Whakatāne urban and coastal areas are experiencing continued residential and commercial development due, in part, to the increasing number of people wishing to live and retire to a coastal area and the attraction of Whakatāne as a holiday destination.

It is not envisaged that household trends will have any significant effect on future demand for waste minimisation and management services within the district during the term of the WMMP, with the possible exception of increasing numbers of 'lifestyle' properties that may need different services to those currently offered.

### **5.1.3 Economic Growth**

Economic growth has traditionally been correlated with waste production. Higher levels of economic activity leads to greater production and consumption of goods and this in turn can lead to higher quantities of waste.

A common measure of economic growth is Gross Domestic Product (GDP) which is New Zealand's official measure of economic growth. As GDP increases so does consumption which then increases waste volumes.

The Treasury reports that growth in the March 2015 year and beyond is expected to pick up as business and residential investment rise, in part driven by the Canterbury rebuild. Annual real private consumption growth is forecast to peak at 2.8% in the 2014 and 2015 March years, before moderating to 2.0% in the March 2017 year.

In general, it is not anticipated that economic growth will be a significant factor in putting pressure on waste management services.

It is not envisaged that economic growth, will have any significant effect on future demand for waste minimisation and management services within the district during the term of the WMMP.

### **5.1.4 Recycling Markets**

Recovery of materials from the waste stream for recycling and reuse is heavily dependent on the recovered materials having an economic value. This particularly holds true for recovery of materials in the private sector. Markets for recycled commodities are influenced by prevailing economic conditions and most significantly by commodity prices for the equivalent virgin materials.

The recycling market has been greatly affected by China's introduction and subsequent enforcement of strict controls on imported plastics. This has resulted in some Councils stockpiling plastics collected for recycling for a period of time, particularly mixed plastics. Major E-waste recyclers have also recently gone out of business.

The subsequent changes in the market have had a particular impact on poor quality recycling – material that is not well sorted, or is a mixture of different types. Councils can reduce their exposure to this and future proof their recycling systems by ensuring that recyclables are separated into higher quality material streams. This may require changes to collection and sorting practices.

It seems likely that any increase in demand for processing would be able to be met by the private sector, contingent on the ongoing transport of recyclables to these markets. Development of a more localised recyclables processing market would require the Council, business, and community groups working together to identify potential opportunities.

### **5.1.5 Central Government Policy**

There are a number of key policies and pieces of legislation that may influence demand for refuse and recycling services in Whakatāne District. These include the WMA, the Emissions Trading Scheme and NZ Waste strategy. At the time of writing this document, central government has indicated some foreseeable changes including the introduction of mandatory product stewardship for some items, and the extension of the waste levy to cleanfills. This could affect future demand for waste management and minimisation during the term of the WMMP.

The Council is also now required to comply with the requirements of Section 17A of the Local Government Amendment Act 2014. This has implications for any solid waste management contracts that are due to expire within two years, which applies to many of the more significant service contracts.

### **5.1.6 Changes in lifestyles and consumption**

As explained above household waste growth is closely related to household consumption. The Organisation for Economic Co-operation and Development recognises the following driving forces behind current and projected household consumption patterns:

- Rising per capita income
- Demographics (more working women, more single person households, larger retirement population)
- Accompanying changes in lifestyles leading to individualised buying patterns
- Shift towards more processed and packaged products
- Higher levels of appliance ownership
- Wider use of services and recreation
- Technology
- Institutions and infrastructure that create the prevailing conditions faced by householders

While lifestyle factors such as increasing use of technology are likely to be ongoing agents of change, overall it is not expected that they will have any significant effect on future demand for waste minimisation and management services within the district during the term of the WMMP.

## 5.2 Gap Analysis

In general, based on the data in Section 4 and information in this section, total waste volumes in Whakatāne are unlikely to increase significantly in the foreseeable future. However, the demand for services may change slightly due to changes in lifestyle and community composition, and an increasing awareness of the costs and environmental impacts of waste disposal. These small changes are not expected to have any significant effect during the term of the WMMP.

Tables 7 and 8 show slight fluctuations in waste volumes for all waste types over recent years. Overall, there is a slight decrease in the total solid waste volumes with kerbside collected waste increasing slightly along with green waste, while waste delivered by the public to the transfer station has dropped slightly. While WDC aims to continually decrease the amount of waste sent to landfill for the term of the next WMMP and the current Long Term Plan, it is expected that overall waste volumes will be pretty stagnant and, except for changes in how waste is managed, it is not expected that there will be any significant changes affecting the solid waste services and infrastructure requirements.

However other factors result in existing and forecasted gaps in service. These are discussed in more detail below.

### 5.2.1 Service Review

Many of the Council's solid waste management contracts will expire during the term of the next WMMP. Several aspects of the service need reviewing partly to prepare for this procurement process, and partly to identify possible improvements in service. The Council is also required to comply with Section 17A of the Local Government Amendment Act 2014, which has specific criteria for a service review.

### 5.2.2 Recycling Infrastructure

There is very little recycling infrastructure in the region and recyclables are currently transported out of the region for processing, with the exception of a small amount of metals.

However, recycling infrastructure generally has capacity, with facilities in the Auckland region in particular currently importing recyclables from all over New Zealand.

Once again, transport costs are the key issue here. Development of more local recycling infrastructure, even if just pre-processing, would help to reduce exposure to this ongoing cost.

### 5.2.3 Organic Waste Infrastructure

The district's green waste is currently transported to and processed in Kawerau. As explained in Section 4, the Council has submitted a Resource Consent application for its own green waste processing facility. However, should the proposed site go ahead it will not process food waste.

There are probably no facilities that accept and recycle putrescible waste as a separate waste stream in the district or close enough to justify separate collection and transportation costs. This is an area that presents opportunity for the Council to reduce disposal costs, should an economically-feasible alternative processing option be found.

Householders can compost green waste and some food waste easily at home at low or no cost, and very few properties in the Whakatane District would be unable to do this for reasons of space; although many would probably choose not to compost some food wastes such as meat, dairy and cooked food at home. Some food waste can be managed at home by households using techniques such as vermicomposting or composting. Some cost may be involved if a manufactured 'worm bin' or composting bin is used. In addition, a proportion of households (approximately 1/3 according to national estimates) are equipped with in-sink food waste disposers and are likely to dispose of at least some of their food waste this way.

#### **5.2.4 Alternative Technologies**

The Council does not currently see a significant need for alternative technologies, particularly those that provide an alternative to landfill and often require high capital investment. The Council does not plan to exclude alternative technologies and will consider any options that are presented.

#### **5.2.5 Disposal Infrastructure**

As discussed earlier in Section 01, landfill capacity within or near the District is an issue. The landfill currently used presents no issue with capacity as such, but the distance for transport to this facility exposes the Council to a potentially significant and ongoing cost. While the Council has a good value haulage contract in place until January 2016, and a very favourable disposal rate until 2020, it is likely that these costs will increase in the future.

Disposal infrastructure presents an issue for the region as a whole, as well as the Whakatane District – all Councils in the Bay of Plenty, with the exception of Rotorua, currently transport their residual waste well out of the district for disposal.

While this doesn't present an immediate problem, given the Council's competitive disposal rates, this contract will come up for renewal during the period of the next WMMP and presents an area of risk at that stage.

#### **5.2.6 Rural waste management**

Although no data exists, the Council believes many rural residents either use private collection services, which generally do not include a recycling collection, burn their waste or drop it off at the Whakatane and Murupara transfer stations. It is known that one local provider supplies 44 gallon drums and liners to rural residents in areas not covered by Council services and charges 'per empty'. The organisation 'Agrecovery' periodically collects hazardous substances and containers from rural properties.

Research into this area has recently been undertaken by Waikato and Bay of Plenty Regional Councils. Appropriate responses will be considered as a result of this research.

A recent survey undertaken on waste disposal practices at rural properties within the Waikato and Bay of Plenty areas states that, "Rural waste disposal is creating a potential land and water contamination legacy which may impact on human, animal and ecological health for generations to come." The Council will be considering actions to address this issue in the WMMP.

#### **5.2.7 Waste Education**

While the Council provides educational material on its website and partakes in various programmes as listed in section 3.2, it is recognised that the Council could undertake more waste related education within the district.

#### **5.2.8 Public Place Recycling**

Although the District hosts a large number of tourists and temporary residents over holiday periods, there are few provisions for this customer group.

#### **5.2.9 Non-Council controlled wastes**

The lack of information available on waste collected by parties other than the Council makes it difficult to build a full picture of waste in the District, therefore making it more difficult to accurately identify future demand and gaps in service. Holding better data on non-Council controlled waste would also help the Council to support the proposed national waste data framework.





## 6.0 STATEMENT OF OPTIONS

The following subsections outline the broad options available to the Council to manage its waste in order to meet future demand.

### 6.1 Waste Reduction, Communication, Consultation and Partnerships

Option	Strategic assessment	Comment & Analysis of Impact on Future Demand	Council's Role
Continue to provide some information about services	<p><b>Social/Cultural:</b> awareness of waste issues and behaviour will not change significantly</p> <p><b>Environmental:</b> waste reduction is not encouraged to a great extent</p> <p><b>Economic:</b> low cost option with small budget for communication</p>	The community will not change their behaviour and therefore future demand is likely to continue on baseline predictions – i.e. waste to landfill will not significantly change	Continue to provide some information
Provide frequent and detailed information about waste services, prevention and minimisation, alongside community engagement through a Waste Focus group, consultation processes and community leadership (e.g. waste champions, celebrating success)	<p><b>Social/Cultural:</b> community will be more aware of options, more engaged in the waste management process and should take a higher level of ownership of the issue</p> <p><b>Environmental:</b> diversion from residual waste should increase with resultant reduction in environmental impact</p> <p><b>Economic:</b> providing more frequent and detailed information to community will require more budget within the Council.</p> <p>Engagement with the community through consultation events and Waste Focus Group meetings is relatively low cost.</p>	<p>Analysis of data suggests there is significant potential to reduce, reuse and recycle more waste. The Council's Zero waste philosophy supports this approach.</p> <p>Community should reduce their reliance on residual waste collections. Demand for recycling services will increase.</p>	Council to produce and deliver more information, and work more closely with the community through Waste Focus Group and proactive consultation processes
Investigate and establish partnership arrangements with other local Councils	<p><b>Social/Cultural:</b> greater sharing of knowledge and experience, and improved cooperation between communities</p> <p><b>Environmental:</b> potential to establish facilities to recover materials and or energy from waste streams that WDC may not have the capability to do operating alone</p> <p><b>Economic:</b> opportunity to achieve economies of scale and enhance local economic development through enhanced local processing.</p>	There are likely to be benefits from working closely with neighbouring authorities, and BoPRC to establish organic waste and recycling infrastructure and to share knowledge and experience.	Establishing links and communication at key levels in Council

## 6.2 Organic Waste

Option	Strategic assessment	Comment & Analysis of Impact on Future Demand	Council's Role
<p>Continue existing services, with additional encouragement for home composting. Procure new contracts that continue existing services only.</p>	<p><b>Social/Cultural:</b> community will be more informed about garden waste options</p> <p><b>Environmental:</b> diversion from residual waste should increase slightly, with a resultant reduction in environmental impact</p> <p><b>Economic:</b> there would be a small cost to Council in encouraging home composting (potentially subsidising home composting bins) and providing shredding services. Cost of the green waste collection may reduce slightly if less tonnage is collected through the system.</p>	<p>Analysis of data shows that there is still green waste in the household residual waste stream, and the overall residual waste stream.</p> <p>Customers will be more likely to divert green waste from landfill, and manage it in ways that keeps it from the Council waste stream thus reducing demand for Council service</p>	<p>Continue to provide existing kerbside collection, and add information on home composting, shredding services, and any other initiatives (e.g. subsidised composting bins)</p>
<p>Use the procurement process to explore options to divert more organic waste from landfill, while not reducing services nor increasing costs. This would include services to rural customers.</p>	<p><b>Social/Cultural:</b> impact likely to be minimal although difficult to predict without being specific about potential options.</p> <p><b>Environmental:</b> additional collection services may be required. Additional processing facilities may be necessary. It would reduce the environmental impact of waste. Waste avoidance and resource recovery would improve.</p> <p><b>Economic:</b> there would be a cost for additional service and processing facility, or transport to existing processing facility. Economic benefit through beneficial use of organic materials, and reduced landfill costs. Supports less frequent collection of residual waste. Financial impact could be reduced by requiring 'options' to be possible at the same or similar price to existing services.</p>	<p>Analysis of data shows that a significant portion of the waste stream is food waste, both from householders and businesses.</p> <p>To divert this waste from landfill, collection services are required.</p> <p>New processing infrastructure would be required</p> <p>There would be reduced demand for residual collection and disposal</p>	<p>Design and procurement of services. – Council would need to assess relative cost/benefit of various collection options.</p> <p>Council could be sole lead, or could work in partnership with community and/or contractor to provide services</p>

### 6.3 Recycling

Option	Strategic Assessment	Comment & Analysis Of Impact On Future Demand	Council's Role
<p>Continue existing services. Procure new contracts that continue existing services only.</p>	<p><b>Social/Cultural:</b> awareness of recycling issues and behaviour will not change significantly</p> <p><b>Environmental:</b> recycling is not encouraged to a great extent</p> <p><b>Economic:</b> low cost option although doesn't test market for other options of same cost</p>	<p>The community will not change their behaviour and therefore future demand is likely to continue on baseline predictions – i.e. recycling will not increase and waste to landfill will not significantly change</p>	<p>Continue existing services</p>
<p>Council recycling collections - use the procurement process to explore options to divert more recyclable waste from landfill, while not reducing services nor increasing costs. This would include services to rural customers.</p>	<p><b>Social/Cultural:</b> impact likely to be minimal although difficult to predict without being specific about potential options.</p> <p><b>Environmental:</b> additional collection services may be required. Additional processing facilities may be necessary. It would reduce the environmental impact of waste. Waste avoidance and resource recovery would improve.</p> <p><b>Economic:</b> there would be a cost for additional service and processing facility, or transport to existing processing facility. Economic benefit through beneficial use of organic materials, and reduced landfill costs. Supports less frequent collection of residual waste. Financial impact could be reduced by restricting 'options' to those that are possible only at a similar total cost to the District.</p>	<p>Analysis of data shows that a significant proportion of recycling is still put in the rubbish collection, both from householders and businesses.</p> <p>To divert this waste from landfill, altered collection services are required.</p> <p>New processing infrastructure may be required</p> <p>There would be reduced demand for residual collection and disposal</p>	<p>Design and procurement of services. – Council would need to assess relative cost/benefit of various collection options.</p> <p>Council could be sole lead, or could work in partnership with community and/or contractor to provide services</p>

Option	Strategic Assessment	Comment & Analysis Of Impact On Future Demand	Council's Role
Provide drop-off facilities	<p><b>Social/Cultural:</b> there is a possibility of negative social impacts as recycling drop-off areas can sometimes attract fly tipping and other anti-social behaviour</p> <p><b>Environmental:</b> recycling could increase and the environmental impact of waste reduced by diverting more waste from landfill</p> <p><b>Economic:</b> more material would be recovered, and materials would be used more efficiently.</p>	<p>Projections of demand suggest more short-term demand for recycling services in coastal areas such as Coastlands and Ohope.</p> <p>Provision of drop-off facilities in these areas or at locations these customers visit frequently (e.g. harbour front or supermarkets) would encourage further recycling.</p> <p>These could also be provided as public place recycling facilities.</p>	Council could lead on provision of these facilities, or could encourage local community groups (such as Community Boards) to develop concepts, provide facilities and self-manage.
Introduce a by-law to support and enforce recycling systems	<p><b>Social/Cultural:</b> could be difficult to educate and communicate some sectors of the community about the need for a by-law; could also prompt some negative reaction. Extent of impact would depend to an extent how this is implemented – e.g. a high level of community involvement would have a more positive social and cultural outcome</p> <p><b>Environmental:</b> additional recyclables (and organic waste if this service is provided) could be diverted from the residual waste collection</p> <p><b>Economic:</b> more material would be recovered from the residual waste collection, further reducing transport and disposal costs</p>	This may increase demand for recycling services slightly	Council to alter existing by-law and promote

#### 6.4 Transfer Station Wastes

Option	Strategic assessment	Comment & Analysis of Impact on Future Demand	Council's Role
Introduce a by-law or other regulatory mechanism to encourage more source-separation of wastes such as C&D	<p><b>Social/Cultural:</b> social and cultural impacts would depend how this is implemented – e.g. a high level of community involvement would have a positive social and cultural impact</p> <p><b>Environmental:</b> additional recyclable or cleanfill material could be diverted from the residual waste stream</p> <p><b>Economic:</b> the construction industry may experience additional costs in separating these wastes at source</p>	<p>Analysis shows that there is a large proportion of C&amp;D waste still going to landfill</p> <p>Demand for alternative services will increase – such as C&amp;D waste recycling and access to cleanfill disposal</p>	<p>Council could work with the community and private sector to encourage the recycling of C&amp;D waste.</p>
Divert more wastes at the Whakatane Transfer Station through pricing tools, changed layout and/or more reuse and recycling options	<p><b>Social/Cultural:</b> social and cultural impacts would depend how this is implemented – e.g. a high level of community involvement would have a positive social and cultural impact</p> <p><b>Environmental:</b> additional recyclable or cleanfill material could be diverted from the residual waste stream</p> <p><b>Economic:</b> increased diversion of waste at the transfer station would probably have additional operational costs. However reduced waste to landfill would have a positive economic benefit.</p>	<p>Analysis of data and experience elsewhere suggests that more waste could be diverted from landfill at the transfer station stage.</p> <p>Less residual waste will need transporting to landfill disposal.</p> <p>Demand for various recycling and recovery facilities will increase.</p>	<p>Council considers that separation of waste streams at the transfer stations is effective but could be improved by working with the community and encouraging them to separate waste before visiting the transfer stations.</p> <p>Council will continue to work with non-profit community groups on recycling of materials.</p>

## 6.5 Liquid, gaseous and hazardous wastes

Option	Strategic assessment	Comment & Analysis of Impact on Future Demand	Council's Role
Provide a drop-off facility at the Whakatane Transfer Station for additional hazardous materials (e.g. lead-based paints and asbestos)	<p><b>Social/Cultural:</b> Improvement of the management of materials which are potentially hazardous to human health</p> <p><b>Environmental:</b> Provision of an official collection point will help to ensure hazardous materials, which are potentially highly environmentally damaging, are collected and subsequently disposed of in an appropriate manner.</p> <p><b>Economic:</b> ongoing cost to provide facility</p>	<p>Tonnage of hazardous waste is relatively small and not predicted to increase.</p> <p>Ongoing costs should therefore remain fairly stable.</p>	<p>Ensure hazardous waste dropped off is stored and disposed of appropriately.</p> <p>Continue to provide information about how to deal with hazardous waste.</p>
Provide information to the community on collection and disposal services available to the area, other than those provided by Council e.g. Agrecovery	<p><b>Social/Cultural:</b> Improvement of the management of materials which are potentially hazardous to human health</p> <p><b>Environmental:</b> Provision of information will aid appropriate collection and disposal of hazardous materials, which are potentially highly environmentally damaging. Reduction in inappropriate disposal of wastes, such as burning or burial.</p> <p><b>Economic:</b> costs of advertising</p>	<p>Collections by service providers at source (rural and urban) may reduce volumes at transfer stations.</p>	<p>Liaise with service providers and provide information to public and target groups, e.g. farmers.</p>
Investigate options for disposal of bio-solids from Whakatane water treatment ponds	<p><b>Social/Cultural:</b> potential social/cultural impacts if the bio-solids are incorporated in to an organic waste process such as vermicomposting, as social views will restrict the use of the end product.</p> <p><b>Environmental:</b> the bio-solids have been assessed as having low heavy metal levels. The environmental impact of disposal will depend on which option is chosen. Processing in to a soil improver product will mitigate a large proportion of the environmental impact.</p> <p><b>Economic:</b> cost to dispose of or process the bio-solids will vary depending what option is chosen.</p>	<p>The bio-solids have not been removed from the settlement ponds for some time but will require removal and processing at some point in the future. This action may be duplicated by liquid waste management plans, in which case management of bio-solids would be removed from the WMMP.</p>	<p>Council to investigate options for disposal/processing of the bio-solids, consult community on preferred options, and identify most appropriate strategic document for future management.</p>

## 6.6 Refuse collection, treatment and disposal (including cleanfill)

Option	Strategic Assessment	Comment & Analysis Of Impact On Future Demand	Council's Role
Council residual waste collections – continue status quo	<p><b>Cultural/Social/Environmental:</b> no new impacts</p> <p><b>Economic:</b> would not reduce costs on residual waste transport and disposal costs.</p>	Would not impact on status quo prediction of demand	Maintain existing service arrangements.
Council residual waste collections – use the procurement process to explore options to divert more waste from landfill, while not reducing services nor increasing costs. This would include services to rural customers.	<p><b>Cultural/Social:</b> impact likely to be minimal/moderate although difficult to predict without being specific about potential options.</p> <p><b>Environmental:</b> reducing residual waste to landfill and encouraging more diversion of recycling will help to recover more materials and to achieve environmental goals</p> <p><b>Economic:</b> there would be savings on residual waste collection, transport and disposal, but more may need to be spent on recycling/recovery services. However the financial impact could be reduced by restricting 'options' to those that would have a similar total cost to the District.</p>	<p>Analysis shows that a large amount of recyclables is still in the residual waste stream. Experience suggests that only restricting access to the residual waste service will change this significantly.</p> <p>Would reduce future service demand for residual collection but could increase demand for recycling/composting services. Some customers may be lost to alternative service providers who may not provide recycling services, therefore diverting waste to residual instead.</p>	Negotiate service changes and alter service delivery. Service changes could be developed in partnership with the community, or with the Council having sole responsibility
Refuse disposal for the District – continue status quo, using transfer stations and transporting out of District to landfill.	<p><b>Social/Cultural:</b> no impacts identified</p> <p><b>Environmental:</b> ongoing transport of waste out of the District will continue to have a negative environmental impact</p> <p><b>Economic:</b> would not reduce costs on residual waste transport and disposal costs. Disposal costs at transfer stations will have to be reviewed regularly to ensure that full cost recovery is taking place.</p>	<p>Increase in prices at transfer stations could increase demand for recycling services.</p> <p>Would require implementation of charges at all Council transfer stations.</p>	Maintain existing systems, and review charges at transfer stations to ensure full cost recovery takes place



Option	Strategic Assessment	Comment & Analysis Of Impact On Future Demand	Council's Role
Residual disposal for the District – Council develops a facility for disposal, whether landfill or energy from waste facility	<p><b>Social/Cultural:</b> social and cultural impacts would depend how this is implemented – e.g. a high level of community involvement would have a positive social and cultural impact. Could provide additional employment for the District</p> <p><b>Environmental:</b> the overall environmental impact would depend on the type and scale of facility chosen, and whether the facility is used by customers outside the District with associated transport impacts</p> <p><b>Economic:</b> if the facility is constructed to a capacity exceeding that of the District (which is very likely) then use of the facility could be offered on a commercial gate fee basis to other parts of the region, and nearby regions. Depending on the scale and type of facility chosen, this could have a beneficial economic impact for the District.</p>	Would not impact on status quo prediction of demand for residual waste disposal; however facility would be provided locally rather than relying on external parties/regions	Council could lead in development of facility, or could work in partnership with private and community sectors (e.g. local iwi), and/or with other local Councils and regional Council for a regional solution. Zero Waste approach would support high level of community involvement and partnership working.
Other waste streams – hazardous waste disposal arrangements	<p><b>Social/Cultural:</b> Reduction in potential for threat to human health from hazardous materials by provision of effective management of hazardous waste streams</p> <p><b>Environmental:</b> Reduction for potential for environmental damage by provision of effective management of hazardous waste streams</p> <p><b>Economic:</b> Cost to dispose of hazardous waste will vary depending on what option is chosen</p>	Provision of hazardous collection facilities at Whakatane RTS will continue to provide for safe disposal of hazardous waste	Council to continue to provide for safe disposal/processing of hazardous waste
Other waste streams - provide ongoing alternative option for some C&D wastes e.g. cleanfill disposal	<p><b>Social/Cultural:</b> no impacts identified</p> <p><b>Environment:</b> less waste would be transported to landfill disposal. As long as Cleanfill Guidelines are applied and materials restricted, little environmental impact.</p> <p><b>Economic:</b> transport and disposal costs would be reduced</p>	Quantities of construction and demolition waste change as the economy fluctuates.	Council could work with companies generating construction and demolition waste to encourage sorting at source.  Continue to seek and develop re-use options for construction and demolition waste. This could be done with community based organisations that recycle C&D waste.

## 6.7 Measuring and Monitoring

Option	Strategic Assessment	Comment & Analysis Of Impact On Future Demand	Council's Role
Status quo – occasional audits, participation surveys, and monitoring of waste flows through contracts	<b>No new impacts</b>	Would not impact on status quo prediction of demand	Maintain existing service arrangements.
Increase monitoring to provide more information in certain areas, such as commercial waste composition, and waste management in rural areas, need for seasonal services. This should assist with gaining a clearer understanding of how those not using waste collection services are managing their waste disposal.	<p><b>Social/Cultural:</b> could raise awareness of waste management in the rural sector (for example) with reduced illegal waste practices</p> <p><b>Environment:</b> if data highlights areas where additional services could be provided, localised issues addressed (such as impacts of offal pits, silage wrap, burning etc.), or certain customer groups targeted, then diversion of waste from landfill could be increased. Potential for reduced air and water impacts if burning and fly tipping practices are reduced.</p> <p><b>Economic:</b> if the above is achieved, transport and disposal costs would be reduced. There may be additional costs for new programmes put in place.</p>	<p>Analysis of available data has shown that there are gaps in knowledge and understanding of the waste streams in the District.</p> <p>Availability of more data, and tailoring of services accordingly, could increase demand for recycling services and reduce waste to landfill.</p> <p>Availability of more data, assessment of, for example, complaints, data from private waste operators, unlawful disposal incidents and nuisance information and tailoring of services accordingly, could increase demand for recycling services and reduce waste to landfill.</p>	Council to initiate and oversee research, studies and audits and feed results in to future iterations of WMMP and action plans.

## 7.0 COUNCIL'S PREFERRED OPTIONS

The methods of waste minimisation and management that the Council intends to provide or facilitate within the district include:

From the Statements of Options outlined in the previous section, the Council's preferred options are as follows:

- Increase education and information provision relating to effective waste management and minimisation, by:
  - Continuing support for Pare Kore
  - Continuing support for Paper for Trees
  - Continue support for Conscious Consumers
  - Continue support for CReW
  - Continue support for Keep Whakatane Beautiful
  - Expand support for school education initiatives
  - Expand general waste education and marketing activities, in particular to rural and agricultural customers
  - In all cases, work in partnership with other Councils where possible to increase efficiency and reduce costs
- Carry out the required Service Review in preparation for procurement of new contracts
- Use the forthcoming procurement process to assess the alternative management options available in the market for recycling, organic waste, and residual waste collections, treatment, and processing, including transfer station operations
- Review the existing Solid Waste Bylaw to enable closer monitoring of wastes in the District
- Continue development of the green waste processing site
- Continue to support regional and cross-regional partnerships and liaison groups

These proposals will continue to provide and improve the Council's effective and efficient waste management and minimisation and meet the goals of the NZ Waste Strategy by reducing the harmful effects of waste and improving the efficiency of resource use.

The proposals will also allow the Council to meet its intended solid waste community outcomes of:

- Reliable and Affordable Infrastructure
- Quality Services
- Valuing our Environment

More detail on these preferred options and a supporting Action Plan will be included in the Council's draft new WMMP.

## 8.0 PROTECTION OF PUBLIC HEALTH

By determining the overall approach to waste minimisation and management and assessing and choosing which methods of service and infrastructure delivery are appropriate for the district, the Council has considered economic, social, cultural and environmental aspects of the community's well-being, including public health concerns.

As required under Section 51 of the WMA, the Council has consulted with the Medical Officer of Health (MOH) over this Waste Assessment and their feedback is attached as Appendix A. The following table outlines the issues raised by the MOH and the Council's response.

### 8.1 Issues raised by MOH in response to the Draft Waste Assessment and Council's response

Issue raised by MOH	Council's Response
The gap in information over wastes handled by private operators has not decreased since 2010.	Prior to 2014 the two main private waste operators in the district used the council's transfer stations and their waste volumes and types were accounted for in council's waste data. The issue has only become more of a problem since early 2014 after these operators stopped using the council's transfer station.
Need to obtain more information regarding the types and volumes of waste going to landfill by private operators.	This has been identified in the Waste Assessment as an issue and is addressed in the Statement of Options section. The action in the previous WMMP to review the Bylaw was not completed due to lack of funding and resources. Recent changes in the way private operators manage their waste has made this a higher priority issue.
Explore a rating system which spreads more of the waste management cost over all ratepayers.	The council is currently reviewing the rates system in relation to solid waste services.
Council needs to consider disposal options for after 2020 when the current landfill contract expires.	This has been identified in the Waste Assessment as an issue and is addressed in the Statement of Options section.
Council needs to identify how and where cleanfill is disposed of within the district.	Council does not believe that incorrect disposal of cleanfill material is currently an issue in the District. Council does however intend to continue working with the Regional Council to improve management of consented cleanfill facilities and this is included in the Statement of Options.

Issue raised by MOH	Council's Response
<p>Confirmation of special waste types accepted at Tirohia Landfill and whether these are accepted at council transfer stations.</p>	<p>Tirohia Landfill accepts special waste including asbestos, contaminated soils and bio-solids. None of these materials are accepted at council transfer stations as they do not have the facilities to deal with them or the required consents. These waste types require professional storage and handling and council believes that operators who undertake these practices are more suitable to also handle their disposal and this should be viewed as part of their operations and responsibility.</p>
<p>Extend the range of hazardous materials accepted at the transfer stations.</p>	<p>Council will continue to provide a limited hazardous substance disposal service at the transfer stations. Council accepts household amounts, and there are a range of services available to non-household customers. It should be noted that the recent review of waste management on agricultural properties showed that many of them do not use the services that are available to them, including available collections of hazardous wastes through Agrecovery which is supported by the Council.</p> <p>The available data does not suggest that there is a significant issue with hazardous waste management in the District, with the possible exception of agricultural and rural properties. This has been addressed in the Statement of Options section. Council will continue to provide information in relation to private hazardous waste services that operate in the district and believes that businesses who produce larger volumes of such wastes should take responsibility for their disposal.</p>
<p>Council should consider providing free disposal of black bags at the transfer stations.</p>	<p>Council does not consider that free disposal of rubbish constitutes responsible waste management and minimisation, as is required of Council by Government. Furthermore, a significant amount of revenue is created from this source and to remove this would have a direct impact on rates for the district. The Council considers that the charge is fair as it applies to those that are not paying for a kerbside service or have extra waste on top of 'normal household volumes' covered by the kerbside collections and targeted rates.</p>

Issue raised by MOH	Council's Response
<p>Explore the possibility of extending recycling services to cover plastic grades 3,4,5,6 and 7.</p>	<p>Reviewing the recycling collection has been identified in the Waste Assessment as an issue and is addressed in the Statement of Options section. However, it should be noted that under current market conditions and resources for processing these plastics it is not a viable option and other councils are currently 'stockpiling' these plastics, this is something council wishes to avoid.</p>
<p>Identify the percentage of the districts properties that are serviced by kerbside collections and the extent to which collection routes serve rateable and non-rateable occupied buildings.</p>	<p>The imminent renewal of the collections contract has been identified in the Waste Assessment as an issue and is addressed in the Statement of Options section, including a review of the collection routes.</p>
<p>Consider collecting bulky items which may alleviate improper disposal.</p>	<p>Evidence across New Zealand demonstrates that free collection of bulky items does not have an impact on illegal dumping.</p> <p>Most of the waste that is disposed of incorrectly (fly-tipping) is general household waste. The areas subject to most frequent fly-tipping also provide free disposal at transfer stations. Council considers larger items as occasional, extra waste on top of normal household refuse and that households should be responsible for their disposal. Council provides services for their disposal at transfer stations and charges a fee to cover costs.</p>
<p>Continue to explore organic composting opportunities including food waste.</p>	<p>This has been identified in the Waste Assessment as an issue and is addressed in the Statement of Options section.</p>
<p>Provide information on the rural waste assessment outlined in the 2010 WMMP.</p>	<p>This action was not completed.</p>
<p>Further Investigate rural waste services.</p>	<p>This has been identified in the Waste Assessment as an issue and is addressed in the Statement of Options section.</p> <p>It should be noted that the assessment by Waikato and Bay of Plenty Regional Councils has identified issues in relation to rural waste on a regional basis. However, this information is limited as research was undertaken on 'agricultural type' properties and not rural residential properties.</p>

It is considered that the issues covered above and proposals in this document would adequately protect public health and meet the Council's requirements under the Health Act

1956 by ensuring that options are available to residents for solid waste collection and safe disposal.

DRAFT

## Appendix A

Toi Te Ora – Public Health Service  
PO Box 2120  
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Ph: 0800 221 555  
Website: [www.ttophs.govt.nz](http://www.ttophs.govt.nz)



10 September 2014

Nigel Clark  
Whakatane District Council  
Commerce Street  
Private Bag 1002  
WHAKATANE 3158

Dear Nigel

### **2014 Draft Waste Assessment**

Thank you for your email requesting Medical Officer of Health review of Council's draft waste assessment.

Medical Officers of Health have a responsibility through their designated positions for reducing conditions within their local community which are likely to cause disease or be injurious to health. Improperly disposed waste can lead to public health risk, eg by encouraging vermin which carry disease, create odour or contaminate land and water. This is why waste management is a core Council sanitary service necessary to protect public health.

The draft assessment is a concise, yet thorough, assessment of waste management in the Whakatane district. There are however, a few areas where I can suggest some changes or would like to see more information.

- **1.2 Background**

I am in full support of Council's long and short term targets to reduce the amount of waste sent to landfill by 80% and 30% per person. Although Council has not met their short term target, I wish to acknowledge the progress made to date. A 20% reduction of waste to landfill per person is an encouraging start and the significance should not be overlooked but rather recognised.

I note that the assessment reflects only Council controlled waste because some private operators have ceased transferring waste through Council facilities and transporting directly to landfill. I recognise that Council is considering options to address this problem but also recognise that this information gap has not got smaller since the previous waste assessment in 2010. I would like to see Council make progress to assess what types and volumes of waste are going direct to landfill by private operators. Although the lack of information may be a small proportion, this may impact on the conclusions and therefore decisions made by Council from this assessment.

- **1.5 Overview of waste and recycling systems in Whakatane**

A public work or service such as waste collection and disposal aims to protect public health for the greater good of the entire district irrespective of where people are located. This because the wider community will receive health benefit by reducing the





number of people exposed to improperly disposed waste. Much the same as a person having access to a quality wastewater or water reticulated service at some point as they go about their daily lives when moving around the community. This is why equal service provision and levies promotes good health and I encourage Council to explore a rating system which spreads more of the cost over all ratepayers.

I acknowledge the assessment mentions that a change to the waste bylaw needs consideration to enable Council to acquire data related to private companies. Developing a bylaw to license private operators and require data to be submitted to Council has been successfully implemented by other local authorities in the region. If this is the mechanism Council intends to use to address the problem, I wish to see headway to accomplish this and plan for *all* waste generated in the district.

#### *2.1 Disposal facilities*

I am pleased to see that WDC have secured a location to dispose the community waste until 2020. However, 2020 is not very far away and I seek an assurance from Council that planning is underway to consider disposal options in the future which will be affordable and accessible to Council.

#### *2.2 Cleanfill facilities*

The assessment indicates that there are no known consented cleanfill sites in the district. While cleanfill material by definition is unlikely to present a risk to human health unless it is appropriately managed there is an opportunity for contaminated cleanfill to be disposed of. It is also possible for inorganic materials to create vermin and mosquito habitats unless managed well, which may subsequently pose a health nuisance. I consider it important for Council to be aware of how and where cleanfill produced in the district is disposed of.

#### *2.3 Transfer facilities*

The key services and waste streams that transfer facilities deliver in Council's district and neighbouring districts indicate that Council accepts a very limited range of hazardous materials. To provide this service is considered pivotal to supporting environmental health and safety of the community.

Table 1 indicates that Tirohia accepts non-hazardous residential, commercial and industrial waste and also special wastes. It would be good to know by including in the assessment what materials are considered special wastes, and whether these are accepted at Council transfer facilities. I would also like to see the assessment include information of where Council disposes the very limited range of hazardous materials. Finally, I encourage Council to consider extending the range of hazardous waste accepted in Whakatane and Murupara facilities wherever possible. It is a substantial distance to Hampton Downs or Tirohia for residents and commercial operators to transport and dispose of hazardous material safely. Enabling people 'to do the right thing' locally by creating easy access to options of safe collection and disposal will support a safe environment. Asbestos containing material would be one example that Council should consider.

If I have interpreted Table 2 correctly it appears that Murupara transfer station is not charging for waste and recycling and provides free drop off for Ruatahuna and Minginui residents. If this is the case I am very supportive of this Council service, and ask Council to consider this service for the Whakatane facility?

Waste collection is a method employed to ensure that waste ends up in the right place and reaches a landfill or transfer station. Residents are rated for 'waste service packages' for collection service. There should not be an additional bag fee to

dispose of waste in the right way. Removing the \$4 general refuse bag fee at the transfer station would not also encourage safe disposal but also be fair between residents who receive Council kerbside collection, and those who do not and need to use the transfer station.

#### *Table 3 – Recyclable items*

In table 2 it says that Whakatane and Murupara facilities 'accept a wide range of recyclable items', however Table 3 – Fees and Charges indicates that clean plastics grades 1 and 2 are accepted items. To assist Council achieve their waste reduction target I recommend council explores extending this service by including 3,4,5,6 and 7.

I am sure newspaper, magazine, junk mail, envelopes and many other types of clean paper are recycled by Council and consequently suspect that omitting paper from the items listed for recycling to be an oversight.

#### *3.1 Council contracted services*

The assessment indicates that Council provides waste collection to 13,300 urban, rural and commercial customers and recycling collection to 9700 urban customers on current collection routes. It would be helpful to know the percentage of properties that this represents and the extent to which current collection routes serve the total number of rateable properties and non-rateable occupied buildings

The assessment indicates that unwanted bulky items and appliances are not normally provided by Council. It would be useful to assess whether the status quo is leading to improperly disposed waste. An assessment of the usual fly tipping materials, and the assessment of the bulkier items disposed to landfill which could have been diverted will inform Council whether it may be best to collect unwanted bulky items in the first instance.

#### *3.4 Waste education*

I am pleased to see that Council intends to investigate opportunities to further waste education. Education is an effective tool when combined with access and affordability to prevent ill health and minimise the risk of disease and injury. I look forward to seeing which education and initiatives Council undertakes to stimulate beneficial waste practices in the district.

#### *4.0 Waste data*

While I concur with your comment in part, the purpose of the waste assessment is to provide the necessary background information on the waste and diverted materials streams that will enable a council to determine a logical set of priorities and inform its activities<sup>1</sup>.

#### *4.3 Further diversion and Compostable material.*

In my feedback to the 2010 waste assessment I indicated support to give **organic** waste high priority for diversion from landfill and this position has not changed. It is noted that due to public opposition food waste will not be included in the proposed green waste composting operation. I encourage Council to continue to explore organic composting opportunities and make plans to address this significant waste stream. Collaboration and sharing resources with adjacent local councils could result in a multi-district composting facility for example. I am aware other Councils encourage individual households to compost, and while I'm support of this waste minimisation practice, Council needs to be mindful that organic waste is odorous by nature, and therefore more likely to be offensive. Consequently all practicable steps

need to be taken to eliminate the chance of odour from causing a nuisance when composting. This may include education to households on good composting practices, provide composting facilities which are professionally managed and operated, such as those operated by Councils, providing sufficient land for individuals to compost in the urban environment through district urban planning.

It is noted in the assessment that food waste was excluded from the current Greenwaste Facility Resource Consent Application due to public concerns over odour and vermin. Odour can be controlled but it is to what lengths Council wishes to control and manage odour. For example, some waste transfer stations in New Zealand are completely enclosed to reduce noise and odour when there is insufficient land to provide a buffer between the activity and neighbouring residents. In Tauranga a refuse sorting business is completely enclosed and the indoor air is filtered through carbon beds. I am not aware of any complaints from this activity.

#### *5.1.7 Rural waste sources*

An action in the 2010 waste management and minimisation plan sought to increase monitoring to provide more information regarding rural waste management. This was seen as a gap in the 2010 draft waste assessment and subsequently supported. I would be interested in know the findings of this monitoring. It would useful for Council to know the number of rural residents who are provided with private waste services.

The 2014 assessment suggests there is an adequate level of service provision to rural areas, yet the assessment lacks the necessary background information on waste management in rural areas. Consequently further information is considered necessary to confirm adequate service provision is available and that waste disposed on rural properties is or is not likely to cause a nuisance.

The Research discussed in this section of the assessment by Waikato and Bay of Plenty Regional Councils is just about complete as you may be aware. Preliminary information indicates that rural waste is likely to become a priority in the waste sector.

#### *8.0 Protection of public health*

I believe when Council is able to assess 'all' of the waste generated in the district that Council will go a long way towards safeguarding public health.

I am willing to provide early input to Council's draft waste management and minimisation plan and I look forward to reviewing the action plans for how Council waste services and infrastructure will be provided.

I wish to apologise for the delay in getting back to you. Our service has experienced a high level of demand in the past two to three weeks.

Please contact Annaka Davis, Health Protection Officer on 0800 221 555 in the first instance.

Yours sincerely



**Dr Jim Miller**  
Medical Officer of Health