Whakatāne District Council Waste Assessment 2020

WHAKATĀNE
District Council
Kia Whakatāne au i ahau

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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 percent 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 4,442km2.

According to the 2018 census, the current population of the District is approximately 37,100 with 15,723 rateable properties.

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

The economy of the District is largely based around agriculture (dairying), forestry, and wood processing. Tourism is also a major part of the local economy while industry in Whakatāne tends to be relatively light and targeted at supporting the local community. Heavier industry is 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 six years (or earlier). The Council's current WMMP is due for review in 2021, which is aligned with Council's Long Term Plan (LTP) timeframes.

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.

Council's previous WMMP in 2015 had an overall target to; "Reduce waste to landfill to 11,000 tonnes by 2015/16 and by 100 tonnes per year thereafter". Council achieved this target in the first year but has not met the target since. There are three main reasons for failing to reach this target:

- In April 2017 the township of Edgecumbe suffered a large flood event, which produced over 7,000 tonnes of related waste. This waste caused in increase in landfilled waste for both the 2016/17 and 2017/18 financial years. Had the flood not occurred the target would have been met in 2016/17 and possibly in 2017/18.
- In 2018 a local waste operator who had previously used a private transfer station started using the Council RTS, this significantly increased the amount of waste Council was sending to landfill.
- Nationally there has been an increase of waste sent to municipal landfills of 48 percent over the 2009-2019 period (Ministry for the Environment (MfE)). This trend shows that the increase is not a 'local issue'.

Although Council failed to reach the target, the overall percentage of waste Council diverted from landfill decreased from 51.4 percent in 2015/16 to 43.3 percent in 2019/20.

Nationally, the amount of waste sent to Class 1 municipal landfills in 2018/19 was 740kg per capita (MfE). The comparable figure for Whakatane was 345kg per capita in 2019/20. This partially reflects the nature of our district, with very little heavy industry and a proportion of residents living rurally. However, this is also likely to partially reflect the waste minimisation measures that have already been taken in the district.

1.3 Purpose of this Waste Assessment

This waste assessment has been undertaken with reference to the 'Waste Assessments and Waste Management and Minimisation Planning: A Guide for Territorial Authorities' prepared by the (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*

Under the WMA, the Waste Assessment must go beyond those waste and material streams managed directly by the Council and include an assessment of current commercial and industrial waste streams, a forecast of future demand, consideration of options to meet forecast demand, and determine Council's intended role in meeting that demand.

Whakatāne District Council therefore, like all Councils, has a responsibility to plan for all waste generated in the District when considering waste infrastructure and services. However, this is not always possible due to a lack of available information from waste operators and industry.

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, Council is not in control of all waste transfer facilities in the District. The impact of this is for an unknown amount of waste to 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 and Asset Management Plans, which can be found on the Council's website. 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, sewage, bio-solids and some liquid hazardous wastes.

1.5 Overview of Waste and Recycling Systems in Whakatāne

Whakatāne District Council 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 kerbside collections. 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 refuse transfer stations, Handee Cans Services Ltd also operate a private transfer station.

The Council provides kerbside services 'packages' 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 use of kerbside services and payment of targeted rates are voluntary in rural areas but mandatory in urban centres.

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 Waste Minimisation and Management Bylaw 2018. This bylaw includes:

- Responsibilities for residents and waste operators
- Licensing of waste operators
- Requirements for waste operators to collect and submit data
- Controls on collection, transport and disposal of waste
- Requirements for 'multi use developments'
- Event waste management
- Nuisance and litter
- Offences and enforcement.

1.6 Collaboration

The Council is involved in collaboration on waste projects on both a regional and national level.

The Council plays an active part in the Waikato and Bay of Plenty Waste Liaison Group. The group meet several times a year and share experience and knowledge as well as working on specific projects. Previous projects have included:

- Waste assessments and waste management and minimisation planning
- Standardised solid waste bylaws
- Waste operator licensing and data collection
- Education and communication
- Procurement
- Regional Infrastructure
- Submissions on central government policies.

The Council is also a member of the Waste Management Institute of NZ (WasteMINZ), Territorial Authority Forum. Previous projects undertaken by the forum include:

- Love Food Hate Waste campaign
- National waste audits
- Submissions on central government policies
- Plastic Free July
- National Territorial Authority Waste Forum
- Best practice guidelines
- Education and communication.

The Council is also a member of the Bay of Plenty Waste Advisory Group, responsible for implementing the regional waste strategy and administrating funding. However, the future of this group is currently under review by the Council.

Waste Data Licensing Scheme

The Waste Data Licensing Scheme (WDLS) is a major project currently underway by the Waikato and Bay of Plenty Waste Liaison Group, in collaboration with Bay of Plenty Local Authority Shared Services and Waikato Local Authority Shared Services.

The project involves utilising Bylaw provisions to license waste operators and require them to submit data in accordance with the National Waste Data Framework. Council's Solid Waste Manager sits on the steering group for this project. The scheme will probably see an external party managing the licenses and enforcement for all councils across both regions.

1.7 Strategic Context

1.7.1 *New Zealand Waste Strategy*

The New Zealand Waste Strategy: Reducing Harm, Improving Efficiency (NZWS) is the Government's core policy document concerning waste management and minimisation in New Zealand. The two goals of the NZWS are:

1. Reducing the harmful effects of waste
2. Improving the efficiency of resource use

The NZWS provides high-level, flexible direction to guide the use of the tools available to manage and minimise waste in New Zealand. These tools include:

- The Waste Minimisation Act 2008
- Local Government Act 2002
- Hazardous Substances and New Organisms Act 1996
- Resource Management Act 1991
- Climate Change Response Act 2002 and Climate Change (Emissions Trading) Amendment Act 2008
- International conventions
- Ministry for the Environment guidelines, codes of practice
- Voluntary initiatives

The flexible nature of the NZWS means that councils are able to decide on solutions to waste management and minimisation that are relevant and appropriate to local situations and desired community outcomes. As required by section 44 of the WMA, Council has had regard to the NZWS when preparing their WMMP.

Central Government has indicated a review of the NZWS before the end of 2020.

1.7.2 *Local Government Waste Management Manifesto*

In early 2018, the Territorial Authorities' Officers Forum, a sector group of the Waste Management Institute of New Zealand, released the "Local Government Waste Management Manifesto" (the Manifesto). The Manifesto spelled out the key priorities for local government in the area of waste management. The manifesto was also adopted by Local Government NZ.

The key actions that the Manifesto sought were:

- Review the NZ Waste Strategy to set a clear programme for action
- Introduce a Container Deposit Scheme to lift recycling rates from 45-58% to between 79% and 82%
- Expand the waste disposal levy and raise the levy rate to reduce total waste to landfill by up to 3.5 million tonnes
- Officially adopt the Waste Data Framework and oversee its implementation to enable better planning and monitoring
- Declare tyres, e-waste, agrichemicals and farm plastics as priority products, to address problem waste streams

The Local Government Waste Manifesto was updated in 2020. The Updated Manifesto summarises the impacts of China National Sword and COVID 19 on the recycling sector, summarises progress made to date on the 5 key actions called for in the original manifesto and identifies 3 new actions for the government to progress:

- Invest in onshore and local infrastructure for processing of recovered materials – in particular plastics, paper, organics and building materials
- Standardise household rubbish and recycling collection systems to improve the quality of material collected and the materials that are collected.
- Phase out the use of hard to recycle plastics and initiate a compulsory national label for recyclability on packaging.

1.7.3 *International Commitments*

New Zealand is party to the following key international agreements:

1. Montreal Protocol – to protect the ozone layer by phasing out the production of numerous substances
2. Basel Convention – to reduce the movement of hazardous wastes between nations
3. Stockholm Convention – to eliminate or restrict the production and use of persistent organic pollutants
4. Waigani Convention – bans export of hazardous or radioactive waste to Pacific Islands Forum countries

1.7.4 *National Projects*

A number of national projects are underway, aimed at assisting TAs, business and the public to adopt waste management and minimisation principles in a consistent fashion.

Rubbish and Recycling National Standardisation Project

This project, initiated by MfE and led by the Waste Management Institute of New Zealand, is exploring the different ways that waste materials (mainly rubbish, recycling and organics) are collected at the kerbside from householders. The purpose of the project is to identify ways that kerbside collections can be more closely standardised than present; to enable some consistency in education and awareness raising messages, reduce confusion between council areas, improve the quality of recyclables by reducing contamination, and reduce waste to landfill.

A final report on the project is expected in July 2020.

National Waste Data Framework Project

The first stage of the National Waste Data Framework (NWDF) project, led by WasteMINZ, was funded by a grant from the Waste Minimisation Fund. The development of the NWDF took the following form:

- A staged development approach, focusing initially on the most important elements while also setting out a clear 'upgrade' path to include other elements.
- The first stage of the Framework (which has been completed) includes data on waste disposed of at levied disposal sites (Class 1 landfills) and information on waste services and infrastructure as well as other areas where practicable.

- Subsequent stages of the Framework will include more detailed data on diverted materials and waste disposed of at non-levied disposal sites.

The first stage of the Framework is complete and is now being implemented. Council is part of the implementation of the NWDF through using the categories and terminology of the Framework in the Waste Assessment and the forthcoming WMMP.

National Standardisation of Colours for Bins

Historically, councils and businesses in New Zealand had used a variety of colours to indicate what waste streams can be placed in what bins. When colours are used inconsistently, this is likely to create confusion and increase the likelihood of contamination.

In October 2015 WasteMINZ, the Glass Packaging Forum, and councils around New Zealand agreed on a standardised set of colours for mobile recycling and rubbish bins, crates and internal office bins. The recommended colours are:

For bin bodies:

For 240 litre and 120 litre wheeled bins, black or dark green should be used. These colours maximise the amount of recycled content used in the production of the bins.

- For bin lids, crates and internal office bins:
- Red should be used for rubbish
- Yellow should be used for commingled recycling (glass, plastic, metal and paper combined)
- Lime green should be used for food waste and food waste/garden (referring to green) waste combined; noting that food waste-only collections are strongly encouraged to use a smaller bin size than combined food and garden collections.
- Dark Green should be used for garden waste.
- Light Blue should be used for commingled glass collections (white, brown, green glass combined).
- Grey should be used for paper and cardboard recycling.
- Council follows this colour coding system wherever possible in kerbside and public place collection containers.

1.8 Local and Regional Planning Context

This Waste Assessment and the resulting WMMP will have been prepared within a local and regional planning context whereby the actions and objectives identified in the Waste Assessment and WMMP reflect, intersect with, and are expressed through other planning documents. Key planning documents and waste-related goals and objectives are noted in this section.

1.8.1 *Long Term Plan*

Council's Long Term Plan is currently under review and will be consulted upon and released along with the 2021 WMMP.

1.8.2 *Other Local Plans*

Whakatane District Council has a number of other plans relating to the solid waste area that have been considered when preparing this Assessment. These include:

- Climate Change Action Plan
- Solid Waste Asset Management Plan

1.8.3 *Regional Council Plans*

The Regional Waste Strategy (2013 – 2023) presents a regional position on managing waste, hazardous substances, hazardous waste and contaminated sites in the Bay of Plenty. The Regional Waste Strategy has a vision of "working together towards a resource-efficient region".

The Strategy also contains six key focus areas through which the vision and associated goals will be achieved:

1. Foster collaboration, partnerships and promote forward planning
2. Improve data and information management
3. Review regulatory environment governing waste
4. Increase resource efficiency and beneficial reuse
5. Reduce harmful impacts of waste
6. Stimulate research and innovation.

The Waste and Resources Advisory Group (WRAG) of which council is a member has been established to support progress within these six focus areas, and also to manage a small annual publicly contestable fund.

2.0 Waste infrastructure

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, clean fills 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
Waste Management NZ Ltd	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. Undergoing consenting processes to increase capacity to 2032-35, otherwise will close by approx. 2024.
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 now closed and no longer accepts any waste. Taupo District Council also has a landfill, which only accepts waste from within its own District boundary.

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 2024, with an option to extend to 2031.

2.2 Clean Fill Facilities

The Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land define clean fills and clean fill material as follows:

Clean fill

A class 5 landfill. Accepts only clean fill material, including clean excavated natural materials.

Clean fill material

Virgin excavated natural materials such as clay, soil and rock that are free of:

- Combustible, putrescible, degradable or leachable components
- Hazardous substances or materials (such as municipal solid waste) likely to create leachate by means of biological breakdown
- Products or materials derived from hazardous waste treatment, stabilisation or hazardous waste disposal practices
- Materials such as medical and veterinary waste, asbestos or radioactive substances that may present a risk to human health if excavated
- Contaminated soil and other contaminated materials
- Liquid waste.

When discharged to the environment, clean fill material will not have a detectable effect relative to the background.

There are no known consented clean fill sites in the Whakatāne District that are open to the public. However, there are some non-consented sites allowing up to 5000m³ per annum for contractor use.

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 (also accepts household hazardous waste and used motor oil)	Te Tahi Street, Whakatāne

Harvey Family Trust (owners of Handee Can Services Ltd) refuse transfer station	Waste transfer	Accepts residual waste, compacts and transfers to landfill	Mill Road, Whakatāne.
Murupara Transfer Station – Waste Management NZ Ltd	Council-owned waste transfer and recycling centre (no charges for area residents, no commercial loads)	Accepts most waste and a wide range of recyclables (also accepts household hazardous waste and used motor oil)	Murupara
Ruatahuna Transfer Station	Community-run waste transfer and recycling centre	Accepts most household waste (not hazardous) and recyclables. Waste taken to Murupara Transfer Station.	Ruatahuna
Minginui Transfer Station	Community-run waste transfer and recycling centre	Accepts most household waste (not hazardous) and recyclables. Waste taken to Murupara Transfer Station.	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 council's fees and charges at the Whakatane Refuse Transfer Station are adjusted each year in accordance with the council's revenue and financing policy based on a 90% private and 10% public split. A copy of the 2019/20 fees can be found in Appendix 2.

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

- Greenwaste bins for commercial and residential customers
- Recycling bins for, glass, plastics, tins/cans, paper and cardboard
- Hazardous substance, LPG bottle and car battery collection
- Scrap metal separation and recycling
- 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 and C&D waste.	E-waste, furniture, construction materials, household items etc.	Whakatāne	NA
Waste Management Technical Services	Liquid Waste dewatering and transfer. Hazardous substance and asbestos disposal	Liquid and hazardous waste from Ōpōtiki, Kawerau and Whakatāne Districts	Whakatāne	NA
Full Circle Recycling	Paper and Cardboard	Paper and Cardboard	Nationwide pick-ups	NA
McCaulay Metals	Scrap metal	All scrap metal	Whakatāne	NA
Metal Solutions	Scrap metal	All scrap metal	Bay of Plenty	NA
Goodwood Ltd	Untreated timber	Recycling untreated timber	Bay of Plenty	
Revital Fertilisers	Greenwaste composting	Greenwaste	Te Muanga, Tauranga	Additional capacity available.
Ecocast	Organic waste processing	Greenwaste, kiwifruit farm waste, papermill pulp waste and bio-solids	Kawerau	28,000 t.p.a of bio-solids consented to 2024. Consented for greenwaste composting
Council's Keepa Rd Greenwaste Composting Facility	Open Windrow Greenwaste Composting	Composting of council collected greenwaste. (Shredded on site, transported to Kawerau for composting with kiwifruit farm and paper mill pulp wastes.)	Whakatane	10,000 t.p.a consented to 2026

3.0 Waste services available in the Whakatāne 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 kerbside collection from 80L mobile garbage bins (MGBs)	Weekly to approximately 13,970 properties	Waste Management Ltd under contract to WDC until June 2024
Co-mingled recyclables kerbside collection of plastics grades 1 & 2, aluminium/tin/steel cans, paper, and cardboard from a 240L MGB	Fortnightly to approximately 13,970 customers	Waste Management Ltd under contract to WDC until June 2024
Glass recycling kerbside collection in a 60 or 45L crate	13,970 customers	Waste Management Ltd under contract to WDC until June 2024
Greenwaste kerbside collection from 240L MGBs	Fortnightly to approximately 9960 (urban) customers	Waste Management Ltd under contract to WDC until June 2024
Whakatāne Refuse Transfer Station	Operation of refuse and recycling drop-off facility	Waste Management Ltd under contract to WDC until June 2024
Murupara Refuse Transfer Station	Operation of refuse and recycling drop-off facility	Waste Management Ltd under contract to WDC until June 2024
Residual waste transfer to landfill	Cartage of residual waste from Whakatāne to Tirohia Landfill	Waste Management Ltd under contract to WDC until June 2024
Residual waste disposal at landfill	Disposal of residual waste at landfill	Waste Management Ltd under contract to WDC until June 2024
Fly Tipping	Removal from public spaces	Various providers on behalf of WDC

Refuse removal from public spaces litter bins	From litter bins and MGBs in public spaces	Combination of Council staff and Waste Management Ltd under contract to WDC until June 2024
Recycling removal from public spaces recycling bins	From recycling bins in public spaces	Handee Cans Services Ltd under contract to WDC until 25/8/2021
Operation of Council's purpose built greenwaste composting site	Operation of site and composting of kerbside and refuse transfer station greenwaste	Ecocast Ltd under contract to WDC until 30/06/2021
Waste motor oil disposal	Provided through refuse transfer stations	Waste Management Ltd under contract to WDC until June 2024
Metal/Steel Recycling	Provided through refuse transfer stations	Waste Management Ltd under contract to WDC until June 2024
Concrete Disposal	Provided through refuse transfer stations. Where possible concrete reused for Council projects.	Waste Management Ltd under contract to WDC until June 2024
Tyre Recycling	Provided through refuse transfer stations.	Waste Management Ltd under contract to WDC until June 2024
Hazardous Waste	Collection and disposal of hazardous waste accepted at Whakatāne and Murupara transfer stations	R&S McGregor Ltd on behalf of WDC as and when required

The Council does not provide inorganic collections as they have very low if any resulting waste diversion from landfill. Inorganic collections also support 'buy, use, throw-away' behaviour and give the impression that there are no financial or environmental costs to waste disposal.

Kerbside services are provided as 'service packages' and the council's fees are adjusted each year in accordance with the council's revenue and financing policy based on a 90% private and 10% public split. The standard fee amounted to $187.05 exc.GST for the 2019/20 financial year which is charged through targeted rates. In the same year rural and commercial properties paid $153.32 exc.GST per annum as no greenwaste service is included. Any ratepayer can access these services and properties may purchase more than one service. The charges were slightly higher for Ōhope residents; $189.67 and $155.94 respectively, as they receive extra recycling collections over the Christmas / New Year period.

There is also an additional Uniform Annual Charge for each rated unit for waste disposal operations and closed landfill management.

Additional 45L recycling crates are provided at a one-off charge of $20 each.

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

3.2 Other Whakatāne District Council Programmes and Services

In addition to these services, there are other programmes 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
- School Waste Education – Council contracts a service provider to visit schools
- Paper for Trees – provision of native trees in exchange for recycling
- Free recycling collections from school
- Event waste advise and provision of free event waste stations
- Community Resources Whakatāne – Council provides support for waste minimisation initiatives
- Support for 'Waste Zero Whakatāne' community group
- Ad hoc projects such a subsidised home composting units and reusable nappies for day-care centres.

3.3 Private Services

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

Waste Management NZ 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. 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 kerbside 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 on a charge per-empty basis and a door collection service.

In addition, there are the usual complement of second-hand and charity stores in Whakatāne. These include CReW (Community Resources Whakatāne) which is a community-based organisation who re-use, recycle and re-sell waste items and C&D waste. 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 5 - Processing and destination of different waste sources

Waste Source	Processing	Destination
Council Kerbside Collected Household and Commercial Refuse	Offloaded at Whakatāne Transfer Station and dispatched to landfill	Tirohia Landfill
Kerbside Collected Recycling	Colour separation of glass at the kerbside. Most of the kerbside comingle recycling goes directly to Material Recovery Facility (MRF) in Tauranga. A small amount goes via RTS.	Glass transported to Auckland for processing. Paper and cardboard sent to regional paper mills Co-mingled recycling sent to Tauranga for separation and forwarded for processing Metal wastes collected by local operator
Kerbside Collected Greenwaste	Offloaded at Council's composting site for storage and hogging (shredding)	Hogged material transported to composting facility in Kawerau
Commercial Refuse (includes both commercially collected waste and that dropped off by commercial organisations)	Offloaded at Whakatāne, Murupara, and Harvey Family Trust Transfer Stations and dispatched to landfill. Murupara RTS refuse processed via Whakatāne RTS	Tirohia Landfill

Commercial Recycling (includes both commercially collected recycling and that dropped off by commercial organisations)	Some separation at Whakatāne and Murupara Transfer Stations Separation of glass, paper and cardboard, plastics and co-mingle recycling Murupara recycling processed via Whakatāne RTS	Glass from Whakatāne transported to Auckland for processing Paper and cardboard sent to regional paper mills Comingle recycling is sent to Tauranga MRF for separation and forwarded for processing
Commercial Greenwaste (includes both commercially collected greenwaste and that dropped off by commercial organisations)	Offloaded at Whakatāne and Murupara Transfer Stations Whakatāne greenwaste sent to Council's composting site for storage and hogging (shredding) Murupara greenwaste hogged on site then transported to Kawerau for composting	Hogged material transported to composting facility in Kawerau
Public drop-off refuse	Whakatāne and Murupara Transfer Stations Murupara RTS refuse processed via Whakatāne RTS	Tirohia Landfill
Public drop-off Recycling	Some separation at Whakatāne and Murupara Transfer Stations Separation of glass, paper and cardboard, plastics and co-mingle recycling Murupara recycling processed via Whakatāne RTS	Glass from Whakatāne transported to Auckland for processing Paper and cardboard sent to regional paper mills Comingle recycling is sent to Tauranga MRF for separation and forwarded for processing
Commercial and public drop-off metals	Separation at Whakatāne and Murupara Transfer Stations	Metal wastes collected by local operator

Concrete	Separation at Whakatāne and Murupara Transfer Stations	Used in Council projects and made available to public Excess concrete occasionally sent to landfill
Commercial and public drop-off tyres	Separation at Whakatāne and Murupara Transfer Stations	Tyres are collected and transported to Auckland for reprocessing
Commercial and public drop-off hazardous waste	Whakatāne and Murupara Transfer Stations	Collected and transported to Auckland for processing Paints made available to public Waste motor oil to Waste Management NZ Ltd - Technical Services for processing

3.5 Waste Education

Council undertakes, supports and is involved in a number of waste education initiatives, these include:

- Educational material on Council's website and social media
- Media campaigns including media releases, radio interviews, and newspaper articles
- School Education programme with over 30 schools in the District signed up. Council's contractor 'Waste Zero Education' go into schools with age-specific curriculum.
- 'Paper for Trees' where schoolchildren collect recycling and in exchange earn recycling receptacles and native trees for planting.
- Agrecovery - collection of rural hazardous waste and containers
- Para Kore – marae based recycling and waste minimisation education
- Event waste advise and provision of free event waste stations
- Community Resources Whakatāne – Council provides support for waste minimisation initiatives and workshops
- Support for 'Waste Zero Whakatāne' community group
- Adhoc projects such a subsidised home composting units and reusable nappies for day-care centres.

4.0 Waste data

The Council holds historical data from the 2006/07 financial year onwards for waste collected and amounts diverted through recycling and composting. (Incorrect recording of greenwaste volumes for 2010/11 and 2011/12 have led to estimated totals.)

Table 6 - Total waste streams annually

Waste Type	Recycling	Greenwaste	Construction and Demolition	Waste To Landfill	Total
2006/07	4,000	3,474	NA	9,509	**16,983**
2007/08	4,166	4,994	NA	14,261	**23,421**
2008/09	3,705	4,989	NA	14,909	**23,603**
2009/10	4,096	4,631	NA	13,892	**22,619**
2010/11	5,382	4,400 E	NA	13,244	**23,026 E**
2011/12	4,244	4,280 E	622	12,476	**21,662 E**
2012/13	4,121	4,164	761	11,962	**21,008**
2013/14	3,979	4,315	1,106	11,178	**20,578**
2014/15	4,096	4,411	876	10,012	**19,395**
2015/16	4,674	5,176	867	10,152	**20,869**
2016/17	4,893	5,753	970	16,777	**28,393 F**
2017/18	5,154	5,994	664	12,941	**24,753 F**
2018/19	4,791	5,783	602	12,042	**23,218**
2019/20	4,442	5,158	428	13,117	**23,145**

* Note: 'E' indicates an estimated amount. 'F' indicates volumes that included 'flood waste' from Edgecumbe 2017 flood event.

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. However, the Edgecumbe flood in 2017 significantly increased the amount overall waste and that sent to landfill. The waste attributed to this incident was over 7,000 tonnes.

As advised on page four the influence of one local waste operator and the national trend of more waste going to landfill has resulted in the amount of landfilled waste increasing rather than decreasing as was experienced in the earlier years above. This increase has also been influenced by the collapse of national and international recycling markets and that the paper mill that previously used Council's diverted wood waste for fuel no longer accepts it so the waste is now landfilled.

Residual waste to landfill has two main sources; the Council kerbside collections and transfer station waste. As shown in Table 7 the amount dropped off at the transfer stations is generally higher than the amount collected at kerbside. From 2013/14 the amount deposited at the transfer station decreased significantly for a few years due to two local waste operators processing and transporting their own refuse to landfill. As mentioned earlier, one of these operators now uses the transfer station again and the amount of waste has increased proportionately.

Table 7 - Residual Waste streams

Residual Waste Source	Council Kerbside Collection	Waste Delivered To Transfer Station
2007/08	6,048	8,213
2008/09	6,069	8,840
2009/10	5,981	7,911
2010/11	5,125	8,119
2011/12	4,834	7,642
2012/13	4,914	7,048
2013/14	4,922	6,256
2014/15	4,652	5,360
2015/16	5,116	5,036
2016/17	4,516	12,261*
2017/18	4,557	8,384*
2018/19	5,368	6,674
2019/20	6,314	6,708

* The amount of waste deposit at the transfer station during 2016/17 and 2017/18 include 'flood waste' from the 2017 Edgecumbe flood event. It should be noted that most of this 'flood waste' was transported directly to landfill and did not pass through the transfer station.

The quantity of domestic kerbside refuse disposed of per household per annum has been found to vary considerably between different areas. Kerbside refuse services are used primarily by residential properties, with small-scale commercial businesses comprising a relatively small proportion of collections (typically in the order of 5-10%). There is relatively little data in most areas on the proportion of businesses that use kerbside collection services, so it is not usually possible to provide data solely on residential use of kerbside services.

The disposal rate of domestic kerbside refuse for Whakatane district has been calculated to be 450 kg per household (provided with the service) per annum in 2019/20. This can be compared with several other areas, such as:

- Great Lakes Taupo: 481 kg
- Auckland Council: 480 kg
- Rotorua Council (pre-service change): 562 kg
- Christchurch City Council: 275 kg

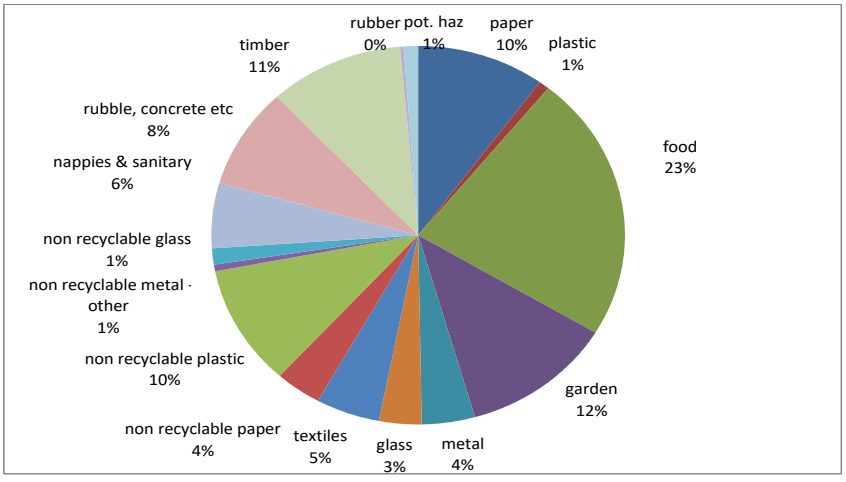
Of the urban areas that have been assessed, Christchurch City has the lowest per capita disposal rate of kerbside refuse. This is associated with the diversion of organic waste through the council's kerbside organic collection and the council's high market share of kerbside rubbish collections.

Rotorua has the highest disposal rate of the urban areas shown in the table. This is associated with the high proportion of households in Rotorua that use private collector wheelie bin services and the absence of kerbside recycling services.

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. It is also probable that the amount of plastics grades 3 to 7 going to landfill has increased since 2019 when Council stopped recycling these grades.

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

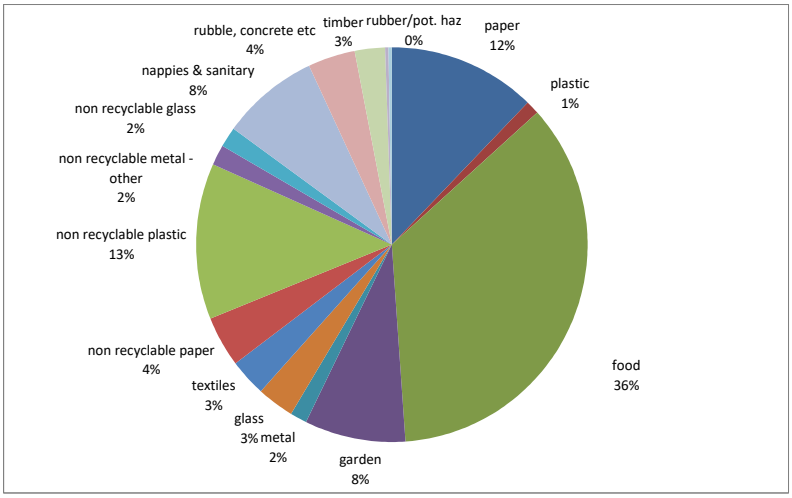


4.3 Composition Data and Diversion Potential from Council Kerbside Collection

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.

Council moved to a 'two-stream' or 'glass-out' kerbside recycling collection in 2016. While the recycling waste types collected did not change, this change initially increased the percentage of recyclable material diverted from kerbside refuse, but this pattern has recently been reversed due to Council no longer collecting plastics grades 3 to 7 and changes in national and international recycling markets.

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



While the recycling rates have improved since the data above, 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 percent of kerbside refuse could have been recycled while 40.3 percent 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 percent 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 greenwaste kerbside collection and composting programme. Once again, as any contaminated loads of greenwaste are landfilled, it would not be feasible to divert 100 percent of greenwaste if contamination was eliminated.

Due to public opposition, the Council cannot receive food waste at the greenwaste composting facility. However, food waste remains a major constituent of the kerbside and commercial refuse streams.

4.4 Recycling and Recovery

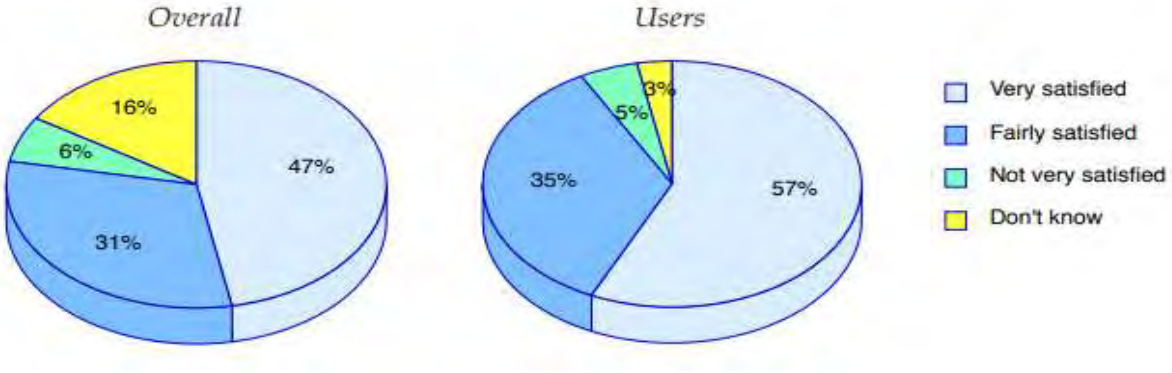
Historically, diversion rates from landfilled improved from 42.8 percent of all solid waste in 2011/12 to 51.4 percent in 2015/16, but then declined to 43.3 percent in 2019/20. Some of the reasons for the 'recent' decline have been discussed earlier. The data in Table 6 shows that the actual tonnage amounts for both recycling and greenwaste have not decreased over this period and it is the overall amount of solid waste that has increased – in line with the national trend.

4.5 Refuse and Recycling Participation

As outlined in Table 5 Council's kerbside services are provided to 13,970 properties and all residents have access to refuse transfer stations at Whakatāne and Murupara. Whakatāne Refuse Transfer Station provides free drop-off for recyclables while Murupara Refuse Transfer Station currently provides free drop-off for all waste streams.

The most recent customer satisfaction survey for the Council was conducted in 2019 through a telephone survey of 334 residents throughout the District. The results are shown below:

Figure 4 - Satisfaction with transfer station disposal facilities:

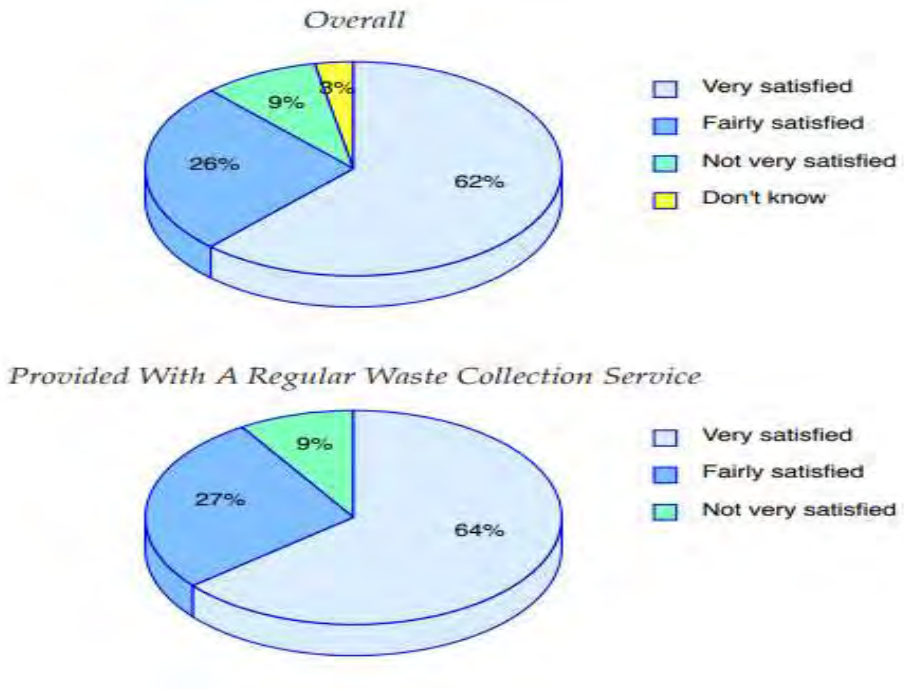


The results show that 78 percent of residents are satisfied with the refuse transfer station facilities (72 percent in 2018), including 47 percent who are very satisfied (43 percent in 2018), six percent are not very satisfied (9 percent in 2018) with this service and 16 percent are unable to comment (19 percent in 2018).

The percent not very satisfied with refuse transfer station facilities is slightly below the Peer Group Average and below the National Average. Seventy percent of households have used a transfer station facility in the District, in the last 12 months (63 percent in 2018). Of these, 92 percent are satisfied (85 percent in 2018) and five percent not very satisfied (11 percent in 2018).

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.

Figure – 5 Satisfaction with kerbside collections (recycling, greenwaste and residual):



The results show that 88 percent of residents are satisfied with kerbside waste collection service (91 percent in 2018), including 62 percent who are very satisfied (58 percent in 2018). Nine percent are not very satisfied and three percent are unable to comment.

The percent not very satisfied is on par with the Peer Group Average and similar to the National Average and the 2018 result. Ninety-six percent of residents are provided with a regular waste collection service and kerbside recycling in the last 12 months. Of these, 91 percent are satisfied and nine percent are not very satisfied.

4.6 National Waste Data Framework

Council is currently working on implementing the National Waste Data Framework (NWDF) into its internal and external reporting. The NWDF is:

- recognized as the national reporting system towards which all councils will aim to implement
- the framework which the Ministry for the Environment proposes to implement as a legislative requirement
- the framework on which the BOPLASS/Waikato and Bay of Plenty Waste Liaison Group proposed 'Waste Data and Licensing System' is based upon.

4.7 Summary and Conclusions

Per capita waste generation 2019-20 (refuse and recycling) was 330Kg per capita per annum through kerbside collections and 624Kg per capita per annum in total. In the same year waste to landfill was 354Kg per capita for the year.

The kerbside collection figure includes some non-residential customers and may be higher than other Districts as 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 financial exposure, should the costs of transport and disposal increase unexpectedly and cost recovery at the transfer stations is not adequately achieved. While Council negotiated very favourable long-term landfill fees until 2024 with a possible extension to 2031, central government policies currently under review will have a significant effect on landfill disposal costs and recycling. These are discussed further in Section 5 below.

As most of the District's waste is in Council control this gives the Council much greater opportunity to divert waste from landfill.

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 20 to 30 times more powerful than CO_2 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. Council has provided kerbside collections, transfer station drop-offs and composting of greenwaste for a number of years. In 2016 Council built its own greenwaste composting facility but was unable to include foodwaste due to public opposition during the resource consent process. In 2019/20 Council processed and diverted from landfill 5,158 tonnes through this facility.

While Council's greenwaste composting facility is consented for the whole composting process the greenwaste is stored on a site for a few months, hogged (shredded) and then transported to another site in Kawerau. There are a number of environmental advantages to this process as outlined below.

Due to the lack of a local market Council does not currently divert foodwaste from landfill. However, markets are currently being developed and neighbouring Councils are investigating and tendering for food waste collection/composting services so this may change regionally. Council will continue to investigate opportunities for food waste diversion.

Greenwaste composting

Kiwifruit farm waste has a history of been landfilled due to the threat of spreading the PSa virus. During storage of this waste birds eat the fruit and fly into the bush where they deposit the seeds which has resulted in a biosecurity problem of wild kiwi fruit vines.

At the composting site in Kawerau, Council's hogged greenwaste is blended with the kiwifruit farm waste and also the pulp waste from the paper mill. This blend is then composted and not only makes the seeds inert (addressing the biosecurity issue) but also kills the PSa virus.

The result is a compost that uses three waste streams and can go back onto the kiwifruit farms. This is good example of a circular economy model for addressing waste.

4.6.2 Dry Recyclables

There is still some recyclable material in the kerbside refuse waste stream that could be recycled. The transfer stations allow for separation of paper, cardboard, tins, cans, glass bottles and jars, plastics grades 1 and 2, metals, tyres and concrete but observations show that there is also recyclable material currently going to landfill from both public drop-offs and non-household sources. To increase the recovery rate of recyclables, separation at source by the generator is the key.

In recent years international and national recycling markets have undergone significant changes. This is mainly due to China's 'Green Sword Policy' which has restricted import of recycling materials. As China was previously the main market for NZ recyclables this has caused an excess and drop in prices for recycling commodities. Due to these changes many Councils including Whakatāne District Council no longer collect plastics grades 3 to 7 and markets are limited for other materials. Severe drop in prices (due to excess materials on the market) has resulted in a very competitive industry with the amount of materials exceeding market demand (or no market at all for some plastics).

The Covid-19 pandemic also had a significant effect on the amount of recyclables been processed both locally and nationally. Material Recovery facilities which process the recyclables were closed and most councils including Whakatāne had to landfill recycling. During April and May 2020 council did not collect or process any kerbside recycling.

4.6.3 Rural Waste Management

Previous 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.

5.0 Future demand

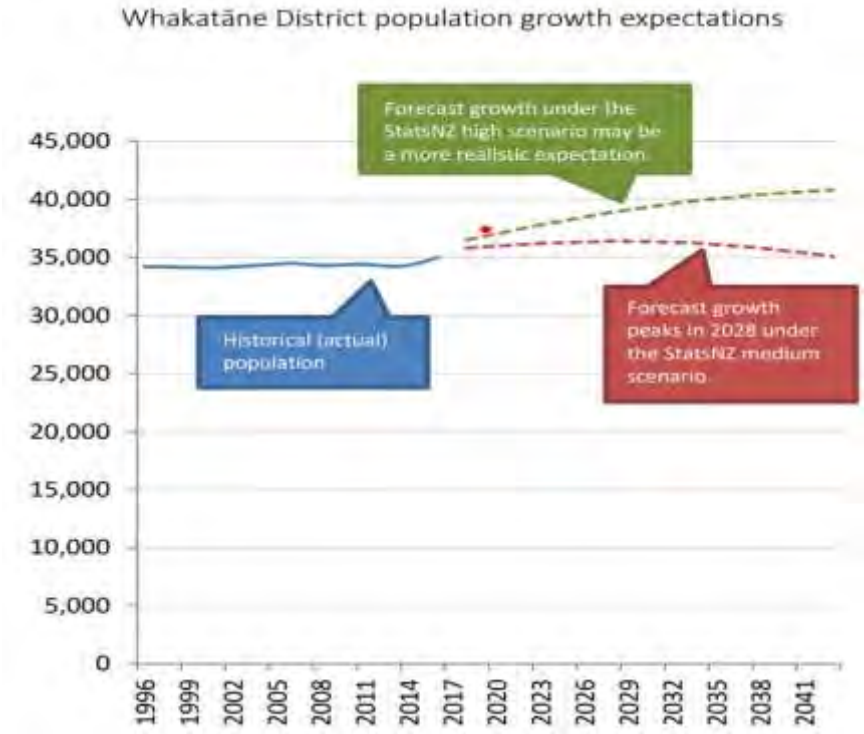
5.1 Future Demand

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

At the 2018 census, the Whakatāne District had a population of 37,100. This has exceeded both the Statistics New Zealand's 2013 medium and high scenarios for Whakatāne District population growth predictions.

Figure 6 - Statistics New Zealand's Whakatāne District population growth predictions.



Note: The red dot in Figure 6 indicates the District's current population (2018 census).

Population growth is not constant across our District. Some areas are facing decline while others remain stable or continue to grow. Within our own District, approximately 52% of the population live in the Whakatāne Urban Ward including Whakatāne Town, Coastlands and Ōhope. This percent is expected to increase as planned residential developments in or adjacent to our main urban centre are realised while some rural areas are expected to decline.

As a factor on its own, population growth is not expected to have a significant demand on waste services during the term of this WMMP. However, with predicted changes in economic activity and lifestyle as outlined below, it is predicted that there will be changes in volumes of waste streams and required services.

Over the recent number of years council's kerbside services have increased by approximately 150 households per year, it is expected that this increased demand will continue. The number of households in the district is expected to increase by approximately 1,500 over the next 10 years.

5.1.2 Economic Activity

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. The relationship between population, GDP, and waste seems intuitively sound, as an increased number of people will generate increased quantities of waste and greater economic activity is linked to the production and consumption of goods which, in turn, generates waste.

Economic activity in the Whakatāne District will be greatly influenced by the announcement in March 2020 that applications to the Provincial Growth Fund (PGF) have secured a $36.8 million injection from central government. This includes $19.6 million for a boat harbour development, $9.6 million for the riverfront revitalisation project and $7.8m for Ngāti Awa's Kāinga development at the Whakatāne Army Hall.

The Eastern Bay of Plenty has also secured another $242 million in PGF and an additional $62 million Crown Infrastructure/1 Billion trees funding. This overall government funding of $304 million will be transformational for the Eastern Bay of Plenty over the next 3-5 years, and it will deliver over 4000 direct jobs. This will also increase the amount of constructional and residential wastes

The Whakatāne Regeneration Programme aims to reinvigorate Whakatāne's Central Business District, re-establish connections to the riverfront and provide fit-for-purpose infrastructure to support development for the District's marine and tourism economies. This will accelerate economic development in the Whakatāne District by creating new jobs, more training opportunities and attracting private investment. It is estimated that, through these two projects, a total of 930 jobs could be created by 2050 with at least 450 of those roles operational within the next decade.

Initially, these developments will create an increase in construction and other waste such as dredging sediments. It is expected that most if not all of this waste will be handled by private operators. However, much of this (mainly construction waste) may pass through Council's refuse transfer station placing extra demands on this infrastructure. Other wastes such as sediments will require solutions for disposal which are not provided through Council's current services and may only be available out of the District (unless they are created).

These developments provide an opportunity to implement waste minimisation initiatives during the both the construction and operational stages and this should be a significant factor in all related planning processes.

Once these developments are operational it is expected that they will mostly be serviced by private waste operators, but again, most of the waste will pass through Council's refuse transfer station.

5.1.3 Changes in lifestyle and consumption

Community expectations relating to recycling and waste minimisation are forever increasing. It is difficult for Council to meet these expectations when the services rely on markets which are not always available or financially viable. Likewise, 'new minimisation initiatives' may not be viable locally.

Consumption habits affect the waste and recyclables generation rates. For example, while there has been a national trend related to the decline in newsprint, the ongoing growth in electronic devices will ensure that e-waste continues to be a growing waste stream, with many households now having access to the internet through multiple devices. However, waste from areas such as packaged products and appliance ownership could be influenced by current central government changes as outlined above.

This Waste Assessment is being written at the time of the COVID-19 pandemic. This has resulted in significant short-term effects on the District's waste and recycling services some of which are outlined below:

- Refuse transfer stations closed and only accepting 'essential services' waste
- Materials recovery facilities closing and therefore no longer accepting recycling
- Kerbside comingle and glass recycling services suspended
- Approximately 100 percent increase in kerbside collected refuse
- Decrease in construction waste
- Decrease in landfill waste
- Decrease in greenwaste diversion
- Decrease in tourism and private waste operator related waste
- Transfer stations reopening but only accepting glass drop off (no other recycling)
- Significant drop in revenue from refuse transfer station.

The effects of the pandemic on waste and recycling volumes may continue for a number of months. It is possible that there will be a drop in commercial wastes for a longer period as some companies may not be able to continue operating due to financial difficulties during the 'lock-down' period. Likewise the District has and will continue to experience a drop in tourist numbers and related waste volumes.

One other effect of the COVID-19 pandemic has been a significant increase in the number of people working from home. This has resulted in a decrease in office/commercial waste and an increase in household waste. Working from home is becoming more common and the related effects on waste streams are expected to continue long term.

5.1.4 Recycling Markets

Historically, China has been the largest buyer for recyclables and previously purchased over 50 percent of all the world's supply. In July of 2017, China announced restrictions on the import of 24 types of material into the country. The new policy has created issues in the recycling industry with new strict standards for mixed paper and mixed plastic. These materials can still theoretically be imported into China, but they are required to have very low levels of contamination – 0.5 percent. The majority of kerbside recycling systems are not able to produce levels of contamination this low (around 2-4 percent is typical). So, while China has not directly banned imports of recyclable materials, their policies have drastically reduced demand in the biggest market. The reduction in demand has seen prices for these and related grades of

material fall dramatically. Sellers of these commodities have sought other markets, but there is not sufficient capacity in the plants outside of China to process all the materials. The result is that stockpiles are building up, some Councils no longer collect the recyclables they used to and some material may not be able to find an end market. The end result is that international markets for recycled materials have collapsed.

New Zealand can process approximately half of the paper and cardboard that is collected here but only a small proportion of the plastic, with no significant local processing of 3-7 plastics. Like most other countries with kerbside recycling, New Zealand previously sent a lot of its collected recyclables to China, in particular mixed paper and mixed plastic. Paper and plastics are usually two of the most valuable kerbside commodities for recyclers in terms of revenue. Paper because it makes up the largest amount by weight (40-50 percent) and plastic because some grades can command high prices. The large falls in price, and the difficulty in finding markets for these grades of material is therefore severely affecting the economic viability of local collections. This was why Council had to stop collecting plastics grades 3 to 7 in June 2019.

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 the Whakatāne District. These include the WMA, the Emissions Trading Scheme and NZ Waste Strategy.

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 and any review or procurement of services.

Unlike any time before, central government is currently considering a number of significant legislative changes as to how NZ manages its waste. These changes will affect waste management and minimisation during the term of the WMMP but have also made planning difficult in writing this document as the future outcomes are unclear. These are outlined below:

Waste Levy

The Government is proposing to increase the landfill levy and apply it to more types of waste. The levy is currently $10 per tonne of waste, which is low by international standards. The levy is only charged at landfills that take household waste, accounting for around only 40 percent of total waste sent to landfill. Strong calls to increase the levy and expand its coverage have come from local government. The Tax Working Group, the Organisation for Economic Co-operation and Development (OECD), and the New Zealand Productivity Commission have also made similar calls. Increasing the levy will better reflect the full environmental, social and economic costs of waste disposal and encourage materials to be reused and recycled rather than sent to landfill. This will help make our economy more efficient and help create jobs.

The proposals included different models for increasing the levy over time and applying it to different disposal sites. There were also proposals to implement stricter waste data reporting requirements for Councils and waste operators.

Consultation on these changes opened in November 2019 and submissions closed in February 2020. Council took part in two submissions via the Waikato and Bay of Plenty Waste Liaison Group and WasteMINZ TA Forum.

On 15 July 2020 central government announces that they had decided to:

- Level the playing field by expanding the waste levy to cover additional landfill types, including construction and demolition fills (progressively from 1 July 2022). At present the waste levy only applies to municipal landfills that take household waste, with no levy on the remaining almost 90 percent of landfills throughout the country.
- Progressively increase over four years the levy rate for landfills that take household waste from the current $10 per tonne – set in 2009 – to $60 per tonne. The current plan is for first changes to the levy to take effect from 1 July 2021. The changes will also include applying the levy to Class 2 (Construction and Demolition), Class 3 (Managed Fill) and Class 4 (Controlled Fill) landfills as well as addressing farm dumps. Current economic conditions will be considered before implementation timelines are confirmed later this year.
- Collect better data about the waste we are creating, and how we are disposing of it, so ensuring our waste can be better managed.
- Invest the additional revenue from the waste levy in initiatives that support waste reduction, such as building New Zealand-based recycling infrastructure. This includes helping businesses such as Green Gorilla, which takes construction, commercial and industrial waste materials and re-purposes them so they are not thrown away.

These changes will largely take place during the term of this WMMP.

Waste Data

Along with changes to Waste Levy, legislative changes for waste data reporting will also be implemented over the next few years. This will require waste operators, refuse transfer stations, landfills and councils to submit data on waste streams, sources, types and amounts. It is expected that this reporting will utilise the National Waste Data Framework.

Container Return Scheme

An estimated two billion glass, plastic, aluminium, paperboard and other single use drink containers are consumed each year in New Zealand. While many containers are recovered and recycled, many others end up in landfills, as litter on streets and in streams, the beach and other public spaces.

Overseas experience shows a refundable deposit puts the value back into recycling and results in a big increase in returned containers. A scheme could lift recovery and recycling rates for numbers of beverage containers in New Zealand from around 45 percent – 58 percent to 80 percent, or more. There are now at least 40 CRS schemes operating globally. Most Australian states have a CRS as do parts of Europe and the United States.

The Container Return Scheme (CRS) project will help New Zealanders to make a difference in reducing waste. A container return scheme would require beverage containers - such as plastic PET bottles - to carry a refundable deposit, for example 10 to 20 cents (or more). The deposit is redeemed when the container is returned to a collection depot or other drop-off point.

In addition to minimising waste and increasing recycling, the project aims to:

- Make it easier and convenient to return containers anywhere in New Zealand
- Design a solution that is cost effective and efficient
- Improve the quality and marketability of recyclables
- Create new opportunities for employment, community participation and fund-raising for charities.

One of the considerations in designing a CRS will be how it will affect existing kerbside collections. Kerbside collections would not disappear, but a scheme is expected to affect the types and amounts of recyclables collected.

Proposals for the scheme are been worked on by Auckland Council and Marlborough District Council with MfE.

It is expected that the scheme will be implemented in 2022.

Product Stewardship

The WMA allows regulated product stewardship that would make producers responsible for specified problematic products at the end of life, and ensure the costs of proper waste management are paid by producers and consumers, not communities and the environment.

Central government has issued proposals for co-design of regulated product stewardship schemes, including which products are proposed and design guidelines for accredited schemes. The overall intent of the proposals is to reduce the risk of harm from waste and increase economic and social benefits from a more circular use of resources.

In July 2020 central declared six priority products these are:

- Tyres
- Electrical and electronic products (e-waste)
- Refrigerants and other synthetic greenhouse gases
- Agrichemicals and their containers
- Farm plastics
- Single-use plastic packaging

Producers and retailers of these products now have to devise product stewardship schemes.

Basel Convention Amendment 2019

Basel Convention amendment (10 May 2019) on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, restricts the shipment of hard-to-recycle plastics to poorer countries. Exporting countries need to obtain consent from countries receiving contaminated, mixed or unrecyclable plastic waste.

All New Zealand's imports/exports of domestic plastic waste will require a permit. This amendment will be implemented on 1st January 2021 and it will make export of plastic and other recyclables even more restrictive.

Central government has announced that consultation on this amendment will occur in May 2020 at the time of writing this assessment. Therefore the final outcomes are currently unknown.

National Infrastructure Strategy

MfE have commissioned consultants to prepare a stocktake of infrastructure nationally, identify gaps in provision, and work with key stakeholders to propose options to meet these gaps. Alongside this is a more detailed investigation into fibre specifically (paper and cardboard) which will set out an implementation roadmap to improve the diversion of fibre from landfill.

These projects will be completed by early 2021 and will provide councils with a framework for future infrastructure provision with some certainty on investment and delivery.

In July 2020 MfE announced a $124 million investment for on-shore recycling infrastructure. This is a non-contestable fund and although not publicised decisions have already been made where the money will be invested.

Waste Minimisation Act 2008

Central Government are planning a review of the WMA over the next few years and the unknown outcomes from this will effect solid waste services within the district.

Litter Act 1979

Central Government are planning a review of the Litter Act over the next few years and the unknown outcomes from this may effect council responsibilities in relation to solid waste.

NZ Waste Strategy

A review of the NZ waste Strategy is also planned by central government which will may effect services within the district. It is expected that the new strategy will be more target based which will place more responsibility on council services.

5.1.6 Summary of Future Demand factors

The analysis of factors driving demand for waste services in the future suggests that changes in demand will occur over time with one main factor been a possible increase in construction activity. If new waste management approaches are introduced, this could shift material between disposal and recovery management routes.

Population and economic growth will drive moderate increases in the waste generated. Change in demand is likely to come about through changes within the industry, with economic and policy drivers leading to increased waste diversion and waste minimisation.

At this time the effects of legislative changes listed in 5.1.5 above on councils services is unknown. It may be that refuse transfer stations act as collection points for priority products and kerbside recycling collections may be influenced by container return schemes.

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 in lifestyle and community composition, an increasing awareness of the costs and environmental impacts of waste disposal, and changes in central government policy.

Waste planning at a territorial authority level should aim to achieve effective and efficient waste management and minimisation. For this purpose the following 'gaps' have been identified:

- A significant portion of organic waste going to landfill mainly through food waste
- A lack of waste services including kerbside collections and recycling available to some rural properties

- A significant amount of construction and demolition waste going to landfill, mainly through commercial operations
- Licensing provisions in the Council waste bylaw not yet implemented, and so little data available on private operator activities and non-Council waste streams in general
- Multi-use development provisions in the Council waste bylaw not yet implemented and therefore possibility of increasing waste minimisation in these residences
- Known and unknown outcomes of legislative changes currently been considered by central government which will place more responsibilities on council services and resources
- Continued contamination of recycling and greenwaste waste streams
- Lack of standardised waste data which would allow waste minimisation performance to measured locally and nationally
- Farm waste management is poorly understood and an area for potential focus in the future
- Non-Council controlled waste is poorly understood
- Lack of information on the amount and type of waste which is going to unregulated disposal (farm pits, clean fill and burning).
- Climate Change policy and actions will place more demand on council solid waste services

5.2.1 Waste Streams

Priority waste streams that could be targeted to further reduce waste to landfill would include:

- Food waste from both residential and commercial properties
- Industrial and commercial recyclables
- Non-Council controlled waste
- Farm Waste
- Rural residential waste (properties without kerbside services)
- Construction and demolition waste

5.2.2 Hazardous Wastes

Potentially hazardous household wastes such as paint, oil and chemicals are collected at the Whakatāne and Murupara RTS. This service is currently free to residents and is restricted to 'household hazardous wastes'. Commercial volumes are referred to commercial hazardous waste operations.

Future options for managing hazardous wastes include:

- Reviewing management procedures (including charging for drop-off) at transfer stations for hazardous wastes
- Undertaking more detailed monitoring and reporting of hazardous waste types and quantities
- Improving public information about correct procedures for managing hazardous wastes including medical waste and asbestos

- Implementing bylaw provisions for licensing collectors and data. This will improve information on hazardous waste movements and enable enforcement of standards.

5.2.3 Service Review

Many of the Council's solid waste management contracts will expire during the term of the next WMMP. Kerbside collections, operation of transfer stations, haulage of residual waste to landfill and disposal are all included in one contract. This contract expires in 2024 with the option of a further seven year extension. Several aspects of the service need reviewing to prepare for expiration and that of other contracts. 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.

5.2.4 Medical waste

Medical waste can be an issue at home and in medical facilities. Generally it is comprised of:

- Hazardous waste (which can be sharps, such as needles, or non-sharps such as infectious waste or radioactive)
- Controlled waste (such as potentially infectious bodily fluids)
- Non-hazardous waste (which is general waste or recyclables).

At home, non-hazardous waste can generally be managed through usual general refuse and recycling services. However, the management of hazardous and controlled wastes at home can be difficult, and with the increasing prevalence of in-home medical care, this is becoming a more significant problem. Council has provided extra refuse bins at home for dialysis patients to dispose of their medical waste, but this presents health and safety risks for others. Ideally, in-home medical care would include provision for appropriate handling and disposal of medical wastes. Council is also aware that some medical facilities place small amounts of medical waste in kerbside bins and advice has been given to individual facilities over double bagging these small amounts.

For healthcare in medical facilities, The Pharmacy Practice Handbook states:

4.1.16 Disposal of Unused, Returned or Expired Medicines Members of the public should be encouraged to return unused and expired medicines to their local pharmacy for disposal. Medicines, and devices such as diabetic needles and syringes, should not be disposed of as part of normal household refuse because of the potential for misuse and because municipal waste disposal in landfills is not the disposal method of choice for many pharmaceutical types. Handling and disposal should comply with the guidelines in NZ Standard 4304:2002 – Management of Healthcare Waste.

While Council is not responsible for the provision of medical waste management services for either home-based care or medical facilities, it would be beneficial for Council to work proactively with DHBs and other medical service providers to ensure that appropriate services are being offered and put in place.

5.2.5 E-Waste

As advised above central government is currently working on a proposed national product stewardship scheme for e-waste. CReW provide e-waste collection and recycling services and Council refer customers to them for this service. However, it is mostly cheaper to dispose of the items through the transfer stations (and landfill) than it is to pay the 'recycling fee'.

Nationally e-waste recycling companies tend to cherry pick the more valuable items such as whiteware and mobile phones. As a result the more difficult or expensive items to treat such as CRT TVs and domestic batteries will often still be sent to landfill.

5.2.6 Recycling Infrastructure

There is very little recycling infrastructure in the region and recyclables are currently transported out of the region for processing. Should the increase in waste levy be implemented this will create funds for national and regional recycling infrastructure. However, this will not be a 'quick-fix' and it is expected that there will be excess material on the market for the term of this WMMP.

On 15 July 2020 central government announced $124 million investment in recycling infrastructure as well as waste levy increase which will also provide financial support for this sector. The $124 million will include plastic recycling and reprocessing plants, weighbridges for improved waste data collection and improved material and community resource recovery plants.

5.2.7 Organic Waste Collections and Infrastructure

As advised above Council currently operates a greenwaste composting facility and diverts a significant amount of organic waste through this. It is not expected that this arrangement will change during the term of this WMMP. However, Council will continue to investigate and consider diversion opportunities for food waste.

A large scale anaerobic digester for food waste is currently been considered in Reporoa (130Km distance) and this may be an opportunity that Council can utilise. Two regional councils (Tauranga and Western Bay) are currently undergoing procurement for food waste collections and processing and the outcome of this may also give rise to opportunities for Whakatāne.

5.2.8 Disposal Infrastructure

As discussed earlier in Section **Error! Reference source not found.**1, capacity of the landfill currently used by the Council is an issue and 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 and disposal contract in place until 2024 (2031 with an extension), increased Emission Trading Scheme and proposed Waste Levy charges will increase landfill costs significantly in the future.

5.2.9 Murupara Refuse Transfer Station

Murupara Refuse Transfer Station does not charge for drop-off of any waste streams. As such, it is the only 'free' Council-run refuse transfer station in the whole of the Bay of Plenty and Waikato districts. The amount charged in general rates for Murupara and the surrounding area does not meet the costs of operating the transfer station and it is subsidised by residents throughout the District.

With increasing operational costs, emission trading scheme charges and proposed waste levy charges Council needs to consider how this facility is financially managed. There is already evidence that some residents are driving distances to use Murupara Transfer Station to avoid disposal fees in Whakatāne and out of the District, this is behaviour is likely to occur more often if waste levy fees increase.

5.2.10 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. The implementation of provisions in Councils bylaw for waste operator licencing and data collection, along with central government's proposals for data collection, would help address this issue.

6.0 Initial review of the 2015 WMMP

As required by the WMA, Council has carried out a review of their last WMMP, which was adopted in 2015.

6.1 Key Issues

The key issues identified in the preparation of the last WWMP were:

- Waste being sent to a landfill far from the District that could be recycled through the existing collection services, or composted at home
- A large proportion of waste going to landfill is organic waste – this is a particular problem due to the negative environmental impacts
- The District experiences varying demands in waste management requirements, which require flexible and varied solutions. Examples include summer visitors, rural customers and businesses.
- Many contracts are expiring during 2016 or at other times during the period of this Plan, which will give the Council the opportunity to test the market and potentially alter services or provide new services. However, there is also a risk that service costs could increase when contracts are renewed, particularly with the landfill disposal contract, which expires in 2020.

These issues were addressed in the 2015 WMMP action plan the results of which are outlined in the table below.

Table 8 – Review of the 2015 WMMP Action Plan

Education and Information	
Action	**Result**
Continuing support for Pare Kore, Paper for Trees, Conscious Consumers, CReW, Keep Whakatāne Beautiful and Pride Whakatāne	Completed. Council continues to support all except Conscious Consumers.
Expand support for school education initiatives	Completed. New contract for school education was implemented in 2015 and extended again in 2018.
Support further implementation of Agrecovery in the District	Completed. Support continues.
Expand general waste education and marketing activities, in particular to rural and agricultural sectors	Completed.

In all cases, work in partnership with other Councils where possible to increase efficiency and reduce costs	Completed. Council has collaborated with other Councils on waste projects, such as joint procurement with Kawerau and Rotorua Councils for waste services.
Service Review and Procurement	
Action	**Result**
Conclude the service review requirements of the amended Local Government Act (LGA) by conducting a cost-effectiveness review of all contracts expiring within the next two years (kerbside collections, transfer station operations and haulage of waste to landfill).	Completed in 2016.
Procure new waste services and use this process to assess the alternative management options available in the market for recycling, organic waste, residual waste collections, treatment, and processing including transfer station operations	Completed in 2016.
General	
Action	**Result**
Review the existing solid waste bylaw to enable closer monitoring of wastes in the District	Completed. New bylaw implemented in 2018.
Continue development of the green waste processing site, which will enable increased green waste composting in the District.	Completed. Facility became operational in October 2016.
Continue to support regional and cross-regional partnerships and liaison groups, including the Bay of Plenty and Waikato Waste Liaison Group and the Bay of Plenty Waste Resources Advisory Group.	Completed. Council has also collaborated with Bay of Plenty Local Authority Shared Services, and Waste Management Institute of NZ Territorial Authority Forum.
Monitoring and Reporting	
Action	**Result**
Waste streams will be monitored	Completed
Reporting	Completed

7.0 Statement of options

This Section outlines a range of options available to the Council to address the key issues that have been identified in this Waste Assessment in order to meet future demand. Options presented in this section would need to be fully researched, and the cost implications understood before being implemented.

7.1 Key Issues to be addressed by the WMMP

Addressing the key issues identified below will ensure that Council is meeting their statutory obligations, and improving waste management and minimisation in Whakatāne.

- A significant proportion of residential and commercial waste going to landfill is organic food waste, which could be diverted for composting or alternative processing.
- More recyclables could be diverted from both domestic and commercial properties rather than going to landfill.
- A significant proportion of commercial and home DIY construction and demolition waste which could be diverted for re-use is going to landfill. There is also a lack of facilities to recycle or otherwise divert construction and demolition waste, in particular with a predicted increase in construction activity.
- There is a lack of understanding, regulation and disposal options for medical waste in the District.
- Current rural and farm waste disposal practices are not fully understood with limited options.
- Licensing provisions in the Council waste bylaw are not yet implemented, and so there is little data available on private operator activities and non-Council controlled waste streams.
- Licensing provisions in the Council waste bylaw are not yet implemented for multi-use developments so waste minimisations practices vary and are not fully understood with some frustrations from residents not been able to recycle.
- Central government policy is undergoing current changes which will have significant effects on Council's waste minimisation and management practices which makes it is difficult to plan ahead for this WMMP. These changes will also place new responsibilities on council services and resources.
- Contamination of kerbside recycling and greenwaste continues to be a significant issue.
- There is no national standardisation of waste data, which makes Council's waste minimisation performance hard to measure.
- There is a lack of data on waste been deposited in 'uncontrolled' sites such as clean fills and farm dumps.
- Murupara Refuse Transfer Station presents a financial risk to Council as it does not charge and fees and costs will increase significantly due to proposed Waste Levy increases.
- A progressive increase in waste levy charges from $10 to $60 per tonne over a 4 year period from 2021 to 2025, along with increases in ETS charges.
- Climate Change policy and actions will place more demand on council solid waste services

The tables below sets out the options for Council to address these key issues.

7.2 Regulation

Table 9 – Regulation Options for Solid Waste Management

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
Implement the waste bylaw provisions for waste operator licensing and data collection	Council will have access to data for waste it does not control and a better picture of waste flows for the whole District. This will allow Council to meet its requirements under the WMA. Monitoring would encourage more waste diversion and good practice from private operators.	There would be a cost to waste operators and compliance requirements, which may create 'kick-back'. Council is currently working with BOPLASS and the regional waste liaison group on a region-wide solution to implementing these provisions. The licensing and reporting requirements will need to work with proposed central government data reporting requirements if implemented.	Regulator, but administration and enforcement could be contracted to a third party on a regional basis. Providing small contractors with assistance and education. Data collection, reporting and submission to central government.
Implement the waste bylaw provisions for multi-use developments	Council will ensure multi-use developments are practicing waste minimisation. Residents' concerns in these developments over a lack of access to recycling will be addressed.	A 'standard' for waste minimisation would be in place for any future developments. Ensures waste from such developments is better managed and recycling increased.	Regulator Education will be required to advise these developments of the options (and costs) available. It may be possible to use Waste Levy Funding to assist with costs, e.g. sets of bins for each residence.

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
	There would be a cost to residents to implement and maintain any recycling systems.	New recycling infrastructure and increased market demand is required to justify any changes to enforce recycling.	
Implement any changes to the WMA or solid waste policies made be central government.	Waste Data collection and reporting could be standardised nationally. Priority products and product stewardship schemes could be legislated. A Container Return Scheme could be implemented. Increases to Waste Levy charges and application to more diverse sites could be implemented.	It is unknown what the outcome of proposed will be during the term of this WMMP. Any of the proposed changes will effect current waste minimisation practices, service provision, legislative requirements and costs. Therefore, this WMMP must be 'flexible' to adapt to these changes.	To assess, adapt to, educate and implement and central government policy changes.

7.3 Measuring and Monitoring

Table 10 – Measuring and Monitoring Options for Solid Waste Management

Option	Issues Addressed	Comment & Analysis Of Impact On Future Demand	Council's Role
Status quo – occasional audits, participation surveys, and monitoring of waste flows through contracts	Continues to assess effectiveness of current practices.	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, industrial and rural waste.	Raise awareness of waste management in these sectors. Identify areas where additional services could be provided, or certain customer groups targeted. Diversion of waste from landfill could be increased. Potential for reduced air and water impacts if burning and fly tipping practices are reduced. Landfill transport and disposal costs could be reduced. May be additional costs for new programmes put in place.	Addresses current gaps in understanding on certain waste streams. Better data could enable Council to improve and target services more appropriately. Gives a clearer understanding of how those not using Council services are managing their waste.	Council to initiate and oversee research, studies and audits and feed results in to future iterations of WMMP and action plans.

Implement the National Waste Data Framework into Council's internal and external reporting.	Council's reporting will align with a nationally recognised reporting system. Will allow performance to be measured nationally.	Will align with central government's proposed data requirements. Will align with proposed waste bylaw operator licensing and data requirements.	Implement the system and educate users.

7.4 Education and Engagement

Table 11 – Education and Engagement Options for Solid Waste Management

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
Status quo – occasional engagement with the community and industry, continue schools education, website improvements, occasional waste minimisation initiatives etc.	Awareness of waste issues and behaviour addressed but not changed significantly. Waste reduction may change but only slightly as a result of individual waste minimisation projects. Education programmes will continue to support and extend positive behaviours that reduce environmental impact.	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	Maintain existing arrangements.
Extend existing communication and education programmes to focus on additional target audiences e.g. farmers, builders and trades, businesses, medical facilities and less engaged sectors of the community.	Opportunity for community and industry to improve their engagement, understanding, and awareness of waste issues, and build closer relationships with other agencies. Education programmes would seek to increase positive behaviours that reduce environmental impact.	Improved understanding of needs in the District and service gaps, and who is best to address them. Increased responsibility for waste management within the community.	Council to produce and deliver more information, and work more closely with the community and industry.

7.5 Collection and Services

Table 12 – Collection and Service Options for Solid Waste Management

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
Status Quo - continue existing services. Procure new contracts as required that continue existing services only.	Awareness of recycling issues and behaviour may not change significantly. Refuse, recycling and greenwaste kerbside services will continue with no change. Food waste will continue to go to landfill.	No impact – status quo.	Continue existing services
Investigate and implement a District wide food waste collection and processing solution and continue refuse, recycling and greenwaste kerbside services.	Food waste would be reused to create a compost or as an energy source. Would divert a significant percentage of organic waste from kerbside collections and landfill.	Would reduce waste quantities to landfill and environmental impact of food waste disposal. There would be a financial impact on ratepayers. Residents without kerbside collections may not have access to a food waste service.	Investigate collection models and processing opportunities for food waste collections. Carry out financial analysis of solutions to collecting/processing. Work with other Councils and waste groups on food waste solutions. Procure and implement collection and processing services. Educate residents on any new service.

7.6 Infrastructure

Table 13 – Infrastructure Options for Solid Waste Management

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
Create a Resource Recovery Park (RRP) in the District to provide more opportunities for diversion from landfill.	Extend provision for drop-off and recovery. Provide diversion methodology for additional waste streams.	Accommodate some future demand and allow additional diversion. This could be a new site or alterations to Whakatāne RTS,	Councils would provide capital funding (through rates, waste levy funds or external funding) to implement a RRP and drop-off facilities. The RRP could be done through a direct service arrangement, or by subleasing space to the private or community sectors.

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
Implement fees at Murupara Refuse Transfer Station	Create equal charging regime throughout the District and address the issue of residents throughout the District subsidising Murupara area waste costs. Make residents aware of the true environmental and financial costs of waste and promote recycling and diversion. Negate residents from within and outside the District taking advantage of free disposal – behaviour which will increase with the rise in Waste Levy and Emission Trading Scheme costs and transfer station/landfill fee increases elsewhere.	Kick-back from Murupara residents and surrounding area would be expected and fly-tipping may increase. Capital costs would be required to implement a weighbridge and other required equipment. Costs of Murupara waste operations would be recovered and not subsidised from rates elsewhere.	Complete a cost/benefit analysis of implementing charging with fees the same as Whakatāne RTS. Provide capital funding for weighbridge and other equipment through rates, Waste Levy or other external funding. Enforce the Litter Act and Waste Bylaw against fly-tipping. Implement charging, educate staff and community on new arrangements.

7.7 Leadership and Management

Table 14 – Leadership and Management Options for Solid Waste Management

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
Work with other Councils, waste liaison group and WasteMINZ TA Forum to standardise communication and education material, present consistent messages and advocate to central government on waste related issues.	Greater sharing of knowledge and experience, and improved cooperation between communities Potential to establish waste minimisation initiatives that WDC may not have the capability to do alone. Opportunity to achieve economies of scale and enhance local economic development through enhanced local and regional processing. Collaborative submissions on central government waste policies create 'louder' and consistent messaging.	There are benefits from working closely with neighbouring authorities to share knowledge and experience and possibly infrastructure such as organic waste processing, recycling infrastructure or community resource centres.	Establishing links and communication with other Councils and relevant bodies. Active participation in collaborative projects and submissions.
Implement proposed central government policy changes. This may include changes to the WMMP and related actions,	Council implements any relevant changes implemented by central government.	Residents are made aware of any changes that may affect their behaviour and services. Council implements required changes in a timely manner.	Keep up to date on policy changes. Assess effects on Council services and operations and implement required changes.

Option	Issues Addressed	Comment & Analysis of Impact on Future Demand	Council's Role
education, changes in services, fees and infrastructure.			
Create a full-time waste minimisation role within Council to increase related activities and assist with implementing proposed central government changes.	Council have more internal resources to implement waste minimisation actions. More waste minimisation initiatives will be implemented, including working with Provincial Growth Funded projects. Central government waste policy changes will be implemented more effectively.	Increased waste minimisation initiatives and diversion opportunities. Effective implementation of WMMP actions and central government policy. Role could be partly or fully funded from waste levy funds.	Create new full-time role and disestablish the current part-time role.

7.8 Summary Table of Potential Scenarios

The above options can form an almost infinite number of combinations. To simplify consideration of the options, high level scenarios with logical combinations of the above options are laid out in the table below. The scenarios are for illustration and can be amended.

Table 15 – Summary Options for Solid Waste Management

Scenario Name	Regulation	Measuring and Monitoring	Education and Engagement	Collection and Services	Infrastructure	Leadership and Management
Status Quo	Implement central government policy changes	Continue current monitoring and implement NWDF.	No change	No change	No change	Continue liaising with other councils and bodies. Implement central government policy changes.
Regulatory	Implement bylaw for waste operator and licensing and multi-use developments. Implement central government policy changes	Continue current monitoring and implement NWDF.	No change	No change	Implement charging at Murupara RTS	Continue liaising with other councils and bodies. Implement central government policy changes.
Educate and Engage	Implement bylaw for waste operator and licensing and multi-use developments. Implement central	Continue current monitoring and increase to target areas. Implement NWDF.	Status Quo plus extending education and engagement programmes to target areas.	No change	Implement charging at Murupara RTS	Continue liaising with other councils and bodies. Implement central government policy changes. Create

	government policy changes					full-time waste minimisation role.
Increase Diversion	Implement bylaw for waste operator and licensing and multi-use developments. Implement central government policy changes	Continue current monitoring and increase to target areas. Implement NWDF.	Status Quo plus extending education and engagement programmes to target areas.	Continue current services plus investigate and implement food waste service.	Implement charging at Murupara RTS	Continue liaising with other councils and bodies. Implement central government policy changes. Create full-time waste minimisation role.
Maximum Diversion	Implement bylaw for waste operator and licensing and multi-use developments. Implement central government policy changes	Continue current monitoring and increase to target areas. Implement NWDF.	Status Quo plus extending education and engagement programmes to target areas.	Continue current services plus investigate and implement food waste service.	Implement charging at Murupara RTS. Create a Resource Recovery Park.	Continue liaising with other councils and bodies. Implement central government policy changes. Create full-time waste minimisation role.

8.0 The Council's intended role

8.1 Statutory Obligations

Councils have a number of statutory obligations and powers in respect of the planning and provision of waste services. These include the following:

- Under the WMA each Council "must promote effective and efficient waste management and minimisation within its District" (s 42). The WMA requires TAs to develop and adopt a Waste Management and Minimisation Plan (WMMP).
- The WMA also requires TAs to have regard to the New Zealand Waste Strategy 2010. The Strategy has two high levels goals: 'Reducing the harmful effects of waste' and 'Improving the efficiency of resource use'. These goals must be taken into consideration in the development of the Council's waste strategy.
- Under Section 17A of the Local Government Act 2002 (LGA) local authorities must review the provision of services and must consider options for the governance, funding and delivery of infrastructure, local public services and local regulation. There is substantial cross over between the section 17A requirements and those of the WMMP process in particular in relation to local authority service provision.
- Under the Local Government Act 2002 (LGA) Councils must consult the public about their plans for managing waste.
- Under the Resource Management Act 1991 (RMA), TA responsibility includes controlling the effects of land-use activities that have the potential to create adverse effects on the natural and physical resources of their District. Facilities involved in the disposal, treatment or use of waste or recoverable materials may carry this potential. Permitted, controlled, discretionary, non-complying and prohibited activities and their controls are specified within District planning documents, thereby defining further land-use-related resource consent requirements for waste-related facilities.
- Under the Litter Act 1979 TAs have powers to make bylaws, issue infringement notices, and require the clean-up of litter from land.
- The Health Act 1956. Health Act provisions for the removal of refuse by local authorities have been repealed by local government legislation. The Public Health Bill is currently progressing through Parliament. It is a major legislative reform reviewing and updating the Health Act 1956, but it contains similar provisions for sanitary services to those currently contained in the Health Act 1956.
- The Hazardous Substances Regulations 2017 provide minimum national standards that may apply to the disposal of a hazardous substance. However, under the RMA a regional Council or TA may set more stringent controls relating to the use of land for storing, using, disposing of or transporting hazardous substances.
- Under current legislation and the Health and Safety at Work Act, the Council has a duty to ensure that its contractors are operating in a safe manner.

The Council, in determining its role, needs to ensure that its statutory obligations, including those noted above, are met.

8.1 Climate Change

Whakatāne District Council acknowledges the role we need to take to respond to climate change. In 2019, the Council adopted a set of climate change principles, which provide the foundation for our climate change response.

At the time of writing this assessment council is consulting on a set of climate change actions plans, one of which is; "Waste and Circular Economies". It is intended that the agreed actions in this plan will be included in the WMMP action plan.

9.0 Statement of proposals

Based on the options identified in this Waste Assessment and the Council's intended role in meeting forecast demand a range of proposals are put forward. Actions and timeframes for delivery of these proposals are identified in the Draft Waste Management and Minimisation Plan.

It is expected that the implementation of these proposals will meet forecast demand for services as well as support the Council's goals and objectives for waste management and minimisation. These goals and objectives will be confirmed as part of the development and adoption of the Waste Management and Minimisation Plan.

9.1 Statement of Extent

In accordance with section 51 (f), a Waste Assessment must include a statement about the extent to which the proposals will; (i) ensure that public health is adequately protected, (ii) promote effective and efficient waste management and minimisation.

9.1.1 Statement of Protection of Public Health

The Health Act 1956 requires the Council to ensure the provision of waste services adequately protects public health.

The Waste Assessment has identified potential public health issues associated with each of the options, and appropriate initiatives to manage these risks would be a part of any implementation programme.

In respect of Council-provided waste and recycling services, public health issues will be able to be addressed through setting appropriate performance standards for waste service contracts and ensuring performance is monitored and reported on, and that there are appropriate structures within the contracts for addressing issues that arise.

Privately-provided services will be regulated through local bylaws.

Uncontrolled disposal of waste, for example in rural areas and in clean fills, will be regulated through local and regional bylaws.

It is considered that, subject to any further issues identified by the Medical Officer of Health, the proposals would adequately protect public health.

9.1.2 Effective and Efficient Waste Management and Minimisation

The Waste Assessment has investigated current and future quantities of waste and diverted material, and outlines the Council's role in meeting the forecast demand for services.

It is considered that the process of forecasting has been robust, and that the Council's intended role in meeting these demands is appropriate in the context of the overall statutory planning framework for the Council.

Therefore, it is considered that the proposals would promote effective and efficient waste management and minimisation.

10.0 Appendices

10.1 Appendix 1: Consultation with Medical Officer of Health

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 below. The following table outlines the issues raised by the MOH and the Council's response.

Table 16: MOH Response to the Draft Waste Assessment and Council's Response.

Issue raised by MOH	Council's Response
Look at ways to minimise and reduce the impacts of disaster waste events	WDC was involved in the creation of the National Disaster Waste Management Plan. Work is still been undertaken to turn this into an online tool, although it is currently available in document format. WDC will use this plan in any applicable future disaster.
Improve data on all waste within the district.	WDC is working on a collaborative with Bay of Plenty and Waikato councils on the implementation of a regional waste licensing model. This will result in more data locally and regionally. Current central government proposals also include the implementation of waste data recording for waste operator and facilities which will improve data collection. This includes the National Waste Data Framework which will WDC is currently working on implementing.
Waste services should be equally available throughout the district and charges should not vary.	Council acknowledges that some rural areas do not receive kerbside services and are not near refuse transfer stations. This is a difficult balance to address as demand from these areas does not always make service provision financially feasible. Kerbside collections are charged as a targeted rate and those properties that do not received them are not charged. There is a general rate element for waste services and this represents the costs of dealing with non-kerbside waste on a district wide basis.
Assessment of clean fill sites to ensure they are correctly managed.	Council agrees with this comment but sees this responsibility mainly lying with the regional council. The central government changes in relation to the Waste Levy may also result in work to identify all clean fills.
Continued waste education.	Council intends to continue with the school waste education programme and is also proposing to extend education activities in the new WMMP.
Explore food waste composting opportunities.	Council agrees that food waste is a waste stream that needs addressing and is proposing actions for this in the WMMP.

Issue raised by MOH	Council's Response
Lack of information on rural waste services.	See comment above on rural waste services. Council acknowledges there is still a lock of data on rural waste and this is a national problem. Through waste data licensing and proposed central government policy changes, it is hoped that this area will be addressed.
Consider free waste services for all residents.	Council does not agree with this proposal. Residents need to have an understanding of the environmental and financial implications of their waste. If waste services are free this encourages a buy-use-throw away society and gives the impression that there is no price to pay for producing waste, this also does not encourage waste minimisation.

Medical Officer of Health Response to Draft Waste Assessment

TOI TE ORA
PUBLIC HEALTH

BAY OF PLENTY

Toi Te Ora Public Health
PO Box 2120
TAURANGA 3140

25 June 2020

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

Dear Nigel

Whakatane District Council Waste Management 2021 – 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, for example, by encouraging vermin which carry disease, creating odour, or contaminating land and water. This is why waste management is a core Council sanitary service necessary to protect public health.

The draft assessment is a systematic, clear and candid 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 to guide the direction of Council's waste management priority actions.

1.2 Background
I note the three main reasons for not achieving the waste reduction targets as planned and acknowledge the impact that the Edgecumbe flood event had on this. Although Council has not met their target, I wish to recognise Council's ability to maintain the percentage of waste diverted from landfill when taking into consideration the three main reasons discussed in the assessment. Furthermore, I wish to acknowledge the weight per capita for Whakatane has increased 18% since 2013/14 compared to 48% nationally. These are significant achievements and should not be overlooked. The Whakatane weight per capita is about half that of the national weight per capita in 2018/19 which also is a significant achievement.

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1.4 Scope

Flood events generate large volumes of landfill waste and are expected to increase in frequency and severity due to climate change. I suggest the assessment highlights this issue and looks to ways of minimising the waste generated and reduce the impacts and future demands on waste services.

The Medical Officer of Health provided comment on previous waste assessments highlighting the need for Council to know about all waste generated in their district. This is because to protect health it is necessary to have good data on the volume and type of waste that passes through a transfer station as well as waste that does not.

Council has the ability to introduce a waste operator licencing system to support data collection. If this is the mechanism Council intends to use to improve data and information, I wish to see headway to ensure Council is aware of how all waste generated in its district is managed. Alternatively, I would like to see other options included to improve the quality of information on the volume and types of waste.

1.5 Overview of waste and recycling systems in Whakatane, 3.1 Council contracted services and 3.2 other programmes and services

Improperly managed waste in an urban area is likely to quickly lead to situations that cause a nuisance and potentially harm the health of many people. Measures to prevent this include council services that enable and encourage people to manage waste appropriately, for example, frequent and affordable collection services and conveniently located transfer stations. Whereas in rural areas improperly managed waste is likely to impact only a few people in the short term while in the long term contaminate the environment that leads to a situation which may harm the health of many people. For the protection of human health both situations need equitable waste services that enable and encourage people to manage waste appropriately to protect everyone's health.

The provision of services, and charges levied for waste services should not vary depending where in the District people are located. Waste services are a public service aimed to protect public health for the greater good of the entire district irrespective of where people are located. This is why equal service provision and levies promote good health and I encourage Council to explore a rating system which spreads more of the cost over all ratepayers.

I acknowledge that Council has extended its programmes and services from the previous waste assessments to support good waste management and minimisation practices. I also acknowledge that council provides regular waste collection service and kerbside recycling to 96% of residents, an increase of approximately 2% from the 2014 assessment period. Whenever possible this proportion needs to be increased to increase confidence that waste is properly managed and the public is protected.

2.1 Disposal facilities

I am pleased to see that Council has secured a location to dispose the community waste until 2024 with an option to extend to 2031. Through Council's collaboration both regionally and nationally I consider local solutions to disposal facilities a priority project. This position is reinforced in section 5.2.2 Recycling infrastructure where transport costs are the key issue and development of more local recycling infrastructure would assist in this regard. This is particularly relevant when consideration is given to national and regional responsibility of councils to support the purpose of the Resource Management Act (safeguarding the life supporting capacity of the air, water, soil and ecosystems) and an all government approach required to achieve the United Nations Sustainable Development Goals. Two goals are specifically relevant here, take urgent action to combat the impacts of climate change, and ensure sustainable consumption and production patterns.

2.2 Cleanfill facilities

The assessment indicates that there are no known consented cleanfill sites in the district, however, there are some non-consented sites in operation. Although non-consented, I would like to see an assessment that reassures me that these sites are appropriately managed and contaminated cleanfill is not disposed of.

3.5 Waste education

I am pleased to see that Council opportunities to stimulate beneficial waste practices in the district through waste education have been extended over recent years. Education is an effective tool (when combined with access and affordability) to prevent ill health and minimise the risk of disease and injury.

4.3 Composition data and diversion potential from council kerbside collection.

In feedback to the 2010 and 2014 waste assessment the Medical Officer of Health indicated support to give food waste high priority for diversion from landfill and this position has not changed. I note that activity in this area may change with neighbouring councils investigating and tendering for food waste services. I encourage Council to continue to explore food waste 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 am supportive 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 on good composting practices, providing composting facilities which are professionally managed and operated (such as those operated by Council), and providing sufficient land through district urban planning for individuals to compost in the urban environment.

4.6.2 Rural waste management sources

The 2014 assessment and this assessment suggest there is an adequate level of service provision to rural areas, yet the assessments lack the necessary background information on waste management in rural areas. It would be useful for Council to know the number of

rural residents who are provided with private waste services, for example, and how many deliver their waste directly to the transfer stations. I suggest further information is necessary to confirm adequate service provision.

5.2.9 Murupara Refuse Transfer Station

Waste collection is a method employed to ensure that waste ends up in the right place and reaches a landfill or transfer station to prevent contamination of the environment and harm human health. The provision of 'free' waste and recycling drop off for all waste streams at Murupara refuse transfer station is protective of health because it encourages people to minimise and dispose waste safely. This is evident by residents coming from across the district to utilise the free Murupara transfer station. Therefore I am very supportive of this initiative. Because cost should not be a barrier to preventing harm I recommend that Council consider 'free' waste services to residents for all their facilities.

8.0 Protection of public health

To ensure waste is managed in a way that is protective of health the key issues identified in this waste assessment and the issues raised in this letter need to be addressed through the waste management and minimisation plan.

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.

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

Yours sincerely

Dr Neil de Wet
Medical Officer of Health

10.2 Appendix 2: Whakatane Refuse transfer Station Fees and Charges 2019/20

Item	Charges from 1 July 2014 (GST inclusive)	
General refuse		
Refuse Bag	$4	
Car and station wagon	$33	
Ute and small (single axle) trailer (up to 200Kg)	$48	
Large tandem (twin axle) trailer	$62	
All other loads over weigh-bridge	$242 per tonne	
Greenwaste		
Car and station wagon	$10	
Ute and small (single axle) trailer	$18	
Bulk greenwaste (Bulk load)	$57	
Concrete		
Clean and steel-free	$72 per tonne	
Tyres		
Charges apply per tyre - no bulk weights		
Type of vehicle / weight of tyre	Tyres on rims	Tyres only
Farm bike, motorcycle	$6 each	$4 each
Passenger car and 4X4	$12 each	$10 each
Truck tyres - more than 28 Kgs	$35 each	$30 each
Agricultural	$85 each	$75 each
Recyclable and reusable items		
Recyclable items • Clean Plastics – *grades 1 and 2 only, no motor oil or chemical containers* • Glass • Aluminium cans • Cardboard	Free	

Reusable items Please take reusable items to CReW (Community Resources Whakatāne) at 40 Te Tahi Street. Phone 07 308 5963 for opening hours.	Free
Hazardous Substances	
Waste oil, paints and agricultural chemicals only. No commercial volumes accepted. Must be in original, undamaged containers.	Free
Weighbridge	
Tare weight (only) usage charge for weighbridge	$10