

## TOI TŪ TE MARAE A TANE, TOI TŪ TE MARAE A TANGAROA, TOI TŪ TE IWI

If you preserve the integrity of the land (the realm of Tane), and the sea (the realm of Tangaroa), you will preserve the people as well.



## EXECUTIVE SUMMARY

As required every six years by the Waste Minimisation Act (WMA) 2008, Hastings District and Napier City Council have reviewed their 2012 Waste Management and Minimisation Plan (WMMP).

It is in the communities best interest to encourage residents to be more resourceful, diverting as much unnecessary waste as possible to prolong Omarunui Landfill's life.

The vision, goals and actions stated in this plan have been updated to reflect the outcome of the consultative process.

TO DELIVER WASTE MINIMISATION AND **ACROSS HASTINGS DISTRICT** AND NAPIER CITY WORKING TOWARDS ZERO WASTE.

**OUR TARGETS** TO MEET THE **GOALS OF** THE VISION ARE: Highlighted key waste issues for Hastings District and Napier City include:

- Close to 50% of the material going to Omarunui Landfill can be composted or recycled.
- The other 50% contains more divertible items such as TV's, batteries, plaster board and other electronic waste,
- · Undesirable kitchen and garden waste makes up approximately a third of all waste entering Omarunui Landfill.
- Close to 80% of rubbish coming from householders can be diverted elsewhere.
- · Bagged rubbish collection services pose greater safety risks to collectors compared to bins.
- · Some residents and businesses are unaware of their waste options as educational/informative campaigns have had limited reach.
- · Litter, and illegal dumping continue to occur despite fines, enforcement and education.
- A large number of rural residents have little to no access to proper waste disposal.

Key background work for this plan includes:

- The Joint Waste Futures Project, Jacobs Consulting Ltd. (2014-16) (Appendix 5).
- Survey of Solid Waste in Hawke's Bay (SWAP) 2016, Waste Not Consulting (Appendix 6).
- The Joint Waste Assessment a series of documents highlighting waste movements in Hastings District and Napier City:
  - o Jacobs Consulting Ltd., HDC and NCC Waste Assessment (2017) (Appendix 2).
  - o Morrison Low and Associates, Key Issues and Options Table (2017) (Appendix 3).
- o Napier City Council, Supplementary Waste Assessment Paper (2017) (Appendix 4).

Further initiatives that make up the Joint WMMP include:

- Engage closely with iwi to embed the principles of kaitiakitanga throughout the waste plan.
- Forming one combined Napier and Hastings waste team.
- · Working with commercial, industrial and retail businesses to encourage waste minimisation.
- Consideration of a local waste levy to help pay for initiatives.
- Improve data collection and provide results to the public.
- Establishing a contestable fund to seed-fund waste reducing
- Supporting successful community-run waste reducing initiatives.
- Investigate methods for better dealing with problem products.
- Continue to lobby central Government on the need to manage waste from the source (e.g. packaging and tyres).
- Review each Councils bylaws to align with this Joint WMMP.
- Enhance the Council kerbside collections.
- Use available technology to collect data and investigate the introduction of a pay -as-you-throw service in the future.



TOTAL TONNAGE INCREASE

IN COMMON RECYCLABLES **DIVERTED FROM** OMARUNUI LANDFILL

TOTAL TONNAGE DECREASE

IN ORGANICS TO OMARUNUI LANDFILL











# **CONTENTS**



#### PART A: **STRATEGY** PART B: ACTION PLAN

INTRODUCTION	3	FUNDING	22
Current status of the plan Structure of the plan	5 5	ACTION PLAN	23
WHAT IS WASTE?	6	PART C: BACKGROUND INFORMATIO	N
The New Zealand Waste Strategy	6	APPENDIX1	30
WHERE DOES OUR WASTE GO?	7	Definitions and Abbreviations	
Other (private) infrastructure	8	APPENDIX 2	32
How do we compare?	8	Waste Assessment Jacobs Consulting Ltd.	
WHY SHOULD WE CHANGE OUR BEHAVIOUR? Current facilities and services More reasons to divert and recover	9 10 11	APPENDIX 3 Waste Assessment Morrison Low; Napier & Hastings Key Issues and Options Table	32
Future waste projections	12	APPENDIX 4 Waste Assessment Supplementary Waste	32
OUR RECYCLING JOURNEY	14	Assessment Paper, Napier City Council	
FACTORS AFFECTING NEW ZEALAND'S WASTE SYSTEM	15	APPENDIX 5 Medical Officer of Health Submission.	32
SUMMARY OF KEY ISSUES	16	APPENDIX 6 Waste Futures, Jacobs Consulting Ltd.	32
HOW WE WILL ADDRESS ISSUES Relevant strategies and plans Our targets	17 18 18	APPENDIX 7 Survey of Solid Waste in Hawke's Bay (SWAP) 2016, Waste Not Consulting	32
THE ROLE OF THE COUNCILS	19		





## INTRODUCTION

Hastings District and Napier City cover a combined land area of 510,600 hectares and are comprised of the main urban centres of Clive, Flaxmere, Hastings, Havelock North, Napier and Taradale as well as numerous rural and coastal settlements. The Pacific Ocean laps the east coast of the combined area; while the Hastings District surrounds Napier, sharing its boundaries with Central Hawke's Bay, Rangitikei, Taupo and Wairoa.

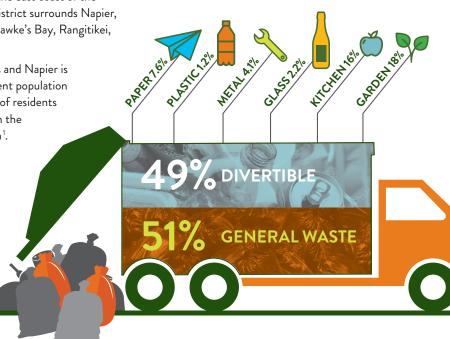
The combined population of Hastings and Napier is 130,500, containing 3% of the resident population of New Zealand. Approximately 77% of residents live across the urban settlements with the remaining population in the rural area<sup>1</sup>.

Hastings District and Napier City Council jointly own the Omarunui Landfill, which received just over 84,000 tonnes of waste from the combined area in 2016/17<sup>2</sup>. This waste included a significant amount of material that could have been recovered for better use.

OMARUNUI LANDFILL HAS A FINITE LIFESPAN, DEPENDANT ON THE OUANTITY OF WASTE GOING IN. OMARUNUI LANDFILL THAT CAN BE BETTER UTILIZED ELSEWHERE, THE LIFE SPAN WILL BE MAXIMISED

> Of the waste currently going to Omarunui Landfill 49.1% is commonly recyclable and/or compostable material<sup>3</sup>. The remaining 50.9% includes a significant amount of potentially divertible material such as electronic waste, wood waste, plaster board, scrap metal and so on. In other words, we can cut our waste in half.

On a smaller scale, waste picked up at the kerbside from households has a high percentage of material which could be re-used, recycled or composted elsewhere.



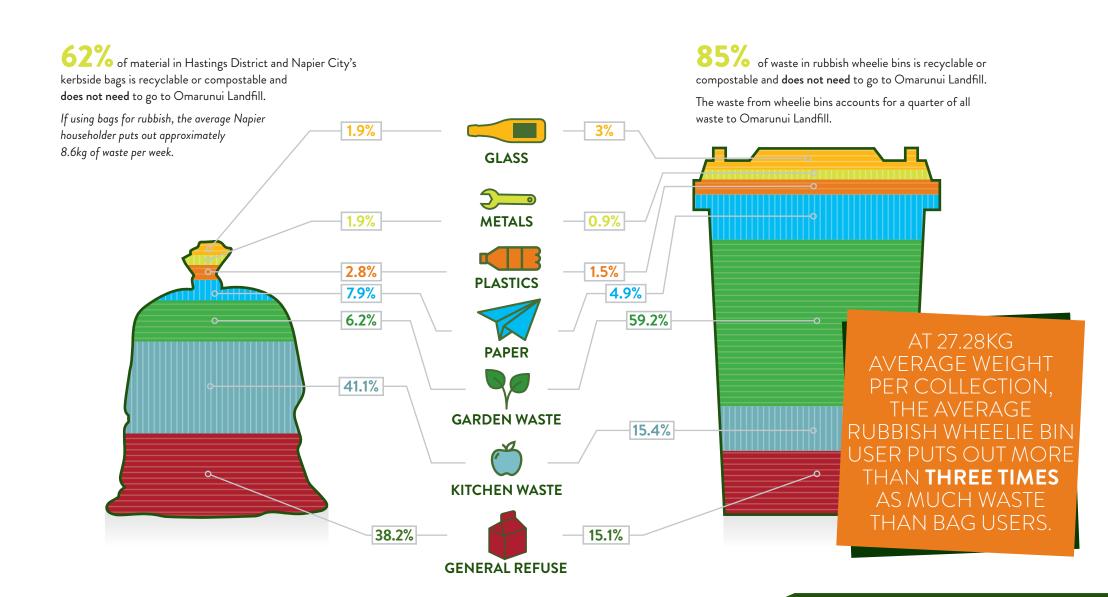




<sup>&</sup>lt;sup>1</sup> New Zealand Census 2013.

<sup>&</sup>lt;sup>2</sup> July 2016 to June 2017.

<sup>&</sup>lt;sup>3</sup> Waste Not Consulting: Survey of Solid Waste in Hawke's Bay, 2016.



Every six years, Hastings District and Napier City Councils' are required to review their Waste Management & Minimisation Plan (WMMP) under the Waste Minimisation Act 2008 (WMA).

The Joint Waste Assessment (Appendix 2-4) is the first stage in this Joint WMMP process. The Waste Assessment assesses solid waste movements in the Hastings District and Napier City in as much detail as reasonably obtainable.

This Joint WMMP must meet requirements outlined in the WMA, including to:

- Ensure waste does not create a nuisance
- Have regard to the New Zealand Waste Strategy (NZWS) and other key government policies, which emphasise reducing harm and improving the efficiency of resource use
- Consider the outcomes of the Waste Assessment
- Follow the special consultative procedure set out in the Local Government Act (LGA) (2002).

### Current Status of the Plan

The Joint WMMP was publicly consulted upon in March 2018 across the entire Hastings and Napier regions. As a result 6,165 submissions were received and considered by the Joint Waste Futures Project Steering Committee prior to amending and formalising the Joint WMMP document.

The Hawke's Bay District Health Board Medical Officer of Health has been consulted with in the drafting of this Joint WMMP. Their submission is included in the Waste Assessment documentation (Appendix 5).

This Joint WMMP replaces the 2012-2018 document.

### Structure of the Plan

This document is in three main parts.

### PART A: STRATEGY

The detail of the strategy, outlining what we are trying to achieve, containing our vision, goals, objectives, policies, and targets.

#### PART B: ACTION PLAN

The itinerary, explaining steps the Councils propose to take to achieve the vision, goals and objectives from Part A.

#### PART C: BACKGROUND INFORMATION

Supplementary information that assisted in writing this Joint WMMP. The Waste Assessment is provided in this section.





## WHAT IS WASTE?

Most of the things we do, buy and consume generate some form of waste. If not managed properly, it can have a negative impact on people's well-being and the health of the environment.

In this Joint WMMP, terms like 'rubbish', 'recycling', and 'waste' will be used that may not be familiar to you or may mean something different to the way they are used here. Definitions are provided at the end of this Joint WMMP in Section C – Appendix 1.

The WMA defines 'waste' as: "anything disposed of or discarded".

The Act also describes 'waste minimisation' as the reduction of waste and the reuse, recycling, and recovery of waste and diverted material. 'Diverted material' is anything that is no longer required for its original purpose, but for commercial or other waste minimisation activities, would be disposed of or discarded. For example – your empty aluminium drink can may be waste to you, but is worth money to metal recycling companies and therefore becomes 'diverted material' if it is re-directed from a landfill.

In this Joint WMMP, the term 'waste' refers to solid waste only and includes biosolids (organic matter recovered from sewage).

### The New Zealand Waste Strategy

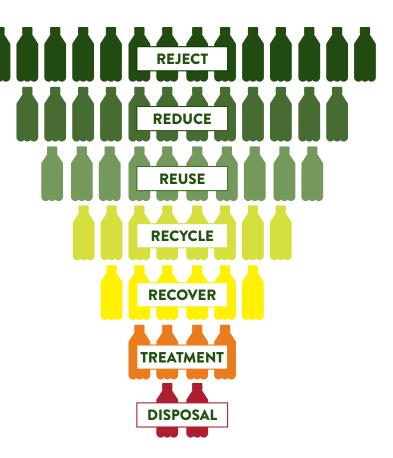
The New Zealand Waste Strategy (NZWS) has two overall goals:

1. TO REDUCE HARMFUL EFFECTS

### 2. TO IMPROVE EFFICIENCY

The WMA contains the waste hierarchy, which explains the idea of reducing waste by thinking more critically about the waste you create in your lifestyle. Reuse, recycling and waste recovery are the next preferable options for waste diversion from landfill. Finally, waste treatment rather than disposal should only be relied upon as a last resort.

For this Joint WMMP, we are adding an extra first step before waste reduction. Rejecting purchases which will create unnecessary waste is a behaviour that needs to be encouraged. Dealing with that waste is the next stage.











Hastings District and Napier City councils' completed a Joint Waste Assessment in 2017 detailing waste movements across the Hastings District and Napier City (Appendix 2-6). Most of our waste from Hastings and Napier ends up at Omarunui Landfill, south-west of Taradale. This waste primarily comes from:

- Three refuse transfer stations Henderson Road Redclyffe, and Blackbridge
- Kerbside waste
- · Commercial and Industrial (C&I) waste.

There was just over 84,000 tonnes of waste received at Omarunui Landfill from the Hastings District and Napier City areas in 2016/17. This is an increase in total tonnage of 11% over one year. Therefore, the importance of this Joint WMMP review cannot be understated. At the point of finalising this Joint WMMP, the 2017/18 financial year had just ended and 86,042 tonnes were received at Omarunui Landfill over this period.

Additional to the 2017 figure 9,800 tonnes of recycling was collected from the kerbside collections and the multiple recycling centres around Hastings and Napier for local as well as international processing.

Close to 6,000 tonnes of organic waste was collected at the three transfer stations and composted at BioRich or sent to PanPac for use as boiler fuel.

Hastings District and Napier City Councils' monitor
12 closed landfills and one open Class A landfill - Omarunui.
There are a further three operational landfills in the area.
The Supplementary Waste Assessment in Appendix 5
details this further.

Regarding hazardous waste, Hastings District and Napier City Councils' have historically run a hazardous waste collection day where householders can drop off their unwanted chemicals, oils, paints, and more. The Jacobs Consulting Waste Assessment in Appendix 2 details this further.









### Other (private) infrastructure

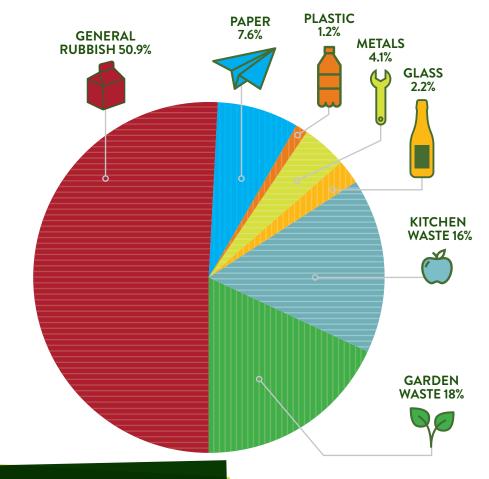
Private waste infrastructure in Hastings District and Napier City includes kerbside and commercial collections undertaken by private waste collectors, as well as material processors such as Hawk Packaging, BioRich and PanPac. Further details can be found in the Waste Assessment Jacobs Consulting Waste Assessment Paper in Appendix 2.

### How do we compare?

In 2016, the Councils commissioned a survey on the quantity and type of waste collected from households in Napier and Hastings, as well as all waste entering Omarunui Landfill. Around New Zealand in the last five years, the amount of waste to landfill per person has ranged from 330kg to 800kg. The 2016 Solid Waste Analysis Protocol (SWAP) Appendix 7 survey showed that households in Hastings District and Napier City are fairly average with close to 500kg of waste sent to Omarunui Landfill per person per year.

The survey recorded waste composition, showing that close to 50% of this waste to Omarunui Landfill could have been recovered, recycled and/or composted.

The remaining waste contains other items such as TVs, batteries, plaster board, electronic waste, untreated timber and more that could be easily diverted elsewhere in the region.



THIS MEANS THAT

AT LEAST HALF

OF WHAT'S GOING INTO

OMARUNUI LANDFILL

DOESN'T NEED TO BE.

# WHY SHOULD WE CHANGE **OUR BEHAVIOUR?**

More than being holes in the ground, landfills produce leachate, damaging greenhouse gases and toxins.

Due to organic waste's high water content, leachate and greenhouse gases from landfill are formed when food waste and green waste break down. Burying organic waste in Omarunui with minimal oxygen slows the natural break-down process. This means like most landfills, Omarunui is constantly producing leachate and greenhouse gases which require management long after closure.

In addition to by-products from organic waste, some materials that end up in Omarunui Landfill contain toxic substances which can leach over time. For example, household batteries can burst and leak corrosive powder. Add liquid from rotting food and leaves and a toxic leachate is produced.

Omarunui Landfill has a highly engineered and successful system to capture these liquids and gases produced by the waste. However, Hastings District and Napier City Councils' believe it is better to divert these materials from Omarunui in the first place rather than managing (and paying for) them at the landfill.











# Current facilities and services

Hastings District and Napier City Councils' provide and/or manage the following services and facilities across the region:



SERVICE	CONTRACTOR /MANAGER
AUSTIN STREET RECYCLING CENTRE	Waste Management
BLACKBRIDGE, MARTIN PLACE, WAIMARAMA, MARAEKAKAHO, PUKEHAMOAMOA, POUKAWA, AND TUTIRA RECYCLING CENTRES	Hastings District Council
BLACKBRIDGE REFUSE TRANSFER STATION	Phoenix Contracting Ltd.
HENDERSON ROAD REFUSE TRANSFER STATION	Hastings District Council
ILLEGAL DUMPING AND LITTER REMOVAL	Various contractors on behalf of HDC and NCC
KERBSIDE RECYCLING COLLECTION	GreenSky Waste Solutions Ltd.
KERBSIDE RUBBISH BAG COLLECTION	Waste Management Ltd.
OMARUNUI LANDFILL	Hastings District Council on behalf of both Councils
REDCLYFFE REFUSE TRANSFER STATION AND RECYCLING CENTRE	Napier City Council

Alongside the Council-provided kerbside rubbish bag collection, there are a number of local operators offering a private wheelie bin service for rubbish and/or green waste. The cost for these are at the discretion of the independent waste operator and vary on the type of service, collection frequency and volume of bin used.

Private operators also provide refuse, green waste and recycling services directly to businesses in the region.





### More reasons to divert and recover

Omarunui Landfill is similar to other landfills around New Zealand in that it is a very expensive facility to run. Long-term site management planning, running pumps and wells that capture leachate and greenhouse gas, as well as government taxes and levies mean that every tonne of waste costs money.

The New Zealand Emissions Trading Scheme (ETS) is the primary method for the New Zealand Government to achieve its long-term commitment to reduce our greenhouse gas emissions. 'Emissions Trading' is a market-based approach for reducing emissions of greenhouse gases. The ETS puts a price on emissions, by charging certain sectors of the economy for the greenhouse gases they emit. On an annual basis these sectors must calculate their emissions by submitting an emissions return to Government. Since 2013, disposal facility operators have had an obligation to report their emissions and surrender New Zealand Units (NZUs) under the ETS. As of 1 July 2018, \$18 is surrendered for every tonne of waste disposed of to Omarunui Landfill which supports global efforts to reduce greenhouse gas emissions.

Under the WMA, a \$10 Waste Disposal Levy is also collected from each tonne of waste entering Omarunui Landfill. This money is paid into the central government's Waste Minimisation Fund (WMF). A portion of this is then returned to Hastings District and Napier City Councils' to fund Waste Minimisation initiatives. This local fund has so far helped Hastings District Council establish multiple 'Green Bin' rural Recycling Depots around the district. It has also allowed Napier City Council to partly fund their kerbside recycling collection. Under the WMA, a local levy can be imposed on facilities to fund further initiatives at the discretion of Napier City and/or Hastings District Council.

Both the national ETS and the Waste Disposal Levy charges per tonne at Omarunui Landfill are expected to increase over the coming years.

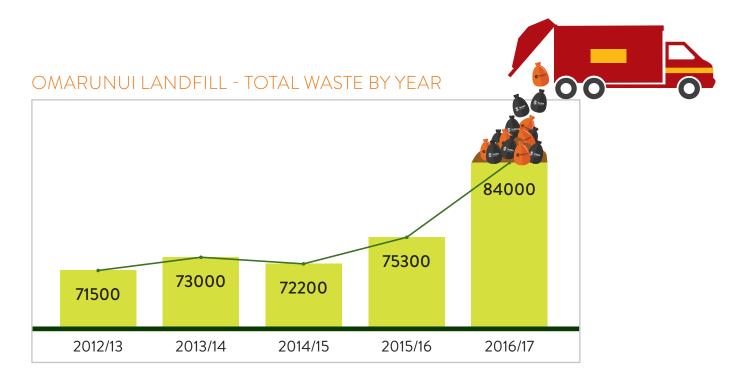
### Future waste projections

Population and economic growth trends directly influence the amount of waste generated and disposed of.

Another influence can be changes in legislation and policy to govern where certain types of waste should be correctly disposed of.

Future demand for waste and recycling services in the Hastings/Napier region is likely to be driven by:

- · Population growth in Hastings and Napier
- · Changes in commercial and industrial activity
- Economic fluctuations
- Regulations on waste disposal
- National policy changes regarding waste disposal
- Waste Minimisation and Education Programmes
- Land use changes
- Changes in technology
- · Community expectations for waste disposal.







# **OUR RECYCLING JOURNEY**

The common recyclables collected at the recycling depots and from the kerbside have different journeys.



Plastics 1-7 are collected and shipped offshore for processing in Asia. They are sorted into their respective materials, for example High Density Polyethylene (HDPE), Polypropylene (PP) and so on. From sorting, different grades of plastics have the potential to be remade into other polymer/oil-based products such as polar fleeces, sleeping bags and plastic bottles.



Glass bottles and jars are collected and transported for processing in Auckland.

Once the cleaning, melting and re-shaping is done, the glass is then ready to be re-sold.

Glass bottles and jars are fully recyclable, making them the most sustainably re-usable product. With a major glass processor in New Zealand, glass recycling is a relatively straightforward system and does not require substantial international transportation, where associated emissions would make it less of a 'green' process.



Paper and cardboard collected in the region is sent to multiple sources. There are a number of local and international processors who pulp and reproduce paper and cardboard for re-use.



Steel and aluminium cans are sorted and on-sold locally or internationally, and melted for remanufacturing into almost anything metal-based.





# FACTORS AFFECTING NEW ZEALAND'S WASTE SYSTEM



At the time of writing this plan, there were a number of external factors affecting the recycling system in New Zealand and consequently our Hawke's Bay region. Topical in 2017 was soft plastics with an emphasis on plastic bags. Four major retail chains have announced their intention to phase-out single-use plastic bags in order to reduce the amount of bags being disposed of improperly. Though the weight of plastic bags being landfilled per year is comparatively small, it is the litter aspect and risk they pose to waterways and ocean life, when transported by the wind, that we are responsible for as a community.

Plastic bag reductions are likely to affect Hastings and Napier's current recycling collection as many households rely on supermarket bags to present their recycling on the kerb.

Exports of recyclable plastic are also under question with China and parts of South-East Asia restricting the import of unsorted plastic recycling and plastic with minor contamination. Without this market for New Zealand plastic exports and with no large-scale facilities to process them locally, nationwide collaboration will be required to find a long-term solution.

The commodity price of recycled plastic tends to imitate the worldwide price of oil. When oil price is low, recycled plastic tends to be worth little. As a lower grade product compared to virgin oil, it can then be difficult to sell. NB: The price for recyclable steel, tin and aluminium has also fallen dramatically in the last two years.

Aside from factors affecting the recycling system, there is potential for the ETS and the New Zealand Waste Disposal Levy to significantly increase, putting financial pressure on landfill disposal and consequently driving up the price of waste services to match, affecting everyone from industry to the householder.

**HASTINGS** 



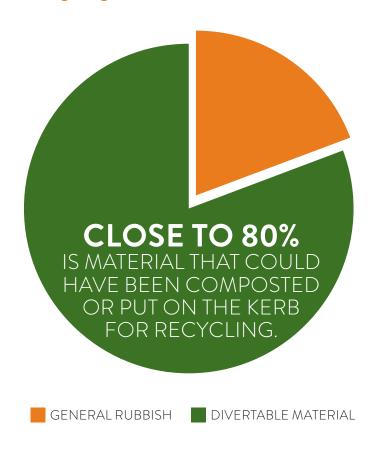


# **SUMMARY OF KEY ISSUES**

Key waste issues for Hastings District and Napier City as highlighted through the Waste Assessment process are as follows:

- Close to 50% of material going to Omarunui Landfill can be composted or recycled.
- The other 50% contains more divertible items such as TVs, batteries, plaster board, other electronic waste, etc.
- Undesirable kitchen and garden waste makes up approximately a third of all waste entering Omarunui Landfill.
- Close to 80% of 'rubbish' coming from householders can be diverted elsewhere.
- Bagged rubbish collection services pose greater safety risks to collectors compared to bins.
- Some residents and businesses are unaware of their waste options as educational and informative campaigns have limited reach.
- Litter, and illegal dumping continue to occur despite fines, enforcement and education.
- A large number of rural residents have little to no access to proper waste disposal.

Of all household kerbside waste going to Omarunui Landfill...



# HOW WE WILL ADDRESS ISSUES

Hastings District and Napier City Councils' have agreed on joint goals and objectives as well as an overarching vision for waste in the region. We believe there are improvements to be made to the way waste is managed. Our proposed vision for this Joint WMMP 2018-2024 is:

TO DELIVER WASTE
MINIMISATION AND RESOURCE
RECOVERY ACROSS HASTINGS
DISTRICT AND NAPIER
CITY WORKING TOWARDS
ZERO WASTE.

This vision seeks to oversee the appropriate management of waste in Hastings District and Napier City, reducing public health risks and promoting a safe and sustainable environment to live in. This vision is supported by the following goals and objectives that will aid local and national waste minimisation, working towards zero waste.

### **GOAL ONE**

REDUCE, RECOVER AND
RECYCLE MORE WASTE IN ORDER
TO CONTRIBUTE TO THE NEW ZEALAND WASTE
STRATEGY GOAL: "REDUCING THE HARMFUL
EFFECTS OF WASTE".

Objective 1: To reduce total amount of waste to landfill per person in Napier and Hastings, particularly with regard to organic waste e.g. green waste and food waste.

**Objective 2:** To increase recovery (identification and removal of items) destined for landfill that can be reused, recovered or recycled.

**GOAL TWO** 

# IMPROVE INFORMATION ON WASTE GENERATION AND MOVEMENTS IN NAPIER AND HASTINGS.



Objective 1: To improve the quality of information being collected on waste and recovered materials in Napier and Hastings from both council-contracted and private sector activities

Objective 2: To work towards ensuring the collection and recording of information is consistent in Hastings and Napier, and in line with national information gathering and reporting.

Objective 3: To work towards the collection of businessspecific waste and recovery information, in order to collaborate with industry to improve waste minimisation

**Objective 4:** To share that information with the public in a format that allows residents to measure the success of the waste minimisation and management actions within this plan

#### **GOAL THREE**

# IMPROVE COMMUNITY AWARENESS ON WASTE AND RECOVERY TRENDS AND KNOWLEDGE AROUND RESOURCE RECOVERY AND DIVERSION POTENTIAL.

Objective 1: To develop a programme which sets out types of waste, the impact of those different types of waste in landfill, and educate people on the reuse and recycling of waste.

Objective 2: To educate and improve community awareness on all products that can be reused or recycled, the ways that can be done, including trends and all opportunities to minimise waste.

Objective 3: To work with businesses – manufacturing/ industrial/retail – on options for recovering, reusing and recycling commercial waste

### **GOAL FOUR**

# WASTE MANAGEMENT AND MINIMISATION APPROACHES.

Objective 1: To continue investigating new alternative waste disposal technologies using cost-benefit analyses, and apply these outcomes where appropriate.

Objective 2: To use the Councils influence to advocate nationally, as described in the WMA, for examples on the responsibilities of importers, manufacturers and retailers for their packaging (Product Stewardship and Priority Products) for waste prevention.

Objective 3: To manage domestic household rubbish collection using technology in a way that encourages waste minimisation and takes into account that there needs to be a fair cost for the user.

Objective 4: To remove barriers to recycling and consider subsidies and/or incentives, recognising that such moves encourage behavioural change.

Objective 5: To engage with iwi on Maori-based initiatives, recognising that this approach may broaden options for encouraging changes in community behaviour.

HASTINGS CESTION COMMON

NAPIER

Objective 6: To investigate forming partnerships with community and industry groups involved in waste recovery, to assist with information gathering and education programmes.





### Relevant strategies and plans

Under legislation, this Joint WMMP must align with Hastings District and Napier City Councils' Long Term Plans (LTPs). The framework for waste management and minimisation in New Zealand is influenced by the following legislation and strategic policy documents:

- Health and Safety at Work Act 2015
- Waste Minimisation Act 2008
- Local Government Act 2002
- The New Zealand Waste Strategy 2010
- Resource Management Act 1991
- New Zealand Emissions Trading Scheme (under the Climate Change Response Act 2002)
- · Litter Act 1974
- Health Act 1956
- International agreements and other legislation
- Napier City Council Solid Waste Bylaw 2012
- Hastings District Council Consolidated Bylaw 2016: 10.3 Refuse
- Hawke's Bay Regional Council Regional Resource Management Plan 2006.

### Our targets

To measure progress toward achieving our vision to 'deliver waste minimisation and resource recovery across Hastings District and Napier City, working towards zero waste' the Councils have identified possible targets.

The following targets are to encourage waste diversion from Omarunui Landfill. Being the only Municipal Solid Waste landfill servicing Hastings and Napier, it is the most feasible for local disposal. Therefore we can be reasonably confident that at this stage 'diverted' will not necessarily mean landfilled elsewhere. Tracking diverted material as a percentage of the total waste landfilled gives us the best overall picture of how much material is being diverted for better use. This also removes emphasis on total waste to Omarunui Landfill which has been directly linked to uncontrollable economic trends and population growth.

A 2016 study commissioned by Hastings District and Napier City Councils and undertaken by Jacobs Consulting Ltd<sup>4</sup> outlined basic targets for improving diversion across the region:

"An improvement of 20% for recycled materials..."

"...a reduction by **30**% of kerbside collected landfill material for the inclusion of an organics kerbside collection"

Based on the 2016 SWAP Survey as well as the tonnage landfilled and recycled for the 2016/17 year, the proposed targets are:

	16/17 BASELINE	PROPOSED 2024 TARGET
20% increase – recyclables diverted	9,800 tonnes	≥ 11,760 tonnes per annum
30% decrease – organics to landfill <sup>5</sup>	28,580 tonnes	≤ 19,150 tonnes per annum



FOR THIS JOINT WMMP, THE COUNCILS HAVE FURTHER DEVELOPED THESE TARGETS AS FOLLOWS: TOTAL TONNAGE INCREASE IN COMMON RECYCLABLES DIVERTED FROM OMARUNUI LANDFILL.

30%

TOTAL TONNAGE DECREASE
IN ORGANICS TO
OMARUNUI LANDFILL.

<sup>&</sup>lt;sup>4</sup> Waste Futures: Economic Case, Jacobs Consulting Ltd. (2016)

<sup>&</sup>lt;sup>5</sup> Overseen by the Councils. Currently, Council-controlled organic waste diversion is only via green waste through transfer stations.

# THE ROLE OF THE COUNCILS

As owners of Omarunui Landfill and the three transfer stations, and managers of the kerbside bagged rubbish and recycling collection services, Hastings District and Napier City Councils' believe we can make an effective impact on waste reduction through targeted initiatives. With kerbside waste (bags and wheelie bins) comprising a third of all waste to Omarunui Landfill and half of that being organic waste, this is an area where we can make a difference.

Since the Councils introduced kerbside rubbish collection. various types of bags have been used. At the time of implementation and for many years, this system was economically and environmentally feasible. Since implementation of the first Joint WMMP (2012-2018), the Council-provided kerbside bag system has seen a decrease in popularity as householders make the move to wheelie bins. Bags are also becoming less popular for waste collection as contractors prefer a mechanic pick up for health and safety reasons. Smaller wheelie bins (<240L) encourage waste minimisation and these have been linked with lower waste outputs when the overall collection capacity is reduced, as experienced by Auckland City in 2002. Wheelie bins also provide flexibility in collection contracts and remove single use plastic receptacles for the disposal of waste.



The Councils also provide a kerbside recycling collection with the current contract allowing freedom to present recycling in any chosen container. The impact that the plastic bag phase-out could have on Hastings District and Napier City under this current methodology also indicates that a review is timely.

A primary reason for Council interest in overseeing waste movements is to protect public health where possible. We believe that proposed actions in this Joint WMMP can do this effectively. Waste can contain a vast number of health and safety issues and it is in everyones best interests to manage it appropriately.

EVEN IF CHANGES ARE MADE, COUNCIL CANNOT ACHIEVE THE GOALS AND TARGETS SET IN THIS JOINT WMMP ALONE. SUCCESS WILL COME FROM THE COUNCILS AND COMMUNITY WORKING TOGETHER AND TAKING RESPONSIBILITY TO BETTER MANAGE WASTE.

The Councils' proposed roles in this change are explained in the following Part B - Action Plan.







This Action Plan outlines a six-year programme to achieve the vision and targets presented in Part A.

This Joint WMMP will be reviewed at least every six years with a required supplementary Waste Assessment. This includes the funding structure, aspects of which may be updated as part of the Councils annual and long-term plans following the public consultation required by the LGA 2002.

This Action Plan has been written to meet the requirements of the WMA and the LGA 2002 by including all practicable options to achieve the Councils waste minimisation objectives. The original action points have been amended based on the 6,165 submissions received during the public consultation of the draft version of the plan. These points have been assessed in terms of their future social, economic, environmental and cultural impacts on the wellbeing of the region and its residents.

The actions on the following pages are proposed to address the key issues listed in Part A as effectively as possible, whilst adhering to appropriate legislation and prioritising the Waste Hierarchy. These steps will improve the sustainability of Hastings and Napier through reducing the harmful effects of waste and improving resource-use efficiency.

Though a single plan is unlikely to provide a total solution



to the effective management of solid waste, this Joint WMMP aims to lay the guidelines for residents of Napier and Hastings to become more resourceful and aware of the implications of unnecessary landfilling.

The Councils believe that the issues highlighted in the submissions can be suitably addressed with them taking a more active role in waste management, starting at the kerbside.

Since implementation of the previous Joint WMMP, a significant portion of households across Napier and Hastings have made the move to using kerbside wheelie bins. Under the current system, large bins for rubbish allow for flexibility with collection type and frequency. However they provide little opportunity to encourage greater waste diversion.

Furthermore, while there are ways to address this such as stricter regulation on accepted materials in bins, Hastings District and Napier City Councils' believe it is first necessary to explore other solutions, particularly considering that the waste received at the kerbside is responsible for about 36% of Omarunui Landfill's annual total.



### WE BELIEVE THAT THE 75% ORGANIC AND RECYCLABLE MATERIAL IN WHEELIE BINS **SHOULD NOT GO TO OMARUNUI LANDFILL**



THE IDEA IS TO DIVERT AS MUCH WASTE AS POSSIBLE FROM OMARUNUI. THE COUNCILS ALSO BELIEVE THAT LOCAL **BUSINESSES AND INDUSTRIES** HAVE AN OPPORTUNITY AND RESPONSIBILITY TO MANAGE WASTE APPROPRIATELY. WE PROPOSE TO BETTER COMMUNICATE THE SERVICES AVAILABLE TO LOCAL ORGANISATIONS, PROVIDING MORE EDUCATION AROUND IMPROVED WASTE PRACTICES.





### **FUNDING**

There are various options available to the Hastings District and Napier City Councils to fund the waste management and minimisation activities identified in this action plan. This section details the funding options for the initiatives proposed.

At the time of writing, a Waste Disposal Levy of \$10 per tonne (excluding GST) was applied to all waste sent to landfill as introduced under the WMA. Landfill operators must pay the levy based on the weight of material disposed of. However they may choose to pass this cost on to the waste producer such as households and businesses.

The levy encourages New Zealanders to start taking responsibility for the waste they produce and to find more effective and efficient ways to reduce, reuse, recycle or reprocess waste. It also creates funding opportunities for waste minimisation initiatives

Half of the levy money goes to territorial authorities (city and district councils) to spend on promoting or achieving the waste minimisation activities set out in their WMMPs. The remaining levy money (minus administration costs) is put into the WMF. The fund is for waste minimisation activities in New Zealand.

### Possible Funding Options for proposed actions

SERVICE	CONTRACTOR /MANAGER
WASTE DISPOSAL LEVY FUNDS	These are the funds paid to Hastings District and Napier City Council under the WMA to spend on promoting and achieving waste minimisation activities as required in the Joint WMMP.
LOCAL WASTE LEVY (POSSIBLE NEW FUND)	Revenue raised from a locally-applied levy at Council owned facilities to fund further waste diversion initiatives, as prescribed under Section 46 of WMA.
USER PAYS	The user pays for the cost of the service directly, e.g. refuse transfer station charges.
RATES	The general rate funds the majority of the Councils' expenditure. It is based upon the land value of property and is calculated based on a system of differential rating. A targeted rate set on each separately used or inhabited part of a rating unit based on the provision or availability to the land of the service, i.e. kerbside rubbish and recycling collections.
INTERNAL OPERATIONAL BUDGET	The operational budgets that Hastings District and Napier City Council fund some existing services and operations with.
WASTE MINIMISATION FUND	A national fund to which organisations can apply for funding for waste minimisation activities in New Zealand.
OMARUNUI DEVELOPMENT BUDGET	The budget used to fund future expansion and development at Omarunui Landfill.

The current waste services (such as the Hastings rural recycling depots and the Hastings and Napier illegal dumping clean-ups), are funded by a combination of rates and user pays (Redclyffe and Henderson Road refuse transfer stations), and the New Zealand Waste Disposal Levy which provides funding for various educational and infrastructure services.

There is also the opportunity for Hastings District and Napier City Councils' to apply for the contestable WMF to assist with specific projects which encourage waste minimisation.

THE FOLLOWING
PAGES OUTLINE KEY
ACTIONS WHICH THE
COUNCILS BELIEVE
WILL CONTRIBUTE
APPROPRIATELY TO
ACHIEVING THE VISION.

# **ACTION PLAN**

Hastings District and Napier City Council believe the following waste practices align appropriately with the vision to "deliver waste minimisation and resource recovery across Hastings District and Napier City, working towards zero waste" while promoting sustainable public health and environmental protection.

The following table covers the actions we propose to take to do so.

	ACTION	EXISTING, ENHANCED OR NEW	IMPLEMENTATION/ TIMEFRAME: YEARS	RELATION TO THE WASTE HIERARCHY	PROPOSED FUNDING SOURCE	GOAL OBJECTIVE REFERENCE	
1. KERBSIDE RUBBISH COLLECTION							
A	Enhance existing Council-provided kerbside rubbish service by: Providing urban households with a weekly-collected 80L wheelie bin for rubbish and ability to collect property specific data.	ENHANCED	Implemented with tendering of new kerbside collections.	DISPOSAL: Reducing harmful effects of waste	RATES	Goal One Objective 1 Goal Two Objective 1 Goal Four Objective 3	
В	Expand Council kerbside rubbish collection to incorporate new developments and possibly include semi-urban properties.	ENHANCED	Implemented with tendering of new kerbside collections.	DISPOSAL: Reducing harmful effects of waste	RATES	Goal Four Objective 3	
С	Consider the appetite for enhancing kerbside rubbish services in the non-residential areas and investigate options in zones where appropriate.	NEW	Implemented with tendering of new kerbside collections contracts.	DISPOSAL: Reducing harmful effects of waste	RATES/USER PAYS	Goal One Objective 2 Goal Three Objective 3	
D	Implement through service collection agreements and existing contracts an alternative collection system in zones where appropriate.	existing	Implemented with tendering of new kerbside collections.	DISPOSAL: Reducing harmful effects of waste	RATES	Goal Four Objective 3	
E	Investigate rubbish collection options for multi-unit dwellings and differences in services e.g. on property service.	NEW	2018-2024	DISPOSAL: Reducing harmful effects of waste	TO BE INVESTIGATED	Goal Four Objective 3	
F	Investigate options for other funding methods e.g. pay per lift, user pays.	NEW	2018-2024	DISPOSAL: Reducing harmful effects of waste	TO BE INVESTIGATED	Goal Four Objective 3	
G	Investigate options to allow for properties not serviced, to utilise a local drop off facility for waste.	NEW	2018-2024	DISPOSAL: Reducing harmful effects of waste	TO BE INVESTIGATED	Goal One Objective 2	





	ACTION	EXISTING, ENHANCED OR NEW	IMPLEMENTATION/ TIMEFRAME: YEARS	RELATION TO THE WASTE HIERARCHY	PROPOSED FUNDING SOURCE	GOAL OBJECTIVE REFERENCE	
2. KE	2. KERBSIDE RECYCLING COLLECTION						
A	Enhance the existing council provided recycling kerbside collection by providing all households a receptacle(s) that is collected weekly that meets resident needs and flexibility while maintaining integrity of product.	ENHANCED	Implemented with tendering of new kerbside collections.	RECYCLING: Improving efficiency of resource use	RATES	Goal One Objective 2 Goal Four Objective 4	
В	Expand Council kerbside recycling collection to incorporate new developments and semi-urban households.	NEW	Implemented with tendering of new kerbside collections.	RECYCLING: Improving efficiency of resource use	RATES	Goal One Objective 2 Goal Four Objective 4	
С	Consider the desire for enhancing kerbside recycling services in non-residential areas via specific consultation.	NEW	Implemented with tendering of new kerbside collections.	RECYCLING: Improving efficiency of resource use	RATES	Goal One Objective 2 Goal Three Objective 3	
D	Investigate recycling options for multi-unit dwellings.	NEW	2018-2024	RECYCLING: Improving efficiency of resource use	TO BE INVESTIGATED	Goal One Objective 2	
E	Use regulation to control excess producers of recycling.	NEW	2018-2024	RECYCLING: Improving efficiency of resource use.	TO BE INVESTIGATED	Goal Three Objective 2	

3. OR	3. ORGANIC WASTE					
A	Investigate funding existing organic waste collection/processing models.	NEW	2018-2024	REDUCTION: Improving efficiency of resource use	TO BE INVESTIGATED	Goal Three Objective 2
В	Continue to provide green waste disposal at transfer stations and investigate pricing model opportunities.	EXISTING	On-going	REDUCTION: Improving efficiency of resource use	USER PAYS	Goal One Objective 2
С	Investigate organic waste disposal options for multi-unit dwellings.	NEW	2018-2024	REDUCTION: Improving efficiency of resource use	TO BE INVESTIGATED	Goal One Objective 2
D	Investigate and monitor behavioural change in processing green waste at household level.	NEW	On-going	REDUCTION: Improving efficiency of resource use.	USER PAYS	Goal Two Objective 4
E	Facilitate a conversation with private operators/contractors to coordinate establishment of a working group with the aim to increase the diversion of green waste from the general waste stream	NEW	2018-2024	REDUCTION: Improving efficiency of resource use.	TO BE INVESTIGATED	Goal Four Objective 6

	ACTION	EXISTING, ENHANCED OR NEW	IMPLEMENTATION/ TIMEFRAME: YEARS	RELATION TO THE WASTE HIERARCHY	PROPOSED FUNDING SOURCE	GOAL OBJECTIVE REFERENCE
4. FA	CILITIES					
A	Review price structure at refuse transfer stations. Investigate imposing a local waste minimisation levy at facilities (Waste Minimisation Act 2008; Section 46[2]).	NEW	2018-2020	REUSE: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1
В	Continue to provide access to Henderson Road refuse transfer station resource recovery shop and investigate opportunities to enhance and develop resource recovery site.	EXISTING	On-going	REUSE: Improving efficiency of resource use	USER PAYS/ LOCAL WASTE LEVY	Goal One Objective 1 & 2
С	Investigate the location and operation of the refuse transfer stations. Optimise and enhance diversion and expand recycling/compost facilities.	EXISTING	2018-2020	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1 & 2
D	Investigate communal green waste compost drop off dedicated areas in the community.	NEW	2019-2020	REDUCTION: Improving efficiency of resource use.	INTERNAL OPERATIONAL BUDGET	Goal One Objective 2
E	Expand recycling drop off stations to communities where feasible.	EXISTING/NEW	2018-2024	RECYCLING: Improving efficiency of resource use.	WASTE DISPOSAL LEVY FUNDS	Goal One Objective 2
5. PL	ANNING CONTROLS					
A	Review and align Hastings District and Napier City Councils' bylaws and planning controls to enact the Joint WMMP.	NEW	Completed prior to tendering & implementation of new kerbside collections.	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1 Goal Two Objective 3
6. DI\	PERSION INITIATIVES (OF RESIDUAL WASTE FRO	M LANDFILL)				
A	Continue to support local and national Product Stewardship campaigns.	EXISTING	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 2
В	Continue to lobby central government for problematic materials.	EXISTING	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 2
С	Establish (and manage) a joint contestable fund to provide seeding grants for new local waste minimisation initiatives.	NEW	2018-2019	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 4
D	Provide grants for local individual and/or joint waste minimisation initiatives where there is measurable diversion from landfill.	EXISTING	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 4





	ACTION	EXISTING, ENHANCED OR NEW	IMPLEMENTATION/ TIMEFRAME: YEARS	RELATION TO THE WASTE HIERARCHY	PROPOSED FUNDING SOURCE	GOAL OBJECTIVE REFERENCE
E	Provide guidance to business and industry so they may:  a) Prioritise and achieve waste reduction and resource efficiency of waste.  b) Implement planning controls and/or mechanisms that align with the Joint WMMP vision.	NEW	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Three Objective 3
F	Continue to research emerging opportunities and innovation for reduction, treatment and disposal of residual waste.	existing	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 1
G	Review and where appropriate enhance existing public recycling and litter bin services.	existing	2018-2020	RECYCLING: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal One Objective 2
н	Support Hawke's Bay healthcare establishments in practical waste management in line with NZ standard, A304:2002 – Management of Healthcare Waste.	NEW	On-going	RECYCLING: Improving efficiency of resource use	LOCAL WASTE LEVY	Goal Four Objective 6 Goal Three Objective 3
ı	Collaborate with Hawke's Bay Regional Council and local industry to support hazardous chemical management initiatives.	NEW	On-going	RECYCLING: Improving efficiency of resource use	USER PAYS/ WASTE DISPOSAL LEVY FUNDS	Goal One Objective 2
J	Introduce user-pays electronic waste (E-waste) drop-off and recycling services at refuse transfer stations to cover shipping and dismantling costs.	NEW/ EXISTING	2018-2020	RECYCLING: Improving efficiency of resource use	USER PAYS/ WASTE DISPOSAL LEVY FUNDS	Goal One Objective 2
К	Continue to investigate local, national and international market options for difficult-to-recycle materials.	EXISTING	On-going	RECYCLING: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal One Objective 2 Goal Four Objective 1
L	Advocate, enable and support zero waste events	NEW	2018-2020	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal One Objective 1 & 2
М	Acknowledge, recognise and reward to incentivise waste minimisation positive behaviour across the community.	NEW	2018-2020	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 4
N	Support and facilitate local community driven initiatives including trials and pilots.	NEW	2018-2020	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 4

	ACTION	EXISTING, ENHANCED OR NEW	IMPLEMENTATION/ TIMEFRAME: YEARS	RELATION TO THE WASTE HIERARCHY	PROPOSED FUNDING SOURCE	GOAL OBJECTIVE REFERENCE
<b>7.</b> ED	UCATION			'		
A	Empower residents, service users and communities to prioritise (and increase) efforts regarding waste reduction, resource recovery and work towards zero waste via a consistent education programme across Napier City and Hastings District. Expand further across Hawke's Bay where practicable.	NEW	On-going	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal Three Objective 1-3
В	Partner and build relationships to enable stakeholders. Collaboration and innovation with reference to the Joint WMMP submission process.	NEW	On-going	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal Four Objective 6
С	Foster and grow coordinated leadership in the waste minimisation movement across the region.	NEW	2018 - 2020	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal Four Objective 6
D	Continue to support programmes like Para Kore (zero waste).	NEW	2018 - 2020	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Four Objective 5
8. LA	NDFILL					
A	Investigate the introduction of material-specific pricing at Omarunui Landfill.	NEW	2018-2019	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1
В	Review Construction and Demolition (C&D) waste area at Omarunui Landfill with a view to encourage sorting and/or diversion.	EXISTING	2018	TREATMENT: Reducing harmful effects of waste	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1
С	Investigate imposing a local waste minimisation levy at facilities (Waste Minimisation Act 2008; Section 46[2]).	NEW	2018-2019	TREATMENT: Reducing harmful effects of waste	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1
D	Continue to monitor, manage, maintain and report on closed landfills to ensure that consent conditions are met. Ensure that up to date business continuity plans are in place.	EXISTING	On-going	TREATMENT: Reducing harmful effects of waste	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1
E	Develop and maintain a business continuity plan where mass disposal of material at Omarunui Landfill may be required following a significant event.	NEW	2018-2019	DISPOSAL: Reducing harmful effects of waste	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1
F	Develop Omarunui Landfill for future residual waste disposal.	NEW	On-going	DISPOSAL: Reducing harmful effects of waste	OMARUNUI DEVELOPMENT BUDGET	Goal One Objective 1





	ACTION	EXISTING, ENHANCED OR NEW	IMPLEMENTATION/ TIMEFRAME: YEARS	RELATION TO THE WASTE HIERARCHY	PROPOSED FUNDING SOURCE	GOAL OBJECTIVE REFERENCE
9. JO	NT SERVICES				'	
A	Increase consistency of waste services and key messaging across Hastings and Napier areas via development of a joint waste team and brand with a supplementary interactive website in line with LGA (2002), section 17A review.	NEW	2018-1019	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal One Objective 1 & 2 Goal Four Objective 4
В	Continue to participate in regional and further afield meetings with solid waste experts from other Councils, taking the opportunity for project collaboration where feasible.	EXISTING	On-going	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	Goal Four Objective 1
10. M	ONITORING, REPORTING AND EVALUATION					
A	Investigate methods to increase relevant data capture in line with the national Waste Data Framework. This could include waste from areas such as commercial waste composition, cleanfill, C&D waste movements etc.	NEW	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Two Objective 2
В	Undertake regular evaluation of the waste-reduction performance of all initiatives that comprise the adopted Joint WMMP and take appropriate action.	NEW	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Two Objective 4
С	Evaluate changes in social behaviour that may arise from initiatives in this Joint WMMP and recommend taking action accordingly.	NEW	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Two Objective 1-4
D	Prepare for the next Joint WMMP by gathering data through waste surveys and weighbridge software at Council-owned sites, and preparing a new waste assessment as deemed appropriate.	NEW	2022-24	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS	Goal Two Objective 1-3
E	Continue to undertake a solid waste survey of waste in Hastings District and Napier City at least every three years.	EXISTING	On-going	REDUCTION: Improving efficiency of resource use	WASTE DISPOSAL LEVY FUNDS INTERNAL OPERATIONAL BUDGET	Goal Two Objective 1-2
11. RE	11. RESOURCING					
A	Appropriate resourcing is provided to meet/deliver the objectives of the Joint WMMP and community expectations.	NEW	On-going	REDUCTION: Improving efficiency of resource use	INTERNAL OPERATIONAL BUDGET	All Goals and Objectives

# PART C BACKGROUND INFORMATION



# **APPENDIX 1**

### Definitions and Abbreviations

BIOSOLIDS	The semi liquid residue from sewage treatment plants, septic tanks and the processing of organic materials.			
CBD	Central Business District.			
CLASS A LANDFILL	A landfill engineered to contain leachate and capture gases.			
CLEANFILL	A cleanfill accepts only material that will have no adverse environmental effect on people or the environment when buried.			
COMMERCIAL WASTE	Waste collected from commercial businesses/operations. Excludes industrial and agricultural waste.			
COMMERCIAL AND INDUSTRIAL WASTE (C&I)	Waste from commercial businesses/ operations including factories and industrial plants.			
COMMODITY PRICE	The price associated with the purchase or sale of a material/product.			
COMPOSTABLE	Material that can be decomposed by microbes in the composting process.			
CONSTRUCTION AND DEMOLITION WASTE (C&D)	Waste arising from the construction and/or demolition of buildings.			
COST BENEFIT ANALYSIS	A systematic approach to estimate the strengths and weaknesses of alternatives, when determining options that provide the best approach to achieve benefits when compared to costs.			

DIVERTED	Any material which is intended for landfill but is taken elsewhere to be used more resourcefully.
DIVERTIBLE	Any material destined to be landfilled but that has a potential to be used as a resource elsewhere.
ELECTRONIC WASTE (E-WASTE)	End-of-life electronic appliances. The majority of e-waste can be diverted and dismantled to retrieve precious metals inside.
ETS	Emissions Trading Scheme.
FOOD WASTE	Kitchen waste that can be decomposed biologically, including everything from fruit and vegetable scraps to meat bones.
GREEN WASTE/ GARDEN WASTE	Biodegradable plant waste. Includes lawn clippings, tree trimmings, and green plant matter. Does not include tree stumps or big logs.
HDC	Hastings District Council.
HDPE	High Density Polyethylene.
HAZARDOUS WASTE	Liquid or solid chemical-based products which pose potential threat to people or the environment. Very broad and ranges from batteries to paint to waste oil.
ILLEGAL DUMPING	Waste disposed of intentionally where it does not belong, where it is unsightly and can cause environmental damage.

LANDFILL GAS (METHANE)	Gas generated as a result of the decomposition processes on biodegradable materials deposited in a landfill. It consists principally of methane and carbon dioxide, but includes minor amounts of other components.
LEACHATE	Liquid that, in passing through waste, extracts solutes, suspended solids or any other component of the waste material through which it has passed. This includes liquid included in the waste as received and that drains as a result of waste compression, or the ongoing breakdown of organic matter.
LGA	Local Government Act 2002. The defining Act stating the purpose of local government in New Zealand.
LTP	Long Term Plan. Every Council is required to produce an LTP every three years stating its purpose and focus for long term planning.
MSW	Municipal Solid Waste.
NCC	Napier City Council.
NEW ZEALAND WASTE DISPOSAL LEVY	A levy of \$10 per tonne (excluding GST) on all waste sent to landfill. The levy was introduced under the Waste Minimisation Act 2008. The levy encourages New Zealanders to start taking responsibility for the waste they produce and to find more effective and efficient ways to reduce, reuse, recycle or reprocess waste.

NZWS	New Zealand Waste Strategy.
ORGANIC WASTE	A combination of green waste and food waste. Organic waste comprises anything that is straightforward to compost/has a high organic content.
PET	Polyethylene.
PP	Polypropylene.
PRIORITY PRODUCTS	Under the Waste Minimisation Act (WMA), a product may be declared a priority product by the Minister for the Environment. This means that a product stewardship scheme for the defined product must be developed and accredited as soon as practicable after declaration.
PRIVATE WASTE COLLECTOR	Privately owned commercial business that collects and transports waste, recycling and/or organic waste to various facilities. Most Hawke's Bay private waste collectors also offer wheelie bins to households.

PRODUCT STEWARDSHIP	An Environmental Management strategy which requires manufacturers/ sellers of a product to take financial responsibility for end of life management, for example, recycling, dismantling or disposing of said product.
RECYCLING	The process of taking most or all of a material and converting into a re-useable product.
RECYCLABLES	Products which are commonly recycled including glass bottles and jars, tin and aluminium cans, paper, cardboard, and some plastic containers.
REFUSE	Another name for rubbish.
RESIDUAL WASTE	Material left over after treatment (such as removing the recyclables or compostables).
SOFT PLASTICS	Thin plastic packaging materials that can be scrunched into a ball in your hand. Often single-use before needing to be disposed of.
SWAP	Solid Waste Analysis Protocol. The process of auditing waste from households and/or businesses.

Consumer pays for the cost of the service. For example, Transfer Station charges – amount charged depends on weight.
Waste Assessment.
The philosophy that prioritizes waste reduction, reuse, recycling, recovering, and treatment in that order before disposal of waste in Omarunui Landfill as a last resort.
Waste Minimisation Act 2008.
Waste Minimisation Fund.
Waste Management and Minimisation Plan.





## **APPENDIX 2**

Waste Assessment Jacobs Consulting Ltd.

## **APPENDIX 3**

Waste Assessment Morrison Low, Napier & Hastings

## **APPENDIX 4**

Waste Assessment Supplementary Waste Assessment Paper, Napier City Council

## **APPENDIX 5**

Medical Officer of Health Submission

## **APPENDIX 6**

Waste Futures, Jacobs Consulting Ltd.

## **APPENDIX 7**

Survey of Solid Waste in Hawke's Bay (SWAP) 2016, Waste Not Consulting

Due to the size of these documents, electronic copies are available on Hastings District and Napier City Councils' websites, or via request.



