Waste Management and Minimisation Plan

Prepared by Taupō District Council

June 2018
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Summary

As required by the Waste Minimisation Act 2008, this Waste Management and Minimisation Plan (WMMP) has been developed to protect our district from harm and to provide environmental, social, economic and cultural benefits. The goal and objectives are consistent, and give effect to the current 2010 New Zealand Waste Strategy goals of:

- Reducing the harmful effects of waste
- Improving the efficiency of resource use

In summary, the purpose of this plan is to:

- Present Taupō District Council’s goal of managing and minimising waste in the district;
- Set Objectives and policies to achieve the goal;
- Provide information on how Council intends to fund the activities of the WMMP over the next six years.

In preparing this plan, a Waste Assessment was carried out, which identified the key waste issues and challenges facing the district.

Our WMMP Goal is to:

“To protect public health and safeguard the Taupō district environment by ensuring waste and diverted material is managed in a safe and sustainable manner that maintains natural and aesthetic values and to have the cleanest district in New Zealand”

A key part to working towards this goal involves considering the role of waste in the wider economy, including issues of resource efficiency and viewing waste as a resource, rather than as an issue to be managed. Taupo District Council proposes to continue to provide a range of waste management and minimisation services similar to those currently in place. In addition, Council support the community to achieve further waste diversion through education and supporting local waste minimisation initiatives.

To achieve this goal, Council has set the following objectives:

- That waste is disposed of appropriately and public health is protected;
- Reduce the total quantity of waste to landfill;
- Increase the quantity of diverted material through reduction, reuse, recycling and recovery;
- Use Council influence producer responsibility to advocate waste minimisation and for increased or mandatory product stewardship;
- Support waste minimisation initiatives within the community;
- Utilise appropriate pricing methods to incentivise waste minimisation;
- A change in behaviour around litter in the district.

Specific actions have been identified in the Action Plan included in this document to help Council address the above objectives. This plan reflects Councils commitment to waste management and
minimisation to not only meet legislative requirements, but to respond to the communities demand for services and infrastructure.
Part A: The Strategy

1 Introduction
This Statement of proposal has been prepared to fulfil the requirements of Section 83 of the Local Government Act 2002 (LGA) and Section 43 of the Waste Minimisation Act 2008 (WMA).

This Waste Management and Minimisation Plan (WMMP) sets out Taupō District Council’s plans for how waste in our community will be managed.

1.1 What happens with our waste?
The Taupō district sent 24,490 tonnes of waste to the Broadlands Road landfill in the 2017/18 year. Over the same period, we diverted from landfill 21,411 tonnes, which is a diversion rate of 46%.

Included in the material diverted was, 5.24-million glass bottles, 15.82 million plastic containers, 8,713 tonnes of green waste and 5686 tonnes of concrete.

1.2 What is waste and why is it a problem?
Most of the things we do, buy and consume, generates some form of waste. In addition to disposal costs, if it is not managed properly, it can cause problems with the environment and with people’s health.

The Waste Minimisation Act defines waste as:

“material that has no further use and is disposed of or discarded”

The Act also describes waste minimisation as, ‘reducing waste and increasing the reuse, recycling, and recovery of waste and diverted material’. Diverted material is defined as ‘anything that is no longer required for its original purpose, but still has value through reuse or recycling’.

For example, your empty drink aluminium can is waste to you, but is worth money to metal recycling companies and so becomes diverted material if it is recycled.

Our WMMP covers all solid waste and diverted material in the Taupō district, whether it is managed by Council or not. Liquid and gaseous wastes are not included except where they interact with solid waste systems. This includes hazardous wastes like chemicals and the outputs from wastewater treatment plants. This does not mean Council is going to have direct involvement in the management of all waste; however there is a responsibility for Council to consider all waste in our district and to suggest areas where other groups, including businesses or householders, could take action themselves.

1.3 Why do we need a plan?
Managing waste and ensuring good outcomes for the community can be a complex task. We need to look after the environment, take care of people’s health and make sure that this is done at an acceptable cost to the community. To achieve this, all parts of the community need to work together.
City and district councils have a statutory role in managing waste. Councils are required under the Waste Minimisation Act 2008 (WMA) to promote effective and efficient waste management and minimisation within their area. A key part of doing this is to adopt a Waste Management and Minimisation Plan (WMMP). Councils have obligations under the Health Act 1956 to ensure that our waste management systems protect public health.

This WMMP sets the priorities and strategic framework for managing waste in our district. Once the plan is adopted, the actions will be carried forward into our long term and annual plans to ensure resourcing is available to deliver the plan’s goals and objectives.

In-line with Section 50 of the WMA, our WMMP needs to be reviewed at least every six years after its adoption.

The date for the next review of this plan will be 2024.

**Review of the 2012 Waste Management and Minimisation Plan**

The 2012 – 2018 WMMP had a target and a number of actions required to achieve it.

Council’s waste reduction Target for the 2012 waste plan was:

“By 2018, reduce the quantity of waste in tonnes disposed to landfill per person per year by 3% relative to an established 2010 baseline”.

The estimated resident population has increased from 34,800 to 37,200 or 2,400 people over the period.

Waste tonnages have increased from an average of 18,500 to 22,500 over the last three years, which reflects an overall increase of 0.588 tonnes per capita per annum over the 2008 total and 0.669 against the 2017 figure. Overall this equates to a 13% increase. Council has been unable to achieve its overall waste reduction target for the period.

The increase in waste tonnage reflects the national volume increase in waste-to-landfill and is a reflection of the increase in GDP.

Council has been successful in implementing a number of waste minimisation initiatives identified in the 2012 plan:

- Limiting wheelie bin sizes for residential refuse collection;
- Extending plastic recovery options to include 3-7 plastics;
- Extended the street litter bin service to include recycling bins;
- Subsidised home composting units; we have over 900 properties in the program;
- Provided home composting workshops;
- Continued to advocate product stewardship
1.4  What does the plan have to contain?
The plan must meet requirements set out in the Waste Minimisation Act, including:

- Consider the ‘Waste Hierarchy’ which sets priorities for how we should manage waste (figure 1);
- Ensure waste does not create a ‘nuisance’;
- Have regard to the New Zealand Waste Strategy and other key government policies, which emphasise reducing harm and improving the efficiency of resource use;
- Consider the outcomes of the Waste Assessment. This is a review of all information that we have about the current waste situation this year, including rubbish from households and businesses;
- Following the Special Consultative Procedure set out in the Local Government Act (2002).

1.4.1  The waste hierarchy
The ‘waste hierarchy’ refers to the idea that reducing, reusing, recycling and recovering waste is preferable to disposal, which in New Zealand generally means a landfill site. The waste hierarchy is:

Figure 1: The Waste Hierarchy
1.5 Other relevant strategies and plans

In addition to aligning to Council’s Long term Plan (LTP) and Annual Plans, the WMMP must support or align with other strategies and plans.

Relevant government policy for local government over the current term and the last two terms (2009 – 2014) has focused on the following areas:

- Fiscal responsibility, transparency and accountability;
- Efficiency, through service reviews, joint working, and amalgamation;
- sustainable procurement, with a particular focus on innovation and partnership working;
- Economic growth.
Key strategies related to waste include the New Zealand Waste Strategy, which has two goals; to reduce harm and to improve resource efficiency.

In addition, the Waikato Regional Waste and Resource Efficiency Strategy (2015/2018) has a vision of ‘working together towards a zero waste region’. and includes two key goals:

1. To protect our communities, land, water and air from harmful and hazardous wastes;
2. To encourage resource efficiency and beneficial reuse that creates sustainable, economic growth.

As active members of the Waikato and Bay of Plenty Waste Liaison Group and the Waikato Waste Advisory Group, Taupō District Council will seek to support the regional waste strategy through our waste management and minimisation activities.

In order to address some of the waste issues effectively and efficiently Councils collaborate to gain efficiencies, share risk and achieve greater outcomes for our communities.

Our Councils will work with other territorial and regional councils, private and community sectors, and central government to achieve these shared goals and objectives.

### 1.6 The structure of our plan

This plan is in three parts:

**Part A:** The Strategy: Contains the core elements of the strategy including goal, objectives, policies and targets. It sets out what we are aiming to achieve, and the framework for working towards the vision.

**Part B:** Action Plan. This outlines the proposed actions to achieve the goal, objectives, and targets in Part A and how we will monitor and report on our actions, including how they are funded.

**Part C:** Supporting Information. This is the background information that has formed the development of our WMMP.

### 2 Goal, objectives, policies and targets

#### 2.1 Our Goals

The Taupō district WMMP goals are:

- To protect public health and safeguard the Taupō district environment by ensuring waste and diverted material is managed in a safe and sustainable manner that maintains natural and aesthetic values;
- To have the cleanest district in New Zealand.

Council’s goals reflect the aspirations of the district to protect our environment in a sustainable manner, while reducing harm.
2.2 Iwi

The relationship of Maori with their ancestral resources is a matter of national importance under the Resource Management Act. The management and disposal of waste is an important issue to our iwi, Tuwharetoa.

The planning and activities associated with waste management recognise and provide for the relationship of Tuwharetoa with the natural and cultural resources of the district.

2.3 Objectives, Policies and Target

The following objectives identify how the goals will be achieved:

1. That waste is disposed of appropriately and public health is protected;
2. Reduce the total quantity of waste to landfill;
3. Increase the quantity of diverted material through reduction, reuse, recycling and recovery;
4. Use Council influence to advocate waste minimisation by producers and for increased or mandatory product stewardship;
5. Support waste minimisation initiatives within the community;
6. Utilise appropriate pricing methods to incentivise waste minimisation;
7. A change in behaviour around litter in the district.

2.3.1 Policies

The following policies support the objectives:

Policy 1
Council will provide for appropriate disposal of refuse in the district.
Supports Objective 1, 7

Policy 2
Council will provide and support waste minimisation where appropriate.
Supports Objective 2, 3, 4, 5, 6

Policy 3
Council will continue to provide waste education to enable waste minimisation in the district and will endeavour to work with the regional Councils to maximise opportunities.
Supports Objective 2, 3, 4, 5, 7

Policy 4
Council will lobby central government on a district or regional basis or through Local Government NZ, WasteMINZ and / or appropriate partners regarding waste management and minimisation issues.
Supports Objective 1, 2, 3, 4, 5, 6, 7

Policy 5
Council will fund initiatives to achieve a reduction in litter in the district.
Supports Objective 1, 2, 3, 5, 6, 7
2.3.2 Target

The production of waste is directly linked to GDP so Council has limited control over waste to landfill tonnages. A large percentage of the current waste to landfill is controlled by the commercial market service provision. Council should look to increase the current waste diversion rate of 46% relative to the tonnes disposed to landfill.

“By 2028, increase the quantity of material (tonnes) diverted from landfill from 46% to 51%”
3 Considerations

In preparing this WMMP, our considerations include:

- Information on the waste we generate and manage in our district;
- The waste hierarchy;
- Public health;
- Projections of how our population and economy might change over time;
- Input from the commercial sector;
- Feedback from the health sector;
- The potential costs and benefits of different options to manage our waste.

The detail of the above information is contained in the Waste Assessment.

We have recognised plans, policies and legislative requirements, including:

- The Waste Minimisation Act (WMA) 2008;
- The Local Government Act (LGA) 2002;
- The Hazardous Substances and New Organisms (HSNO) Act 1996;
- The Resource Management Act (RMA) 1991;
- The Health Act 1956;
- The Health and Safety at Work Act 2015;
- Climate Change (Emission Trading) Amendment Act 2008;
- The New Zealand Waste Strategy (NZWS);
- Regional Policy Statement for the Waikato Region;
- Waikato Waste and Resource Efficiency Strategy (2016-18)
- The Taupō District Council Long Term Plan.

Further information on the reflection of these plans, policies and legislation within this plan is contained in the Waste Assessment.

4 The waste situation

Globally there is increasing understanding of the need to improve resource efficiency and reduce waste. We live on one planet with finite resources and we cannot consume at the current levels without change in the way we use them. We could all benefit from improving our purchase and disposal habits, thereby reducing costs and waste. Progress is being made by individuals, communities and industries alike who are seeking to reduce waste in innovative ways.

Internationally we are thinking and acting differently in regards to waste materials and waste volumes are directly linked to economic performance. As New Zealand’s economy has seen growth, so too have waste volumes nationally. This is mirrored here in the Taupō district.
4.1 Global considerations
A large percentage of recovered material is sent to Asia, in particular China. Recently China have imposed tougher regulations regarding the quality of imported recovered materials, this has resulted in over-supply of recovered material and a resulting reduction in the price paid. It’s currently unknown how long these regulations will be in place for, but the reduction in value of recovered material will have impacts on costs of collection and processing contracts.

4.2 Our district

Waste Tonnages to consented Landfills in New Zealand
Monthly Waste Tonnages at the Broadlands Road Landfill

Economic growth has seen an average 20% increase in waste tonnages in the district from 2014, which reflects Councils inability to control overall waste volumes as the community buys and discards increased levels of materials.

4.3 Where does it come from?
Activity sources of waste to Landfill

<table>
<thead>
<tr>
<th>Activity sources of all waste from Taupō District 19 February-18 March 2017</th>
<th>% of weight</th>
<th>Tonnes/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;D</td>
<td>19%</td>
<td>93 T/week</td>
</tr>
<tr>
<td>ICI</td>
<td>38%</td>
<td>186 T/week</td>
</tr>
<tr>
<td>Landscaping</td>
<td>5%</td>
<td>23 T/week</td>
</tr>
<tr>
<td>Residential</td>
<td>13%</td>
<td>62 T/week</td>
</tr>
<tr>
<td>Subtotal – General waste</td>
<td>73%</td>
<td>364 T/week</td>
</tr>
<tr>
<td>Kerbside waste collections</td>
<td>26%</td>
<td>128 T/week</td>
</tr>
<tr>
<td>Specials</td>
<td>1%</td>
<td>4 T/week</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>496 T/week</td>
</tr>
</tbody>
</table>

The activity source of the waste to landfill identifies how the waste was generated. The bulk of the general waste coming to the site is construction and demolition (C&D) waste, and from industrial, commercial and institutional sources (ICI). Kerbside refuse collected makes up the majority of the remaining tonnages.
### 4.4 Composition of waste to landfills

**Primary composition of overall waste to Broadlands Road landfill - 19 February-18 March 2017 survey period**

<table>
<thead>
<tr>
<th>Overall waste to landfill - Primary composition 19 February-18 March 2017</th>
<th>% of weight</th>
<th>Tonnes/week</th>
<th>Tonnes per annum (indicative only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>10.2%</td>
<td>50 T/week</td>
<td>2,532 T/annum</td>
</tr>
<tr>
<td>Plastics</td>
<td>12.3%</td>
<td>61 T/week</td>
<td>3,065 T/annum</td>
</tr>
<tr>
<td>Organics</td>
<td>24.0%</td>
<td>119 T/week</td>
<td>5,974 T/annum</td>
</tr>
<tr>
<td>Ferrous metals</td>
<td>2.9%</td>
<td>15 T/week</td>
<td>730 T/annum</td>
</tr>
<tr>
<td>Non-ferrous metals</td>
<td>0.8%</td>
<td>4 T/week</td>
<td>193 T/annum</td>
</tr>
<tr>
<td>Glass</td>
<td>2.4%</td>
<td>12 T/week</td>
<td>589 T/annum</td>
</tr>
<tr>
<td>Textiles</td>
<td>7.5%</td>
<td>37 T/week</td>
<td>1,868 T/annum</td>
</tr>
<tr>
<td>Sanitary paper</td>
<td>6.0%</td>
<td>30 T/week</td>
<td>1,504 T/annum</td>
</tr>
<tr>
<td>Rubble</td>
<td>10.9%</td>
<td>54 T/week</td>
<td>2,717 T/annum</td>
</tr>
<tr>
<td>Timber</td>
<td>20.0%</td>
<td>99 T/week</td>
<td>4,988 T/annum</td>
</tr>
<tr>
<td>Rubber</td>
<td>1.3%</td>
<td>6 T/week</td>
<td>316 T/annum</td>
</tr>
<tr>
<td>Potentially hazardous</td>
<td>1.7%</td>
<td>8 T/week</td>
<td>425 T/annum</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>496 T/week</strong></td>
<td><strong>24,901 T/annum</strong></td>
</tr>
</tbody>
</table>

The tonnes per annum are indicative only as they are based on the survey data gathered over the survey period only.

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**Composition of overall waste to Broadlands Road landfill - 496 tonnes/week - 19 February-18 March 2017**

Composition of Waste to Landfill
Organics was the largest primary category of waste disposed of at the transfer pit, comprising 24% of the total weight, followed by timber at twenty percent. Paper, plastics, and rubble all comprised 33% of the total. Volumes will vary during the year with population and spring growth periods.

Data has been gathered by way of a Taupō District Council funded SWAP, which is a process of estimating waste volumes as waste is offloaded at the landfill.

### 4.5 Material diverted from landfill

**Total Tonnes of Recyclables Collected or Diverted 16/17**

<table>
<thead>
<tr>
<th>Material</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Plastic / tin / ally cans</td>
<td>869.69</td>
</tr>
<tr>
<td>Batteries</td>
<td>6.76</td>
</tr>
<tr>
<td>Steel</td>
<td>694.75</td>
</tr>
<tr>
<td>Concrete</td>
<td>5,686.00</td>
</tr>
<tr>
<td>Glass</td>
<td>2,328.90</td>
</tr>
<tr>
<td>Paper / Cardboard</td>
<td>1,955.97</td>
</tr>
<tr>
<td>Cardboard</td>
<td>982.70</td>
</tr>
<tr>
<td>Home composting</td>
<td>174.00</td>
</tr>
<tr>
<td>Green waste</td>
<td>8,713.00</td>
</tr>
</tbody>
</table>

**Material diverted from landfill**

Overall TDC services have diverted 21,419 tonnes of material from being disposed to the Broadlands Road Landfill. This does not take into consideration material diverted from the re-use facilities, given that weights can be difficult to determine.

The tonnage of material processed combines 2016/17 waste-to-landfill of 24,490 and the diverted material tonnage of 21,419 for a total of 45,909, which equates to waste diversion of 46%.

While the tonnage of plastic and glass are smaller than the concrete and green waste amounts, these two material types require significant extra effort to process due to the numbers of items being processed.

Breaking tonnages into individual materials diverted, has the total glass tonnage at an estimated 5.24 million bottles and the plastic tonnage would equate to an estimated 15.82 million containers.
4.5.1 Per capita disposal of waste - comparison with 2008 and 2013

The per capita disposal of waste to landfill by residents of the Taupō District in 2017 is calculated and compared to the same figures for 2008 and 2013.

The per capita figure is calculated for all waste-to-landfill followed by all waste to landfill with special wastes excluded. For 2017, 154 tonnes of special wastes were recorded by the weighbridge at Broadlands Road.

**Table 4.1 - Per capita disposal of waste to landfill**

<table>
<thead>
<tr>
<th>Per capita disposal of waste to landfill</th>
<th>2017</th>
<th>2013</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually resident population Taupō District</td>
<td>37,000</td>
<td>34,300</td>
<td>32,148</td>
</tr>
<tr>
<td>T/annum to landfill – including special wastes</td>
<td>24,901 T/annum</td>
<td>18,118 T/annum</td>
<td>19,700 T/annum</td>
</tr>
<tr>
<td>Per capita disposal of waste to landfill – including special wastes</td>
<td>0.673 T/capita/annum</td>
<td>0.528 T/capita/annum</td>
<td>0.613 T/capita/annum</td>
</tr>
<tr>
<td>T/annum to landfill – excluding special wastes</td>
<td>24,747 T/annum</td>
<td>17,612 T/annum</td>
<td>18,913 T/annum</td>
</tr>
<tr>
<td>Per capita disposal of waste to landfill – excluding special wastes</td>
<td>0.669 T/capita/annum</td>
<td>0.513 T/capita/annum</td>
<td>0.588 T/capita/annum</td>
</tr>
</tbody>
</table>

Based on tonnage data the per capita disposal of waste to landfill including special wastes has increased by 27% between 2013 and 2017, from 0.528 tonnes per capita per annum to 0.673.
Per capita disposal of waste; comparison with other areas

The Taupō District per capita figure for landfilled waste, including special wastes, is compared to disposal figures from other local authorities by Waste Not Consulting. The national average has been calculated using MFE’s waste levy data and resident population estimates come via Statistics NZ.

Taupō District disposal rates compared to other areas

<table>
<thead>
<tr>
<th>Waste to landfill including special wastes (excluding cover materials)</th>
<th>Tonnes per capita per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gisborne District 2010</td>
<td>0.305</td>
</tr>
<tr>
<td>Waimakariri District 2012</td>
<td>0.311</td>
</tr>
<tr>
<td>Westland District 2011</td>
<td>0.331</td>
</tr>
<tr>
<td>Ashburton District 2015</td>
<td>0.366</td>
</tr>
<tr>
<td>Napier/Hastings 2016</td>
<td>0.495</td>
</tr>
<tr>
<td>Southland region 2011</td>
<td>0.500</td>
</tr>
<tr>
<td>Tauranga and WBOP District 2014/15</td>
<td>0.524</td>
</tr>
<tr>
<td>Christchurch City 2012</td>
<td>0.524</td>
</tr>
<tr>
<td>Taupō District 2013</td>
<td>0.528</td>
</tr>
<tr>
<td>Wellington region 2016</td>
<td>0.608</td>
</tr>
<tr>
<td>Hamilton City 2013</td>
<td>0.668</td>
</tr>
<tr>
<td>Taupō District 2017</td>
<td>0.673</td>
</tr>
<tr>
<td>New Zealand 2016</td>
<td>0.713</td>
</tr>
<tr>
<td>Queenstown Lakes District 2012</td>
<td>0.735</td>
</tr>
<tr>
<td>Rotorua District 2009</td>
<td>0.736</td>
</tr>
<tr>
<td>Auckland region 2012</td>
<td>0.803</td>
</tr>
<tr>
<td>Queenstown Lakes District 2016</td>
<td>1.103</td>
</tr>
</tbody>
</table>

The per capita disposal rate for Taupō District in 2017 was marginally lower than the New Zealand average for 2016, but higher than most other provincial centres. Areas with high tourism activity, such as Taupō, Queenstown, and Rotorua tend to have higher per capita disposal rates. Tourism activity generates waste but tourists are not counted by the census.

This is the only data available for waste generation in the district. The table does not include waste generated from non-resident rate payers. If both non-resident and tourism population figures were included the actual per capita waste figure would be lower.
4.6 Key issues
The aim of waste planning at a territorial authority level is to achieve effective and efficient waste management and minimisation. Priority waste streams and service options that could be targeted to reduce waste to landfill include:

- Construction and demolition waste and in particular timber is a significant part of the waste stream which may be able to be recovered;
- Organic waste;
- E-waste;
- Litter and litter awareness;
- Kerbside recyclables both from domestic and commercial properties;
- Rural and farm waste. This is a relatively unknown quantity and increased awareness of the problems associated with improper disposal may drive demand for better services;
- Street recycling;
- Support of local marae and Iwi groups;
- Product stewardship support, via lobbying of central government;
- Schools organics;
- A waste fund to support community waste minimisation programs;
- Price incentivise diversion practises;
- Support of events with waste guidelines and education support;
- Single use plastic bag reduction.
Part B: Action plan

5 Introduction
The following outlines how Taupō District Council intends to work towards the goals and objectives, and address the issues outlined in Part A of the WMMP.

This aims to set out clear, practical initiatives that Council will implement. While the action plan forms part of the WMMP, it is intended to be a series of useful ‘living’ documents that can be regularly updated to reflect current plans and progress. Under the WMA, the plans can be updated without triggering the need for a formal review of the WMMP, as long as the changes are not significant and do not alter the direction and intent of the strategy as set out in the strategy.

5.1 Considerations
This is a strategic document of high-level intentions for actions to meet our obligations under the WMA. Further work will be required to determine the costs and feasibility of some projects which may affect how, when, or if they are implemented.

In some instances, the delivery of the actions set out in this plan will depend on the development or amendment of contractual arrangements with providers. The nature of these arrangements cannot be pre-empted and may influence the nature, timing, or cost of these projects or services.

5.2 Council’s intended role
Council intends to oversee, facilitate and manage a range of programmes and interventions to achieve effective and efficient waste management and minimisation within the district. Council will do this through internal structures responsible for waste management. We are responsible for a range of contracts, facilities and programmes to provide waste management and minimisation services to the residents and ratepayers of the Taupō district.

5.3 Protecting Public Health
Both hazardous and putrescible waste has the potential to be detrimental to our health. A key objective of any waste minimisation and management system is to protect public health. Any impact can be significantly reduced by avoiding, or carefully managing contact with waste. In practise, this means:

- Providing appropriate containers for storing waste prior to collation, these may be reusable wheelie bins or single-use rubbish bags;
- Providing dedicated public drop-off areas at transfer stations and landfills;
- Regular collection and disposal;
- Suitable collection and transport vehicles;
- Disposal at a well-constructed and operated landfill including provision of appropriate barrier system such as base liner and adequate daily, immediate and final cover.
## 6.0 Action Plan

<table>
<thead>
<tr>
<th>Title</th>
<th>Issue addressed</th>
<th>New or existing action</th>
<th>Timeframe</th>
<th>Funding</th>
<th>objective</th>
<th>Contribution to target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerbside Refuse &amp; Recycling collection</td>
<td>Provide a convenient refuse and recycling collection service to the urban community</td>
<td>Existing</td>
<td>Ongoing</td>
<td>Rates User charges</td>
<td>1, 2, 2, 6</td>
<td>Approximately 5200 tonnes diverted per annum annually</td>
</tr>
<tr>
<td>Subsidising of Home composting bins and worm farms (with summer workshops)</td>
<td>Reduction of food waste being disposed to landfill</td>
<td>Existing</td>
<td>Ongoing</td>
<td>Waste Levy (Govt funding)</td>
<td>2, 3, 4</td>
<td>Approximately 180 tonnes diverted per annum</td>
</tr>
<tr>
<td>E –Waste recycling</td>
<td>Reduce the amount of electronic waste going to Landfill</td>
<td>New</td>
<td>Introduce in 2018</td>
<td>Waste Levy (Govt funding)</td>
<td>2, 3, 4</td>
<td>Approximately 30 tonnes per annum</td>
</tr>
<tr>
<td>Support district marae and iwi groups with targeted waste minimisation education program</td>
<td>Provide waste education to support Iwi to divert waste</td>
<td>New</td>
<td>Introduce in 2018</td>
<td>Waste levy (Govt funding)</td>
<td>1, 2, 3, 5, 6</td>
<td>Approximately 20 tonnes per annum</td>
</tr>
<tr>
<td>Provide waste minimisation grants for community based waste minimisation projects</td>
<td>To support community waste minimisation activities</td>
<td>New</td>
<td>Introduce in 2018</td>
<td>Waste levy (Govt funding)</td>
<td>2, 3, 5, 7</td>
<td>Unknown</td>
</tr>
<tr>
<td>Retain Broadlands Road landfill &amp; district transfer stations</td>
<td>Provide disposal and waste diversion opportunities throughout the district</td>
<td>Existing</td>
<td>Ongoing</td>
<td>Rates User charges</td>
<td>1, 2, 3, 6</td>
<td>Approximately 16,000 tonnes per annum</td>
</tr>
<tr>
<td>Retain current mix of education programs (paper for trees,</td>
<td>Provide disposal and waste diversion education</td>
<td>Existing</td>
<td>Ongoing</td>
<td>Rates</td>
<td>1, 2, 3, 5, 7</td>
<td>Unknown</td>
</tr>
<tr>
<td>nappy Lady, love food hate waste, composting workshops</td>
<td>opportunities throughout the district</td>
<td>Waste Levy (government funding)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Advocate for product stewardship. (Tyres, drink containers, Haz waste, E-waste etc.)</td>
<td>Shift the burden of waste diversion to the producer and consumer and provide a circular economy</td>
<td>Existing</td>
<td>Ongoing</td>
<td>Rates Waste Levy (government funding)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase the number of warranted litter officers within existing Council staff</td>
<td>To reduce the amount of illegal dumping &amp; Litter</td>
<td>New</td>
<td>Introduce 2018</td>
<td>Rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the generation of construction and demolition waste and work with commercial operators to try and increase diversion</td>
<td>Determine if there is the ability to divert construction and demolition waste</td>
<td>New</td>
<td>Investigate from 2018</td>
<td>Rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work with local schools to increase organics diversion through education and the home composting subsidy program</td>
<td>Increase the participation in the home composting program</td>
<td>New</td>
<td>Introduce 2018</td>
<td>Waste Levy (Govt funding)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the generation of farm waste and waste management in rural areas and work with farming sector on</td>
<td>Further understand the needs of the rural sector and plan to support rural waste disposal and waste diversion</td>
<td>New</td>
<td>Investigate from 2018</td>
<td>Rates</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unknown, but could be significant
<table>
<thead>
<tr>
<th>waste reduction options</th>
<th>Support local events to minimise event waste</th>
<th>Provide additional support to local event organisers to increase their waste diversion in the form of education</th>
<th>New</th>
<th>Introduce in 2018</th>
<th>Waste Levy (government funding)</th>
<th>1,2,3,5,6</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implement a targeted litter prevention program (take care of a beach / road)</td>
<td>Reduce the incidences of illegal dumping and reduce the amount of litter</td>
<td>New</td>
<td>Introduce in 2018</td>
<td>Rates Waste Levy (government funding)</td>
<td>1,5,7</td>
<td>Unknown</td>
</tr>
<tr>
<td></td>
<td>Support and facilitate the reduction of single use plastic bags in the district</td>
<td>Reduce the impact of plastic on the environment</td>
<td>New</td>
<td>Investigate from 2018</td>
<td>Rates Waste Levy (government funding)</td>
<td>3,4,5,6,7</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
6 Monitoring evaluating and reporting progress

6.1 Monitoring and Reporting
Progress on the target to increase the diversion of waste from landfill will be reported on annually through the annual report.

7 Funding the plan
The Waste Minimisation Act 2008 (s43) (WMA) requires that councils include information about how the implementation of this plan will be funded, as well as information about any grants made and expenditure of waste levy funds.

7.1 Funding local actions
There is a range of options available to local councils to fund the activities set out in this plan. These include:

- Uniform Annual General Charge (UAGC) - a charge that is paid by all ratepayers;
- User Charges - includes charges for user-pays collections as well as transfer station gate fees;
- Targeted rates - a charge applied to those properties receiving a particular council service;
- Waste levy funding - The Government redistributes funds from the $10 per tonne waste levy to local authorities on a per capita basis. By law, 50% of the money collected through the levy must be returned to councils. This money must be applied to waste minimisation activities;
- Waste Minimisation Fund - Most of the remaining 50% of the levy money collected is redistributed to specific projects approved by the Ministry for the Environment. Anyone can apply to the WMF for funding for projects;
- Sale of recovered materials - The sale of recovered materials can be used to help offset the cost of some initiatives;
- Private sector funding - The private sector may undertake to fund/supply certain waste minimisation activities; for example, in order to look to generate income from the sale of recovered materials etc. Council may look to work with private sector service providers where this will assist in achieving the WMMP goals.

Funding considerations include:

- Prioritising harmful wastes;
- Waste minimisation and reduction of residual waste to landfill;
- Full-cost pricing, ‘polluter pays’;
- Public good vs. private good component of a particular service;
- That the environmental effects of production, distribution, consumption and disposal of goods and services. These should be consistently costed, and charged as closely as possible to the point they occur to ensure that price incentives cover all costs;
- Protection of public health;
- Affordability;
- Cost effectiveness.
The potential sources of funding for each of the actions are noted in the tables in the action plan of the WMMP. Budgets to deliver the activities set out in this plan will be carefully developed through the annual plan and long term plan processes. The approach is to implement as many activities as possible while controlling costs and, taking advantage of cost savings and efficiencies. It is anticipated that by setting appropriate user charges, reducing costs through avoided disposal, more efficient service delivery from joint working, and targeted application of waste levy money, the increased levels of waste minimisation as set out in this WMMP will be able to be achieved at an acceptable cost to the community.

7.2 TA Waste levy funding
Council receive, based on population a share of national waste levy funds from the Ministry for the Environment. It is estimated that at $10 per tonne our council’s total share of waste levy funding will be $120,000 per annum.

The WMA requires that all waste levy funding received by local councils must be spent on matters to promote waste minimisation and in accordance with their WMMP.

Waste levy funds can be spent on ongoing waste minimisation services, new services, or an expansion of existing services. The funding can be used on education and communication, services, policy research and reporting, to provide grants, to support contract costs, or as infrastructure capital.

We intend to use our waste levy funds for a range of waste minimisation activities and services as set out in the action plan – including participating in regional, sub-regional and national activities.

In addition, we may make an application for contestable waste levy funds from the Waste Minimisation Fund, either separately, with other councils, or with another party. The Waste Minimisation Fund provides additional waste levy funds for minimisation activities.

7.3 Funding business and community actions
Councils have the ability under the WMA (s47) to provide grants and advances of money to any person, organisation or group for the purposes of promoting or achieving waste management and minimisation, as long as this is authorised by the WMMP.

We intend to develop a grants program where businesses, community groups and other organisations can apply for funding from council for projects which align with and further the objectives of this WMMP.
### Glossary of terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;D Waste</td>
<td>Waste generated from the construction or demolition of a building, including the preparation and/or clearance of the property or site. This excludes materials such as clay, soil and rock when they are associated with infrastructure such as road construction and maintenance, but includes building-related infrastructure.</td>
</tr>
<tr>
<td>Cleanfill</td>
<td>A cleanfill (properly referred to as a Class 4 landfill) is any disposal facility that accepts only cleanfill material. This is defined as material that, when buried, will have no adverse environmental effect.</td>
</tr>
<tr>
<td>Disposal</td>
<td>Final deposit of waste into or onto land, or incineration.</td>
</tr>
<tr>
<td>Diverted Material</td>
<td>Anything that is no longer required for its original purpose other than for commercial or other waste minimisation activities, would be disposed of or discarded.</td>
</tr>
<tr>
<td>Domestic Waste</td>
<td>Waste from domestic activity in households.</td>
</tr>
<tr>
<td>ETS</td>
<td>Emissions Trading Scheme.</td>
</tr>
<tr>
<td>Food waste</td>
<td>Any food scraps – from preparing meals, leftovers, scraps, tea bags, coffee grounds.</td>
</tr>
<tr>
<td>Green waste</td>
<td>Waste largely from the garden; hedge clippings, tree/bush pruning’s, lawn clippings.</td>
</tr>
<tr>
<td>Hazardous waste</td>
<td>Waste that can cause harm or damage, to people or the environment, like strong chemicals. Should not go in to landfills.</td>
</tr>
<tr>
<td>ICI</td>
<td>Industrial, Commercial, Institutional.</td>
</tr>
<tr>
<td>Landfill</td>
<td>Tip or dump. A disposal facility as defined in S.7 of the Waste Minimisation Act 2008, excluding incineration. Includes, by definition in the WMA, only those facilities that accept ‘household waste’. Properly referred to as a Class 1 landfill.</td>
</tr>
<tr>
<td>LTP</td>
<td>Long Term Plan.</td>
</tr>
<tr>
<td>MFE</td>
<td>Ministry for the Environment.</td>
</tr>
<tr>
<td>MGB</td>
<td>Mobile garbage bin; wheelie bin.</td>
</tr>
</tbody>
</table>
MRF  Materials Recovery Facility.

MSW  Municipal Solid Waste.


NZWS  New Zealand Waste Strategy.

Putrescible, garden, greenwaste  Plant based material and other biodegradable material that can be recovered through composting, digestion or other similar processes.

Recovery  a) extraction of materials or energy from waste or diverted material for further use or processing;

b) includes making waste or diverted material into compost

Recycling  The reprocessing of waste or diverted material to produce new materials.

Reduction  Lessening waste generation, including by using products more efficiently or by redesigning products;

b) In relation to a product, lessening waste generation in relation to the product.

Reuse  The further use of waste or diverted material in its existing form for the original purpose of the materials or products that constitute the waste or diverted material, or for a similar purpose.

RTS  Refuse Transfer Station.

Rubbish  Waste that currently has little other management options other than disposal to landfill.

TA  Territorial Authority; a city or district council.

WA  Waste Assessment as defined by s51 of the Waste Minimisation Act 2008. A Waste Assessment must be completed whenever a WMMP is reviewed.

Waste Assessment  A document summarising the current situation of waste management in a locality, with data, as required under the Waste Minimisation Act.

Waste Hierarchy  A list of waste management options with decreasing priority – usually shown as ‘reduce, reuse, recycle, reprocess, treat, and dispose’.


WMMP  A Waste Management and Minimisation Plan as defined by s43 of the Waste Minimisation Act (2008).