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Solid Waste Asset
Management Plan

11th January 2017

Solid Waste Asset Management Plan Status

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1 Foreword / Overview

1.1 Introduction

The purpose of this Solid Waste Asset Management Plan (AMP) is to provide a framework for the effective and efficient long term management of the Central Hawke's Bay District Council (the Council) solid waste assets. It sets out the strategic focus of the Council towards the provision of the solid waste service, the levels of service the Council intends to deliver after considering the needs and aspirations of the community, the management of the assets and associated risks and the financial forecasts.

The information contained within this plan is defined in accordance with the current Council's Long Term Plan 2015-2025 (LTP) and, more generally, in compliance with the Local Government Act 2002.

Every effort has been made to ensure that the information contained in this plan is as accurate as possible. Some sections will also need to be completed when appropriate and accurate information is available. However, it should be noted that this plan is a living document that will be developed and refined over time. It will be regularly reviewed and updated to keep abreast of changing community expectations, the lifecycle of the assets and the ever changing environment in which we operate in.

1.2 Our Strategic Goals

The Council's Strategic Goals in relation to solid waste management are defined in the 2012 Waste Management and Minimisation Plan as follow:

Strategic Goal 1: Reducing the harmful effects of waste; and

Strategic Goal 2: Improving the efficiency of resource use.

Through these goals, the Council aims to provide a solid waste infrastructure that:

- Meets Council's Waste Management and Minimisation Plan adopted in 2012
- Reduces demand for use of the landfill
- Increases demand on the existing recycling facilities
- Provides continuity of service within the collection areas
- Provides continuity of access to transfer stations for the residents of the District
- Increases demand for green waste collection and reuse
- Provides the service in a sustainable way
- Protects the natural environment.

Whilst:

- Educating the community about their role in and the benefits of waste minimisation and recycling
- Encouraging the community to participate in decision-making processes and to be informed of changes or initiatives within the District regarding solid waste

- Providing enough funding to the solid waste activity to allow the efficient disposal of solid waste and continuation of recycling programs
- Supporting Council's developed strategies and environmental goals.

1.3 Our Solid Waste Activity

Why does Council have a solid waste activity?

The Council has a legal obligation to ensure that solid waste services are provided within the District under the Local Government Act 2002. The Council is also required to provide these services to the District in order to minimise health risks and avoid adverse environmental effects.

Services provided through the solid waste activity

Within the District, the majority of solid waste services are provided by the Council. Some private operators, such as wheelie bin operators, commercial bin operators and scrap metal recyclers also provides solid waste services. The solid waste services provided by the Council are:

- Collection and reuse of recyclable materials.
- Collection and reuse of green waste.
- Collection and disposal of residual waste.
- Managements of Open and Closed landfills.

A new system for these services was introduced for the 2003-04 year with provision of recycling centres and kerbside collection of recyclables, reduced transfer station hours, green waste separation and user pays charges at transfer stations. The Solid Waste Services are delivered through the following components:

- Kerbside collection of refuse in the main town and beach communities (via a contractor).
- Kerbside collection of recyclable waste in Waipukurau and Waipawa (via a contractor).
- Litter bins at shopping areas, parks, beaches and other places.
- Recycling centres in Waipukurau, Waipawa, Otane, Tikokino, OngaOnga, Takapau and Porangahau.
- Transfer stations for the collection of refuse and green waste at Waipukurau, Waipawa, Takapau and Porangahau.
- The District's landfill for the disposal of refuse.
- Management of the 8 closed landfills.
- Education and enforcement.

1.4 Key Issues with the Solid Waste Activity

The Council is facing a number of key issues with regards to the Solid Waste Activity:

- Continuing assessment of the viability of different collection methods.
- Assessing recycling options for beach communities.
- Considering the market demand and volatility for recyclable materials and securing markets.

- Ensuring quality data is collected for waste materials collection and associated quantities.
- Material destination – the environmental benefits of recycling certain materials, e.g. plastics, can largely depend on the location where the materials are processed. In some instances this can result in greater environmental and health issues rather than benefits, ensuring “duty of care” for end products.
- Maximising the ability of sites to adapt to future demands.
- Ensuring a safe environment for Council’s staff, customers and contractors.
- Reducing noise impact of the activity.
- Improving the sites layouts, ability to move around the sites and how user friendly the sites are.
- Traffic management within and outside the infrastructure.
- Meeting customer requirements and expectations.
- Maximising the ease with which resources can be handled.
- Assessing the number and distribution of litter bins.
- Controlling windblown litter and leachate at the transfer stations and landfills.
- Meeting the cost of monitoring the closed landfills.
- Finding solutions for the appropriate disposal of problematic waste, such as tyres and e-waste.

Beside, and in addition to the future demands on services, the Waste Assessment identified a number of emerging issues or “demands” that affect solid waste services. These include:

- Options for household hazardous and medical waste disposal
- Demand and allocation of public litter bins
- Access at cleanfill disposal sites
- Waste minimisation promotion
- Revision of waste management and minimisation performance measures and targets.

These issues are addressed in the Waste Management and Minimisation Plan 2012 (WMMP). During the process of preparing the proposed new WMMP, the solid waste policy (Council Policy 4.1) was reviewed.

1.5 Funding of the Solid Waste Activity

Council funds this activity from a number of budget areas

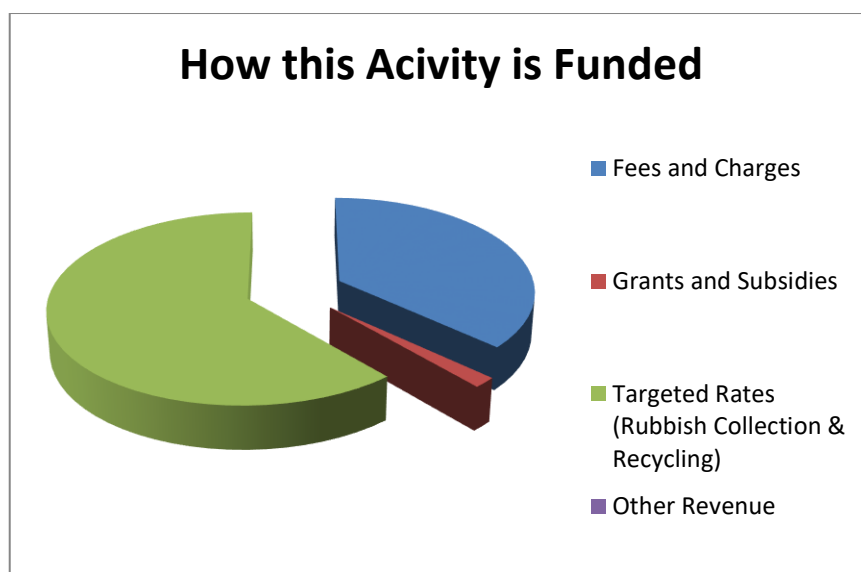


Figure 1: Funding of the Solid Waste Activity

Operating and Renewals Costs are funded by income from:

- Targeted rates from each separately rateable site within the collection area (rating Unit).
- Dumping fees for the use of the transfer stations and landfill.
- Sales of official Central Hawke's Bay District Council (CHBDC) rubbish bags.
- Waste Disposal Levies where available.
- Income from the sale of space in the District's landfill for "out of district" parties.

Capital Cost are funded from the following areas:

- Loans for discrete projects.
- Other funding sources such as Government subsidies where available.

A detailed summary can be found in the Section 8-Financial of this document which outlines in detail the Council's financial plan for the next 10 years in relation with the Solid Waste Activity.

1.6 Solid Waste Activity Key Achievements

The Council's key achievements regarding the Solid Waste Activity are:

- Extension of a new cell at the District's landfill.
- Improved management and rehabilitation of the closed landfill sites.
- Improved access to and management of the transfer stations.
- Implementation of a new Facilities Management Contract for the collection of litter bins and general litter collection.
- New contracts to transfer stations and collections.
- Change in operation of the transfer stations, recycling drop-off centres by using hooked bins.
- Revamp of the beach waste collections.

- Improved management of landfill leachate by irrigation

1.7 Limitation of this Asset Management Plan

Limitations of this plan include:

- Inspection and condition rating of some of the key assets is still required to form a better overall picture of the solid waste assets on which to base lifecycle management decisions.
- A history of condition data needs to be accumulated on assets in order to better understand their long term behaviour.
- Ongoing verification and assessment of solid waste assets to ensure that the asset register is accurate and maintained to the highest standard Council can provide with its limited resources.
- Uncertain future growth and resultant demand on this activity.

1.8 Relationship of Asset Management Plan to other Council Documents

This Solid Waste Asset Management Plan is one of many documents compiled by Council to ensure an efficient and structure management of Council assets and ensure correct delivery of solid waste services to the District. The following diagram shows the relationship between this document and other Plans and Policies produced by the Council.

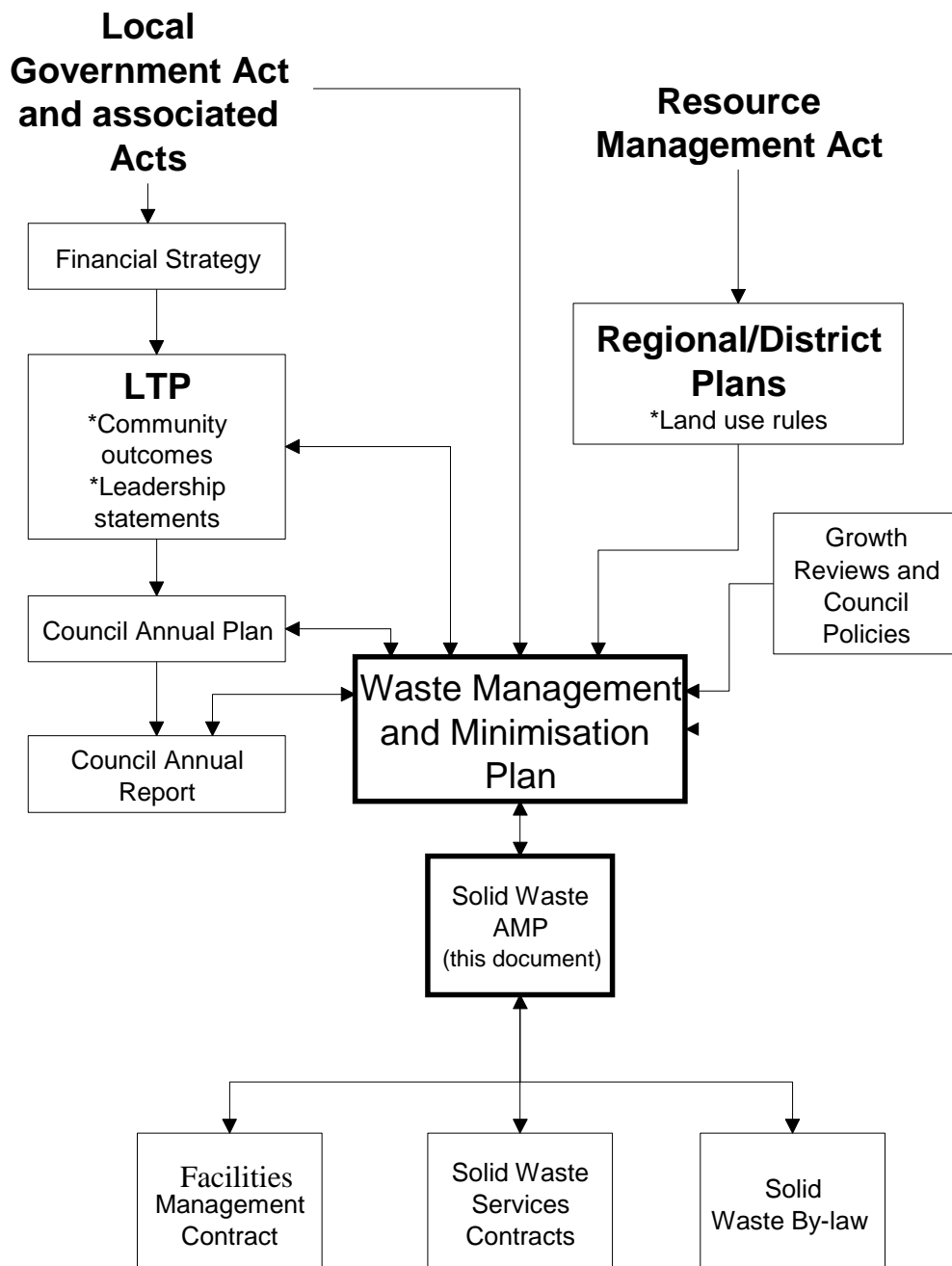


Figure 2: Relationship of the Solid Waste Asset Management Plan to Other CHBDC Documents

Key documents are described below:

- **Waste Management and Minimisation Plan (2012)**

In 2008, the New Zealand government passed the Waste Minimisation Act (WMA). Under the WMA, every Territorial Authority must adopt a Waste Management and Minimisation Plan (WMMP), in accordance with section 50 of this Act. This document, adopted in June 2012, provides the Council with a blueprint for achieving its waste management and minimisation aims in a structured way.

- **Long Term Plan (LTP) 2015-2025**

A consultation document that sets out community identified outcomes, long terms plans for each Council activity, and long term financial requirements to undertake activities and meet identified outcomes.

- **Solid Waste Asset Management Plan (this document)**

The document sets out the means to implement the strategies and outcomes identified in the Waste Management and Minimisation Plan at a tactical level.

- **Annual Plan**

Council's annual plan sets out the works to be actioned in the current financial year, the means of funding these and the performance measures to be met within each activity.

- **Annual Report**

Council's annual report is produced at the end of each financial year and is a summary of financial and physical works performances as well as performance of each activity against the required performance measures of the relevant Annual Plan.

- **Solid Waste Contracts and Facilities Management Contracts**

These contracts are for the management, operation and maintenance of all public solid waste systems within the District.

- Farm Road Landfill Management Plan
- Closed Landfill Management Plan

1.9 Relationships with Stakeholders

The key stakeholder organisations and groups that have an interest in the Solid Waste Activity are:

External Stakeholders

- The Central Hawke's Bay community, including citizens, ratepayers and local businesses
- Hawke's Bay Regional Council
- Commercial and Business interest organisations
- Ministry of Health
- Ministry for the Environment
- Local Iwi
- Department of Conservation
- Council FM Contractor and other contractors
- GreenSky Waste Solutions Ltd
- And a range of other contractors.
- New Zealand Transport Agency
- Landfill Property Owners

Internal Stakeholders

- Councilors
- Chief Executive
- Technical Services Department Staff
- Financial Support staff
- Information Technology staff
- Regulatory staff
- Utilities Department Staff

2 Strategic Environment and Legal Framework

This section looks at the Vision, Strategic goals and aims of the Council and how the Waste Management and Minimisation Plan and the Solid Waste Asset Management Plan impacts or supports the Council in achieving these goals.

2.1 Council's Vision and Strategic Goals

2.1.1 Council's mission statement

The Council's Mission Statement is:

“The Central Hawke’s Bay District Council will be accountable to its citizens for the good management of the public assets of the district and provide open local government at minimum economic cost, with the least possible intervention in the private lives of residents.”

2.1.2 Community Outcomes

Under the Local Government Act 2002, Councils are required to consult with their community to identify the outcomes that the community wish to achieve now and into the future. These outcomes apply to the entire public infrastructure. The Community Outcomes for the District are outlined in the Council's Long Term Plan 2015-2025 and have been summarised below:

Table 1 Community Outcomes

Community Outcomes	Commentary
<i>Social and Cultural – A healthy, safe place to live</i>	Safe and healthy communities through a range of Council regulatory responsibilities.
	Risks to public health are identified and appropriately managed.
<i>Social and Cultural– A desirable place to live</i>	People are involved in their local community and have a vision for their future
	People have a range of opportunities to participate in leisure, cultural and learning activities
	Our historic and cultural heritage is protected for future generations
<i>Economic – A place with a thriving economy</i>	Central Hawke’s Bay District is well promoted as a good place to do business and visit
	Central Hawke’s Bay District has an efficient and affordable roading, waste and water infrastructure
<i>Environmental – A place that is environmentally responsible</i>	We plan to develop sustainably and with minimal environmental impact
	We encourage recycling, and manage the rest in a sustainable way.

Community Outcomes	Commentary
	We plan and manage water use and wastewater disposal to minimize the effect on the environment

The Solid Waste Activity contributes to the Community Outcomes highlighted in green in Table 1 above by appropriately managing the solid waste to protect the community's wellbeing, health, safety, business development and the environment.

2.1.3 Strategic Results and Key Performance Measures

In contributing to the Mission Statement and Community Outcomes, the Council adopted the Strategic Goals set in The New Zealand Waste Strategy (NZWS) 2010. These goals are:

Strategic Goal 1: Reducing the harmful effects of waste; and

Strategic Goal 2: Improving the efficiency of resource use.

In its 2012 Waste Management and Minimisation Plan, the Council identified Strategic Objectives (and associated policies) in order to attain its solid waste activity Strategic Goals.

Table 2 Council Waste Minimisation Goals

Goal 1	Objective 1.1	Ensure that cost effective services are available for the safe, secure and affordable collection, treatment and disposal or diversion of waste.
	Objective 1.2	Avoid or mitigate adverse environmental effects for the storage and handling of waste and diverted material.
Goal 2	Objective 2.1	Ensure services are available for the effective and affordable collection, processing and marketing or beneficial use of diverted material.
	Objective 2.2	Improve the opportunity for avoiding or reducing waste at source.
	Objective 2.3	Improve the quality of diverted material where cost effective.

The Council's policies to achieve these objectives are detailed in the 2012 Waste Management and Minimisation Plan.

Strategic Results

The Council identified the following Strategic Results required to achieve the Solid Waste Activity objectives and goals:

- Ensuring the provision of a cost effective solid waste collection and disposal that protects public health and the environment, and that is affordable to the community.
- Ensuring that the solid waste assets are planned for, designed, managed, and maintained to meet the Levels of Service agreed with the community and is operated so as to prevent any undue nuisance, disturbance or damage to property.

- Managing the solid waste activity within relevant national standards and guidelines while keeping within the financial constraints set by Council.
- Providing appropriate funding to continue to allow the efficient collection and disposal of waste throughout the district at all times.
- Meeting the requirements of the Waste Minimisation Act 2008.
- Meeting all Resource Consents requirements at all times.
- Minimal interruptions to the service during maintenance and extension works.
- Supporting Council developed strategies and environmental goals.
- Maintaining assets at a level that optimises the economic life and performance of the assets.

Key Performance Measures

The table below identifies what strategic actions and associated key performance measures used to monitor the achievement of the strategic results and goals.

Table 3 Solid Waste Activity Strategic Actions and Key Performance Measures

Strategic Action	Key Performance Measures (KPMs)
Achieve defined Levels of Service.	<ul style="list-style-type: none"> • The agreed Levels of Service are achieved each year when reported in the annual report
Protect the health and safety of the community and of the maintenance and operational personnel.	<ul style="list-style-type: none"> • No report of ill health due to contamination caused by the solid waste activity • Meet the Health and Safety in Employment Act requirements
Manage and maintain services so as to ensure any adverse impacts on the environment and/or on the communities are minimised.	<ul style="list-style-type: none"> • Resource consent compliance at all times • The solid waste activity is managed in an effective way to minimise waste
Ensure the capacity for the disposal of solid waste is sufficient to prevent undue nuisance and disturbance or damage to property.	<ul style="list-style-type: none"> • Current system can cater for current and future demand on solid waste streams.
Comply with statutory requirements.	<ul style="list-style-type: none"> • No negative opinion from audit of this Asset Management Plan
Achieve compliance with appropriate technical standards.	<ul style="list-style-type: none"> • New works are designed to meet all legislative requirements and future demands.
Implement Council's policies.	<ul style="list-style-type: none"> • Council Policy is clear and enforced at all times
Achieve defined standards of system management.	<ul style="list-style-type: none"> • Processes/methods and system requirements are achieved as set out in this

Strategic Action	Key Performance Measures (KPMs)
	Asset Management Plan

2.2 Future Demand

The Council is required under the amendments to the Local Government Act 2002 and the Waste Minimisation Act 2008 to look at the future demand for the solid waste activity.

Given the complexity of assessing future demand on the service, a separate dedicated section (Section 5) discusses in detail the future demand for solid waste services and the associated uncertainties.

2.3 Legislative and Regulatory Requirements

2.3.1 General

The solid waste activity is required to comply with all applicable legislation and regulations. These form the minimum standards of service that the solid waste activity must meet.

2.3.2 Legislation and Planning Documents

Some of the acts and strategic documents that will have some application and relevance to the solid waste activity are:

Table 4 Solid Waste Activity legislation and regulations, and Council's responsibilities

Legislation or Regulation	Council Responsibilities
The Local Government Act 2002	<ul style="list-style-type: none"> Erect, construct, and maintain any public work, which in the opinion of the Council may be necessary or beneficial to the District. May make bylaws with regard to solid waste services within the District. Comply with certain financial management practices. Consult with communities.
Waste Minimisation Act 2008	<ul style="list-style-type: none"> Protect the environment from harm; and Provide environmental, social, economic, and cultural benefits.
The Resource Management Act 1991	<ul style="list-style-type: none"> Sustain the potential of natural and physical resources to meet the reasonable needs of current and future generations. Comply with the District and Regional Plans. Avoid, remedy, or mitigate any adverse effect on the environment and structures.
Hazardous Substances and New Organisms (HSNO) Act 1996	<ul style="list-style-type: none"> To protect human health and the environment from persistent organic pollutants. Requiring that decisions are made on the basis of the environmental, health and safety effects of hazardous substances and new organisms.
The Building Act 2004 and amendments.	<ul style="list-style-type: none"> Ensure all buildings and facilities constructed for the solid waste activity comply with the Act.
The Health and Safety at Work Act 2005	<ul style="list-style-type: none"> Ensure that its employees, contractors, and general public are protected from injury as a result of its activities. Notify the Occupational Safety and Health Department of serious harm or fatal accidents as a result of its activities within seven days. Maintain a hazard register.
The Public Works Act 1981	<ul style="list-style-type: none"> Set requirements for the acquisition of land by local authorities for solid waste infrastructure as required.
The Local Government (Rating) Act	<ul style="list-style-type: none"> Rate for provision of solid waste services.

Legislation or Regulation	Council Responsibilities
The Climate Change Response Act 2002	<ul style="list-style-type: none"> Provide for the implementation, operation, and administration of a greenhouse gas emissions trading scheme in New Zealand that supports and encourages global efforts to reduce the emission of greenhouse gases
The Civil Defence Emergency Act 2002	<ul style="list-style-type: none"> Establish and be a member of a Civil Defence Emergency Management Group. Coordinate, through regional groups, planning, programmes, and activities related to civil defence emergency management across the areas of reduction, readiness, response and recovery, and encourage cooperation and joint action within those regional groups. Improve and promote the sustainable management of hazards in a way that contributes to the public's well-being and safety and to property protection. Ensure that it is able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency (Lifeline Plans).

2.4 Bylaws

The main bylaw for this activity is the Central Hawke's Bay District Council, Part 6 - Solid Waste Bylaw 2008.

2.5 Policies

Council has a number of policies for the management of their assets and activities. These policies are maintained and managed in the District's Policy Manual. Policy documents relating to the solid waste activity include:

- Levels of Asset Management Plan Preparation Policy - Clarification of level of AMP
- Solid Waste Policy

2.6 Resource Consents and Properties information

2.6.1 Resource Consents

Resource consents are required for discretionary activities covered in the Regional Resource Management Plan. If there is any doubt as to whether a consent is required, Hawke's Bay Regional Council Environmental Consents Officers are able to provide advice.

Any earthworks which may modify or destroy an archaeological site will require separate approval from the Historic Places Trust.

Land use consents are required for any activities, such as earthworks, reclamation, dumping and construction of structures, within the bed of a lake, river or stream (see Section 13 of the Resource Management Act 1991). Any proposed activity in a lake, river or streambed will require land use consent. In all situations where land use consent is a requisite, no earthworks can proceed until the consent has been obtained from the Regional Council.

Council holds the resource consents listed below.

Table 5: Resource Consents held by the Council for the Solid Waste Activity

Site	Consent Number	Consent for	Consent expires
District Landfill	LU940281/6B	Land use consent for the drilling of up to six monitoring bores to a	2030

Site	Consent Number	Consent for	Consent expires
		maximum depth of 50 metres, up to a 100 metres from the landfill site.	
District Landfill	LU940279C	Land use consent for the construction and use, over various un-named tributaries of the Tangatapura Stream, of an access road, a sediment retention pond and outfall, a leachate pond, temporary stream diversions, machinery storage areas and amenity areas, and associated earthworks.	2030
District Landfill	LU940280S	Land use consent for the carrying out of earthworks using machinery, for the purpose of landfilling, including the construction of the access road.	2030
District Landfill	LU940272T	Water permit for various taking, using, diverting, and damming necessary for the landfill construction and operation.	2030
District Landfill	LU940278L	Discharge permit for various discharges of contaminants or water to land, water or air.	2030
Closed landfills at: OngaOnga Porangahau Tikokino Tamumu Waipukurau Kairakau Takapau Waipawa	DP950130L/A DP950131L/A DP950132L/A DP950133L/A DP950134L/A DP950136L/A DP950137L/A DP950138L/A	Discharge leachate derived from the decomposition of refuse within a closed landfill into or onto land in circumstances which will result in those contaminants entering water, and to discharge landfill gas derived from the decomposition of refuse within a closed landfill into the air.	2033

2.6.2 Land Use Consents

Land use consents held for this activity are indicated in the table below.

Table 6: Land use consents held by the Council for the Solid Waste Activity

Facility	Consent Number
District Landfill	
Otane Recycling Centre	030085
OngaOnga Recycling Centre	030092
Tikokino Recycling Centre	030103
Porangahau Recycling Centre	030107
Takapau Recycling Centre	

2.6.3 Property Designations

Designations are recorded in the Central Hawke's Bay District Council's District Plan for the following site.

Table 7: Designation of properties managed by the Council for the Solid Waste Activity

Site	Map number	Designation number
Tikokino Closed Landfill	4	3
OngaOnga Closed Landfill	8	11
Waipukurau Closed Landfill	9, 31	25
Tamumu Closed Landfill	9	26
Porangahau Closed Landfill	44	63
District Landfill	13	109

Site	Map number	Designation number
Takapau Transfer Station and Takapau Closed Landfill	36	60
Waipawa Transfer Station and Waipawa Closed Landfill	28	74
Waipukurau Transfer Station	31	128
Porangahau Transfer Station	18	167

The Kairakau Closed Landfill is not specifically designated. However, Designation 30 on Map 38 is for a proposed sewage treatment plant on the same site. Therefore Council's interest in the land is noted, but this may not be adequate considering the nature of the activity on the site. Therefore this should be reviewed as part of Council review of the District Plan.

2.6.4 Property Descriptions

The following table shows the land that is currently used for this activity or has been used in the past and Council actively manages the land as under the "Closed Landfill" status.

Table 8: Description of properties managed by the Council for the Solid Waste Activity

Valuation No:	Type of Council Property	Description	Location	Comments	Legal Discription
1092038200B	Landfill	Farm Road Landfill	Farm Road Waipukurau	Landfill	Lot 1 DP 26414
1080024100	Transfer Station	Takapau Transfer Station	Paulsen's Stock Route, Takapau	Not owned by Council – Leased from Te Owaikomihana, Takapau	Otawhau A3 No 49B, Otawhau, A3 Sec 49A, Blank
1095025200	Closed Dump and Transfer Station	Waipukurau Closed Landfill	Mt Herbert Road	Closed dump site adjacent to Waipukurau wastewater pond site and river reserve – Crown Land/Tuki Tuki River	Lot 1 DP 9735 and River Reserve
1074060000	Closed Dump and Transfer Station	Waipawa Closed landfill	Tikokino Road	Closed landfill and transfer station including adjacent Crown land/ Waipawa River	Pt Lot 2402 and River Reserve
1092014301	Closed Dump	Tamumu Rubbish Dump (Closed)	River Road Tamumu	Adjoins river reserve below managed by Pourerere Landcare Group	Pt lot 1 DP 12148
1077022000	Closed Dump	OngaOnga Rubbish Dump (Closed)	Cnr SH50 and Blackburn Road, OngaOnga	Owned by Department of Conservation but has been used by CHBDC as a dump, currently used as stock land.	Blk XI Ruataniwha SD Sec 4
10940383000	Closed Dump	Porangahau Closed Dump	Keppel Street, Porangahau	Closed dump site adjacent to Crown land/Porangahau River	
1076007200	Closed Dump	Tikokino Closed Landfill	Holden Road		
	Transfer Station	Poranagahau	Poranagahau	Transfer Station	

		Transfer Station	Rd, Poranagahau		
	Closed Landfill	Kairakau Closed Landfill	Kiarakau	Private Land/Road Reserve	

3 Description of the Solid Waste Activity

Council is required by community expectations and by the Health Act and Local Government Act to provide solid waste collection and disposal services for the District's communities.

3.1 Overview of the activity

The Solid Waste Activity is provided to the District through the following services:

- Collection and reuse of recyclable materials
- Collection and reuse of green waste
- Collection and disposal of residual waste.

The components used to deliver the services are:

- Litter bins at shopping centres, beaches and other places.
- A contract for the collection of refuse.
- A contract for the collection of kerbside recycling in Waipukurau and Waipawa.
- Recycling centres in Waipukurau, Waipawa, Otane, Tikokino, OngaOnga, Takapau and Porangahau.
- Transfer stations for the collection of refuse and green waste at Waipukurau, Waipawa, Takapau and Porangahau.
- The District Landfill for the disposal of refuse.
- Education and enforcement.

In addition there are eight closed landfills that are monitored for any effects they might have on the environment.

The different contracts and contractors for the Solid Waste Activity are summarised in Table 9 below.

Table 9: Solid Waste Activity Contracts

Contract number	Contract for	Period	Contractor
370	Solid waste collections and recycling	Extended to 2016-2018	Green Sky Waste Solutions (CHB) Ltd
372	Transfer Station Operations	Extended to 2016-2018	Green Sky Waste Solutions (CHB) Ltd
466	Landfill Operations	2017-2018	Higgins Contractors
480	Solid Waste Beach Refuse Collection	2016-2019	Netherton Station Partnership
3301	Rubbish bin collection – Town and beach communities		Higgins Contractors

3.2 Detailed activities

3.2.1 Litter and Litter Bins

Litter bins are installed at shopping centres, cemeteries, parks, reserves and beaches. Collection and disposal of litter from these bins is managed by a contractor through the Facilities Management Contract. The works included in that contract are:

- Maintaining the bins
- Emptying the bins
- Cleaning up litter near the bins and
- Cleaning up litter in the District generally.

3.2.2 Refuse Collection and Recycling Collection

Kerbside collections are carried out by contractors through Solid Waste Collection and Recycling Contracts. The collection services currently provided are:

- Weekly collection of residual refuse from the kerbside for the urban areas of Waipukurau, Waipawa, Otane, Tikokino, OngaOnga, Takapau, Porangahau and Te Paerahi. Only official rubbish bags are collected. The refuse collected is disposed of at the District's landfill.
- Weekly collection of recycled materials from the kerbside in Waipukurau and Waipawa.
- Regular collections, as necessary, of recycled materials from recycling centres at Waipukurau, Waipawa, Otane, Tikokino, OngaOnga, Takapau and Porangahau. These materials are processed by the contractor.
- Weekly kerbside beach collection of refuse from properties is carried out in the settlements of Kairakau, Mangakuri, Pourerere, Aramoana, and Blackhead. The contractor picks up the bags and disposes of them at the landfill.

In 2012, approximately 63% of the district's households were serviced by the kerbside refuse collection and 47% by a kerbside recycling collection.

Refuse to be collected needs to be placed in an official CHBDC refuse bag. Price of the bag also includes the cost of collection on rubbish day or the free disposal at any of the district's transfer station.

3.2.3 Requests for service

Requests for service for the Facilities Management contractor, such as cleaning up a litter spill, are received by Council's staff and forwarded to the contractor for action. Once work is completed the contractor reports back in writing and Council's records are updated, the request's originator is notified and the request closed.

Council staff check weekly to see that all request for service entries are either completed within time or that progress with the request has been updated in the database.

In addition to this, Council employs a Litter Control Officer (on a part-time basis) to check on litter complaints and to follow them up as appropriate to resolve.

3.2.4 Bulk Rubbish Handling

The bulk rubbish handling services are currently provided to the District through the following components/facilities:

- Refuse Transfer Stations.
- District Landfill

3.2.5 Refuse Transfer Stations

The Council owns and operates through a contract four transfer stations within the district, at Waipukurau, Waipawa, Takapau and Porangahau.

The Waipukurau Transfer Station also acts as the main handling and consolidation facility of waste and diverted material. This facility is essential for the Council's success to reduce the quantities of residual and hazardous waste sent to fill. Options for diverting material, and thereby avoiding landfilling, are offered for free or at cost to encourage the community, where disposing the waste to landfill is a more costly option.

The transfer stations receive waste from direct refuse drop-off by residential and commercial customers. The residual waste is carted to the CHB District Landfill for safe disposal.

The Transfer Stations also accept recyclables, greenwaste and cleanfill / hardfill.

The stations are operated by a contractor under the Solid Waste Operations Contract. The stations are open for limited hours and days each week, and users are charged for disposal. Each station has a manned kiosk for the collection of charges. Residual refuse can be disposed of at these stations, as can green waste. Residual refuse is taken to the District Landfill for disposal.

3.2.6 Recycling Centres

Recycling centres are provided at Otane, Waipawa, Waipukurau, Tikokino, OngaOnga, Takapau and Porangahau and accept glass, plastic, cans and paper waste.

The recycled materials are collected by a contractor who consolidates and sorts them for specialist recycling.

3.2.7 Green Waste

Green waste is collected at Waipawa, Takapau and Porangahau transfer stations and transferred by a contractor under the Solid Waste Operations Contract to Waipukurau transfer station where green waste is also collected. At Waipukurau the green waste is shredded and transported to a commercial composting facility within Hawke's Bay through the Green waste Operation Contract.

3.2.8 District Landfill

The District Landfill is on farmland leased from the private landowner. The landfill is managed by Council staff. Management includes the monitoring of the surrounding environment to ensure that no adverse effects result from the landfill. A comprehensive

monitoring programme agreed with the Hawke's Bay Regional Council is carried out by Council and audited by the Regional Council.

A contractor is responsible for the day-to-day operation of the landfill under the Solid Waste Operations Contract. The contractor's work includes depositing and compacting refuse, covering refuse, policing the surrounding area for litter, vermin control, daily monitoring of stormwater, and winning and placement of cover material.

There is no public access to the landfill which is by permit only. Waste entering the landfill is from large commercial customers, kerbside refuse collections, and the transfer stations. Waste from outside the district is also accepted by a commercial agreement for disposal.

The risk is for the landfill operation to have adverse environmental effects. Such effect shall be detected through the Council's monitoring program and a comprehensive emergency plan is included in the Landfill Management Plan, which would be activated should a problem occur.

3.2.9 Closed Landfills

Council is responsible for the after-life management of eight closed landfills / old dump sites located in Waipukurau, Waipawa, Tamumu, Takapau, Tikokino, OngaOnga, Porangahau and Kairakau.

These closed landfills that were operated by Council are currently monitored by Council for any effects they may have on the environment. This involves sampling surface water and subsurface water adjacent to the dumps to see if any abnormal elements are appearing in any of the above or below ground water streams.

There is a risk of the closed landfills having adverse environmental effects. Such effect shall be detected through the Council's monitoring program and would be addressed by the Council.

3.2.10 Education and Enforcement

A publicity and education programme to inform the public about the solid waste system is carried out permanently.

Events are also organised within the District to reduce the production of waste and promote reuse / recycling. Events include Second Hand Sunday, Free Composting Workshop and CHB Lions Bookarama. Also, two clothing bins collect cloths for different foundations.

In addition the requirements for proper disposal of refuse are enforced. This enforcement work is carried out by Council officers.

4 Levels of Service

4.1 Introduction – Levels of Services

Levels of Service (LOS) are developed by the Council around Community Outcomes, public health, health and safety, legislative requirements and the environment. They provide a way to assess the effectiveness of the Council's Solid Waste Activity management in relation to the public's expectations.

This section sets out how the levels of service were derived, what it means for the public, how they are measured and what the Council's targets are.

Finally, it details how the managers of the system report back to the Council and how the Council then report back to the community on the Solid Waste Activity performance.

4.2 Framework for establishing the Levels of Service

The framework for establishing levels of service is illustrated in the figure below.

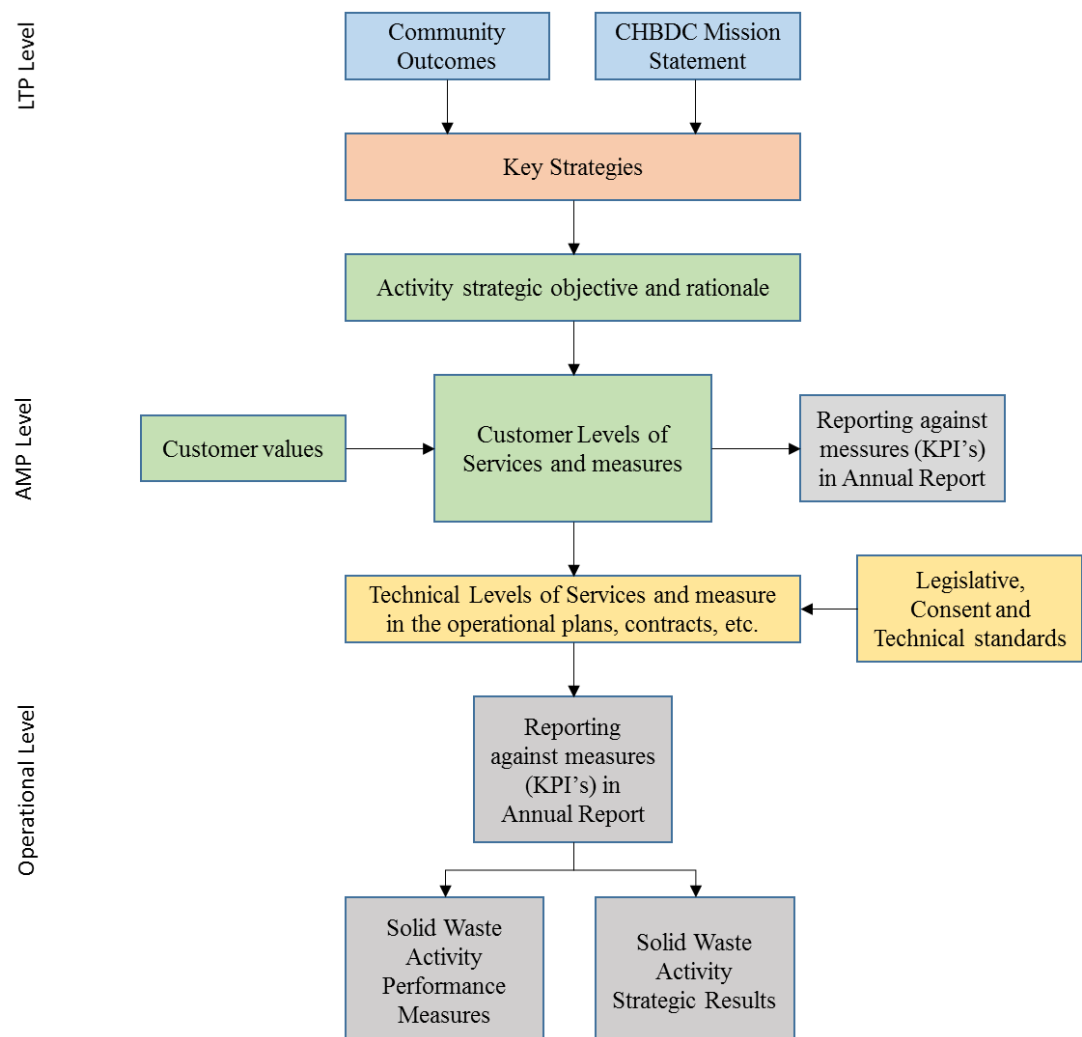


Figure 3: Framework for establishing the Levels of Service

4.3 Council's Customers and Customer research information

Council's customers can be categorised into two groups: Internal and External Customers:

- Internal customers:
 - Council's Contractors for the Solid Waste Activity
 - Council Properties
- External customers:
 - Private Property Owners
 - Commercial or Industrial Property Owners

The process intended is to gather customer research information and use it to better understand customer's expectations. The Council will then be in a position to communicate back to the community the cost of meeting the indicated expectations compared to the cost of maintaining the activity in accordance with the District vision.

Through this process, an indicative understanding of customer focus can be achieved and this, along with feedback from consultation on cost versus expectations, will help in developing future customer service levels.

The recommended improvement to be achieved before the next review of this Asset Management Plan is;

- Council will need to consult with their customer through surveys or focus group meetings with customer representatives to better understand customer needs and wants.
- Council need to undertake consultation of the service levels being proposed in this plan.
- Council need to undertake consultation of the cost of meeting indicative expectations of the community.
- Council will need to undertake appropriate research to better understand customer satisfaction with Solid Waste Activities.
- Council need to undertake analysis of research information and consultation outcomes to better understand and define the links between customer level of service and technical level of service.

4.4 Community Outcomes

The community outcomes for this activity are detailed in Section 2.1.2.

4.5 Strategic Results and Key Performance Measures for this Activity

The Strategic Results and Key Performance Measures for this Activity have been detailed in Section 2.1.3.

4.6 Setting Levels of Service

Levels of Services as outlined in this document are formally adopted by Council as part of the consultation process with the Long Term Plan 2015-2025. Once set, it is the responsibility of

the Asset Manager to implement the levels of service and ensure the different contracts provide the required services.

Levels of service generally fall into two categories;

- The level of service received by the customer. This is the result of the work carried out, the outcome of all the inputs from the Council (as stated above). They are referred to as **Community Levels of Services**
- The level of service achieved by Council, including council staff, contractors and consultants employed by Council (the service provision team). These levels of service covers all areas of work that go into providing the service including administration, maintenance, operation and capital works. They are referred to as **Technical Levels of Service**

Council has to ensure that appropriate levels of service are set for both categories, so that the performance of the service provision team can be measured to ensure work is being done at the right level, and so that the customers' expectations of the service and their experience of the service can coincide as frequently as possible.

In practice, Levels of Service are heavily influenced by available funding for the activity. The level of funding is decided by how much the Council decides the rating income will be set. Except in exceptional circumstances such as legislative directives requiring work to be done that exceeds Council's decided rating income, the operation, maintenance, renewal and capital works funding requirements are set by Council, and the plan of work is constructed to match that level of funding.

The levels of service for this activity are set by the following process:

1. The amount of funding available in the current year for operations and maintenance is increased by the rate of inflation for the next year's budget.
2. The extent of renewal works to be considered is limited to the amount of depreciation raised for the year.
3. The projects (capital improvements) that staff recommends should be carried out are listed.
4. These funding requests (operations and maintenance, renewals and capital works) are included in the total LTP funding, and the resulting increase in rating requirement is determined. Since this amount exceeds Council's expectations for the rating increase, capital works projects are then reduced to nil for the next 3 years (which means only works necessitated by legislative directive are included in the LTP).
5. Levels of service for customers are then written to match the results that can be expected from the amount of funding available to carry out the activity.
6. These Levels of Services are explained to the community through simple consultation processes and regular surveys are conducted to check if Council is meeting the customer's expectations.

4.7 Monitoring of Levels of Service

The following sub-sections (4.7.1 and 4.7.2) are components of the system used to monitor the achievement of the Levels of Service.

4.7.1 Request for Service

The “Request for Service” (RFS) database is used to log calls from all customers, both those that contact the FM Contractor directly and others who contact the Council. Once in the RFS database Council staff can interrogate the information and report back to the Council Management Team and Councillor through the monthly reports, annual reports, etc. It is also the responsibility of the appropriate staff to report back to the originating person i.e. tell the customer what action has been taken and if necessary give an explanation.

4.7.2 Incoming Communications

The “Mail Tracker” and Request for Service (RFS) database records written requests, compliments and complaints, the actions taken by Council in response. All requests are tagged with the response time and all actions are tracked. This information assists in identifying customers’ level of expectation but is not a definitive measure of the expectations of the wider community.

4.8 Community Levels of Service

4.8.1 Current Levels of Service (As per Long Term Plan 2015-2025)

Based on the above, the Council has developed the Community Levels of Service presented in the table below. The table also includes the performance measures and targets that have been set by Council and included in the Long Term Plan 2015-2025 to meaningfully assess the achievement of levels of service.

Table 10: Current Levels of Service as per the Long Term Plan 2015-2025

Level of Service	What will we deliver?	How will we measure our success?	Target 2015/2025
Provide reliable and responsive kerbside collection services	Kerbside collection services completed on the designated day at a regular time	Number of complaints about the service	Less than 2 missed collections per month recorded in the Request For Service system
Ensure that the community are very satisfied with Council’s Solid Waste services and facilities	Provide services and facilities that the community want and that the majority of the community are satisfied with	Through Council’s biannual community satisfaction survey	More than 90% of survey respondents are satisfied or very satisfied with Council’s Solid Waste services and facilities
CHB waste to be	Operation of transfer	Achieve waste	Volume of waste from

Level of Service	What will we deliver?	How will we measure our success?	Target 2015/2025
diverted from landfill through provision of reuse, recycling and compost programmes	station with green waste disposal options, and recycling centres	diversion targets	transfer stations to landfill <2500 tons per year
Environmental effects reduced through compliance with Resource Consents for the landfill	Compliance with Resource Consents for the landfill	Compliance with Resource Consents for the landfill	100% compliance

These levels of service are defined for the community. Solid Waste system users judge the standard of the activity and assets by the reliability of the collection system (kerbside collection and availability of transfer stations) and the negative impacts of solid waste activity (quality). Quality is expressed in terms of compliance with resource consent conditions and amount of waste diverted from landfill, while reliability is expressed in terms of reduction in complaints about missed collections and community's satisfaction.

4.8.2 Review and update of the Community Levels of Service

The Community Levels of Service are regularly reviewed to ensure that they match the Council's strategic goals, policies, legislative requirements, available funding and the community's expectations.

The Community Levels of Service are being updated and a new set of LoS have been developed by the Council and is presented in Table 11.

Table 11: New Levels of Service for the Solid Waste Assets

Solid Waste								
What customers want / Customer Value	Customer Levels of Service	Performance Measure	Baseline	Year 1 Target (2018/19)	Year 2 Target (2019/20)	Year 3 Target (2020/21)	Year 4-10 Target (2021/28)	Performance Measure Reporting
Council supports and provides incentives for waste reduction, reuse and recycling in line with its Waste Management & Minimisation Plan	Effectiveness	The tonnes of recyclables through the centre each year	1,871	>1,000 tonnes	>1,000 tonnes	>1,000 tonnes	>1,000 tonnes	Monthly records from Contractors
	Effectiveness	The amount of greenwaste composted each year	New	>2,250 m ³	>2,250 m ³	>2,250 m ³	>2,250 m ³	Monthly records from Contractors
	Awareness	The number of schools participating in waste minimisation programmes	New	75%	75%	75%	75%	Management Reporting
	Awareness	Hold waste minimisation promotional events in the District	New	4 events	4 events	4 events	4 events	Management Reporting
	Customer Service	The percentage of users satisfied with the solid waste service provided	90%	90%	90%	90%	90%	Independent Community Views Survey

4.9 Technical Levels of Service

The operation and maintenance roles for this activity are completed under the relevant Contracts:

- The litter bins are operated by Higgins.
- The District's landfill is operated by Higgins.
- The four transfer stations are operated by Green Sky Waste Solutions.
- The seven recycling centres are operated by Green Sky Waste Solutions.
- Kerbside recyclable collection is done by Green Sky Waste Solutions.
- Kerbside refuse collection is split between Green Sky Waste Solutions and Netherton Partnership / Tony Hawthorn.

In the Solid Waste Collection and Recycling Contract, the Council has adopted a set of 'Performance Outcomes' based around community satisfaction, and the contractor's contractual, environmental and safety compliance.

These performance outcomes have then been translated in the contract documents and outcome measures have been set for the public satisfaction. The outcome measures are used to assess the effectiveness of provision of the Outcomes under this contract.

In addition to the Performance outcomes in the Facilities Management Contract, there are also performance standards and tasks required of the Contractor and these have been specified under 6 categories as follows:

- (i) *Partnering*
- (ii) *Public Satisfaction*
- (iii) *Contractual compliance*
- (iv) *reporting and record keeping*
- (v) *Environmental and Safety*

Provision is made under the Contract for auditing of the Contractor's performance against these categories, and this auditing does take place.

The performance measures for the Solid Waste Collection and Recycling contract are set as follow:

- Six missed collections per month judged by the number of Request for Services or Service Requests sent out.
- Two complaints about the standard of the facilities and service per month judged by the number of Request for Services sent out.

4.10 Summary of Solid Waste Activity Performance

Overall, the performance of the solid waste activity is satisfactory. Since the year 2014/2015, the Council has met all the Community Levels of Services for the solid waste activity as defined in the Table 10.

5 Demand Management

Demand for solid waste services has influence on many items including (but not limited to):

- Population of the District: increase or decrease in the number of residents (permanent or temporary) affects the amount of waste produced within the District and requirement for collection, reuse or recycling and disposal of solid waste. This factor is also an issue in the District with high seasonal variations in the population (due to numerous beach communities particularly active during summer) and high uncertainty regarding future growth.
- Waste production pattern: Change in consumption habits and education of communities can modify how waste is produced, with a higher part of recyclable waste and better segregation of refuse / recyclable waste for example. Besides, this pattern can also be seasonal, with temporary beach communities having different waste production habits and sensitivities.
- Customers' expectations: A change in customers' expectations regarding the solid waste activity may require a different approach to the activity management by the Council.
- Technology: Changes in technology can affect how the different wastes can be treated/disposed of.
- Legislation: Changes in legislation would affect how the Council shall treat or dispose of waste. Such changes could also affect how the activity is monitored.

5.1 Factors Influencing Demand

The factors influencing demand can be broken into two categories:

- Activity factors: these are factors relating to use of the assets and demand for the assets.
- Asset factors: these are factors relating to the physical parameters of the assets, such as landfill or transfer stations capacity. These factors can influence the ease of use of the Solid Waste services, as well as the costs of the services operation, maintenance and renewal, and hence the costs charged back to the users.

The combination of these asset and activity factors needs to be considered to understand the full impact of demand.

The following activity based factors influence demand on solid waste collection and treatment/disposal:

- Population increase/decrease
- Demographics of communities
- Economy and Socio-economic factors
- Subdivision development
- Land use changes
- Industry and Commercial development
- Tourism development
- Cultural development
- Changing public demand for waste minimisation or waste diversion

The following asset factors influence how activity factors (demand for service) might impact on the solid waste demand through either influencing the ease of use or the costs of service:

- Design capacity for solid waste facilities/structures e.g. recycling centres
- Future leachate discharge quality requirements
- Landfill design standards
- Environmental design standards

These asset factors can be considered as critical failure points if the activity demand on a section of the network increases to a point that exceeds the asset's ability to meet that demand.

5.2 Demand Forecast

5.2.1 Population forecasts

The Central Hawkes Bay District Long-Term Planning document by Sean Bevan outlines the estimated growth of the district for the next 30 years. This report indicates a household growth for the reticulated areas in the order of 790 properties, and an overall growth in population of over 1000, as shown in Figure 4 & Figure 5 below.

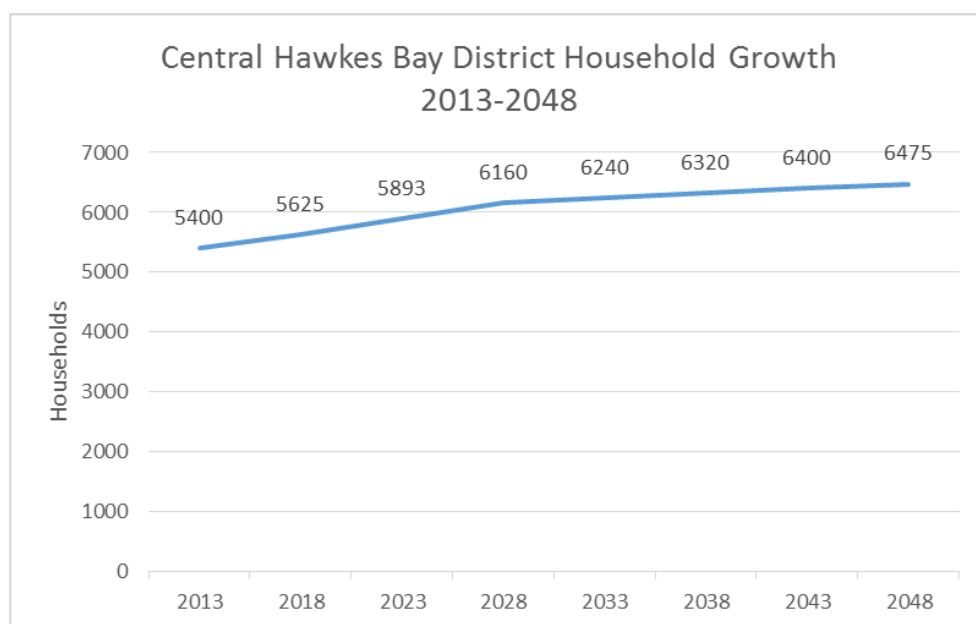


Figure 4: Projected Household Growth in Central Hawke's Bay District – 2013-2048

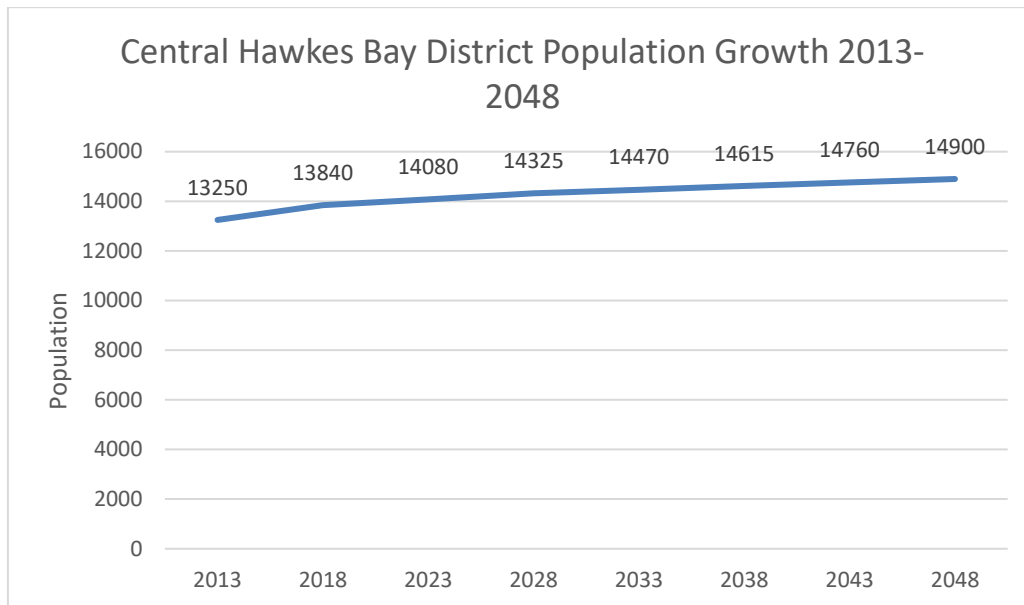


Figure 5: Projected Population Growth in Central Hawke's Bay District – 2013-2048

5.2.2 Projected change in customer expectations

Historical trends in customer expectations for solid waste services show that little has changed over the years. At this stage, the Council has not received any request from customers to change the current level of services, therefore this asset management plan is written on the assumption that there are no changes to the current level of service.

There is a potential for a growing demand in greenwaste and recycling services.

5.2.3 Projected impact of changes in technology

Current and future changes in technology have the potential to impact the solid waste activity primarily by developing the options available for treatment/disposal of solid waste such as e-waste recycling, increasing the market for plastic recycling, etc.

In addition to this, information technology changes will impact on how the Council does business, particularly in terms of data collection and analysis practices. It is reasonably expected that both data collection and data analysis will become more advanced, more detailed and more accurate. This will probably increase the Council's confidence in predictive modelling for asset usage, changes in demand and associated impacts on infrastructure, financial forecasting, etc.

At this stage, impact of future changes in technology has not been included in the demand forecast. However, should a new technology with a possible impact on the solid waste activity emerge, this AMP should be updated to reflect these changes.

5.2.4 Projected change in demand distribution

Growth in the District is unlikely to be evenly distributed, with some communities growing faster than others. This will have an impact on infrastructure even though the total permanent residential population of the District may not increase significantly. An example of this type

of impact is the increase in holiday homes in Porangahau and Te Paerahi which will most likely translate to increased demand for solid waste collection in that specific area.

In summary, the most significant projected increases and decreases of demand on the solid waste services are expected to be:

- Increased number of residential properties placing more demand for kerb collection, particularly in:
 - Porangahau Road, Waipukurau
 - Racecourse Road, Waipukurau
 - Mt Herbert Road, Waipukurau
 - Te Paerahi

Changes in demand distribution may accentuate the demand pressure on some of the local infrastructure (transfer stations or recycling centres) or some of the kerbside collection contractors. However, it is not expected that these changes will greatly impact the District's solid waste assets, as the Council's policy would be to increase attendance on existing infrastructure and not introduce new assets. Should that be the case, this AMP will need to be updated to reflect these changes.

5.2.5 Implications of Uncertainty

This AMP needs to be reviewed regularly to develop with changes in the community. At present there are no large capital expenditures programmed that have a risk of not being utilised or required in future. Furthermore, there are no large industrial, commercial or residential projects predicted to greatly change demand in the near future.

5.3 Demand Management Plan

5.3.1 Overview of Council Strategic Direction

The key strategic direction for the Council in regard to meeting demand for the solid waste activity can be summarised as follows:

- The demand for this activity will increase not reduce.
- The use of this activity will be paid by the users.
- The assets will continue to be adequately maintained without increasing funding (other than allowing for inflation, the addition of new infrastructure vested in or installed by Council, and subject to Council financial constraints).

The Council has important funding constraints. That means that only the essential improvement works necessitated by legislative requirements or meeting the defined Levels of Service will be undertaken. In the short term, this activity will not be expanded.

5.3.2 Demand Management

Currently, the Council manages the demand for solid waste activity through:

- Council's policies and by-laws: these inform the communities on how and where wastes can be disposed of.

- Council's District Plan: By controlling land development and land zoning, the Council can control the growth of the District (amount and location) and hence the demand on the solid waste service
- Pricing: Pricing can be used to influence the communities' waste production habits, for example by increasing the price of disposing of refuse waste to encourage recycling.
- Offering new waste diversion possibilities: By introducing new waste repurposing streams, the Council can change the demand on some of its infrastructure, especially the landfill.
- Education: Education improves communities' awareness on reduction, reuse, recycling or recovery of waste, allowing for a change in waste production patterns and a potential decrease in volume of waste going to landfill.

While waste production usually fluctuates with population changes, the Council's demand management could lead to a reduction in waste production per person, and/or a reduction in the portion of waste going to landfill.

The figures below, from the 2012 Waste Management and Minimisation Plan, indicate trends of the demand for waste services.

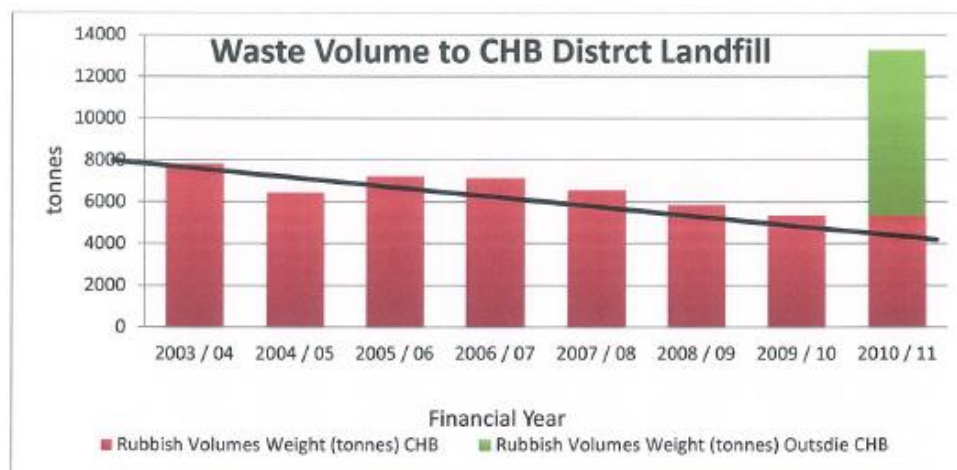


Figure 6: Waste volume going to the District's landfill

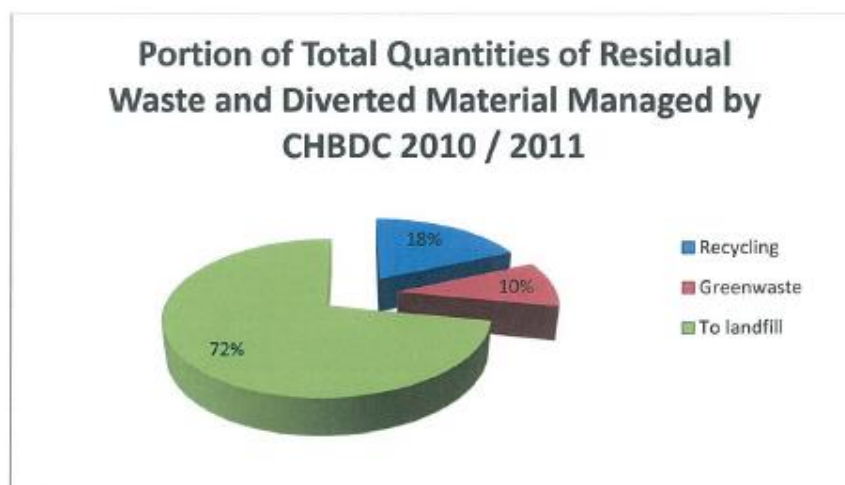


Figure 7: Portion of waste diverted and waste to landfill in the District

6 Risk Management

6.1 Introduction

Risk management involves looking at the solid waste activity and identifying hazards and the associated risks for the assets or the activity. Risks can then be evaluated and measures can be proposed to eliminate the risks, reduce their effects, monitor them and allow a contingency plan to be prepared to deal with the risks if they occur. It also involves looking more widely for events that would not normally be expected to happen but have the possibility of happening and affecting this activity.

6.2 Risk Management Procedure

The following outlines the suggested Risk Management procedure for the CHBDC Solid Waste Activity. The procedure establishes the basic parameters within which risks must be managed and sets the scope for the rest of the risk management process.

Risk procedure is based on the Guidelines in AS/NZS 4360:2004 - Risk Management. The definition of risk management, as presented in Standards New Zealand Handbook – ‘Risk Management for Local Government’ (SNZ HB 4360:2000) is:

“The systematic applications of management policies, procedures and practices to the tasks of identifying, analysing, evaluating, treating and monitoring those risks that could prevent a Local Authority from achieving its strategic or operational objectives or plans or from complying with its legal obligations”.

The plans referred to in the definition may include Councils’ Annual Plan, this Solid Waste Asset Management Plan and Long Term Council Community Plan with associated strategic and financial plans.

The proposed risk management process is illustrated in Figure 8.

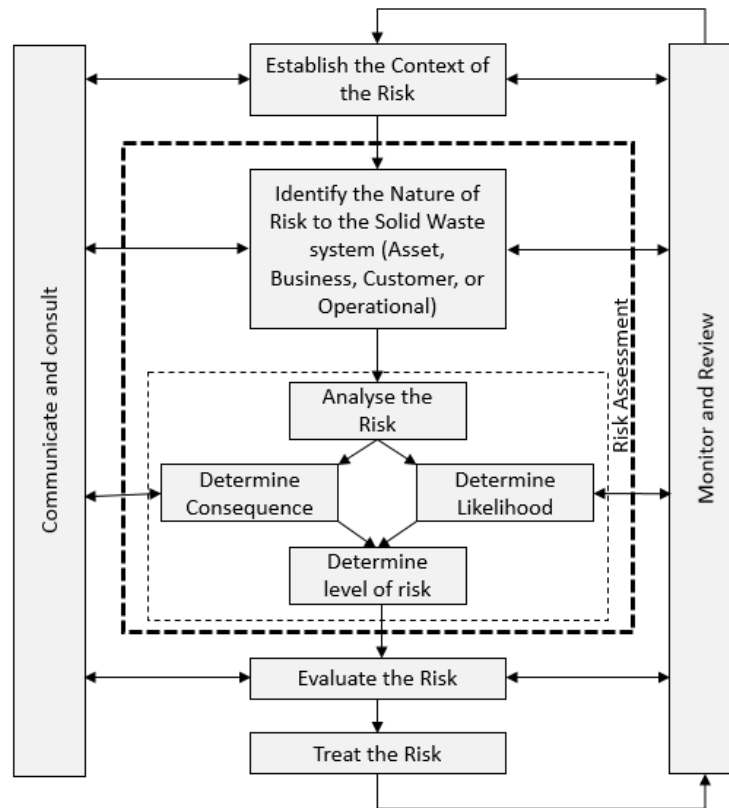


Figure 8: Proposed Risk Management Process

Assessment of risks is initially based on a qualitative analysis. More sophisticated analysis or quantitative risk analysis may be carried out as part of the risk treatment plan for specific high risk events.

6.3 Risk Assessment Context

Risk management is applied and developed in both the strategic and organisational contexts.

The identification, analysis and treatment/management of risk will impact the management of the assets at all levels, from Community Outcomes through to strategic goals, Asset goals, Levels of Services delivery and operational delivery.

Risk should be considered relative to Strategic Objectives, Organisational Performance and Event Management.

6.3.1 Strategic Context

This Asset Management Plan describes Councils' Strategic Goals in relation to the Solid Waste Activity and details the relationship between Strategic and Community Outcomes and Solid Waste Activity Goals. The plan also sets out the various relationships between other plans, legal requirements, financial strategies, regulatory consents and policy documents for the solid waste activity.

The strategic risk assessment must consider Councils' ability to achieve its strategic goals and comply with all relevant legal obligations within the context of all these relationships, statements and requirements.

6.3.2 Organisational Context

The organisational context for risk management relates to assessment of Council's ability to manage the solid waste activity to achieve the required outcomes.

In particular the focus for this context is risk associated with organisation issues such as staffing (resources, skills and training, etc.), work areas, location, IT and financial systems, database and data recording, analysis and tracking systems, policies and procedures, relationships with elected representatives, etc.

6.3.3 Event Management Context

The Event Management context relates to both the management and operation of the activity. It includes assessment of risk relating to particular events that may occur. The range of types of events assessed should include contract management activities, operational activities, asset failure events as well as general, accidental, environmental and deliberate harm events.

6.3.4 Assessment Process

The assessment process is set out in further detail in the following paragraphs that describe the criteria in terms of Risk Management Activities, Likelihood Scale, and Consequence Scale. The process includes for development of a Risk Assessment Matrix, Risk Register and analysis and format of a Risk Treatment Plan for the risks and events identified.

6.4 Risk Management Activities

Activities associated with solid waste services can be categorised by function into four broad areas. Under each area or function heading is a list of processes that might occur within the solid waste activity. Each process can have a number of risks. This method of categorisation of risks is used to methodically develop a risk register.

Table 12: Risk Categorising

Activity Categories for Risk Register				
Activity Area	Asset Management Risks	Business Risks	Customer Services Risks	Operational Risks
Processes	Forward Planning	Funding Provision	Public Request Management	Routine Operation - Landfill
	Renewal Programme	Governance	Managing Response Times	Planned Maintenance - Landfill
	Information Management	Legislation Compliance	Managing Customer Replies	Routine Operation - RTS
	Standards and Guidelines	Policy Development	Level of Service change	Planned Maintenance - RTS
	Demand Change	Procurement	Customer Expectation	Routine Operation -

Activity Categories for Risk Register				
Activity Area	Asset Management Risks	Business Risks	Customer Services Risks	Operational Risks
			change	Recycling
Processes	Data Storage	Employment	Customer not understanding service levels	Planned Maintenance - Recycling
	Information Systems	Financial Management	Recording Data	Routine Operation - Litter
	Data Analysis	Political	Analysing Data	Planned Maintenance - Litter
	Resources	Staff (Council)	Customer Consultation	Routine Inspections (Contractor/Consultant/Council)
	Contract Administration			Capital/Renewal Physical Works (QA, Management, Timeliness)
	Performance Tracking (Contracts and Consents)			Contract Administration (Data capture, reporting, programmes, service delivery)

6.5 Risk Evaluation Process

The probability (likelihood) and consequence of a risk occurring are assessed to get the Risk Rating Category for the assessed risk. The process from AS/NZS 4360:2004 is used. Risk management procedures set out in AS/NZS 4360:2004 provide a general framework for different organisations and activities. The following sections and tables propose criteria for the CHBDC solid waste activity.

6.5.1 Likelihood Scale

The Likelihood Scale is based on frequency or return period rather than an absolute probability.

Table 13: Risk Management Likelihood Scale

LIKELIHOOD SCALE				
Level	Descriptor	Description	Indicative Frequency	Probability of at least one occurrence in 10 yrs
A	Probable	The threat is expected to occur frequently	< 1 year	>99.9
B	Common	The threat will occur commonly	1 to 5 years	90% to 99.9%
C	Possible	The threat occurs occasionally	5 to 10 years	65% to 90%
D	Unlikely	The threat could occur infrequently	10 to 50 years	20% to 64.9%
E	Rare	The threat may occur in exceptional circumstances	>50	<20%

Percentage values for the 'probability of occurrence in 10 years' column in Table 13Figure 13 are indicative only and have been rounded to avoid giving a greater impression of accuracy than is justified by the qualitative analysis.

6.5.2 Consequence Scale

The scale of consequences for the categories of health and safety, image/reputation and environment are described below.

For this risk assessment the whole cost of negative events have been considered, without considering the potential subsidies from Central Government for reducing the risk or dealing with the potential consequences.

Added to the consequence scale ratings have been meeting Council's obligations, maintaining the value of the assets and serviceability to reflect the activity/asset management context of this risk assessment process.

Table 14: Risk Management Consequence Scale

CONSEQUENCE SCALE								
Level	Descriptor	Consequence Types						
		Health and Safety	Image / Reputation	Environment	Annual Cost	Obligations	Asset Condition	Serviceability
V	Severe	Fatality	Sustained national media cover	Permanent widespread ecological damage	>\$100,000	Government Commission of Inquiry	Net reduction to asset value > \$1,000,000	Prolonged disruption to large area or significant industry/facility
IV	Major	Serious injury	Regional media cover or short term national cover	Heavy ecological damage	\$50,000 to \$100,000	RMA prosecution, Audit tags	Net reduction to asset value \$500,000 to \$1,000,000	Temporary disruption to large area or prolonged disruption to smaller area
III	Moderate	Moderate injury	Local media cover	Significant, but recoverable, ecological damage	\$10,000 to \$50,000	Abatement Notice, Minor claims.	Net reduction to asset value \$100,000 to \$500,000	Significant localised disruption of normal business in localised area; moderate nuisance to residents
II	Minor	Minor Injury	Brief local media cover	Limited, medium term, ecological damage	\$1,000 to \$10,000	Excessive or widespread rate payer complaints	Net reduction to asset value \$50,000 to \$100,000	Minor nuisance to residents
I	Negligible	Potential Injury	Local complaints	Short term damage	< \$1,000	Local complaints	Net reduction to asset value < \$50,000	Negligible nuisance to residents

The category of “Annual Cost” provides for the whole cost of negative events to be taken into account in the risk assessment, without considering any potential subsidies from Central Government for reducing the risk or dealing with the potential consequences.

The category for “Obligations” relates to issues of sound governance and includes consideration of Council’s ability to achieve identified community outcomes as they are stated in the LTCCP, in relation to the LGA 2002.

The “Asset Condition” category allows for consideration of risk in the context of maintaining the value of the assets and the “Serviceability” category reflects the asset management context relative to the assessment of risk.

6.6 Risk Rating Categories

Four risk ratings describe the outcome of the risk assessment for each event in the risk.

Table 15: Risk Management Ratings Scale

Rating	Description	Recommended Level Of Action
Very High	Intolerable. Urgent action required	Risks in the very high category are considered intolerable and immediate action is required to reduce the likelihood or consequence to reduce the risk to a lower category. Risk treatment options may be required that are not justifiable on strictly economic grounds. Safety, legal and social responsibility requirements may override financial considerations.
High	Take actions to reduce risk to as low as reasonable possible. Mitigation plan required for each risk.	High risks are undesirable, but may be accepted if they cannot be reduced or avoided. All reasonable measures should be undertaken to reduce these risks to as low a level as possible, regardless of cost, inconvenience or other factors. As a minimum there should be a specific risk treatment plan for each entry in the “high risk” category.
Medium	Tolerable. Consider mitigation measures on case by case basis. Measures to reduce risk if justified.	Items in the medium risk category should be evaluated on a case by case basis. Action to reduce these risks will be undertaken only when the potential benefits of the risk treatment outweigh the expected costs. Normal project evaluation criteria can be used to assess potential risk treatment measures for medium risks.
Low	Business as usual.	No action required for low risks, other than monitoring to ensure they do not progress into higher risks.

6.7 Risk Rating Matrix

The table below sets out the likelihood/consequence outcomes. When the analysis of the risk is undertaken any item on the register that receives a rating of high or very high will require further work according to the rating outcome.

The result of consideration of the likelihood and consequences of a risk is entered on the Risk Rating Matrix to determine its Risk Rating Category.

Table 16: Risk Rating Matrix

Likelihood		Consequence				
		I	II	III	IV	V
		Negligible	Minor	Moderate	Major	Severe
A	Probable	Medium	High	High	Very High	Very High
B	Common	Medium	Medium	High	High	Very High
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Rare	Low	Low	Low	Medium	Medium

6.8 Risk Register

The next step in the risk management process is to develop a comprehensive list of risks and to evaluate each one against these criteria. The risks will be entered in a risk register, in the form shown in Table 17.

Table 17: Risk Register Template

Ref	Name	Description	Assessment		
			Consequence	Likelihood	Risk

The description (**Something happens**) leading to (**negative outcome**) should include additional information such as:

- The source of the risk
- What are the existing controls or influences on the risk
- What (specifically) are the consequences (as opposed to the consequence rating in the assessment)
- Is it dependent on other risks or conditions?

The risk may trigger several categories of consequence, or if it has a range of likelihood and consequence. In these cases, it should be rated according to the combination that gives the highest risk rating.

Risks may fall under the general, functional area/activity headings (as described in the following table) of:

- Asset Management Risk
- Customer Services Risk
- Business Risk
- Operational Risk

A Risk Register does not currently exist in this format and will need to be developed and reviewed by Council and other stakeholders as part of the Plan Improvements.

6.9 Risk Management Relationships to AMP Document

Risk applies across all processes in the management of the asset and the activity. The relationship between risk management activities and the sections within the Solid Waste Asset Management Plan document are indicated below.

Table 18: Risk Management Activities Relationship to the Asset Management Plan

Risk Management Activity	Relevant AMP Document Sections
Asset Management Risks	Levels of Service
	Lifecycle Management
	Asset Management Practice
Operational Risks	Lifecycle Management
	Asset Management Practice
Customer Services Risk	Levels of Service
	Lifecycle Management
Business Risks	Levels of Service
	Financial Summary
	Asset Management Practice

The risk register holds the details of the risk event and documents which solid waste activity or activities it impacts on.

6.10 Risk Treatment

A risk treatment plan should be created for all risks rated high or very high in the first instance. Action plans should be written to document how the risk treatment options will be implemented.

Risk treatment options generally fall into the following categories:

- Avoid the risk by deciding not to start/continue with activity that gives rise to the risk.
- Reduce the likelihood and/or the consequences of the negative outcomes.
- Share or transfer the risk with other organisations.
- Retain the risk, after all reasonable treatment measures have been considered.

Some risks may be rated high initially due to uncertainty in the likelihood or effects and the risk treatment plan may consist of further investigations or assessments to better define the level of risk. Other risk treatment options may consist of financial controls (e.g., insurance), operational improvements, contingency planning or physical works to reduce risks.

Risk treatment activities should be carried out by the party who is in the best position to deal with that issue; which may be Council staff, the Contractor, or others.

6.11 Further action

Risk Management procedures set out in AS/NZS 4360:2004 and SNZ HB 4360:2000 are generic for a wide range of activities and organisations. The Risk Management system proposed in this Asset Management Plan is based on the Council's values and goals for its solid waste activity. The Council needs to review the proposed risk management process and risk rating criteria. Feedback and/or approval will then be required before implementation.

It is important to have input from a broad range of people and organisations so that the risk register is as comprehensive as possible. Often the greatest risks arise from events that were not anticipated or considered beforehand.

After identifying the risks, rating them and creating the risk register, Council will need to determine which parties are in the best position to carry out risk treatment planning for each of the high and very high risks, so that the appropriate actions may be taken.

It is recommended that the risk register should have a comprehensive update every 12 months and be included in the Facility Management Plans for each site (which are currently still in the development stage).

6.12 Identified risks

No risk register is existing at this stage. A risk register and risk assessment for the solid waste assets will be undertaken by the Council and included in the next update of this AMP. However, an initial risk identification has been undertaken and is presented below. This section is not complete and should be reviewed / completed for the next AMP update.

Health and Safety

Council has a comprehensive Health and Safety Programme for its operations. Internally there is no risk in the implementation of this Programme.

The different contractors have a Health and Safety Programme in operation. Reports are received from the contractor about any incidents relating to health and safety.

The risk is that the requirements of Council's and the contractor's Health and Safety Programmes are not being carried out on site.

Asset Risk Plan / Business Continuity

No Risk Assessment Plan has been prepared for this activity.

A Business Continuity Plan covering actions to be taken to continue provision of essential solid waste services during an adverse event, or prompt reinstatement of services immediately following such an event, needs to be documented and approved as part of Council's emergency planning.

Solid waste assets are insured through an insurance broker.

Construction and Maintenance Work

The requirement to comply with current engineering standards is included in all new construction or maintenance work. The risk is that the contractors are not implementing current engineering standards and Council's specifications.

As built plans are received from all constructors of new works, and are entered into Council's database. However, resource limitations could result in delays in this process.

Financial Issues

Expenditure is controlled by staff by:

- a. Ordering work only if finance is available and approved.
- b. Reviewing expenditure monthly.
- c. Reporting exceptions.

The financial provisions shown in this Plan should be sufficient to provide the operational and maintenance service required from this Activity. There is a risk that all programmed works, particularly the observation / supervision of works, cannot be carried out fully due to limitations on the number of Council staff employed or on funding available to employ consultants to do that work on Council's behalf.

Natural hazards and Climate Change

Our district is subject to a number of natural hazards such as earthquakes, coastal inundation and erosion, tsunami and landslides and these can result in disruption to services and damage to our infrastructure. This can lead to unforeseen and often high costs to repair infrastructure and restore services.

These hazards impact on our services in different ways. For example, impact on the roads network can have an impact on collection services or prevent access to transfer stations or the landfill, damage to buildings can prevent safe access to the infrastructure by the staff, contractors and the public, etc.

Changing Environmental Standards and Legal Obligations

Changes to the Legislation can change the way the Solid Waste Activity is managed. This could increase the operational, maintenance and/or monitoring costs (both in resources and financial) for the Council.

Changing Demographics

There are no issues identified as significantly affecting this activity from the foreseeable predictions for changes in population demographics. It is expected that over the next 20 years there will be an increase in the number of elderly persons within District communities and an increase in the overall percentage of the population that will be over 65 years.

The predicted reduction in household occupancy rates may affect waste production volumes per household.

Planning

Renewals and rehabilitations are programmed by Council staff through their knowledge of the assets, analysis of the database, and application of their previous experience. However the extents of the works are limited to the amount of depreciation monies raised each year. This means that some work that should be carried out may not be carried out.

Capital works are planned by the Council to extend the existing landfills during the next 30 years.

Operations Manuals

The various operational contracts for the operations and maintenance of this activity require the contractors to provide Quality Plans for the execution of the contract requirements. The Quality Plans include procedures for work to be carried out. The risk is that the procedures and contracts requirements are not followed by the contractors.

General Issues

Contract supervision

The various contractors are not being supervised fully enough to ensure that all aspects of the contracts are being carried out or met. The limited Council staff resources mean that there are not enough people available to supervise the contracts fully.

Legislative compliance

Council staff practitioners, from their experience, training and courses attended, believe that all legislative requirements that impact on this activity are being complied with.

Timely completion of capital works

Capital works are generally completed within the financial year funding is allocated for the works.

Resources

It is outlined in the financial summary that there is a risk the renewal budget will not be sufficient to carry all required maintenance and renewal operations, which may create a risk of non-compliance to Levels of Service or Resource Consents conditions. The works to be undertaken will need to be prioritised to avoid such outcomes.

The risk is that work needs to be deferred past the optimum point of renewal.

Unforeseen Events

Unforeseen events that could affect this Activity include a major catastrophic event such as an earthquake damaging the landfill or other structures. These possibilities will need to be addressed in the risk assessment plan.

Attention to Repairs

The various contracts ensure that repairs can be carried out speedily.

Service Agreements

There are no specific service agreements in place between each department to ensure everyone is aware of their role in this Activity. However being a small Council with a small staffing level, interdepartmental discussion in relation to any facets of this Activity is normal practice.

Delegations

The general delegation for activities is:

Delegation to the Chief Executive Officer

That as a matter of policy the Central Hawke's Bay District Council delegates to the Chief Executive Officer (CEO) all of its powers and authorities necessary to the limits prescribed in legislation to enable the CEO to effectively and efficiently manage the affairs of the Council and such delegation will include the power of further delegation including the power of delegation itself.

Staff purchasing authorities have been delegated to the appropriate staff. Duties relating to this Activity have been included in particular staff member's job descriptions as appropriate.

No other delegations relating to this activity have been made.

Responsibility Allocated to Ensure Completion of Work

Responsibilities relating to this Activity have been included in particular staff member's job descriptions as appropriate. Regular planning and review sessions are held to ensure staff are allocated responsibility for particular parts of the work necessary to carry out this Activity to service level expectations.

Council Policies Clear

Council's policies are held in the Policy Manual. The relevant policy for solid waste is:

Solid Waste Policy – Policy Number 4.1

Council will provide a cost effective Recycling and Refuse Disposal System using the goals and methods of the Solid Waste Management and Minimisation Plan.

Council supports and promotes the education and principles of its 'Reuse, Recycle and Reducing Waste Strategy'.

All waste deposited or disposed of at a Council-owned Waste Facility shall pay a fee for the disposal of that waste as per the CHBDC LTP Appendix 1: Schedule of Fees and Charges or negotiated contract.

The types of waste accepted at a Council-owned Waste Facility shall be governed by the Waste Acceptance Criteria for the District Landfill (defined in the Landfill Management Plan)

This policy was due for an update in August 2017. This AMP must be reviewed following any update to this policy.

Monitoring and Reporting

Council has sufficient and appropriate procedures in place to ensure that it will be able to properly report the progress that is being made towards the achievement of Community Outcomes and against the agreed level of service relating to this activity.

Reporting is required at the following levels:

- public level (reporting annually and triennially)
- ‘elected council’ level
- management level
- operational level

Financial

Cost ‘Blowouts’

Council staff manage expenditure by:

- ordering work only if finance is available and approved
- reviewing expenditure monthly
- reporting exceptions

True Costs – Costs Not ‘Fudged’

The financial forecasts that have been made in this AMP portray the true cost of this activity, given the assumptions made in assessing those forecasts.

Bylaws

The Solid Waste bylaws are available in the 2008 Central Hawke’s Bay District Council Bylaws – Part 6 document.

Does this activity have any significant negative effects on community wellbeing?

The following potential negative effects have been identified:

- *Social* – There is potential for odour, dust, vermin and noise impact which could negatively affect neighbours to the various facilities. Historically there have been few complaints.
- *Economic* – The cost of solid waste services are relatively high, and increases in Fees and Charges may not be acceptable to the community.
- *Environmental* – There is potential for contamination of surface and ground water, odour, dust, vermin, fire, emergencies involving hazardous waste and the creation of land with limited long term utilisation. To date effects have been minor.

The issue of negative significant effects is addressed by adherence to resource consent conditions. Monitoring of the operational and closed landfill sites is undertaken to ensure the infrastructure complies with its consents.

6.12.2 The Most Critical Risks

The most critical risks are:

- Contractors not fully complying to and operating within their contracts and legislative requirements.

- The possible lack of information due to the developmental stage of the Solid Waste Asset Inventory, Asset Condition Rating, Economic Asset Life Predictions and a Solid Waste Risk Assessment Plan
- The impact that the developmental stage of the documents (refer above) supporting the Solid Waste Activity Management Plan has on the accuracy and confidence of implementation of the plan.
- The changing requirements for solid waste collection and disposal due to changes in government strategies and targets.
- The limited application of risk assessment could lead to avoidable risks occurring and requiring more funding than the avoidance cost.

6.13 Risk Management Strategy

Actions required to address the most critical risks are:

- A proposed process for development of a Risk Assessment Plan, have been incorporated into this Activity Management Plan. Continued review, consultation and development is required and funding needs to be made available to implement the Plan Improvement Programme (refer to Section 0)
- Government strategies and targets need to be regularly reviewed, and the solid waste systems assessed against those strategies and targets.
- Provide appropriate human resources to monitor and observe the different contracts, in order to ensure contractors are complying with Council's requirements.

6.14 Key Assumptions and Uncertainties affecting Risk

Key assumption in the preparation of this Solid Waste Asset Management Plan are:

- There will be an ongoing requirement for the provision of this activity.
- There is some uncertainty about how the service will change as the waste stream changes.
- The knowledge of the practitioners directly providing this activity, both on a day-to-day basis and historically, has been relied upon. These practitioners include Council's Utility Unit, Technical Services Unit, and Corporate Services Department staff, and staff of the different Contracts.
- The operational and maintenance requirements for this activity will remain similar for the next ten years.
- Funding will be available to provide the operational and maintenance requirements of this activity.
- Funding for renewal works will be limited by the amount of depreciation raised through rates each year, and any surplus depreciation funding raised will be retained to be used in the future for renewal works.
- Funding for capital improvements will be limited by political decisions as to the level of funding available.

- Some capital and renewal costs are rough order of cost estimates that will need to be further researched and refined.
- Incomplete management and supervision of this Activity due to limited staff resources

7 Lifecycle Asset Management

7.1 Introduction

Lifecycle asset management focuses on management options and strategies considering all relevant economic and physical consequences, from initial planning through to disposal. The effective application of asset management principles will ensure the reliable delivery of agreed Levels of Services and reduce the long-term costs of ownership and in this way reduce service costs.

The overall objective of the Lifecycle Management Plan is;

To manage the Solid Waste Assets to ensure that current strategies provide the required level of service in an efficient and cost effective manner that does not consume the assets.

The assets go through different phases during their lifecycle. These phases include assets planning, assets creation / acquisition, assets operations, assets maintenance, assets condition and performance monitoring, assets rehabilitation and renewal and finally asset disposal.

In 2014, the net value of solid waste assets was estimated at \$4,235,280.30.

This section indicates the key strategies adopted by the Council with regards to lifecycle asset management.

7.2 Asset planning, creation and/or acquisition

Asset planning, creation and/or acquisition is heavily dependent on the existing assets capacity, existing performance against Levels of Service and forecasted demand for the activity. The Council's asset managers need to consider all the variables before introducing new assets into the Solid Waste Asset.

The Council has a landfill leachate irrigation project planned in 2019, and valued at \$180,000 (today's dollars, not corrected to reflect inflation). This project will be financed through a loan.

Also, the landfill will require several extensions in the next 30 years, which have been planned for:

- 2025: Landfill extension – Valued at \$1,700,000 and proposed to be financed with a loan
- 2027: Landfill resource consent renewal – Valued at \$100,000 and proposed to be financed with a loan
- 2033: Landfill extension – Valued at \$1,700,000 and proposed to be financed with a loan
- 2041: Landfill extension – Valued at \$1,700,000 and proposed to be financed with a loan

It should be noted that the values are indicated in today's dollars and have not been corrected with inflation rates.

7.3 Asset operations

The Council's Solid Waste Assets are operated by different contractors via service procurements. This includes the transfer station, recycling centres, litter bins, landfill, and kerbside collection activities.

Under these contracts, the day-to-day operation of the assets is the responsibility of the contractors. However, the contracts put emphasis on a partnering style relationship between contractors and the Council, where there is a mutual commitment to achieving the contract objectives and outcomes by maximising the effectiveness of co-operation. The contractors work alongside and with Council to provide the outcomes expected by its customers within the resources that are available.

The expected cost of annual operation of the assets is expected to remain static over the next 10 years, excluding inflation. The forecasted operational costs are presented in the Section 8.

7.4 Asset maintenance

Asset maintenance management includes the routine (or preventive) maintenance plan as well as reactive maintenance works.

Routine maintenance of assets is specified, implemented, monitored, programmed and reported on through the requirements of the Solid Waste Activity Contracts:

- Solid Waste Operations
- Solid Waste Collections & Recycling
- Green Waste Operations

Minor renewal and repair works are carried out as required in order to maintain the assets in working order or to ensure a satisfactory standard of appearance is presented to users of the service.

Particular works are identified from maintenance contractors' reports, inspections, and requests from users. These works need to be approved by the Council's Asset Manager (to a maximum value of \$100,000).

The expected costs of annual maintenance of the assets is expected to remain static over the next 10 years, excluding inflation.

The major issues that need to be addressed in the Routine Maintenance Plan are:

- Ensuring maintenance of solid waste assets is carried out regularly to meet required Levels of Service with the funding parameter set by the Council and to optimise asset lifespan.
- Ensuring asset condition information is reported to the asset managers for consideration and entry in the asset database.

Maintenance cost information is not formally being collected. Maintenance is undertaken by the contractor and submitted to the Council through contract progress payment system for verifying prior to certification of payment. This information should be tracked against the new asset component ID codes and recorded. It can then be used to analyse future rate of deterioration on different component types, update current condition and performance rankings and improve the overall quality and accuracy of the asset inventory and forward work predictions.

7.5 Asset condition and performance monitoring

Global performance of the assets is monitored through the achievement of the Levels of Service, however, there is no monitoring of individual assets condition and performance at this day.

Also, a monthly Building Warrant of Fitness inspection is carried out on all Council owned buildings by suitably qualified Council staff, and an annual Building Warrant of Fitness inspection is carried out by an Independent Qualified person. Records of both inspections are held by the Regulatory and Utilities Departments of Council.

A database of Solid Waste Assets is being compiled, which will allow for the monitoring of the assets conditions and performances.

7.6 Asset rehabilitation and renewal

Renewal works are carried out as required in order to maintain the assets in working order to meet the existing levels of service or to ensure a satisfactory standard of safety and appearance is presented to users of the service.

Funding for renewal works will be limited by the amount of depreciation raised through rates each year, and any surplus depreciation funding raised will be retained to be used in the future for renewal works in following years.

As Council only had a limited budget for renewal of \$86,118 per annum in 2015 with the value increasing over the next 10 years based on the BERL rate of inflation, under current estimations based on theoretical lives of assets the current funds allocated for renewals will not meet the projected replacement work load.

Information regarding forecasted renewals budget is presented in Section 8.

This funding constraint limits the amount of renewal work that can be carried out in any one year to the level that matches the Council income for this type of work. Therefore annual renewal work will be assessed on the following bases:

- Assets will be assessed for renewal annually.
- Assets will be renewed on a priority basis, with the most necessary renewals being carried out first (this may result in young asset being replace before older asset because of their condition).

- Renewal work that comes to the attention of Council or contractors (through routine inspection or incidentally) will be carried out immediately, funding permitting.

Currently the renewals work will include:

- Replacing old litter bins and maintaining current bins.
- Transfer stations including repairing fences, drives, pits, kiosks, sheds and surrounding area.
- Repairing and painting recycling drop-off centres and replacing recycling bins.
- Repairing fences, drives, ponds and surrounding area at the landfill.
- Replacing clay caps and repairing fencing at closed landfills.

7.7 Asset disposal

At this stage, no new asset disposal is planned in the next 10 years. This may need to be re-evaluated should major changes to demand or assets condition arise.

8 Financial

8.1 Revenue and Financing Policy

The Revenue and Financing policy is required under Section 103 of the Local Government Act 2002. The policy must be included in full in the Long Term Plan and changed only as an amendment to the Long Term Plan. Section 103(2) allows the following funding mechanisms to be used when funding operating and capital expenditure:

- General rates
- Targeted rates
- Grants and Subsidies
- Interest and Dividend from Investments
- Fees and Charges
- Loans
- Proceeds from Assets Sales
- Development or Financial Contributions
- Any other source

This policy summarises the funding sources to be used by Council and their intended use. Sources are identified for each Council activity, including those that may be used to fund operating and capital expenditure.

Council must consider the following elements in deciding on appropriate funding mechanisms for each activity:

- *Community Outcomes* – the community outcomes the activity will primarily contribute to.
- *Distributions of benefits* – the distribution of benefits between the community as a whole, any identifiable parts of the community and individuals.
- *Timeframes of benefits* – the period in and over which those benefits are expected to occur. For example, the benefits may occur on an ongoing basis, but may also benefit future generations.
- *Contributors to need for activity* – the extent to which actions or inactions of particular individuals or groups contribute to the need to undertake the activity.
- *Costs and Benefits of distinct funding* – the cost and benefits, including for transparency and accountability, of funding the activity distinctly from other activities.

8.2 Council Financial Strategy

Council has set its Financial Strategy to ensure funds are available to maintain the infrastructure and ensure an appropriate level of renewals are undertaken to ensure the performance of the infrastructure to meet the Levels of Services set out in section 4 of this document. This funding level is capped due to the limits on rates as highlighted in the Strategy when considering the following factors:

- growth in public debt – principally to fund solid waste upgrades

- limitations on future rate rises
- and the need to contain costs by maintaining the existing levels of service and existing core services and infrastructure, rather than providing for growth

8.3 Solid Waste Activity Funding Policy

The Solid Waste Activity includes refuse collection, recycling collection, green waste collection and operation of transfer stations and a single landfill. The Council is committed to the minimisation and ultimate prevention of waste production.

As outlined in the Long Term Plan 2015-2025, the solid waste activity can be funded through the levy of general rates, uniform annual general charge, targeted rates and fees and charges.

The current allocation of cost for the Solid Waste Activity shown in **Error! Reference source not found.** Table 20 is still heavily focused upon public funding of the Activity, but ultimately the Council will move towards the optimum allocation which is shown in Table 19.

Table 19: Solid Waste Activity Optimum Funding Allocation

Refuse	Collection	Recycling	Waste Management
Public	0%	100%	0%
Private	100%	0%	100%

Table 20: Current Funding Allocations for Solid Waste Activity

ACTIVITY	Beneficiaries			How Funded			
	Public	Private	Exacerbator	General Rates	Separate Rates	User Charges, Fees or Fines	External Subsidies
Waste Management	98%	2%			Uniform Annual General Charge		
Refuse Collection	95%	5%			Uniform Annual Charge		

8.3.1 Operating Costs

The estimated costs of annually operation of the solid waste service are estimated to remain at a constant level. However the new system has been recently introduced, and there are still some changes taking place in the service. In addition the change in the waste streams

(amount of rubbish going to the landfill versus the amount of recycling material produced and the reuse or diversion of other materials) will change the cost structure of this activity. The operating costs will be reviewed annually until there is more certainty about the probable longer term cost structure.

8.3.2 New capital Expenditure

The future capital works programme is to create further cells at the landfill as space is required there for rubbish disposal.

Capital works have been programmed for the next 30 years and are presented in the capital works financial summary.

8.3.3 Renewals Expenditure and Depreciation

The existing assets will be maintained by repairing, maintaining or replacing them as necessary. Funding has been programmed to carry out this process.

8.3.4 Depreciation / Decline in Service Potential

The depreciation for the Solid Waste Activity for the next ten years is \$23,081 per annum. This amount has been determined from historical practice. Therefore, the principles and methodology for raising depreciation do need to be reviewed.

It is not expected however, that a review would result in an increased depreciation cost, but it is expected to result in amendments to the accounting statements. The recently developed Inventory Database will increase the accuracy of calculating the depreciation requirement.

8.3.5 Future Debt Requirements for Activity

Future debts planned for this activity are for extending cells in the district landfill. These debts are detailed in Section 7.2.

8.3.6 Assumptions and Uncertainties

Significant assumptions and uncertainties in the preparation of the Solid Waste Funding Policy are:

- The knowledge of the practitioners directly providing this activity, both on a day-to-day basis and historically, has been relied upon. These practitioners include Council's Community Services Department staff and Financial Services Department staff, and staff of the various solid waste contractors.
- There will be an ongoing requirement for the provision of this activity.
- The demand for this activity will remain, however there is some uncertainty about how the service will change as the waste stream changes.
- Funding will be available to provide this activity as described in this Plan.
- Some renewal costs are rough order of cost estimates that will need to be further researched and refined.

8.4 Solid Waste Activity funding strategy

8.4.1 Who Benefits

Public Benefits

The public benefits of the Solid Waste activity are assessed as moderate because having an environmentally sound landfill and refuse collection system maintains the clean green nature and appearance of the District as well as the health of the community.

Private Benefits

Urban residents receive more benefits than rural residents as they tend to make more use of the facilities. The private benefits of Solid Waste are assessed as high for the following reasons:

- Users of the activity can be readily identified and excluded.
- The more refuse produced, the higher the level of private benefit.

8.4.2 When do Benefits Accrue.

The current generation has borne the cost of providing future generations with an environmentally sound solid waste disposal system. It is appropriate to expect both future generations to pay for capital works through loans, and for users to pay for operational costs through user charges.

8.4.3 Action / Inaction of Particular Residents.

The significant effect of exacerbaters was never before acknowledged in previous funding policies. It is now central government policy that producers of waste are required to pay the full costs of its disposal. In addition, beach properties incur a greater servicing cost to provide a lower level of service than urban properties.

8.4.4 Costs and Benefits of Separate Funding

Public Funding

The funding mechanisms available to the Council are:

- Property based rate (LV, CV, or Differential)
- Uniform Annual Charge

The council believes that targeted Uniform Annual Charges for waste management, recycling, and refuse collection are the best means of allocating the cost of this activity to those who benefit the most i.e. urban property owners, beach property owners and those that receive the actual services.

Private Funding

The private benefit component of solid waste is recovered from user charges on refuse bags and transfer station charges.

8.4.5 Fees and Charges

Fees and charges are set annual by Council passing a Fees and Charges Bylaw in June. Fees and charges as at 1 July 2017 and a full list can be found on Council website.

NOTES:

- The disposal of Special wastes (as defined in the landfill management plan) at the landfill requires the Waste Generator to complete the “Special Waste Questionnaire” and “Waste Profile Declaration”. Special waste will be only accepted after Council’s approval of the application.
- Hazardous waste, Prohibitive waste and Trade waste (as defined in Council’s Solid Waste Bylaw) will not be accepted at Council facilities.
- Council will invoice commercial users at appropriate intervals. The assessment of volumes of refuse for charging will be based on the volume of refuse in the vehicle, not the compacted volume in the landfill. Council’s assessment of volumes will be final.
- Unless agreed with Council NO truckloads of trade refuse or loads of clean fill greater than 0.2m³ will be accepted at the transfer stations. Such loads may be accepted at the landfill and will be charged for separately at the landfill charge.
- Unless agreed with Council or the landfill operator no after hour access is allowed to the landfill or transfer stations. No keys to the landfill or transfer stations will be issued.
- Special/Difficult Refuse is waste that is bulky, lightweight or requiring immediate burying due to containing offensive odour, or is easily windblown, attractive to vermin, has health implications, contains asbestos, or as required by the Council or landfill operator.

** based on \$10/tonne Waste Levy contribution (excluding GST) and \$3.50/tonne carbon credits (GST exempt).*

Figure 9: Notes on disposal of solid waste in Central Hawke’s Bay

Table 21: Solid Waste disposal charges July 2017

Landfill (minimum charge of \$60.00)	
Standard Refuse (per tonne) (Carbon credit : \$3.65* / Waste Min Levy : \$10.00*)	\$147.00
Special/Difficult Refuse (per tonne)	Actual Costs of disposal (Min standard refuse rate charge)
Landfill Key Tag Bond	\$20.00
Landfill Admin Fee for Manual Dockets	\$50.00
Transfer Station - Refuse	
Trailers up to 2.6m long up to 1m high (Waste Min Levy \$2.27*)	\$37.00
Weighed load at Transfer Station (incl. weigh fee)	\$40.00 + per tonne fee

Trailers larger than above	Per cubic metre rate
Van or ute with a contained load being either a Wheelie bin/drum/small wool sack/up to 2 bags (Waste Min Levy \$0.65*)	\$13.00
Car (Waste Min Levy \$0.65*)	\$13.00
Utilities and Trailers up to 2.0m loaded above 1m high (per 0.5m) (Waste Min Levy \$0.65*)	\$13.00
Trailers up to 2.0m long up to 1m high (Waste Min Levy \$1.58*)	\$37.00
Per cubic metre (compacted)	\$80.00
Other Truck	Landfill or a pre agreed m ³ rate
Flat Deck Truck	Landfill or measured m ³ rate
Trailers up to 2.6m loaded above 1m high (per 0.5m) (Waste Min Levy \$1.58*)	\$25.00
Utilities and Vans (Waste Min Levy \$1.58*)	\$25.00
Car Bodies (not accepted)	CHBDC's scrap metal partner
Mixed loads	Charged at refuse rate
Vehicle and Trailer	Charged for both individually
Per cubic metre (not compacted)	\$36.00
Transfer Station - Greenwaste	
Wheelie bin/ drum/ small wool sack / up to 2 bags	\$7.00
Trailers up to 2.6m long up to 1m high	\$25.00
Trailers up to 2.6m loaded above 1m high (per 0.5m)	\$13.00
Car	\$7.00
Utilities and Vans	\$13.00
Utilities and Trailers up to 2.0m loaded above 1m high (per 0.5m)	\$7.00
Trailers up to 2.0m long up to 1m high	\$13.00
Per cubic metre	\$30.00
Other Truck	Pre agreed m ³ rate
Flat Deck Truck	Measured m ³ rate
Mixed loads	Charged at refuse rate

Vehicle and Trailer	Charged for both individually
Trailers larger than above	Per cubic metre rate

Tyres	Fee (incl GST)
Tyre Disposal	
Car	\$4.00
Motorcycle	\$2.00
4x4	\$6.00
Truck	\$9.00
Tractor	\$25.50
Tyres on rims	2 x individual tyre charge
Tyres to landfill in bulk	Counted and charged individually

Refuse bags / Recycling bin Charges	Fee (incl GST)
Recommended Retail Price	
Refuse Bag – 35 litre	\$1.80
Refuse Bag – 60 litre	\$2.20
Recycling Bin	\$22.00

Unauthorised dumping	Fee (incl GST)
Council may prosecute persons caught dumping rubbish unlawfully.	
Staff time for investigating and clearing per hour	\$125.00
Travel Costs (per km)	\$1.00
Minimum Charge	\$125.00

8.5 Valuation

8.5.1 Valuation Methodology

The valuations in this section are by Quotable Value as at June 2004. The valuation method used was either Market Value (MV) or Depreciated Replacement Cost (D.R.C.) as indicated in the tables.

The basic value of an asset reduces in accordance with the wear and tear and deterioration undergone over its life. This reduced value is called the optimised depreciated replacement cost and has been calculated as the depreciable component of the replacement cost proportioned by the ratio of remaining useful life to economic life on a straight line basis. This method provides an accurate reflection of the future service potential of the assets.

The NZIAMM procedure has been followed for all of the utility assets. The NZIAMM procedure involves optimising the remaining life of the asset by taking into account the asset age, the utilisation of the asset and the asset condition and performance.

The next valuation needs to be done within three years. However the AssetFinda database includes a module to automatically calculate updated valuations, and this can be applied at any time.

8.5.2 Asset Valuation

The last valuation for the solid waste assets was completed by Council staff for June 2017. A summary of the valuation is shown in the Table 22.

Table 22: Solid Waste Asset Valuations 2017

Asset	Class	Description	Opening CV	Additions	Closing CV	Annual depreciation	Closing Accum	Closing NV
INFRASTRUCTURAL SOLID WASTE ASSETS								
60911001	9	PHAU TFR STN-TIP FACE SHELTER ASHPHALT	\$37,300.00	\$-	\$37,300.00	-\$ 1,249.55	-\$1,249.55	\$36,050.45
60911002	9	TRANSFER STN WPA-TIP FACE ASHAHALT	\$24,900.00	\$-	\$24,900.00	-\$1,578.66	-\$1,578.66	\$23,321.34
60911003	9	TRANSFER STN WPK-TIP FACE SHED ASHPHALT	\$137,800.00	\$-	\$137,800.00	-\$2,838.68	-\$2,838.68	\$134,961.32
60911010	9	TAKAPAU TFR STN-TIP FACE SHELTER ASHPHAL	\$25,100.00	\$-	\$25,100.00	-\$1,099.38	-\$1,099.38	\$24,000.62
60911011	9	TFR STN KIOSK & FENCING TAKAPAU	\$15,000.00	\$-	\$15,000.00	-\$375.00	-\$375.00	\$14,625.00
60911020	9	PHAU TRANSFER STN	\$-	\$-	\$ -	-\$33.33	-\$33.33	-\$33.33
60911021	9	TFR STN KIOSK PORANGAHAU	\$21,000.00	\$-	\$21,000.00	-\$447.30	-\$447.30	\$20,552.70
60911022	9	TFR STATION WPA-KIOSK,FENCING	\$15,000.00	\$12,439.78	\$27,439.78	-\$347.24	-\$347.24	\$27,092.54
60911023	9	TFR STN KIOSK FENCING-WPK	\$24,000.00	\$-	\$24,000.00	-\$444.00	-\$444.00	\$23,556.00
	9	INFRASTRUCTURAL SOLID WASTE ASSETS	\$300,100.00	\$12,439.78	\$312,539.78	-\$8,413.14	-\$8,413.14	\$304,126.64
INFRASTRUCTURE LANDFILLS								
60911004	12	DISTRICT LANDFILL	\$4,698,488.59	\$-	\$4,698,488.59	-\$93,969.77	-\$ 1,062,032.39	\$3,636,456.20
60911006	12	CLOSED DUMP	\$100,411.00	\$4,167.50	\$104,578.50	-\$2,049.90	-\$25,127.46	\$79,451.04
60911024	12	2013 LANDFILL PROVISION ADDITION	\$ 1,941,764.21	-\$ 230,089.00	\$1,711,675.21	-\$123,961.19	-\$352,137.21	\$1,359,538.00
	12	INFRASTRUCTURE LANDFILLS	\$ 6,740,663.80	-\$ 225,921.50	\$6,514,742.30	-\$219,980.86	-\$ 1,439,297.06	\$5,075,445.24

8.5.3 Land and Improvement Values

The general land and improvements valuations relating to each site at the 30 June 2014 is shown in the Table 23 below. New Valuations of the complete set of Solid Waste Assets needs to be undertaken in the near future.

Table 23: Land and Improvement Valuations for closed landfills

Site	Valuation Method	Land Value	Improvements Value	Capital Value
Tikokino Closed Landfill	No valuation	Road reserve		
OngaOnga Closed Landfill	Owned by DoC			
Waipukurau Closed Landfill and Transfer Station				
Tamumu Closed Landfill	M.V.	17,000	0	17,000
Takapau Transfer Station and Closed Landfill	Leased from Trust			
Porangahau Closed Landfill	M.V.	10,000	1,000	9,000
Waipawa Transfer Station and Closed Landfill	Part of Coronation Park			
District Landfill	Land leased			
Landfill leachate pond cover	D.R.C.	44,000	44,000	0
Porangahau Transfer Station	D.R.C.	88,000	67,000	21,000
Kairakau Closed Landfill	Private land			

8.6 Financial Summary – Solid Waste

The following table (Table 24) sets out the expenditure and funding forecast required for the Central Hawke's Bay District Council Solid Waste infrastructure over the next 10 years to manage and maintain the asset. This data will be included in the Long Term Plan

Table 24: Solid Waste Activity planned expenditure

Account	Full Year Actuals 2016/ 17	Adopted Annual Plan Budget 2017/ 18	The Plan 2017/ 18	The Plan 2018/ 19	The Plan 2019/ 20	The Plan 2020/ 21	The Plan 2021/ 22	The Plan 2022/ 23	The Plan 2023/ 24	The Plan 2024/ 25	The Plan 2025/ 26	The Plan 2026/ 27	The Plan 2027/ 28
Grand Total	0	1	0	0	0	0	0	0	0	0	0	0	0
Sources of Operating	-2,582,807	-2,542,270	-2,506,503	-2,553,093	-2,613,592	-2,647,502	-2,688,781	-2,733,043	-2,755,773	-2,896,767	-3,041,856	-3,116,606	-3,195,927
General rates, uniform annual general charges and	-1,215,368	-1,311,770	-1,276,003	-1,162,597	-1,192,506	-1,195,152	-1,204,479	-1,214,602	-1,202,407	-1,306,121	-1,411,444	-1,443,803	-1,477,958
Targeted rates	-235,277	-239,404	-239,404	-231,241	-236,328	-241,528	-246,841	-252,519	-258,327	-264,526	-271,140	-278,189	-285,700
Subsidies and Grants for Operating Purposes	-51,216	-43,000	-43,000	-52,020	-53,164	-54,334	-55,529	-56,807	-58,113	-59,508	-60,996	-62,581	-64,271
Fees, charges	-1,080,947	-948,096	-948,096	-1,107,234	-1,131,594	-1,156,489	-1,181,931	-1,209,116	-1,236,926	-1,266,612	-1,298,277	-1,332,032	-1,367,997
Applications of Operating	2,142,339	2,262,650	2,262,650	2,294,707	2,344,052	2,369,021	2,413,775	2,471,424	2,513,192	2,616,489	2,721,905	2,783,043	2,847,973
Payments to staff and suppliers	1,755,021	1,878,411	1,878,411	1,860,348	1,911,188	1,942,070	1,986,371	2,043,222	2,078,847	2,128,766	2,182,012	2,238,773	2,299,248
Employee Costs	20,049	25,284	25,284	25,790	26,357	26,937	27,530	28,163	28,810	29,502	30,239	31,026	31,863
Operational & Maintenance	1,623,488	1,728,844	1,728,844	1,709,997	1,757,531	1,785,032	1,825,878	1,879,038	1,910,887	1,956,774	2,005,721	2,057,898	2,113,489
Uncontrollable	111,484	124,283	124,283	124,561	127,301	130,101	132,964	136,022	139,150	142,490	146,052	149,849	153,895
Finance costs	100,672	95,159	95,159	93,905	92,161	85,311	78,052	70,611	64,114	108,492	151,062	145,207	138,758
Other operating funding applications	286,647	289,080	289,080	340,454	340,702	341,641	349,352	357,591	370,231	379,231	388,830	399,064	409,967
Sources of Capital	91,885	97,399	97,399	-77,581	115,128	121,979	125,052	109,384	88,011	-1,860,378	160,232	48,301	182,382
Increase (decrease) in debt	91,885	97,399	97,399	-77,581	115,128	121,979	125,052	109,384	88,011	-1,860,378	160,232	48,301	182,382
Applications of Capital	348,582	182,222	146,455	335,967	154,412	156,502	149,953	152,235	154,570	2,140,656	159,719	285,261	165,572
to improve the level of service	0	0	0	183,600	0	0	0	0	0	1,983,595	0	122,709	0
to replace existing assets	43,752	95,713	95,712	92,940	94,985	97,075	99,210	101,492	103,827	106,318	108,976	111,810	114,829
Increase (decrease) in reserves	304,830	86,509	50,743	59,427	59,427	59,427	50,743	50,743	50,743	50,743	50,743	50,743	50,743

8.6.1 Solid Waste Income

Over the next 10 year LTP period Council anticipates the income for this activity will remain similar to the cost for the year end 2014/15 but increase by the BERL inflation factor. Figure 10 below is a prediction of the next 10 years income.



Figure 10: Solid Waste Income

8.6.2 Solid Waste Operational Cost

Over the next 10 year LTP period Council anticipates the operational cost for this activity will remain at similar levels to the current year. The only increase predicted is for inflation. Figure 11 is a prediction of the next 10 years income.



Figure 11: Solid Waste operational Costs

8.6.3 Renewal Works Programmes

Funding for renewal works will be limited by the amount of depreciation raised through rates each year, and any surplus depreciation funding raised will be retained to be used in the future for renewal works in following years. Under current estimations based on theoretical lives of assets the current funds allocated for renewals will not meet the projected replacement work load.

Council only has a limited budget for renewal of \$86,118 per annum set in the 2015 LTP with the value increasing over the next 10 years based on the rate of inflation. Figure 12 below is a graph of the projected renewals budget for the years 2019-2028.

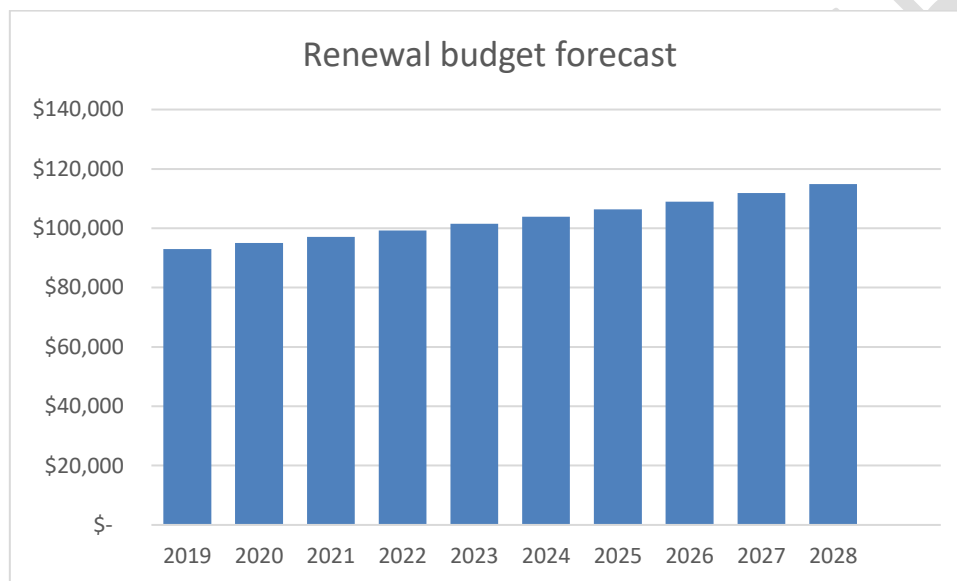


Figure 12: Solid Waste Asset renewal budget forecast

The forecasted renewal budget is distributed as follow:

- Litter bins: 5%
- Closed dumps: 34%
- Landfill: 27%
- Transfer Stations: 27%
- Recycling centres: 7%

This funding philosophy limits the amount of renewal work that can be carried out. The process of renewal work assessment is detailed in Section 7.6.

8.6.4 Capital Works Programmes

It is Council's intention to, wherever practical, resolve any increase in demand with an increase in facility attendance rather than an increase in capacity. The following Capital Works programmes have been forecasted for the next 30 years:

- 2019: Landfill leachate Irrigation project – Valued at \$180,000 and proposed to be financed with a loan

- 2025: Landfill extension – Valued at \$1,700,000 and proposed to be financed with a loan
- 2027: Landfill resource consent renewal – Valued at \$100,000 and proposed to be financed with a loan
- 2033: Landfill extension – Valued at \$1,700,000 and proposed to be financed with a loan
- 2041: Landfill extension – Valued at \$1,700,000 and proposed to be financed with a loan

It should be noted that the values are indicated in today's dollars and have not been corrected with inflation rates.

8.7 Disposal Plan

No disposals are anticipated.

9 Asset Management Practices

9.1 Introduction

This section outlines the process, procedures, data and information systems available for the management of the Solid Waste Assets:

- How it is procured
- How it is recorded
- Where it is stored
- How it is used
- The software used to analysis the data
- The process used to make decisions.
- The standards and guidelines used

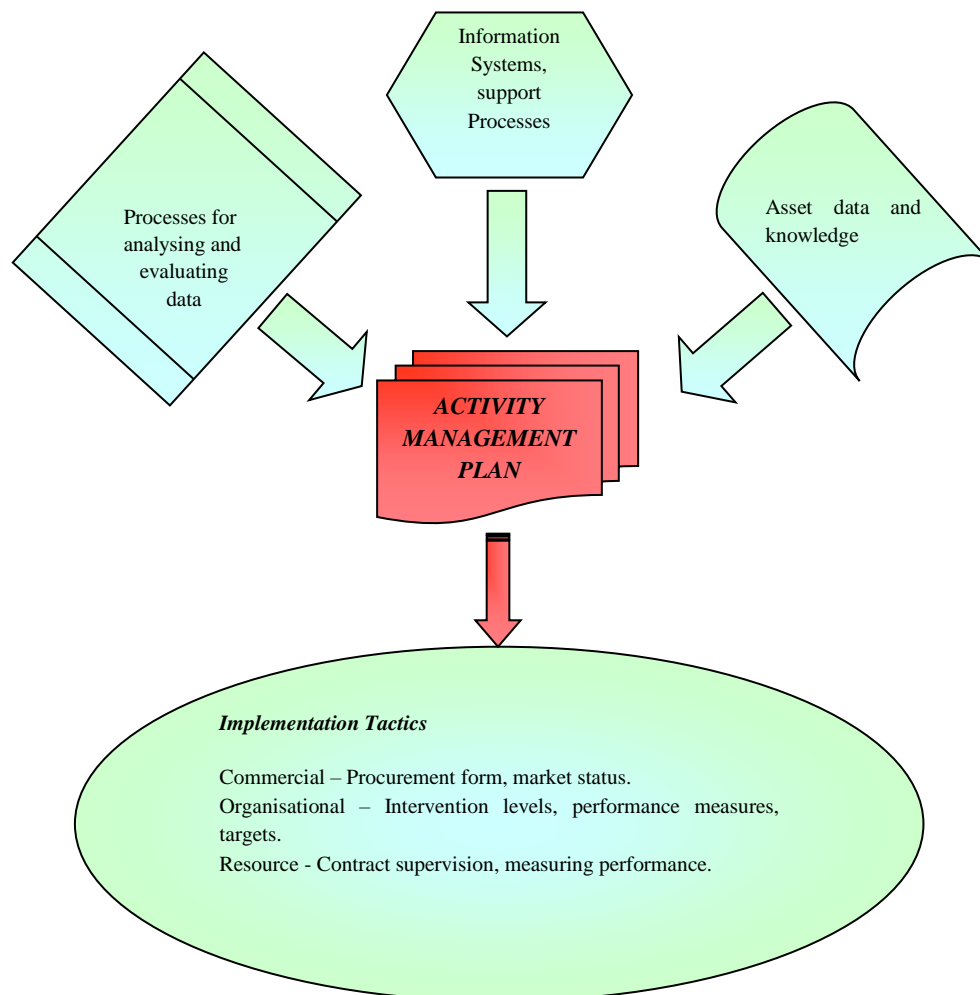


Figure 13: Asset Data inputs and outputs to AMP

This section outlines the combination of data and information systems applied to provide the essential management of the solid waste asset. When looking at these processes, it must be remembered that Council has made the conscious decision to develop this Plan to a core level.

9.2 Management Practices

The Council members consist of a mayor and 8 councillors. Council has one employee – the Chief Executive Officer (CEO). The CEO is responsible for the running of the Council organisation. The CEO employs all staff.

The Council organisation is subdivided into departments relative to – Management Services, Regulatory Services, Financial Services, and Community Services.

Management of the organisation is carried out through a Management Team consisting of the CEO and the Departmental Heads. Because of the small size of the Council organisation, staff are generally multi-skilled and take on a number of different responsibilities. These roles include working with other departments, so the departmental arrangement is primarily for administrative purposes rather than practical provision of services to the community.

The Solid Waste Activity is primarily the responsibility of the Infrastructure Department. In this Department the person initially responsible for the Activity is the Solid Waste Manager. Other input to providing this Activity comes from the other three Departments.

9.3 Procurement Procedure

As described in the Section 7, the Council's Solid Waste Assets are operated by different contractors via service procurements.

Under these contracts, the day-to-day operation of the assets is the responsibility of the contractors, and include the routine management, maintenance and operations of the assets.

When required works on the assets are identified, the procurement procedure followed by the Council is dependent on the amount of the works:

- Smaller items (less than \$5,000 in value) are tasked from the maintenance contractor.
- Larger items of work (generally in excess of \$5,000) are carried out by calling for a minimum of three quotations for the work, selecting the best quote and writing a works order.
- Major works are carried out by tendering the work.

9.4 Recording Procedure

9.4.1 Asset Inventory

ASSETFINDA

The recently completed Asset Inventory lists solid waste asset components by site and includes the following data fields;

- Unique ID
- Description of component
- Install Date
- Condition
- Size / Quantity

- Replacement Cost
- Base Life and Remaining Economic Life
- Depreciation (per annum and total to date)
- Estimated Fail Year

There are also fields for data confidence ranking against each key attribute. This enables the information to be utilised as it is being developed and research.

Over time the quality and accuracy of key attribute fields such as replacement cost and remaining economic life will be improved and this will give greater confidence in the forward forecasting for timing and cost of renewals. At this developmental stage however, the predictions from the inventory should be treated as indicative only and have not therefore been used to modify the forward work programme.

A Solid Waste Asset Inventory will be developed to better identify the assets involved in this activity and the requirements for renewal of those assets.

Provision will be made in the Inventory Database for condition rating, predictive assessments of economic life and likely fail year. This information will be used for future renewals programming. However, as attribute data is still in the developmental stage, further research is required on install dates, replacement costs, current condition and rate and mode of failure aspects for some components.

As greater confidence is attained from this recommended research, the database will form a sound basis for updating future FWP Estimates.

9.4.2 Asset Management Data

Table 25: Solid Waste Asset data processes

The Asset Management Data		
Data or Process	Current Practice	Desired Practice
Asset Register	Council has adopted the use of a program called AssetFinda to store all lines, points and plant data in a graphical electronic database.	No change at this point in time
Asset Hierarchy of Solid Waste Asset	Currently council has developed a hierarchy of the asset according to their criticality and the risk implication of failure	It would be beneficial to improve the current coarse analysis of the networks based on risk level to a higher level. This work improve the decision make process of where best to apply limited funds
Asset Identification	Current practise is to use the automatic asset identification system from our asset management program.	This gives a consistent and logical asset ID system but as the asset gets replaced the old Id is removed and a new id is attached to the new asset. This makes tracking from old plans/maps difficult. It would be help to contactors and other users of the maps to find a way to retain a consistent name for key elements.
Spatial Location Data	Current practise is to locate the asset spatially based on best intel at the time of loading.	It would be desirable to locate assets are located geospatially using a GPS coordinate give both X, Y and Z attributes

The Asset Management Data		
Data or Process	Current Practice	Desired Practice
Physical attribute fields for all asset types are well defined.	Our asset management program has a range of defined fields to be filled in. These are filled in based on the information supplied by “As Built” records. For unknown data such as date a default date of 1/1950 is used – but a note will be entered in the notes area to indicate this as well as the accuracy marked down.	
Condition, Performance, Criticality and Accuracy settings	The program has 4 slide bars to set these function. The use of these is covered under the AssetFinda note Council user notes.	It would be useful to use the combination of Performance and criticality to provide a risk assessment of the asset.
Asset lives	Currently we are using the NAMM’s manual to set the base lives with some adjustment based on local knowledge of the assets condition. This is covered in detail in the Valuation Document.	Improve knowledge of the asset condition by physical inspection

9.4.3 Strategic Planning Data

Table 26: Solid Waste strategic planning processes

Data or Process	Current Practice	Desired Practice
Strategic Planning		
Waste quantity sent to landfill	Weighing and recording of trucks coming into the District’s landfill	
Waste quantity diverted from landfill	Weighing and recording of trucks with recyclable waste or greenwaste	
Risk management	The risk register and assessment needs to be undertaken	Review the risk register and drill down to a lower level to assess specific asset risks and use the data for a basis for initiating capital expenditure, operational improvements or renewal of assets.
Service level reviews	Current Levels of Services are meeting the needs of the users	
Renewal work	Current practise is to set the amount of renewal work to the level of funding.	It would be desirable to increase the level of funding to a rating that meets the actual need of replacement and not capped at the amount Council can afford.

Data or Process	Current Practice	Desired Practice
Strategic Planning		
Capital Works	Current practise to do the essential works and cap the work at value that can be funded via loans etc.	To increase capital works that level that is need to meet demand and allow growth of the District.
Long term financial planning	Renewals/Capital planning is based on year to year prediction of issues	Improve the long term renewals and capital works program to meet the possible impact of growth.
Emergency planning	Emergency plans and business continuity plans are in place.	
Asset Management Plan	Work on a 3 yearly review of the plans to meet the need of the Council	Tune the plans to become a more user friendly document that helps the council role of managing the assets

9.5 Accounting Financial Systems

Financial Management processes are carried out through the Council's Financial Management system. Costs are recorded against specific funding categories as they are incurred through contractual arrangements or as they are processed through the Council's payroll structure. The accounting system is an accrual accounting system, which backdates the expenditure to the financial year in which it occurs.

For asset management purposes, expenditure on maintaining the solid waste is divided as shown in Table 27 below.

Table 27: Solid Waste Asset maintenance expenditure categories

Category	Description
Operational	Activities which have a no effect on asset condition but are necessary to keep the asset utilised appropriately (e.g. contracts costs, power costs, overhead cost, etc).
Maintenance	The on-going, day-to-day work required to keep assets operating at required service levels, i.e. repairs and minor maintenance.
Renewal	Significant work that restores an existing asset to its original size, condition or capacity.
Capital Work. (also called development, new works)	Works to create a new asset, or to upgrade or improve an existing asset beyond its original capacity or performance, in response to changes in usage, customer

Category	Description
	expectation, or anticipated future need.
Disposal	Any cost associated with the disposal of a decommissioned asset. (Most times the asset is destroyed as part of the renewal work and therefore included in the renewal costs).

9.6 Communication

Council manages this activity through contracts being directly supervised by Council staff. Lines of communication are therefore from contractor to Council officer in charge of contract with overview from the Solid Waste Manager. All reporting is also through the contracts direct to Council staff. The one exception is the operational landfill where the role of Landfill Engineer is contracted out to a Consultant and resource consent monitoring of landfills which are also contracted out to a consultant.

Renewal and capital tasks are managed by Council's Technical Services Unit. Work is carried out by either by an agreed variation to the Contracts or through the letting of a tender for the work.

9.6.1 Service Request

Council maintains a customer request database, the "Request for Service" system. This database is used to log calls from the customers. Council logs requests and passes solid waste related issues onto the facilities maintenance contractor for action and monitoring. Once the issue has been actioned and completed Council are informed. Council reply to the customer on the outcome of their request.

As a part of this process Council's current facilities maintenance contractor maintains a database of service requests from both public and Council.

The above information is used in understanding the public perception and expectation of public on the solid waste asset. This information is used to help assess performance relevant to the Levels of Service

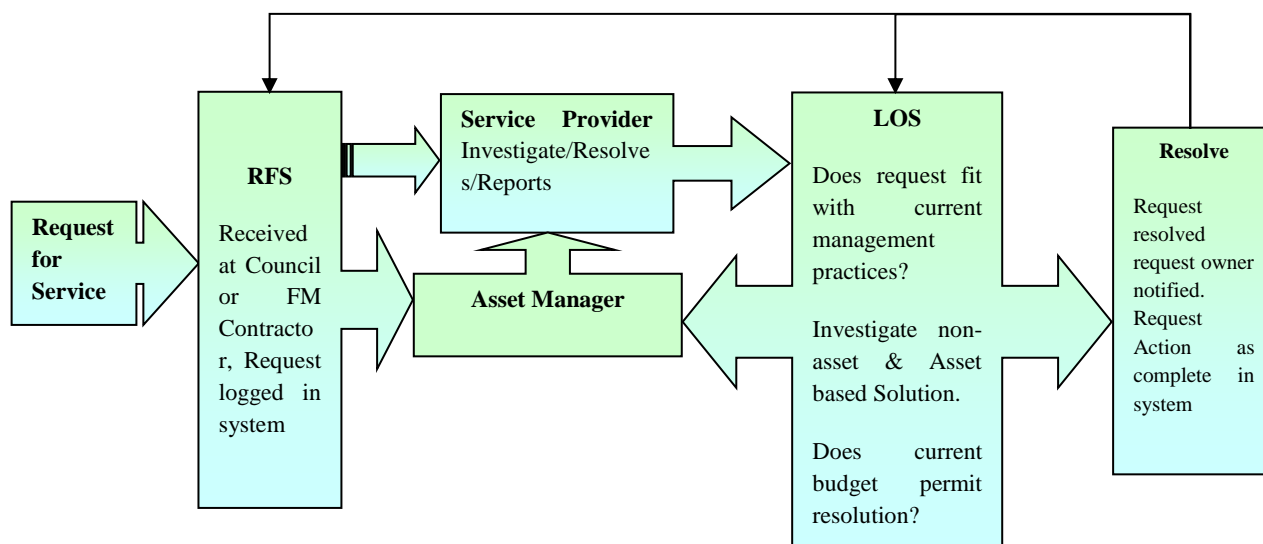


Figure 14: Request for Service system overview

9.6.2 Incoming Communications

Council's incoming communications management is outlined in Section 4.7.2.

9.7 Standards and Guidelines

The following are the key standards and guidelines, referred to in maintaining the Solid Waste Assets:

- Council's Standard Specification and As-Built Data.
- Council Policy and Bylaws.
- HBRC Resource Consents.

10 Asset Management Plan Improvement and Monitoring

10.1 Core versus Advanced Management Plans

The ‘Core’ approach for Asset Management Plans can be typified as ‘top down’ with decisions made using simple analysis processes using data relating to a low level of asset component breakdown.

The core approach covers all elements of asset management planning but at a relatively simple level such as:

- Risk management includes identification of critical assets.
- Asset registers have low level of component breakdown.
- Optimised Decision Making based on simple benefit-cost processes for major decisions rather than more detailed multi-criteria analysis.
- Levels of service generally defined on historical performance.
- Financial forecasts based on broad assumptions.

Council has reviewed the level of AMP that best fits the Solid Waste Activity with the help of Ross Waugh from Waugh and Associates in July 2010. Based on this recommendation Council adopted a “Core” level of asset management planning in February 2010 for the Solid Waste Activity.

10.2 Assumptions and Limitations of the Plan

This section describes some of the assumption or limitation made when developing and reviewing the Solid Waste Asset Management Plan.

10.2.1 Key Assumptions

The following key assumptions have been when preparing this Plan.

- There will be an ongoing requirement for the provision of this activity and the demand for this activity will increase, and not reduce.
- Funding will be available to provide the operational and maintenance requirements of this activity for the next 10 years.
- Depreciation will be raised and used to fund replacement of deficient infrastructure.
- Funding for renewal works will be limited by the amount of depreciation raised through rates each year, and any surplus depreciation funding raised will be retained to be used in the future for renewal works.
- Forecasts of areas where new demand is planned for will be correct and funding from development contributions will pay towards these improvements.
- Funding for capital improvements will be limited by political decisions as to the level of funding available.
- All capital and renewal costs are rough order of cost estimates that will need to be further researched and refined.
- Demand levels and population forecasts are based on the report by Sean Bevan entitled “*Long-Term Growth Environment and Outlook*”.

- The knowledge of the practitioners directly providing this activity, both on a day-to-day basis and historically, has been relied upon. These practitioners include Council's Technical Services Department staff and Financial Services Department staff, and staff of the Facilities Management Contractor.
- The forecasts are based on the best available knowledge of asset condition and performance, and on the levels of service that are being delivered. More detailed evaluation of asset renewal requirements will be undertaken by the use of predictive deterioration modelling during the periodic review of this Asset Management Plan. Some increases in the expenditure, and some decreases, may flow from these reviews
- The asset register and asset data is suitable for the development of the Asset Management Plan.
- The processes set out are followed.
- The dollar values shown in this Plan are June 2015 dollars. It is assumed that each year following 2015 the dollar amounts will be adjusted for, at least, the rate of inflation applicable to this Activity.
- The Asset management plan is adopting a "Core" level approach.

10.2.2 Uncertainties

- There is some uncertainty about how the service will change as the waste stream changes.
- Some renewal costs are rough order of cost estimates that will need to be further researched and refined.

10.2.3 Limitations of this plan include:

- Inventory, inspection and condition assessment of some of the key assets are still required to form a better overall picture of the solid waste asset on which to base life cycle management decisions.
- A history of condition data needs to accumulate on assets in order to better understand their long term behaviour.

10.3 Plan Improvement

10.3.1 Overview

Council is committed to a policy of continual improvement through data collection, procedural improvements, investment studies, system developments and organisational developments. A key objective is to dovetail the asset management planning process with the other key planning processes including:

- Long Term Council Community Plan
- Funding strategy
- Strategic business plans
- Community plans

10.3.2 Base Data

Base data has a significant effect on the overall plan confidence. The following factors will have a considerable effect on the base data confidence:

- Coverage of asset data
- A corporate IT strategy for system developments
- Corporate agreement of asset classifications
- Resolution of data ownership issues
- What is the degree of systems integration or compatibility
- Are there procedures for updating and maintaining corporate asset data
- Have procedures been audited over the last 2 years

Base information for the Solid Waste Activity is in developmental stage however Central Hawke's Bay District Council is committed to the capture of data and implementation of processes to produce quality information on which to manage the asset to an advanced level.

As base data is updated and maintained to a higher standard, the accuracy and reliability of the plan will increase. Improvements resulting from updated data and revised information will be made annually, as part of the Activity Management Plan review.

10.3.3 Improvement Programme

The following issues need to be addressed in this Activity:

- a) The next valuation should be completed prior to Dec 2019.
- b) A Risk Management Plan needs to be written for Solid Waste. There are proposed guidelines within this Plan for the process to be followed. This needs to be approved and implemented.
The Waste Management Plan adopted by Council in 2008 does not reflect the current systems. This document should be reviewed.
- c) Research for Customer expectations should be continued and results need to be analysed for use in setting future level of service standards.
- d) Research for asset condition, performance and mode and rate of deterioration should be continued and results analysed for improvement of predictions for forward works programmes.
- e) Staffing levels need to be kept at a level to allow thorough management and supervision of the Activity to be carried out.
- f) Designations may be required for some assets. This needs to be researched.

10.4 Monitoring and Review Procedures

This is the first Asset Management Plan for CHBDC Solid Waste Assets. It has taken the general information from the current Solid Waste Activity Management Plan and researched, developed and reported on the detail necessary for responsible management of the solid waste assets.

In future, it is intended to continue to combine the Asset Management and Activity Management functions for the Solid Waste Activity into the one Plan. This Asset Management Plan will be reviewed annually until the quality and accuracy of the base data and decision-making processes is able to give a high level of confidence to the forward forecasting outputs.

11 Glossary of Terms

The following terms and acronyms or abbreviations may be used in this Asset Management Plan.

Terminology	Abbreviation	Description
Activity		An activity is the work undertaken on an asset or group of assets to achieve a desired outcome.
Annual Plan		The Annual Plan is a one year “slice” of Council’s Long Term Plan (LTP).
Asset		A physical component utilised within the Activity, which has value, enables services to be provided and has an economic life of greater than 12 months.
Asset Disposal Plan	ADP	Guidelines for decision-making on asset disposal issues.
Advanced Asset Management	AAM	Asset management processes which employ predictive modeling, risk management and optimised renewal decision-making techniques to establish asset lifecycle treatment, options and related long term cash flow predictions.
Asset Management	AM	The combination of management, financial economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most effective manner.
Asset Management Plan	AMP	A plan developed for the management of one or more Council Activities. It combines multi-disciplinary management techniques (including technical and financial) over the lifecycle of the assets involved in the activity, and for management of all non-asset processes, in the most cost effective manner to provide a specified level of service.
Asset Management System		A system (usually computerised) for collecting, analysing and reporting data on the utilisation, performance, lifecycle management and funding of existing assets.
Asset Register		A record of asset information considered worthy of separate identification including inventory, historical, financial, condition, construction, technical and financial information about each.
Base Life		A theoretical estimate of the anticipated useful life of an asset or component. A generic value for all assets of a particular type and generally does not take into account individual site or particular in-service conditions.
Capital Expenditure	CAPEX	Expenditure used to create new assets or to increase the capacity of assets beyond their original design capacity or service potential. CAPEX increases the value of an asset.
Capital Renewals		Capital Renewal projects are hybrids between a capital construction request i.e. the upgrade of existing infrastructure for future demand and pure renewal of the existing asset with a similar type, size or model.
Cash Flow		The stream of costs and/or benefits over time resulting from a project investment or ownership of an asset.
Council	CHBDC	Central Hawke’s Bay District Council
Components		Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk of criticality.

Terminology	Abbreviation	Description
Condition		Continuous or periodic inspection, assessment, measurement and grading of the physical status of an asset.
Creation Augmentation Plan	CAP	Creation/Augmentation/Acquisition Plan. Provides guidance on decision-making processes for new asset installations and upgrade works and includes predictions of tasks for the forward work programme
Critical Assets		Assets for which the financial, business or service levels consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.
Deferred Maintenance		The shortfall in rehabilitation work required to maintain the service potential of an asset.
Demand Management		The active intervention to influence demand for services and assets with forecast consequences, usually to avoid or defer CAPEX expenditure.
Demand Management Plan	DMP	Guidelines for management of pressure for supply of services within the limitations of the existing system and proposals to address expected future situations relating to service provision.
Depreciated Replacement Cost	DRC	The replacement cost of an existing asset after deducting an allowance for wear or consumption to reflect the remaining economic life of the existing asset.
Depreciation		The wearing out, consumption or other loss of value of an asset whether arising from use, passing of time or obsolescence through technological and market changes. It is accounted for by the allocation of the historical cost (or revalued amount) of the asset less its residual value over its useful life.
Economic Life		The period from the acquisition of the asset to the time when the asset, while physically able to provide a service, ceases to be the lowest cost alternative to satisfy a particular level of service. The economic life is at the maximum when equal to the physical life, however obsolescence on the basis of either condition or performance levels will often result in the economic life being less than the physical life.
Facility		A complex comprising many assets (e.g. a transfer station, landfill) which represents a single management unit for financial, operational, maintenance or other purposes.
Forward Works Programme	FWP	Predicted future physical works programme.
Geographic Information System	GIS	Software that provides a means of spatially viewing, searching, manipulating, and analysing an electronic database.
Hawke's Bay Regional Council	HBRC	The Regional Council
International Infrastructure Management Manual	IIMM	Guideline manual produced by NAMS for asset management techniques and preparation of Asset Management Plans.
Life Cycle Management Plan	LCMP	Plan documenting the guidelines and decision-making processes for management of the four core activities: Routine Maintenance Plan (RMP); Renewal Replacement Plan (RRP); Capital Augmentation Plan (CAP) and Asset Disposal Plan (ADP).

Terminology	Abbreviation	Description
Level of Service	LOS	The expected standard of delivery of the activity. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental acceptability and cost.
Local Government Act.	LGA	Key legislation governing activities of Territorial Local Authorities.
Life Cycle		1. The cycle of activities that an asset (or facility) goes through i.e.: from planning and design to decommissioning or disposal. or 2. The period of time between a selected date and the last year over which the criteria (e.g. costs) relating to a decision or alternative under study will be addressed.
Long Term Plan (Community Plan)	LTP	Essential document required by legislation that specifies the communities desired outcomes for Council activities and provides the overall direction and guidance for this Activity within the District.
Maintenance		All actions necessary for retaining an asset as near as practicable to its original condition, but excluding rehabilitation or renewal.
Maintenance Standards		Preventative maintenance schedules, operation and maintenance manuals, technical specifications within the Facilities Management Contract.
Maintenance - Planned		Maintenance works that can be scheduled and are not reactive (i.e. all works other than those to attend to an immediate unforeseen failure). Planned maintenance activities fall into 3 categories: periodic, predictive and preventative maintenance.
Maintenance - Periodic		Activities necessary to ensure the reliability or sustain the design life of an asset (e.g. cleaning, calibration, mowing, lubrication).
Maintenance - Predictive		Condition-monitoring activities used to predict the failure (e.g. non-destructive inspection and testing, including visual inspection surveys, heat and vibration monitoring, recording operating hours, analysis of failures).
Maintenance - Preventative		Maintenance that can be initiated without routine or continuous checking (e.g. using information contained in maintenance manuals or manufacturer's recommendations, such as repainting, checking and adjusting tolerances) and is not condition-based.
Routine Maintenance Plan	RMP	Collated information, policies and procedures for the optimum maintenance of an asset, or group of assets.
Monitoring		Interpretation of resulting data, to indicate the condition of a specific component so as to determine the need for some preventative or remedial action.
NAMS	NAMS	New Zealand National Asset Management Steering Group. NAMS is a committee of INGENIUM which produces manuals to guide practitioners in the field of asset management.
New Work		Works which create new assets or increase the capacity of existing assets beyond their original design capacity or service potential. New Work increases the value of the asset.
Objective		An objective is a general statement of intention relating to a specific output or activity. They are generally longer-term aims.
Operation		The active process of utilising an asset that will consume resources such as manpower, energy, chemicals and materials. Operation costs are part of the life cycle costs of an asset and are contained within the Routine Maintenance Plan.

Terminology	Abbreviation	Description
Optimised Depreciated Replacement Cost	ODRC	The optimised replacement cost after deducting an allowance for wear or consumption to reflect the remaining economic or service life of an existing asset.
Redundant		1. Designed backup systems. or 2. Services or assets no longer required.
Redundancy – Back up Systems		An asset or component which, if it fails, does not result in a complete loss of service, e.g. if two pipes follow the same route, failure in one leaves the service operational (albeit at a reduced capacity). Redundancy is planned for and is very beneficial in critical systems such as trunk mains and pump stations to ensure that the required level of service can be maintained through a variety of adverse conditions.
Redundancy - Obsolescence		An asset or system that is no longer required and should it fail, would not be replaced. Redundant assets of this type are not included in the calculations for depreciation and are planned for abandonment or removal to waste at the end of their useful / economic life, rather than replacement or upgrade.
Renewal		Works to upgrade, refurbish, rehabilitate or replace existing facilities with facilities of equivalent capacity or performance capability.
Repair		Action to restore an item to its previous condition after failure or damage.
Replacement		The complete replacement of an asset that has reached the end of its life, so as to provide a similar or agreed alternative level of service.
Risk Management		The application of a formal process when considering risk which results in a range of outcomes and their probability of occurrence.
Routine Maintenance Plan	RMP	Guidelines for management of routine operation and maintenance activities for assets throughout the District.
Renewal Rehabilitation Plan	RRP	Guidelines for management of renewal and rehabilitation activities for assets which produces a forecast of works of this type for the forward work programme.
Strategic Plan		Plan for the long term goals and strategies of an organisation.
Upgrading		The replacement of an asset that materially improves the original service potential of the asset.
Valuation		Estimated asset value, which may depend on the purpose for which the valuation is required, i.e. replacement value for determining maintenance levels or market value for life cycle costing.