TARA WHAKARITE - SOLID WASTE
Asset Management Plan

MASTERTON DISTRICT COUNCIL 2021 - 2031

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MASTERTON DISTRICT COUNCIL
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DOCUMENT CONTROL

Masterton District Council

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QUALITY INFORMATION	
Document	Asset Management Plan
Reference	**Final**
Date	30 June 2021
Prepared By	David Mawson
Reviewed By	David Hopman
Peer reviewed by	Resolve Feb 2021
Document Approved	David Hopman
Adopted by Council	30 June 2021

REVISION HISTORY

Revision	Revision Date	Details	Authorised
5	04/10/2011	Total plan review	T Prichard
8	27/03/2015	Total plan review	T Prichard
11	23/03/2018	Total plan review	D Mawson
12	Feb 2021	Total plan review ready for audit	D Mawson
13	30/06/2021	Final for adoption	D Mawson

EXECUTIVE SUMMARY

Summary

The council owns, maintains and manages transfer stations throughout the Masterton District, with waste transferred to Bonny Glen landfill near Marton. Former landfill sites are closed and monitored, and the Nursery Road landfill has some limited use. The current refuse collection, landfill and transfer operations, gate fee collection, composting, and recycling services at both Nursery Road and in the rural areas are carried out under performance-based contracts let by competitive tender to the private sector.

The council provides, maintains and manages solid waste management services, in accordance with the Waste Management Wairarapa Strategy to provide a reliable, safe and cost-effective collection and disposal service, that promotes recycling, encourages responsible disposal of rubbish, and encourages a cleaner, greener environment.

The council's involvement in solid waste management is supported by the Local Government Act 2002, Waste Minimisation Act 2008, Local Government (Rating) Act 2002 and Health Act 1956. The Council has both general and specific discretionary powers under these acts.

The council works with and shares services with Carterton & South Wairarapa councils, as well as participating at a Wellington District level for waste management and minimisation. Council has on staff a waste minimisation officer to further the goals of waste reduction. They will be seeking to achieve greater gains toward the targets of reduction, reuse, and recycling of the solid waste stream.

In 2019 the 3 Wairarapa Councils rolled out a recycling kerbside collection service (wheelie bin) which has increased recycling capacity. Pre Covid measurement show an increase of recycling after the wheelie bin roll out and council communication along with contractor conductor site audits have kept contamination at very low levels.

The Regional Waste Minimisation plan (WMMP) will be reviewed in 2022. This is a key document in determining future level of service changes for Masterton District council Solid Waste asset management plans.

INTRODUCTION

Background

The purpose of this Solid Waste Asset Management Plan ("the Plan") is to provide Masterton District Council ("Council") with a tool to assist with the management of its solid waste assets ("the assets"). This tool combine's management, financial, engineering and technical practices and is intended to:

- Ensure that an agreed level of service is provided to defined standards at optimum cost.
- Be sustainable in the long term.
- Comply with regulatory requirements.
- Help Council to achieve the outcomes the community has defined.

This Plan, prepared in 2021, supersedes Councils "Solid Waste Asset Management Plan 2018".

Scope of plan

Solid waste assets ('the assets') include landfills (open and closed) and transfer stations. Solid waste services offered by Council include kerb-side recycling, kerb-side rubbish collection and street litter bin collection.

This Plan was developed to provide Council with a long-term view of:

- Where its solid waste facilities and services are currently at.
- What issues are likely to impact on it in the future?
- What level of service can be provided to the community in the future at a cost that can be afforded?

All of the figures in this Plan are expressed in dollar values as at 30 June 2020, and unless noted otherwise, are GST exclusive.

Summary of Assets

Solid waste assets include the following:

- Nursery Road Transfer Station
- Nursery Road Landfill (closed)
- Clean fill Area (for Landfill cover)
- Hazardous Wastes Temporary Storage
- Special Waste Disposal Facility
- Hastwell Landfill (closed)
- Tinui Landfill (closed)
- Castlepoint Transfer Station
- Riversdale Transfer Station
- Mauriceville Transfer Station (closed)
- Recycling wheelie bins

Asset management drivers (solid waste)

In March 2002, central government published the New Zealand Waste Strategy. The Strategy contains a number of targets relating to waste management and waste reduction. It adopts the vision: "Towards zero waste and a sustainable New Zealand".

The New Zealand Waste Strategy sets out five core policies for waste management. These are:

- A sound legislative basis for waste minimisation and management.
- Efficient pricing.

- High environmental standards.
- Adequate and accessible information; and
- Efficient use of materials.

The strategy set out 30 targets to be achieved at local, regional and national level (see appendix).

Council has adopted the Waste Management and Minimisation Plan 2017 – 2023 for the Councils of the Wellington Region in August 2017. It sets out the solid waste management goals for Councils of the Wellington Region, and outlines targets which are relevant at the local and regional level.

Goals and objectives of asset ownership

Council has adopted a funder-provider role delivering wastewater services using a combination of in-house and contracted labour. Council attaches a high priority to the role that it plays in the provision of these services.

Council's overall objectives for the service are:

- To implement a sustainable, environmentally appropriate, solid waste management regime incorporating the principles of zero waste for the Wairarapa, through community co-operation, education and commitment, in a culturally sensitive and economically viable manner.
- To ensure the solid waste disposal system is environmentally safe and appropriate to the needs of domestic and industrial users; and
- To comply with Central Government waste strategy as appropriate.

The reasons why Council is involved in this activity are:

- The effective management of solid waste is necessary in order to protect public health and the environment.
- Part 63 of the Waste Minimisation Act 2008 No. 89, Public Act require every territorial authority to adopt a Waste Management Plan.
- Section 25 of the Health Act 1956 requires every territorial authority to provide sanitary works, the definition of which includes works for the collection and disposal of refuse.
- Part 7 of the Local Government Act 2002 No. 84 (as at 01 July 2011), Public Act also requires Council to, from time-to-time, assess the provision of refuse collection and disposal services in its District, including:
  - A description of the services provided within the District for each community in it.
  - A forecast of future demands for services within the District and each community in it.
  - A statement of the options available to meet the forecast demands and an assessment of the suitability of each option for the District and each community in it.
  - A statement of the territorial authority's intended role in meeting the forecast demands.
  - A statement of the territorial authority's proposals for meeting the forecast demands, including proposals for any new or replacement infrastructure.
  - A statement about the extent to which the proposals will ensure that public health is adequately protected.
  - Waste Management and Minimisation Act 2008.

- Hazardous Substances and New Organisms Act 1996 (HSNO).
- Resource Management Act 1991 (RMA).
- Climate Change Response (Emissions Trading) Amendment Act 2008 and Amendment 2012.

- Council has developed strategies for continued infrastructural development to meet the community's requirements which minimise the adverse effects on the environment.
- Council's overall objective is to provide a service for the collection and disposal of refuse that is effective, economic and friendly to the environment.

Asset management systems

Council has installed (2017) an asset Management system called "Assetic –' which is a central strategic register and asset management system for all asset classes. It includes in-built reporting, works tracking and life-cycle costing. It will be integrated with 'Predictor' for a complete Strategic Asset Management planning and operational system capable of holding all asset information.

Standards and guidelines

- In operating and maintaining its solid waste assets, Council currently use the following standards and guidelines on a regular basis as appropriate:
- Centre for Advanced Engineering (2000) Landfill Guidelines.
- Standards New Zealand (2003) NZS3910: 2003 Conditions of Contract for Building and Civil Engineering Construction.

The specific standards that must be complied with for each construction project are listed in the applicable contract documents.

Waste Management Wairarapa

Council adopted the Waste Management and Minimisation Plan 2017 – 2023 for the Councils of the Wellington Region in August 2017. It sets out the solid waste management goals for Councils of the Wellington Region.

The plan is split into four parts:

- Strategy – covering introduction, vision, objectives, policies, expected outcomes, and monitoring and reporting progress.
- Regional Action Plan – covering actions that will be undertaken collectively across the region.
- Individual Council Action Plans – covering actions that each council intends to implement (see appendix).
- Appendices – which include: a glossary of terms; key legislation; and a summary of the means of implementation and funding.

Summary of asset management practice

The table below compares our current practice with appropriate and best asset management practice. (Based on International Infrastructure Management Manual - IIMM guidelines)

Solid Waste Asset Management Processes			
Asset Management Activity	Current practice	Appropriate	Best practice
Level of service	Review LOS & consult with community at least every 3 years	√	
Knowledge of assets	Inventory of assets maintained supplemented by contractor/specialist reports on serviceability & condition.	√	
Risk management	Strategic risk assessment 6 yearly. Operational risk assessment 3 yearly. Emergency response plans developed.	√	
Condition assessment	Contractors & specialist's assessments.	√	
Accounting / Economics	NCS accounting system. Accrual based system.	√	
Operations	Contractors monitor & report any issues. Council staff carry out inspections		√
Maintenance	Contractors monitor & report any issues. Council staff carry out inspections		√
Performance monitoring	Reported monthly by contractor and annually by staff.	√	
Optimised lifecycle Strategy	Performance & condition assessments used to prioritise lifecycle strategy.	√	
Design Project / Management	Expertise is contracted as required.		√
Asset utilisation / Demand modelling	Utilisation derived from use data. Demand forecasting reliant on historic records and trends, staff knowledge, and the 2018 Census and latest population estimates data.	√	
Quality Assurance / Continuous Improvement	Improvements identified and in Plan.	√	

Asset plan sophistication target level

The level of sophistication refers to the degree to which core and advanced criteria for asset management planning have been achieved. Criteria for core and advanced asset management planning are set out in the *International Infrastructure Management Manual*. (IIMM)

This plan sets out to achieve the minimum level of sophistication where corporate expectations are expressed informally and simply.

LEVELS OF SERVICE

Introduction

This Solid Asset Activity Plan intends to match the level of service the asset provides with the expectations of customers given financial, technical and legislative constraints.

Asset activity plans can be readily aligned with strategic financial planning. Formalised asset management systems and practices provide the Council with key benefits, such as:

- Improved understanding of service level options and requirements.
- Minimum life cycle (long term) costs for an agreed level of service.
- Better understanding and forecasting of asset related management options and costs.
- Managed risk of asset failure.
- Improved decision making based on costs and benefits of alternatives.
- Clear justification for forward works programmes and funding requirements.
- Improved accountability over the use of public resources.
- Improved customer satisfaction and organisation image.

Pursuing formal asset management planning enables council, as owners of a comprehensive range of assets, to demonstrate to their customers and other stakeholders that services are being delivered in the most effective manner.

The purpose of this Asset Activity Plan is to report on the current service levels for each asset stream and how council operates these on the community's behalf. Options to vary the level of service are also reported, resulting in the presentation of a series of possible options for future maintenance or improvement.

Customers and stakeholders

Council's Property and Community Facilities customers include, ratepayers, residents, local industries, businesses and our community.

Council's service stakeholders encompass Ministry of Health, local Iwi including Rangitāne o Wairarapa and Ngāti Kahungunu ki Wairarapa, Wairarapa District Health Board, Greater Wellington Regional Council, contractors, subdivision developers, ratepayer associations and other territorial authorities.

Annual residents survey

2020 resident survey Solid waste

The most recent survey was done in 2020 (Keyresearch May 2020). Current performance based on recent survey results and compared to national and peer group averages is assessed as being adequate for the level of service desired by the community.

Introduction

The Masterton District Council has a requirement to measure how satisfied residents are with the resources, facilities and services provided by Council, and to prioritise improvement opportunities that will be valued by the community

Research objectives

- To provide a robust measure of satisfaction with Council's performance in relation to service delivery
- To determine performance drivers and assist Council to identify the best opportunities to further improve satisfaction, including satisfaction amongst defined groups within the district

- To assess changes in satisfaction over time and measure progress towards the long-term objectives

Methodology

- A statistically robust survey conducted online and via postal survey with a sample of n=579 residents across the Masterton District area
- Post data collection the sample has been weighted so it is aligned with known population distributions for the Masterton District Council area, as per the Census 2018 results, based on age, gender and ethnicity
- A total of 3,000 invitations were posted. At an aggregate level the sample has an expected 95% confidence interval (margin of error) of +/ 4.1%.
- Data collection took place between 16 April and 24 May 2020

Notes

Due to rounding, percentages may add to just over or under (+/ 1%) totals

Historical residential surveys

Council conducts a resident's survey and meets with focus groups to gain feedback on community perceptions of Council every year. The National Research Bureau (NRB) has carried out 'Communitrak' surveys for Council every year since 1993. This is a means of measuring Council's effectiveness in representing the wishes and viewpoints of our residents. It provides a comparison for Council on major issues, and on our performance relative to the performance of our peer group. It also compares Council to other Local Authorities throughout New Zealand and to previous Communitrak results, where applicable.

The following table shows the high-level results of the 2020 survey and the historical Communitrak Surveys rating the level of service for Solid Waste.

Results of Masterton's Communitrak Survey for Solid Waste Residents					
SURVEY YEAR	VERY SATISFIED %	SATISFIED %	NEUTRAL %	DISSATISFIED %	VERY DISSATISFIED %
2020	22	52	21	3	2
SURVEY YEAR	VERY SATISFIED %	SATISFIED %	NOT VERY SATISFIED %	* VERY DISSATISFIED %	DON'T KNOW
2018	25	42	20	2	11
2017	33	38	15	3	11
2016	31	42	16	1	10
2015	27	46	10	2	15
2014	24	49	15	4	8
2012	52	23	14	N/A	10
2011	43	28	20	N/A	9
2010	33	32	23	N/A	12
2009	38	28	17	N/A	17
Peer-group (size)	59	20	12	N/A	9
National average	53	28	12	N/A	8

*Different survey provider for 2020 and different satisfaction scale.

*Readings prior to 2014 had a different satisfaction scale. No survey in 2013 or 2019.

Council conducts a resident's survey and meets with focus groups to gain feedback on community perceptions of Council every year. The National Research Bureau (NRB) has carried out Communitrak Surveys for Council every year since 1993. This is a means of measuring Council's effectiveness in representing the wishes and viewpoints of its residents. It provides a comparison for Council on major issues, on performance relative to peer group and to previous Communitrak results, where applicable.

The most recent survey was done in 2020 by KeyResearch. Where possible current performance based on recent survey results and compared to national and peer group averages is assessed as being adequate for the level of service desired by the community.

Public meetings on special projects

Council's current policy is to ensure public consultation when undertaking any special projects.

Council adopted the Draft Waste Management and Minimisation Plan 2017-23 in August 2017.

Prior to the Nursery Road landfill closing, consultation was undertaken with commercial businesses. The top 70 users were identified and invited to a public meeting where closure reasons, closure timeframe and implications were discussed. These users were categorised by their waste streams and further consultation took place with users from each of the identified streams. As a result, a set of guidelines/procedures pertinent to their needs was created for bringing waste to the transfer station.

Community outcomes consultation

Council's levels of service contribute to achieving the Community Outcomes listed below. The initial Community Outcomes were identified as part of the 2015-25 LTP process and were widely consulted on at that time. Council continues to engage with the community through Annual Plan and LTP process or if there is a significant change required.

A 'levels of service' consultation was carried out with the community in 2017 and again in 2020 and the results of this will be included into this asset management plan.

Community Outcomes

Community Outcome	How Solid Waste Assets contribute
A Sustainable, Healthy Environment	• Encourage responsible disposal of rubbish • Encourage a clean, green environment
A Knowledgeable Community	• Promote recycling
A strong resilient economy	• Provide a reliable, safe and cost-effective collection and disposal service

Legislative and other requirements

Statutory requirements set the framework for the minimum standards of service, which the solid waste assets have to meet, and are generally non-negotiable. The key legislation and policies relating to the management of solid waste are listed below.

Relevant legislation affecting this asset

- Waste Minimisation Act 2008
- Local Government Act 2002
- Local Government Act 1974 (Part XXXI)
- Health Act 1956
- Resource Management Act 1991
- Health & Safety in Employment Act 1992
- The Climate Change Response Act 2002
- The Local Government (Rating) Act 2002
- Public Bodies Contracts Act 1959
- Public Works Act 1981

Council policies affecting this asset

- Wairarapa Combined District Plan 2011
- Waste Management and Minimisation Plan 2017-2023
- Rating and Financial Policies

Regional council policies and plans affecting this asset

- Regional Policy Statement for the Wellington Region
- Regional Plan for Discharge to Land for the Wellington Region
- Regional Fresh Water Plan
- Regional Air Quality Management Plan
- Regional Soil Plan
- Wellington Region Waste Management Minimisation Plan 2017-2023

Council strategic planning and other documents affecting this asset

- Long Term Council Plan (LTP) 2021-231
- Communities for Climate Protection Community Plan

Other planning and other reference documents

- New Zealand Waste Strategy
- The Government's Sustainable Development Action Plan

Bylaws affecting this activity

Council have adopted a general NZ bylaw NZ9201 chapter 6 (1972) which deals with hazardous waste and Masterton District Council Consolidated Bylaws 2012.

Core values for this activity

The core values of Reduction, Re-use, Recycling, Recovery, Residual Management, have been identified for solid waste services and were considered in the development of Council's levels of service.

Service levels & performance measures

Solid waste assets provide, and are used to deliver, a range of services within the Community. These include:

- Kerb-side recycling collection
- Kerb-side rubbish collection
- Street litter bin collection
- School collection of recycled paper
- Masterton CBD area weekly cardboard collection
- E-Waste acceptance at Nursery Road
- Waste Minimisation Advisor

Current levels of service & performance measures

Council developed the current solid waste levels of service, performance measures and targets to reflect:

- Industry standards
- Customer research and expectations
- Legislative and other requirements
- Strategic and corporate goals

Solid Waste performance measures

Levels of Service	Performance Measure	Baseline Year??? 17/18	Performance Targets			
			2021/22	2022/23	2023/24	Years 4-10
Service delivery	Number of call backs due to non-collection of official rubbish bag in each weekly collection	13 call backs in total	Improvement on previous year	Improvement on previous year	Improvement on previous year	Improvement on previous year
Waste minimisation	Tonnage of waste delivered for transfer per head of population	0.59 tonne per head of population 15,203 tonnes of waste transferred (pop est 25,700)	Reduction on previous year	Reduction on previous year	Reduction on previous year	Reduction on previous year
Meeting our consent commitments	Urban and rural transfer stations, recycling, composting facilities and landfills operate within approved resource consent conditions that occur in the council's district	Minor non-compliance	100% compliance	100% compliance	100% compliance	100% compliance

Links Between Solid Waste Levels of Service and Community Outcomes

COMMUNITY OUTCOMES					
Levels of Service	A thriving and resilient economy	A sustainable, healthy environment	An engaged and empowered community	Pride in our identity and heritage	An efficient and effective infrastructure
Provide solid waste management facilities and solutions across the district in accordance with the solid waste management plan for the Wairarapa	√	√	√		
This level of service:	Aims to ensure the needs of local communities are met about the transfer and disposal of both domestic and industrial waste products. This contributes to both the public health of the community and the capacity for growth and economic development, now and in the future.				
Operate the rural and urban transfer, composting and recycling operations in a safe and environmentally sensitive manner		√	√		
This level of service:	Aims to ensure that services are provided in a way that is safe and acceptable, whilst maximising public health and minimising environmental impact.				
Assess the standard of district solid waste services every three years and upgrade urban and rural transfer stations, composting facilities, and landfills where necessary	√	√	√		

COMMUNITY OUTCOMES					
Levels of Service	A thriving and resilient economy	A sustainable, healthy environment	An engaged and empowered community	Pride in our identity and heritage	An efficient and effective infrastructure
This level of service:	Aims to ensure that services are provided beyond just minimum requirements but to the best standard our community can afford.				

Desired or enhanced levels of service

In 2014 invited stakeholders, service users and interest group representatives attended workshops to consider the different services Council offers. At each workshop, participants recorded what they liked and disliked about the service, and then listed suggestions for improvement. This feedback, along with information gathered from surveys, meetings, trends, Annual Plan submissions and a range of other sources was used to help Council review service delivery. In 2017 Council retendered the Waste contract with a provision of introducing added services.

By further improving the effectiveness and efficiency of its systems Council could improve service delivery.

Undertaking a strategic assessment of solid waste services every three years will identify ways in which Council can further enhance the effectiveness and efficiency of solid waste services. Through such reviews specific work and/or projects could be identified and assessed for affordability versus potential benefits.

Councils current kerbside recycling collection includes

- Fibre (Cardboard, paper products)
- Glass
- Metals (Aluminium, tin and steel)
- Plastics numbered 1, 2 and 5. Council will collect other numbered plastics if and when suitable markets become available for these types of plastics.

It should be noted that the level of services provided through the upgrading of assets is subject to the availability of capital contributions for that service.

Options of reducing Solid Waste Services

Potential Reduction of Solid Waste Services			
Option to change service level	Justification	Benefit	Cost/Suggested action
CBD upgrade with Recycling & Refuse bins	Reduce waste to the landfill	Reduced landfill waste.	$10,000 p/a
Vary urban opening hours to better meet the business requirements of contractors/public	Businesses have different core hours and have seasonal variations.	Commercial operators benefit from access to sites and pass on improved service to their customers.	$30,000 – 60,000 p/a
Rural opening hours increased (including walk in access option)	Improved access to service beyond minimum levels.	Encourages use of sites and recycling facilities.	$20,000 – $50,000 p/a per site

Options of enhanced Solid Waste Services

Potential Enhancement / Improvement for Solid Waste Services			
Option to improve service level	Justification	Benefit	Cost/Suggested action
Collection of hazardous waste from farms	Current waste disposal route is ad-hoc and carries with it risk of on farm contamination.	Enhanced and effective disposal route reducing on farm disposal of potentially hazardous waste.	$50-80k pa
Kitchen caddies: urban food waste collection	Environmental benefits.	Reduce waste to landfill.	$306,300 set up $269,000 p/a operating cost

Recycling facilities at remote sites	Provide recycling recovery facilities.	Encourages recycling.	$15-20K p/a per site
Resource recovery facility	For the recovery of resources and waste minimisation.	Reduce waste to landfill and provide community employment.	$250,500 building cost $67,5000 p/a operating cost
Cover transfer station pad	Contain any windblown material to the site	Compliance with consent.	$350,000
Asbestos disposal	To encourage safe asbestos disposal	To eliminate potential harmful products at the transfer station that should be correct disposed.	$100,000 p/a
Urban waste wheelie bin service	To compete with private collectors and community demand for a wheelie bin service.	Provide LOS for community to create market share for council and keep costs affordable .	$TBA
Tyre pyrolysis on site	Provide an economical recycling process for waste tyres.	Re-cycle tyres back into oil, steel, and carbon components.	$150,000 – $250,000
Ability to recycle polystyrene products	Masterton recycling centre is currently unable to process polystyrene products which is a large	Less waste to landfill	TBC
Upgrade materials recovery equipment (Dirty MERF)	Environmental benefits, through reduction of land fill waste	Recyclable materials are sorted through automated & manual processes into type & Grades for re processing	$100,000 full feasibility study

Commercial after-hours weight in/out facility	Increase level of Service for Commercial users	Commercials users would be able to use the facilities outside of normal working hours and increase "time on tools" for the contractors	TBC

Council has also explored potential reduction in Levels of Service, and these are listed below.

Options of a reduction in current Solid Waste Services

Potential Reduction for Solid Waste Services			
Option to reduce service level	Justification	Benefit	Cost/Suggested action
Decrease the operating hours for urban sites	Cost savings – Reducing operating cost	Reduced cost to council.	$50,000p/a
Implement user pays for all waste services (e.g., Recycling collection and disposal at transfer stations and collection)	Cost savings - Reduced operating costs.	Reduced cost to council.	$5 per tonne extra. $45,000 saving p/a
E-waste and hazardous items processing for user pay only	Target users - Recovery of operation costs.	Encourages recycling.	$20,000 p/a (approx saving)
MDC to stop kerbside collection of blue waste bag	Remove MDC from waste collection to private user pays	Targeted user pays	TBC

Past performance measures

The following table shows the performance measures for solid waste activities, and whether Council has achieved these, over the past five years. This information was obtained from the Annual Reports for each year. Note it gives a reasonably simplistic view of Councils performance and the reader is referred to the Annual Reports for further details.

Past Masterton District Water Supply Performance Trends							
Performance Measure	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
% Customers satisfied with the urban and rural transfer stations, recycling and composting facilities Maintain satisfaction level	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved
Proportion of advertised hours that the transfer stations and recycling centre is open to the public 100%	Not Achieved	Achieved	Not Achieved	Not Achieved	Achieved	Achieved	Achieved (Covid excepted)
% customers satisfied with solid waste collection services. Maintain satisfaction level	Achieved	Achieved	Achieved	Achieved	Not Achieved	Achieved	Achieved
# call-backs for non-collection of official rubbish bag per weekly collection (year on year improvement)	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Not Achieved
Tonnage of waste delivered for transfer is reduced annually. Achieved per annum reduction	Achieved	Achieved	Not achieved	Not achieved	Not achieved	Achieved	Achieved
The Solid Waste Management Plan for Wairarapa is reviewed. Waste reduction targets reviewed	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved
Urban and rural transfer stations, recycling, composting facilities and landfills operate within approved resource consent conditions -100% compliance	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Not Achieved (green waste)
Complete a three-yearly assessment of solid waste service provision in the District	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved

Financial summary

Current costs

In 2019/20 Solid Waste Services, delivered at current levels of service, cost:

- Operating Expenditure: $4,502,943
- Rates Contribution $1,037,305
- Proportion of Total Cost: 23.036%
    - **Source Annual Plan 2020/21 for 2019/20 year**

To maintain current levels of service, maintenance and renewal work may need to be undertaken. For more information re specific projects identified, please refer to: Section 4 Future Growth and Demand; Section 5 Risk Management; and Section 6 Life Cycle Management Plans.

Cost of enhancing current levels of services

The key actions and issues identified in this section requiring attention and/or intervention, and the costs associated with the proposed work, are outlined in the following table. It should be noted that the level of services provided through the upgrading of assets is subject to the availability of capital contributions for that service.

The Regional Waste Minimisation plan (WMMP) will be reviewed in 2022. This is a key document in determining future level of service changes for Masterton District council Solid Waste asset management plans.

Work and cost required to enhance current level of service

Action/work	Driver	Estimated cost	Scheduling	How this is funded
CBD upgrade with Recycling & Refuse bins	Reduce waste to the landfill	$10,000 p/a	Part of CBD upgrade or separate if project is delayed	Rates

FUTURE GROWTH AND DEMAND

Introduction

Council has considered the following factors in for solid waste in addition to those described in Part A to predict future demands:

- Waste volume and waste mix
- Tourism (in particular for this AMP, beach visitors)
- Land use
- Commercial influences such as industrial expansion at Waingawa may increase demand for services or result in demand for different types of services.
- Private waste collection services – Competition to council.
- Greater emphasis on sustainability issues and demand for Council to provide leadership with policies that reflect stronger sustainability objectives, along with increasing pressure to enhance the preservation of our environment, is anticipated.
- Private transfer facilities, clean fill sites, and special wastes disposal enterprises are possibilities that if they were to establish a market in the District could have an effect on current operations.

It is recommended that trends be monitored and observed, and that this section of the Plan be updated regularly.

Population effect

With a reasonably small increase in population (1% pa), Council does not expect domestic solid waste loads to change significantly. Household distribution and urban/rural split should continue to be monitored. If the rural population does continue to increase on the outskirts of the urban area, this growth could be accommodated by existing urban facilities. If the growth is in other rural areas, this may have an effect on demand for services at rural transfer stations.
Waste volume/mix

Current waste volume/mix

In 2019/20 a total of 20,595 tonnes of waste material was processed in the Masterton District. The proportion of waste contributed by each waste source was:

- 56% Refuse & clean fill
- 24.6% Recyclable material
- 19.4% Compost

Greater detail of waste stream volumes for previous years can be found in section 6 (Lifecycle) of this plan.

Future Projections

Previous years trends show an increased amount of exported MDC solid waste tonnage to Bonny Glen from the Nursery Road Transfer Station.

Population statistics and waste per capita trends indicate waste disposed to landfill is decreasing slowly. This follows current small predictions for growth in the population and this should then reflect in minor increasing growth of the waste streams for the future.

However, by continuing the current diversion programmes and the waste reduction initiatives, then the waste per capita should continue its trend of a progressively minor decline.

If further action is taken to affect a behavioral change in the community or new diversion techniques are introduced either at a local or national level, then a reduction in the waste to landfill per capita trend may be accelerated.

Exported recycling tonnage has almost tripled over the last eight years, but the figures quoted include the southern Councils recyclables as a part of Wairarapa wide initiatives.

The Compost (green waste) component has increased in tonnage as these materials are diverted from the refuse stream increasing to 4,011 tonnes for the last financial year.

Waste volume/mix effect

- Changes in waste volume and mix can have the following effects on the solid waste assets:
- A reduction (or increase) in transportation exportation costs from the region.
- The recovery of items suitable for recycling and promoting sustainability (or not).
- Reduce (or increase) contamination from the site to air and land.

Tourism effects on Waste volumes

Changes in tourist volumes could have the following effects on the solid waste assets:

- Seasonal increases in the volumes of solid waste transported in from the rural transfer stations of Riversdale, Tinui and Castlepoint during peak holiday periods at current levels are expected and catered for.
- Annual events like the Golden Shears, Wings over Wairarapa, and special events can increase visitor numbers and waste volumes.

Changes in customer expectations

Changes that are likely to impact on solid waste services include increasing emphasis on sustainability issues, greater demand for enhanced environmental outcomes and cost or affordability.

The upgraded recycling facilities at Nursery Road have provided improved recycling services for the District, consistent with improved environmental outcomes.

Changes in customer expectations can also be determined through community consultation (e.g., Communitrak survey) and feedback processes. Customer expectations and trends will be monitored and assessed, and this plan updated accordingly.

Demand forecast and response strategy

Overall demand drivers are expected to have a low impact on future demand for solid waste services. Current systems have the capacity to accommodate currently projected growth and demand.

Demand drivers

Demand driver	Future impact	Future demand (for the next ten years)
Population	Low	Negligible
Waste volume/mix	Low/ moderate	Unknown
Tourism	Low	Negligible
Land use	Low	Negligible
Demand for improvement in the level of service	Low/ moderate	Outcomes from future strategic reviews, public consultation and annual plan submissions to be considered
Changes in customer expectations	Low/ moderate	Outcomes from public consultation

Cost of responding to growth and demand changes

As noted, no specific work has been identified at this time. The key actions and issues identified in this section that may require attention and/or intervention, and the costs associated with the proposed work, are outlined in the following table.

Solid waste work required to meet Growth and Demand				
Demand driver	Work/action required	Estimated cost	How funded	Scheduled for
Regional waste management	Participate in the regional waste management and minimisation plan	$10,000 pa	Rates	From 2021
Regional projects	Participate in regional projects. Leading, sponsoring or supporting projects.	$6,000 pa	Rates	From 2021
Regional waste assessments	Undertake a regional waste assessment required every 6 years	$40,000	Rates	2021/22
Local projects/work initiative	To reinforce waste minimisation communications and initiatives to our community	$35,000 pa	Rates	From 2021

Conclusion for the future demand on assets

Enhanced recycling facilities continue to encourage increased recycling behaviours.

The Waste Minimisation and Management Plan 2017-23 and rural waste services may identify changing customer expectations and/or needs.

Further research is recommended to assess:

- Expected growth or otherwise in the forestry, tourism and other commercial sectors.
- Population projections for Castlepoint, Riversdale Beach and Tinui.
- Council will develop strategies for the likely risks of climate changes

RISK MANAGEMENT

Introduction

Risk Management is the term applied to a logical and systematic method of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risks associated with any activity, function or process in a way that will enable organizations to minimize losses and maximise opportunities. Risk Management is as much about identifying opportunities as avoiding or mitigating losses.

Risk Management in asset management planning is a requirement of the Local Government Act 2002. It should be used when there are:

- Large potential damages/losses
- Changing economic conditions
- Varying levels of demand for services
- Investments that lie outside the ability to fund
- Important political, economic or financial aspects
- Environmental or safety issues
- Threats or changes to service levels

The risk management process is defined as 'the systematic application of management policies, procedures and practices to the tasks of identifying, 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'.

In September 2019 MDC adopted a Corporate Risk Management Policy. As per the policy the main policy objectives are to:

- enhance MDC's ability to achieve business objectives
- maintain the integrity of services
- safeguard assets, people, finances, and property
- create a culture where all employees accept responsibility for managing risk
- ensure that MDC can adequately and appropriately deal with risk and issues as they occur
- demonstrate transparent and responsible risk management processes which align with and demonstrate good governance
- identify opportunities and promote innovation and integration
- record and maintain a risk management framework aligned with the AS/NZS ISO 31000:2018 standard
- utilise risk management process outputs as inputs into MDC decision-making processes

Following are the processes involved in the risk management:

Risk management process

The process followed for this Plan was:

Strategic level risk assessment:

- Review of Masterton District Council Asset Management Processes Risk Management (Waugh Consultants, 2006) in conjunction with asset managers and production of a revised report: Masterton District Council Asset Management Processes Risk Management (Waugh Consultants, 2011)
- Risk Management Update (Waugh Consultants, 2014)
- The impact of the Waugh Update (2011 & 2014) was reviewed at a strategic level in conjunction with the risk assessments carried

out by Council staff. The risk management analysis is now consistently incorporated into all respective asset management plans

- 2017 Council risk review undertaken following the Waugh Risk management assessments.
- Production of a report: Masterton District Council Asset Management Processes Risk Management (Waugh Consultants, 2020)

Risk review 2020

The 2020 risk management review process included:

- A review of the MDC Risk Management Policy and Corporate Risk framework
- Risk review workshops with Council's Infrastructure managers
- Review of and alignment of risk register format with the Corporate Risk Register
- Update of the risk registers.

Risk review objectives

The objectives of the 2020 Risk Management Review process include:

- Update the MDC risk assessments and mitigation measures reflecting latest MDC risk management policy and practice.
- Detailed risk registers that record latent (untreated) risk scores, current practise risk scores and residual risk (when identified improvement s have been implemented).
- Support the 2021-31 LTP financial programme development where risk is a driver for capital or operational funding

Staff Workshops

The 2020 risk review process and results presented in this report are based on the opinions and perspectives of asset management on operational MDC staff. Risk assessments based on opinion are particularly useful in extracting perceived issues/problems relating to an activity, and in provoking discussion as to why one issue has a higher risk than another. Much of the value of this type of risk assessment exercise is gained when it is completed by groups of staff, as it tends to lead to questioning of assumptions surrounding the activity that may no longer be valid. The results presented should be challenged and reviewed as necessary within the wider corporate context and whenever additional asset information is obtained.

Qualitative asset condition and performance information is an important indicator of physical asset risk. Whilst specific asset condition has not been investigated in detail as part of work, asset condition and performance issues have been identified in the risk registers.

Risk Register Update

Improvements

The updated risk registers have been further developed to include likelihood and consequence scorning for the following , three stages of risk exposure:

- Un-treated risk,
- Current or existing [E] risk rating, recognising existing processes that manage or mitigate the risk,
- Residual risk or proposed [P] risk rating, a proposed process that if implemented will manage or mitigate the risk to its lowest level.

Current risks with a score of 12 or higher, have been included in the improvement plans. The residual risk actions help to define the improvement actions.

Risk Methodology & Scores

- Risk Stages

As mentioned, the risk registers have 3 risk scores 1 for each stage i.e., untreated, current practice and residual risk

- Risk Scoring Process

Step 1:

Every risk is scored by assessing and allocating a score for both the likelihood and consequence of each score the scoring is based on the following tables:

Likelihood table and scores	
Likelihood	Score
Rare	1
Unlikely	2
Moderate	3
Likely	4
Almost certain	5

Consequence table and scores	
Likelihood	Score
Insignificant	1
Minor	2
Moderate	3
Major	4
Catastrophic	5

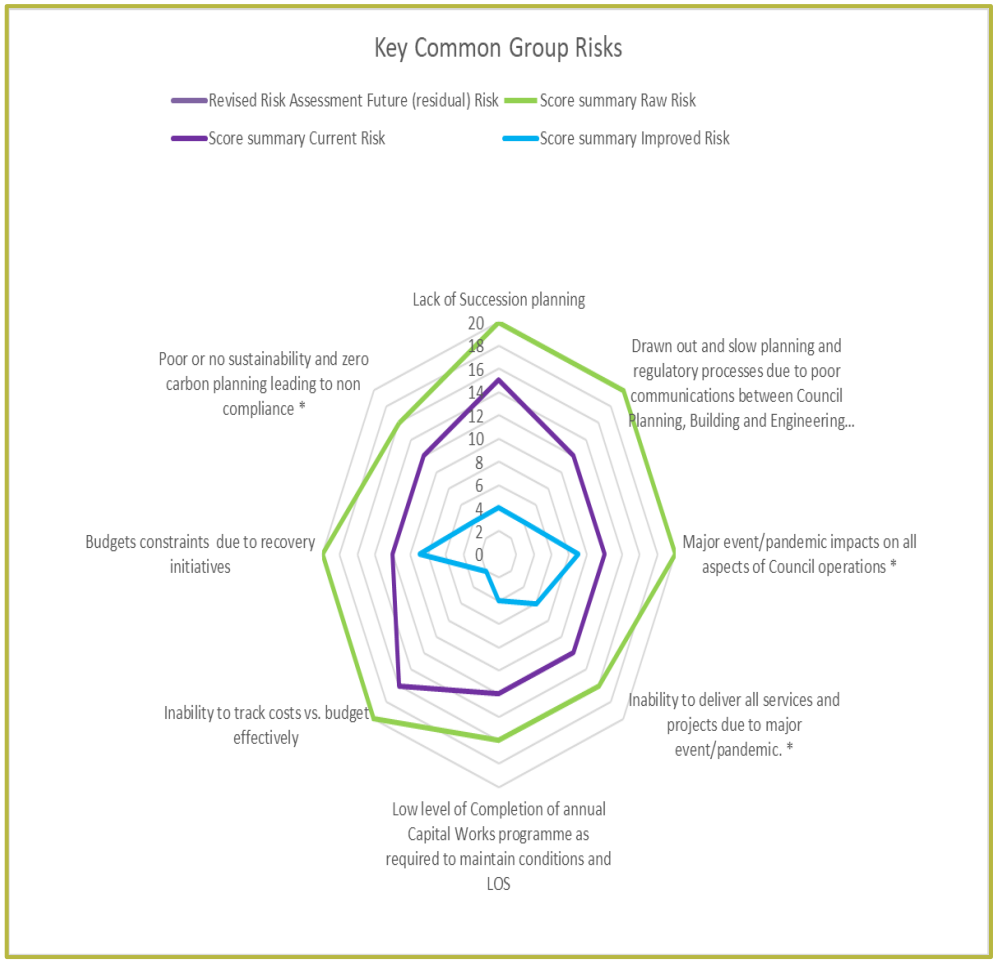
Step 2:

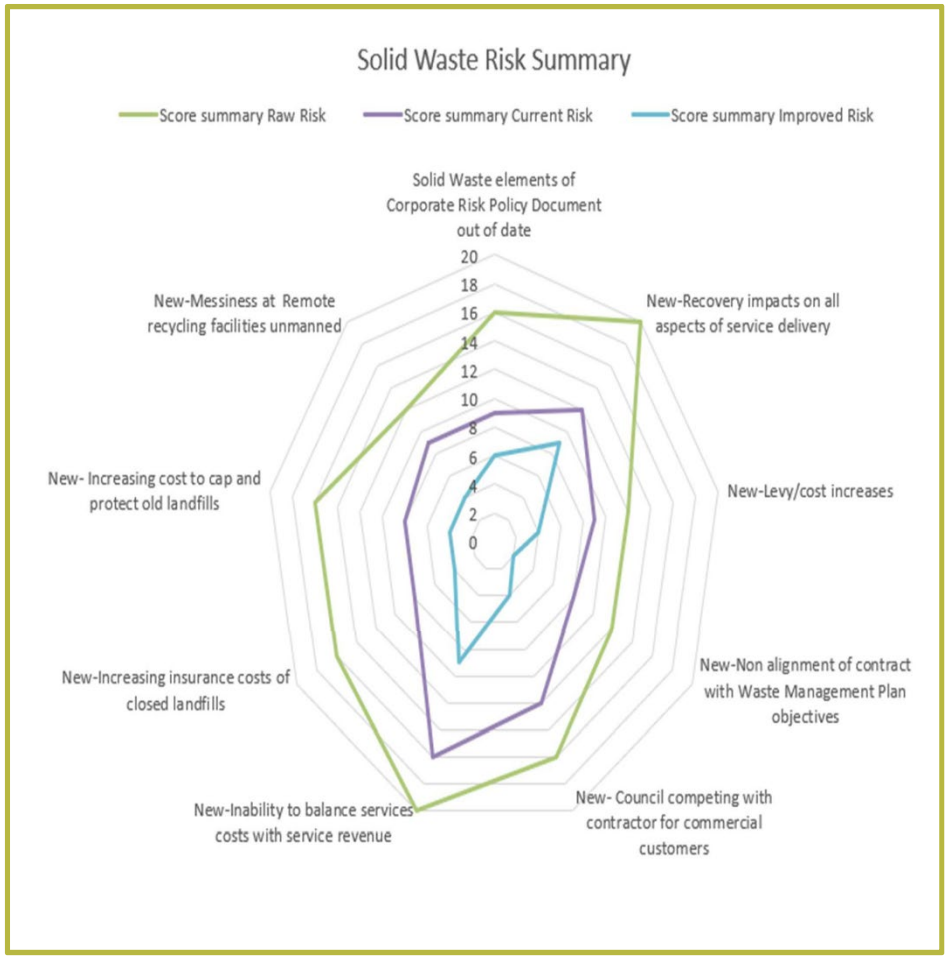
The risk score is calculated by multiplying the 'likelihood' score by the 'consequence' score

Likelihood score x consequence score = Risk score

This scoring process is repeated for each of the 3 risk stages.

The table below details the Risk Rating categories and potential implications for the following areas legislation, Community expectation financial and environmental.





Risk rating categories					
Risk Rating	Risk Scores	Legislation	Community Expectation	Financial	Environment
Critical (4)	> 19	Commissioners Appointed	Expectations not obtainable	Detrimental effects > $0.5m	Widespread long-term effect
High (3)	12 to 19	Adverse Audit Opinion or Disclaimer	Expectations not obtainable medium term	Detrimental effects > $50k	Long term effect
Moderate (2)	5 to 11	Qualified Opinion; Warning over non-compliance.	Expectations not obtainable in short term	Detrimental effects between $10k - $50k	Short term reversible effect
Low (1)	3 to 4	Minor non-compliance	Faults within agreed LoS	Detrimental effects <$10k	Reversible and contained effect.
Insignificant (0)	2 or lower	Compliance	Expectations reached	No effect	No effect

Risk review outcomes

This section of the report provides an overview of the critical and high risks per activity, with the detailed risk registers attached as appendices.

Assets and Operations Group Risks

A number of Assets and Operations Group risks common to all the activities were identified. These risks have been grouped together as common group risks in this section of the report. Doing this reduces duplication of these risks in each individual activity risk register, streamlining the management and reporting of these risks.

Some of these common Group risks have different responses and mitigations measures in the different activities. Where this is the case the risks are included in the activity specific risk registers.

Key Risks & Group improvement items

The tables below summary the Assets and Operations Group key risks, highlighting the raw risk , current risk and potential improved risk scores if improvement actions are implemented:

The table below also summarises the improvement actions that if implemented reduces the individual risk scores:

Solid waste risk analysis

Risk Description	Score summary			
	Raw Risk	Current Risk	Improved Risk	Improvement Items
Solid Waste elements of Corporate Risk Policy Document out of date	16	9	6	[P] policy outlines councils' strategic approach to risk management. Assets report up on critical risks
New-SLA partners having different contract objectives	16	6	2	[P] review sla arrangements and implement improvements
New-Recovery impacts on all aspects of service delivery	20	12	9	[P] ongoing recovery response planning and reviews
New-Multi Council by into regional Waste Minimization Plan	12	6	2	[P] review regional waste minimisation arrangements identify and implement improvements
New-Levy/cost increases	12	9	4	[P] review cost of service and rates impacts consultation and communication

Solid waste risk analysis

Risk Description	Score summary			
	Raw Risk	Current Risk	Improved Risk	Improvement Items
				programme with ratepayers
New-Contractor conflict due to Councils Wheelie bin services	12	6	2	[P] review contract performance [p] proactive contract management by council
New-Nonalignment of contract with Waste Management Plan objectives	12	8	2	[P] contract review and updates
New- Council competing with contractor for commercial customers	16	12	4	[P] review arrangements for commercial collection services
New-Inability to balance services costs with service revenue	20	16	9	[P] review servicing options & revenue streams [p] communications plan

Solid waste risk analysis

Risk Description	Score summary			
	Raw Risk	Current Risk	Improved Risk	Improvement Items
New-increasing insurance costs of closed landfills	16	8	4	[p] increase close landfill insurance
New- increasing cost to cap and protect old landfills	16	8	4	[p] review and implement old landfill protection improvements
New- landfill contract renewal risks	16	4	2	[p] monitor and review contact arrangements and sla partnership
New-poor selection of future asset infrastructure choices	12	6	4	[p] implementation of preferred option [p] robust operations planning and implementation
New - scruffiness at remote recycling facilities unmanned	12	9	4	[p] review maintenance requirements and frequency [p] increase community awareness programmes

Solid waste risk analysis

Risk Description	Score summary			
	Raw Risk	Current Risk	Improved Risk	Improvement Items
Solid waste issues poorly addressed in district plan	16	4	2	[p] review when plan updated.
New-closed landfills polluting the environment	20	6	4	[p] review monitoring results [p] revise /improve management and mitigation actions [p] identify and implement protection improvement works
New-building boom increasing waste volumes to landfill	12	9	4	[p] recycling strategies targeting building industry [p] ongoing monitoring reporting and collaborative planning
Customers billed incorrectly	6	4	2	[P] Review billing system process and procedures
Ratepayers dissatisfied with LOS and Charges	16	4	2	[P] Include los and charges in 2021 LTP focus groups.

Improvement plan for 2021

Improvement Actions

The table below summarises the improvement actions that if implemented reduces the individual risk scores:

Solid waste risk and improvement items

Risk Description	Score summary			Improvement Items
	Raw Risk	Current Risk	Improved Risk	
Lack of Business Continuity Planning	15	12	6	[P] Assess infrastructure for asset failures that impact on lifelines and produce response plan to restore continuity.
Lack of Succession planning	20	15	4	[P] develop robust succession plans for key positions. Develop staff recruitment/retention strategies
Low level of Staff Resources (NB: Licensed Plant operators)	16	12	2	[P] staff resource planning and recruiting [P] Succession planning
New-pandemic impacts on all aspects of service delivery	20	12	9	[P] Ongoing pandemic response planning and reviews
New-Inability to deliver all services and projects due to pandemic impacts	16	12	6	[P] monitoring impacts and revision responses and budgets

Solid waste risk and improvement items

Risk Description	Score summary			Score summary
	Raw Risk	Current Risk	Improved Risk	
Inadequate Insurance	20	12	6	[P]Confirm flood damage funding policy. {P} Council review risk appetite and insurance options
New-Reductions in budgets due to pandemic, compitition and affordability impacts	20	12	9	[P] monitoring impacts and revision responses and budgets
New-Inability to balance services costs with service revenue	20	16	9	[P] Review servicing options & revenue streams [P] Communications plan
New-Increasing insurance costs of closed landfills	16	8	4	[P] Increase close landfill insurance
New- Increasing cost to cap and protect old landfills	16	8	4	[P] Review and implement old landfill protection improvements
New-Seismically Non-compliant structures	20	12	8	[P] Policy on Code upgrading vs Disposal required. Then AMP/LTP to show budget for works/disposals.

Climate change and stormwater protection

Climate change will increase the risks from natural hazard events that already occur within the district, particularly as a result of:

- sea level rise, exacerbating the effects of coastal erosion and inundation and of river flooding in low lying areas, especially during storm surge;
- increased frequency and intensity of storm events, adding to the risk from floods, landslides, severe wind, storm surge, coastal erosion and inundation; and
- increased frequency of drought, placing pressure on water resources and increasing the wildfire risk.

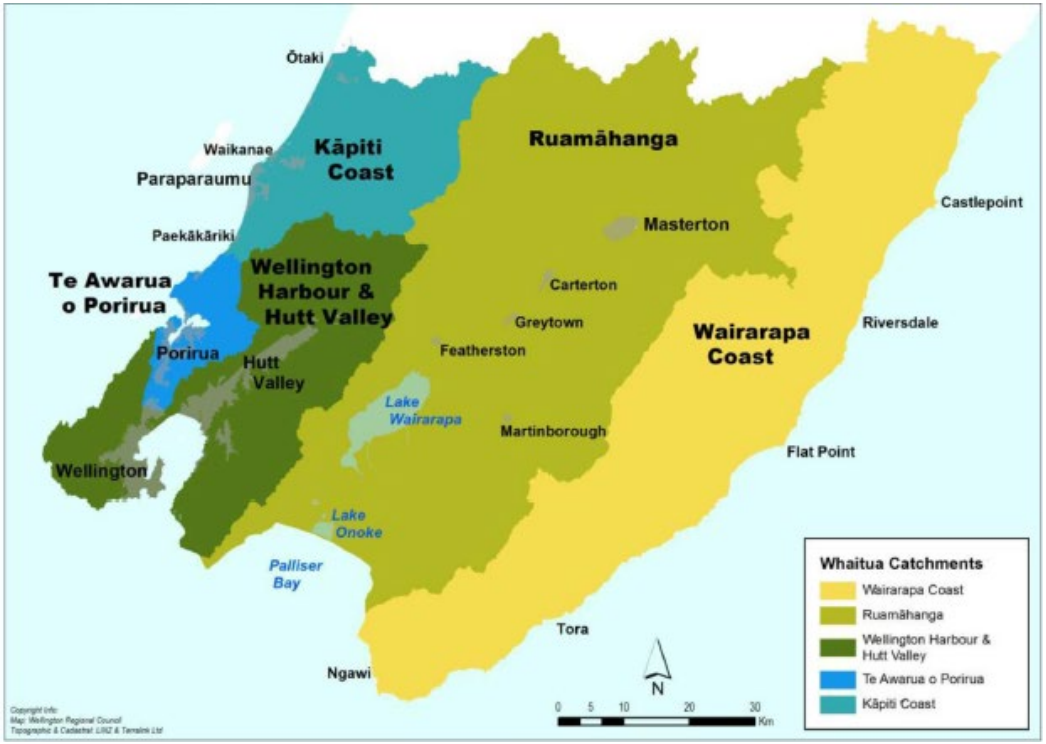
More frequent droughts may also affect the security of water supply. Currently we rely on adequate water flows from the Waingawa River and have no stored water for a prolonged drought.

Our overall approach in response to these effects is to manage through mitigation of causes and adaptation to effects. Policies and responses will need to be robust to a range of possible futures, rather than relying on a single 'forecast'.

Climate change is projected to have the impacts shown in the table below on the Masterton district coast. These are expressed as a range, as there are several scenarios considered when making projections.

We have based our planning on the NIWA modelled regional climate change projections (known as the Whaitua tables). The scenarios are expressed as a range, from higher emissions to lower emissions for a number of climate related parameters.

Council is preparing a Climate Change mitigation strategy during 2021/22. Projects from investigations as this strategy to being developed may change current and forecast project, work and maintenance programmes



Notes

https://www.gw.govt.nz/assets/Uploads/WhaituaClimateChangeprojectionsMarch2020.pdf

Rcp4.5 mid-range scenarios where greenhouse gas concentrations stabilise by 2100

Rcp8.5 is a high concentration scenario where the ghg emissions continuing very high. In the light of new technologies and improvements it remains a valid way to test the sensitivity of the climate variables.

Climate Change Wairarapa			
By 2040, seasonally the region could expect*:			Impacts
Ruamahanga	• 0.7°C to 1°C temperature rise • Up to 30 Increased hot days over 25°C	• Between 5 % less rain, to 5 % more rainfall • 0.12 to 0.24 metres above present	• Increased human heat stress and mental health issues, rurally and in urban centres • Increased temperatures in urban centres due to human activities, large areas of concrete, buildings and vehicles • Increased risks of pests (such as wasps, rodents and fruit flies) and diseases (including risks to human health) and biodiversity losses • Increased air pollution and seasonal allergies • Higher demand for drinking water at times when water is likely to be scarcer • Stress on ecosystems and associated impacts on health and economy • Range and habitat of native plants and animals will change-extinction of some species • Higher temperatures may allow for different crops to be grown. • Timing of seasonal activities such as flowering, breeding and migration will change. • •Several fold increase in urban and rural wildfire risk – a particular concern for water supply	• Increased prevalence of drought delivering urban and rural water shortages, and increased pressure on water infrastructure, including water storage • Saltwater intrusion on groundwater • Decreased water quality and increased levels of toxic algae which impacts biodiversity, recreation and drinking water sources • Increased flooding, slips and landslides affecting land, houses, roads and other assets, public transport and rural productivity • Flood protection infrastructure Levels of Service reduced overtime • Impacted rural community due to reduced agricultural production • Reduced soil fertility • Regional parks negatively affected by both drought and flooding • Higher stress on indigenous ecosystems, plants and animals, especially with drought • Reduced workplace productivity
Wairarapa Coast	• 0.5°C to 1°C temperature rise • Up to 30 Increased hot days over 25°C	• Between 0 % less rain, to 5 % more rainfall • 0.12 to 0.24 metres above present		
By 2090, seasonally the region could expect*:				
Ruamahanga	• 1.2°C to 3°C temperature rise • Up to 80 Increased hot days over 25°C	• Between 0 % less rain, to 10 % more rainfall • 0.68 to 1.75 metres above present		
Wairarapa Coast	• 1°C to 3°C temperature rise • Up to 60 Increased hot days over 25°C	• Between 10 % less rain, to 5 % more rainfall • 0.68 to 1.75 metres above present		

– **Source: MFE , GWRC and NIWA climate change summaries. Updated 2020*Projected changes are relative to 1995 levels. The numbers provided are mid-range estimates of what the change is projected to be and should not be taken as definitive values.**

Increased flood risk

As well as the main township of Masterton, our district has other smaller communities such as Castlepoint, Taueru, Tinui, Mauriceville and Riversdale. Two of these communities are situated along its coastal edge. The urban developments are subject to flooding from the many streams and rivers which drop fast out of the ranges and then slow down and spread out on the plain on their way to the sea.

In high rainfall events, the volume and rate of flow of the water coming down the waterways rises quickly and residual ponding, once the waterway levels have dropped, can be significant.

The climate change projections suggest that very heavy rainfall events are likely to become more frequent, especially in the Tararua ranges during north-westerly storms and the Wairarapa during southerly storms. This will present very significant challenges in how we manage our assets.

Stormwater eventually finds its way to the sea. The level of the sea at the time the stormwater is flowing down the rivers influences how fast and how much of the stormwater can drain away. If the sea level is high enough, it can prevent the water flowing away out to sea causing it to back up and overflow inland. The rise in base sea level is caused in part by rising ocean temperatures – heated water expands.

In addition to this effect, rising ocean temperatures mean that storms generated at sea will contain more energy, for example be more intense. This in turn means that storm surges and wave heights will be higher. All these factors combine to significantly increase the risk of inland flooding on the district's coastal plains.

GWRC has recently collated data gathered from 20 years' research and new data using aerial photos, electronic flood mapping tools and a range of analytical techniques to identify hundreds of Masterton properties as being at potential increased risk of flooding.

We are working with GWRC to confirm predictions for flood events. The overriding issue is to ensure timely protection measures are in place against a 1 in 100-year flood to preserve our community and our economy. Until levels are confirmed, and any mitigation required is in place, there may be implications for any proposed developments in the town centre, the library project and the town's overall economic development.

Council has completed a landfill risk assessment for flood risk at Nursery Road (Masterton main closed landfill). This is the only Closed landfill currently in Masterton District flood plain. Stormwater protection work from this risk assessment is included in the Stormwater AMP.

Earthquake resilience risks

Parts of Masterton are built on old flood plains that could be subject to liquefaction in a major earthquake. Part of MDC's bridge and reticulation renewals programme involves using different construction methods and materials to provide greater earthquake resilience in pipelines.

We do not consider that this risk is so great that the renewals programme should be brought forward. Instead, we will address resilience at the time pipes and bridges are replaced.

Conclusion

Risks, at a strategic level, relevant to the solid waste assets were identified and assessed by both Council staff and Waugh Consultants Ltd. Further work is required to verify the findings of the Waugh Report (2020) and come to a consistent position across all asset/activity areas.

It is recommended that:

- Action to progress improvement plan items be undertaken.
- Critical assets be identified for all asset/activity areas and the relevant tables completed.

LIFE CYCLE MANAGEMENT PLANS

Introduction

Life cycle management plans were prepared for the following assets:

- Nursery Road Facility
- Nursery Landfill (closed 2006)
- Hastwell Landfill (closed)
- Tinui Landfill (closed 2010)
- Castlepoint Transfer Station
- Riversdale Transfer Station
- Mauriceville Transfer Station (closed 2012)
- Kerb-side Recycling Collection
- Kerb-side Rubbish Collection
- Street Litter Bin Collection
- Mauriceville Landfill (closed)

Nursery Road Facility

Introduction

This AMP covers the Nursery Road Facility that Council owns and maintains. Council's Nursery Road Facility is located on the outskirts of Masterton and consists of the following:

- Green waste & Compost area
- New Recycling Facility opened in 2011, including access roads and hard standings
- Landfill (closed September 2006)
- Clean fill (as landfill cover)
- Special Waste
- Liquid Waste
- Hazardous Wastes (temporarily stored for periodic removal by specialist contractor)
- Residual Waste Transfer Station including pump chamber and fuel storage tank and associated service and access roads
- Glass storage bunkers
- Scrap metal storage area
- Vehicle wash down area
- Toilet and staff facility (now incorporated in the new Recycling Facility)
- Barrier arms

Council has made a strategic decision to maintain the current level of service, which meets required legislative and health and safety requirements associated with the activity.

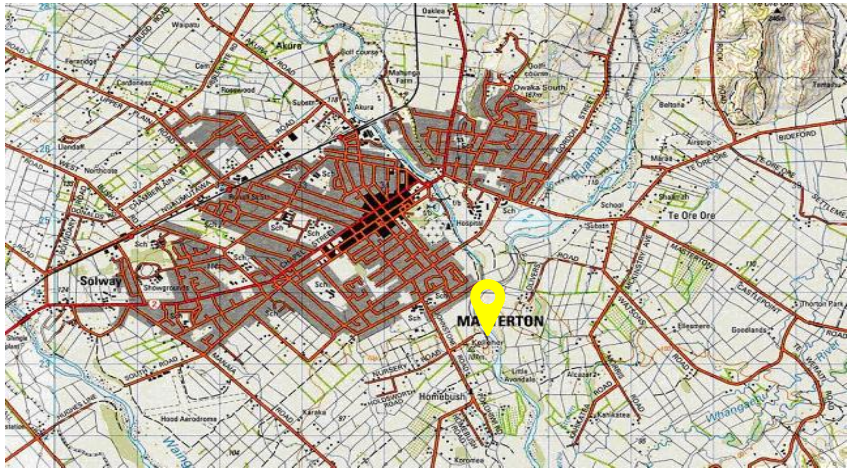
Asset Description

- Physical Parameters

The Nursery Road site is about 500 metres from the eastern outskirts of Masterton Township. See Figure 6.1.

The Ruamahanga River flows along the eastern boundary of the site, which was originally used for the extraction and stockpiling of river gravel. Since the 1930s it has been used for the disposal of refuse.

Figure 6.1 Map Showing Location of the Nursery Road Site



Operations include solid waste transfer and disposal of clean fill, composting, a scrap metal yard, temporary storage of hazardous waste, liquid waste disposal, recycling, and a second-hand yard.

Composting of green waste in Masterton started in 1948. Masterton is believed to be the first town in the world to have its green waste fully composted. Composting ceased in 1962 and was reinstated in 1993. About 1 ha of land is involved in compost production.

The first recycling centre was established in 1991. In 2011 recycling facilities were upgraded. The recycling facility receives, sorts and stores recyclable materials including plastics, glass, paper, metals, clothing, oils and white ware.

The composting facilities, weighbridge and kiosk were built in 1993. The composting and recycling shed, and toilet facilities shed are recycled Council buildings moved on to the site. The weighbridge has a steel deck in a concrete pit and is controlled using the Avery landfill software.

A scrap metal yard is situated at the western base of the landfill.

Small amounts of hazardous wastes are accepted at this site. Sheds used to temporarily store the hazardous waste. The hazardous waste is disposed off-site as required by an approved contractor.

A liquid waste tank is located on the northern side of the transfer pit. It is used as required for disposal of liquid wastes such as grease trap waste.

In 2020 a recycling MERF was operational and all of Wairarapa's clean recycling that is, kerb side or transfer station delivered, passes through this recycling sorting machine ready to be on sold or re process to outside customer. The recycling MERF is owned and operated by current council waste contractor.

Asset Capacity/Performance

Annual reports are prepared detailing the resource consent requirements and the results from the inspections and monitoring.

It is estimated that a staged development of the landfill will provide approximately 120,000m^3 of airspace, including the space required for the final cover. This volume corresponds to 180,000 tonnes of clean fill at an assumed density of 1.5 t/m^3.

Clean fill quantities have varied over the past few years but if the current average of 16,000 tonnes per year is assumed, and then the projected life of the clean fill will be 12 years. Actual quantities of clean fill accepted per year will vary based on local construction projects and conditions.

An assessment of the capacity of the transfer station assets concluded the following:

- Nursery Road Transfer Station capacity is dependent on the operation of the facility, for example 11,432 tonnes of general waste and 4,255 tonnes of recyclables (MDC only) and 4,011 tonnes of compost were processed or exported from the site in 2019-20.
- The composting and recycling yard has an area of about 1 hectare and buildings capacity is considered adequate for space required and operation method.

Annual tonnages of material handled at Nursery Road (tonnes)

Waste tonnes 'in'	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Domestic (trailers etc.)	1,287	1,214	1,37	1,420	1,493	1,598	1,549	1,239
Refuse bags (collection and drop-off)	1,316	1,291	1,138	1,109	1,129	1,044	1,019	459
Rural Transfer Stations	151	134	143	167	158	162	185	132
Commercial refuse (incl wheelie bins)	8,501	9,115	9,468	9,643	10,553	11,340	11,879	9,443
Totals	11,256	11,755	12,124	12,385	13,074	14,153	14,633	11,432

Other Waste	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Refuse ex CDC & SWDC	110	827	862	982	1207	1119	1063	402	761
Special waste (buried)	280	321	363	273	-	-	-	-	-
Tyres	10.2	11.0	9.1	9.00	11.0	19	12	-	-
Clean fill	30,188	26,564	11,454	11,846	12,451	8,511			

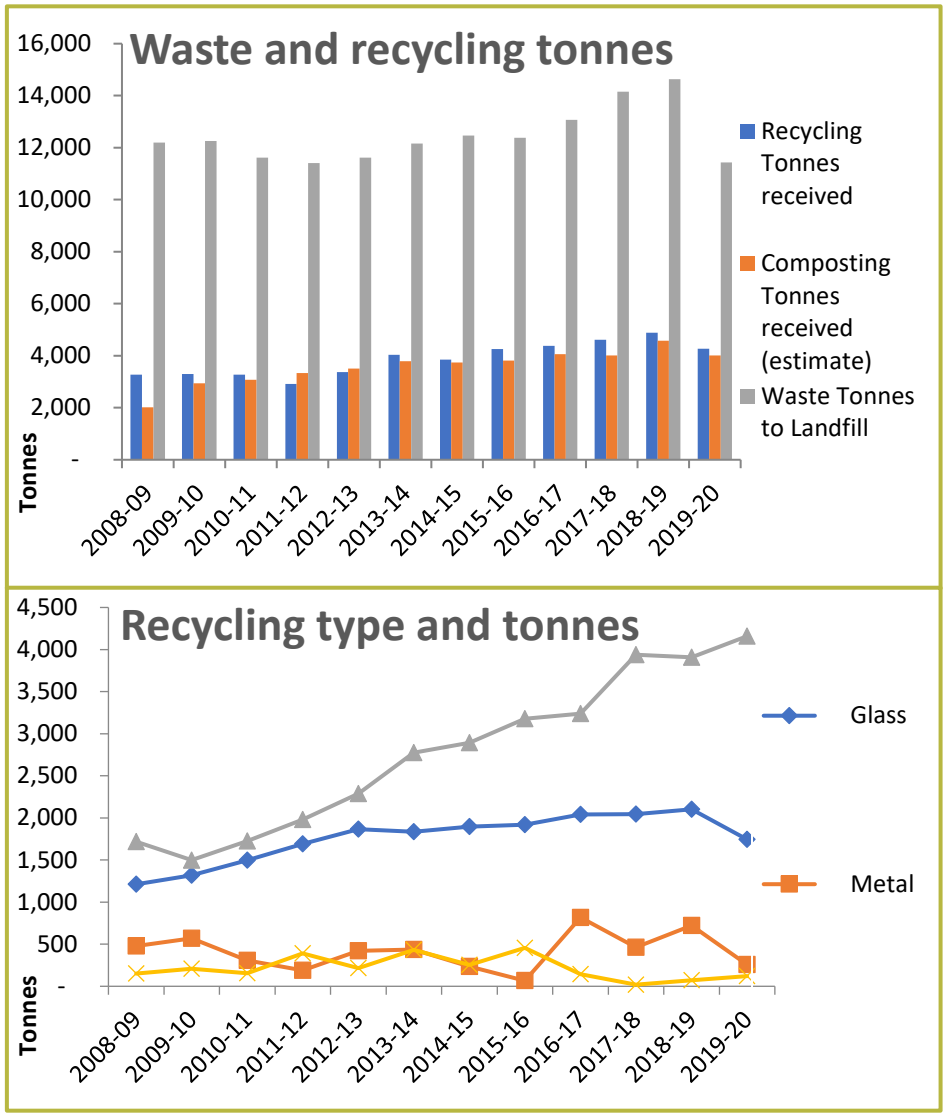
Composting (estimated in)	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Tonnes (000)	3.3	3.5	3.8	3.8	3.8	4.1	4.0	4.5	4.0

Exported to Bonny Glen (landfill)	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Tonnes	11,152	11,126	11,816	12,183	12,373	13,049	14,153	14,633	11,432

Recycling tonnes 'out' (MDC only*)	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Glass	1,234	1,321.6	1,350	1,379	1,434	1,597	2,044	2,102	1,743
Metal	137.8	297.0	336.2	170.56	49.32	639.	463	721	257
Paper & Cardboard	1,442	1,619	2,001	2,103	2,374	2,533	3,939	3,908	4,159
Plastic & Other	285.1	152.7	195.9	183.96	340.9	112.37	19.5	73	120
Totals	3,100	3,390	3,883	3,837	4,199	4,882	6,465	6,804	6,279

**CDC & SWDC recycling tonnes delivered to Nursery Road and included in tonnes 'out' have been adjusted for.*

Figure 6.2 Nursery Road waste and recycling tonnage graphs



Asset Condition

The Nursery Road Transfer Station and Recycling was opened in 2011 and is considered to be in excellent condition.

Other assets on site are of varying age but condition is also considered to be good.

Asset Valuation

The Nursery Rd landfill was valued by WPS-Opus using the Depreciated Replacement Value method, as at 30th June 2020. Renewals and extensions of service capacity are capitalised. Landfills do not have a specific asset value, other than within the land, buildings and plant category but a decline in service potential provision has been made to reflect the future costs of closure.

Replacement cost is the cost of building anew the existing infrastructure using present day technology but maintaining the originally designed level of service. Assuming current technology ensures that no value results from the additional cost of outdated and expensive methods of construction. Maintaining the original level of service ensures that the existing asset with all its faults is valued, not the currently desirable alternative.

Values include actual purchase/construction price plus expenses incidental to their acquisition and all costs directly attributable to bringing the asset into working condition and location. These additional costs include:

- Professional fees of all types
- Delivery charges
- Costs of site preparation and installation
- Non-recoverable GST and other duties and taxes

The basic value of the assets reduces in accordance with the wear and tear and deterioration undergone over their lives. This reduced value is called the depreciated replacement value and has been calculated as 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 service potential of the assets.

Table 6.2 shows straight line depreciation calculated on the assets. The asset valuation is shown in Table 6.3.

Table 6.2 Depreciation Inputs for Solid Waste Asset Valuation

Fixed Asset	%	Comment
Buildings	1 - 33	Depending on component life
Vehicles and plant	10 or 15	10 yrs. plant, 6.67 yrs. vehicles
Computer hardware & software	25	4 years
Furniture, fittings & equipment	20	5 years

Table 6.3 Nursery Road Landfill Infrastructure Asset Valuation approx. (2017)

Location	Description	Book Value
Nursery Road	Green Waste Building - Building Fit out	7,635
	Green Waste Building - Building Services	17,659
	Green Waste Building - building structure	132,839
	Green Waste Building - Roof	31,213
	Landfill Compost Shop - building fit out	120
	Landfill Compost Shop - building services	180
	Landfill Compost Shop - building structure	2,400
	Landfill Compost Shop - roof	360
	Landfill Kiosk - building plant	786
	Landfill Kiosk - building structure	1,611
	Landfill Kiosk - roof	358
	Landfill Smoke Shed - building structure	2,708
	Landfill Smoko Shed - roof	677
	Landfill Tractor Shed - building structure	11,266
	Landfill Tractor Shed - roof	1,790
	Landfill Workshop - building fit out	6,750
	Landfill Workshop - building services	5,333
	Landfill Workshop - building structure	14,672
	Landfill Workshop - roof	1,862
	Nursery Road Urban Transfer Station	42,715
	Nursery Road Urban Transfer Station - Electrical & Lighting	33,318
	Recycling & Transfer Facility - building services	96,283
	Recycling & Transfer Facility - building structure	583,428
	Recycling & Transfer Facility - roof	131,345
	Recycling & Transfer Facility building fit out	111,632
	Site Improvements Landfill	387,805

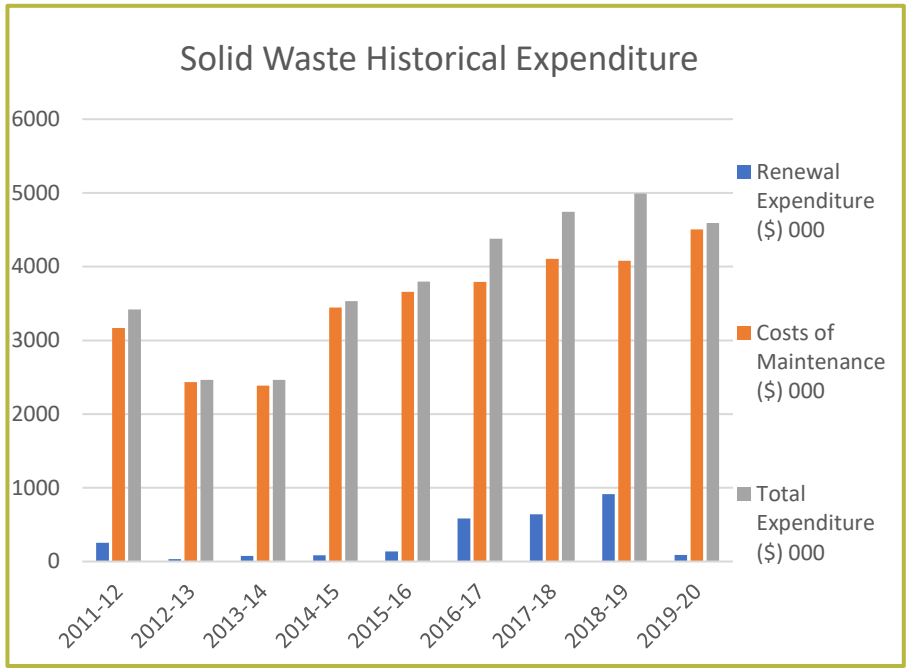
Historical Expenditure – Nursery Road Facility

Refer to Council's financial records for historical information on the operating and maintenance costs of the Nursery Road Facility. Historical urban expenditure as shown in Table 6.4 and is inclusive of the transfer operations, recycling, and rural facilities costs, but excludes waste minimisation costs. Data is sourced from Councils Annual Reports.

Table 6.4 Historical Expenditure Solid Waste

Year	Renewal Expenditure ($) 000	Costs of Maintenance ($) 000	Total Expenditure ($) 000
2009-10	16	3,307	3,323
2010-11	1,351	3,586	4,937
2011-12	252	3,167	3,419
2012-13	32	2,433	2,465
2013-14	78	2,386	2,464
2014-15	85	3,446	3,531
2015-16	136	3,660	3,796
2016-17	585	3,794	4,379
2017-18	640	4,105	4,745
2018-19	915	4,077	4,992
2019-20	90	4,503	4,593

Figure 6.3 Historical Expenditure



Critical Assets

Landfill access roads are considered critical assets as loss of these prevents removal of solid waste from the transfer station. However, extra storage capacity is available within the district that will allow for additional waste to be stored should this occur

Significant Negative Effects

The potential negative economic, environmental, social and cultural effects associated with this site are outlined in Table 6.5

Table 6.5 Significant Negative Effects of Solid Waste Services

	Significant Negative Effects	How We Will/Do Mitigate
Social	None Identified	
Cultural	None Identified	
Environmental	• Pollution due to leachate. • Gas, odour and dust production. • Poor closed landfill management that may lead to the sitting of buildings on old landfills. • Erosion and/or land slips. • Vector problems. • Illegal dumping (incl. farms). • Inadequate fencing or screening. • Inadequate management of vehicles at tipping face or transfer station, including operating hours. • Insufficient control of hazardous wastes. • Scavenging. • Disposal of residuals from wastewater treatment plants.	Maintenance and renewal plans aim to minimise risks.
Economic	None Identified	

Resource Consents

The existing resource consent expires on 30th September 2045. It includes the following Discharge Permits: WAR060047

- 25220 – Discharge to land; special waste, & clean fill.
- 25223 - Discharge to land; storm water.
- 25221 – Discharge to air; gas, odour, & dust.
- 25222 – Discharge to water.
- 30371 – Discharge to land; composting operation.
- 30372 – Discharge to air; composting operation.
- 30370 – Discharge to air; refuse transfer station operation.

In October 2006 the landfill was closed for municipal solid waste disposal. However, it will continue to produce leachate and discharge contaminants to air for many years. Stormwater from the site will also continue to be diverted, collected and discharged.

Data Confidence Level

The confidence level for the drainage control asset data used in this plan is summarised in Table 6.6 Where, A = Highly Reliable B = Reliable C = Uncertain D = Very uncertain

Table 6.6 Nursery Rd Landfill Data Confidence Levels

Attribute	D	C	B	A
Physical Parameters				
Asset Capacity				
Asset Condition				
Valuations				
Historical Expenditures				
Design Standards				

Design Standards

Operations are carried out as per the Landfill Guidelines (CAE, 2000) where appropriate. Specific standards for each construction project are outlined in the applicable contract documents.

Maintenance Plan

Maintenance is the ongoing day-to-day work activity required to keep assets serviceable and prevent premature deterioration or failure.

Council's Solid Waste Services Contract is held by Earthcare Environmental Ltd. This contract includes all management (as per the site management plan) and operation of the Nursery Road Facility. The term of contract has been granted extensions until 2024, as the Contractor has met the performance requirements specified in the contract.

In 2017 Masterton District Council reviewed the cost-effectiveness of the current arrangements for meeting the needs of the community within the district for good-quality local infrastructure, local public services, and the performance of regulatory functions according to the LGA act 2002 (section 17a). This will be reviewed next no later than in July 2022.

Physical and administrative measures have been adopted to mitigate adverse effects of the site after the cessation of land filling and during the clean fill operations:

- Stormwater runoff from the top of the site is to be facilitated by remediating the side slope areas and constructing drainage infrastructure
- Collection of storm water in storm water soakage ponds to capture silt runoff
- The top of the site is to be rounded and include two mounded areas to provide a natural appearance
- Flattening the north-western slope of the landfill

- Flattening the existing south-western side
- Covering of the landfill site with a soil covering layer to minimise refuse exposure and odour
- Planting and landscaping on and around the site to increase rainwater removal by evapotranspiration
- The monitoring of groundwater to detect the effect of any leachate that may percolate through the base of the site to groundwater and then to surface water
- Visual monitoring of possible generation of landfill gas
- Monitoring for damage to landfill cap, damage to perimeter fence, unseasonable die-off of grass, sediment build-up in soakage holes, damage to groyne remediation works, and presence of either loose or uncovered litter
- Annual monitoring report will be submitted by the consent holder to Greater Wellington Regional Council
- A record of complaints is kept at the Masterton District Council offices and is included in the annual report to Greater Wellington Regional Council

The information collected during monitoring is collated in a Monitoring Report and sent to the Greater Wellington Regional Council annually.

A Closed Landfill Aftercare Management Plan has been prepared and has been implemented.

The description of acceptable clean fill material contained in MfE (2002) will be adopted for the Nursery Rd Landfill. The Draft Clean Fill Management Plan details monitoring and management of the landfill after all disposal operations cease, extending to and beyond the cessation of clean fill activities.

Renewal/Replacement Plan

Renewal work restores, rehabilitates, replaces or renews an existing asset to its original capacity. Decisions on replacement and/or renewals of components of the asset have and will continue to be based on consideration of the following factors:

Cost of repairs over a period being greater than replacing the component using net present value comparisons and life cycle costs.

The level of service cannot be delivered either in quality or quantity.

The risk to the asset of a component failure causing significant downstream effects.

One or several of these factors may have a bearing on the justification for replacement/ renewal or acquisition of a component of the asset.

Asset Creation Plan

A new transfer station and a resource recovery centre were developed following notification of the closure of the Nursery Road Landfill, which closed in October 2006.

At the time, Waste Management Wairarapa detailed a solution to the region's residual solid waste disposal via a 'trucking out' option. In the final analysis it was determined that exporting waste out of the Wairarapa was the best option. WMW has an agreement with Mid-West Disposal Ltd for residual waste to go to Bonny Glen, near Marton in the Rangitikei region.

A waste transfer station was constructed and has operated since the landfill closed. Funding of the facility came partly from extra funds raised via increased gate fees and partly by way of loan funding.

Financial Forecast

Council has made a strategic decision to 'at least' maintain the current levels of service for this activity. Maintenance and renewal work, as well as some capital expenditure, is scheduled to enable this. See Table 6.7

Table 6.7 Nursery Road Maintenance, Renewal & Maintenance Costs Identified

Action/Work:	Driver for Action:	Estimated Cost:	Scheduled For:	How this will be funded:
Additional asset management support & condition information	To enable better asset management systems and processes in the future	Within existing Operations	Ongoing	Rates
Develop a new clean fill landfill site	Clean fill capacity	$400,000	2029	Loan funded
Renew the Transfer Station floor	Expected lifecycle deterioration	$200,000	2021/22	Depreciation
Landfill capping and special wastes facility	Compliance with resource consents	$80,000 ($20k pa)	2021 - 25	Dep Funds – Capital Exp

– Disposal Plan

Council currently does not plan to dispose of any of its Nursery Road solid waste assets.

Rural Landfills (ALL Closed)

Introduction

Masterton District has five rural landfills that have closed they are.

- The Hastwell landfill closed in 1993.
- The Tinui landfill was established in 1975 and closed in 2009.
- The Riversdale Landfill was established in 1980 and closed in 1999. But the site is used as a transfer station.
- The Castlepoint landfill was established in 1975 and closed in 1999. But the site is used as a transfer station.
- The Mauriceville landfill & transfer station was closed in 2012.

Table 6.8 Rural tonnages of material handled

Year	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Rural transfer stations -Tonnes	191	126	151	135	117	168	179	185	132

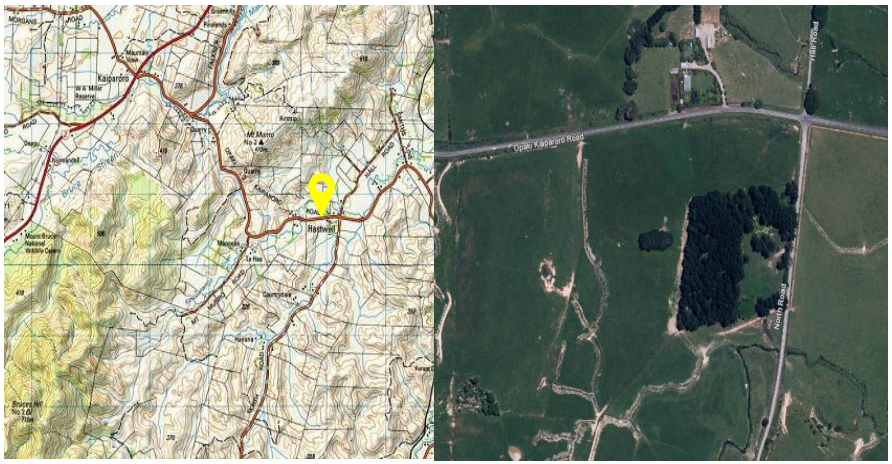
Due to closures from 2012/2013 only Castlepoint and Riversdale transfer station or record

Asset Description

The Hastwell Landfill site is located approximately five kilometres north of Mauriceville on the west side of North Road, close to the

junction with Opaki – Kaiparoro Road. The site is located in an old gravel borrow area with the property being 2.6507ha in extent.

Figure 6.4 *Map Showing Location of the Hastwell Site*



Refuse disposal to the landfill ceased in 1993 and exposed refuse was covered over. Since then, the site has been used for the disposal of clean fill at an estimated rate of 500m^3 per year.

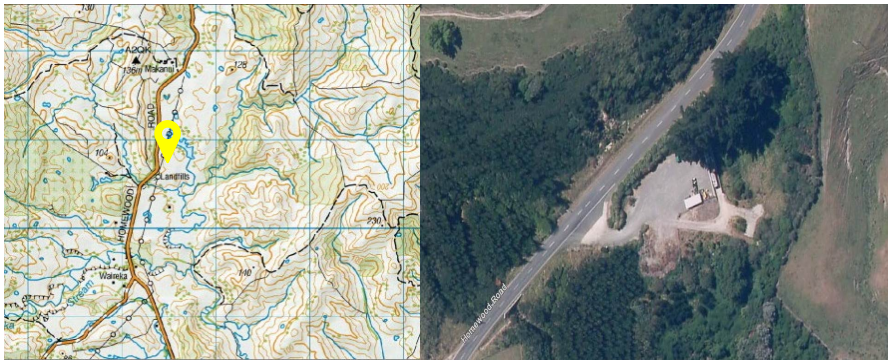
The Tinui Landfill site is located 4.5 km south of Tinui and is 7.4 ha in extent. Approximately one third is used for waste disposal purposes. The landfill was established in 1975 when dumping commenced into the unlined gully. Over the 30 years that the landfill was open, dumping almost completely filled the gully to the height of the ridge at the southern end of the tipping face.

Figure 6.5 *Map Showing Location of the Tinui Site*

The Riversdale Landfill site was established in 1980 and closed in 1999. A transfer station was established on the site, with refuse being regularly collected and transported to the Nursery Rd Transfer Station.

The site (3.1857ha) adjoins Homewood Road, approximately 5km north of Riversdale.

Figure 6.6 *Map Showing Location of the Riversdale Transfer Station*

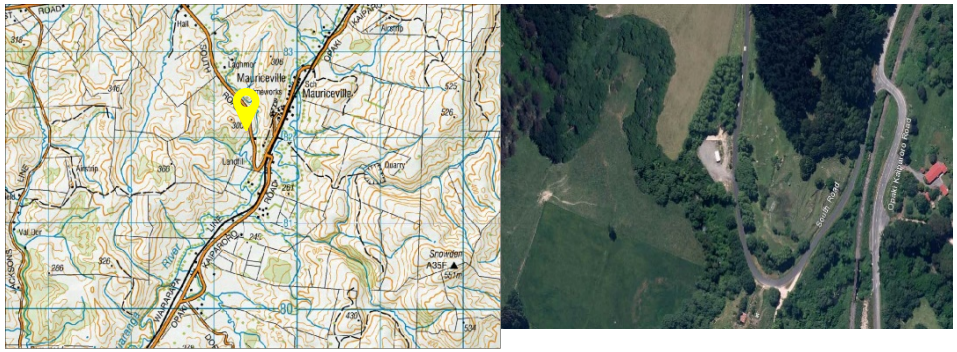


The Castlepoint Landfill site was established in 1975 and closed in 1999. A transfer station was subsequently established on the site, with refuse being transported to the Nursery Rd Transfer Station. The Castlepoint landfill is located on a site of 0.9122ha adjoining Masterton-Castlepoint Road, approximately 2.5km northwest of Castlepoint settlement.

Figure 6.7 *Map Showing Location of the Castlepoint Transfer Station*

The Mauriceville Landfill site was established closed in 1999. A transfer station was subsequently established on the site, with refuse being transported to the Nursery Rd Transfer Station. The Mauriceville landfill is located on a site of 0.53ha adjoining South Road, approximately 1km southwest of Mauriceville settlement.

Figure 6.8: *Map Showing Location of the Mauriceville Transfer Station*



Asset Condition

The Hastwell landfill is unlined; however due to its small scale and isolation from sensitive water resources, no significant effects on the environment have been detected to date.

The Tinui landfill is unlined, but its small scale and isolation from sensitive water resources has meant that there is no significant effect on the environment detected to date.

The Riversdale landfill is unlined, however due to its small size and isolation from sensitive water resources no significant effects on the environment have been detected to date.

The Castlepoint landfill is unlined, but it's small scale and isolation from sensitive water resources has meant that there is no significant effect on the environment detected to date.

The Mauriceville landfill is unlined; and due to its small scale and isolation from sensitive water resources, no significant effects on the environment have been detected to date.

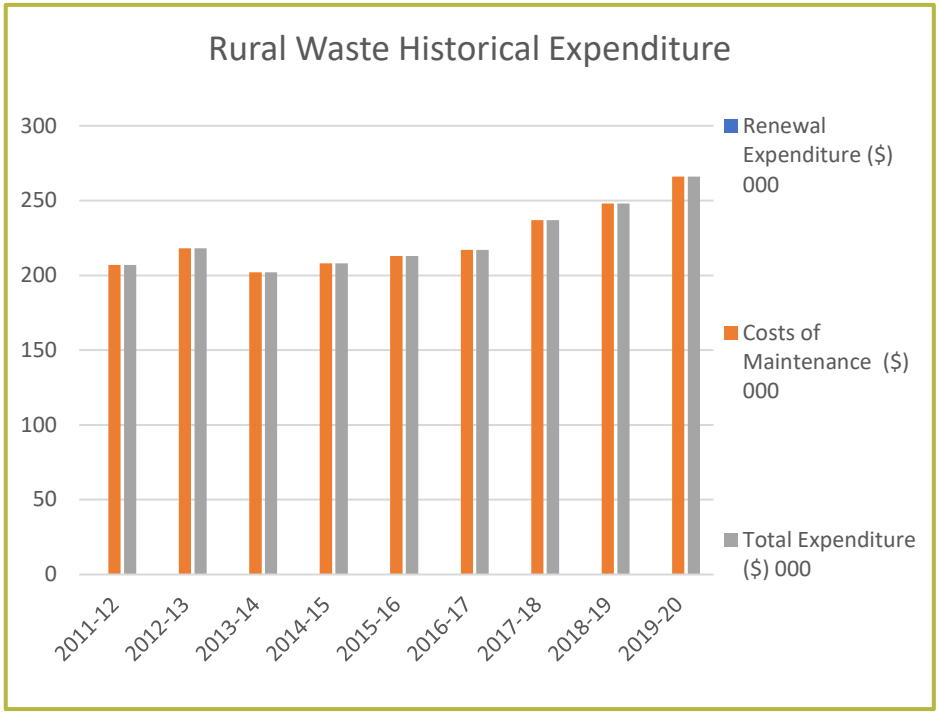
Historical Expenditure – Rural Transfer & Landfills

Table 6.10 and Figure 6.10 summarise expenditure for all rural transfer & landfill sites over the previous eight years. Data is sourced from Council's Annual Reports.

Table 6.9 Historical Expenditure: Rural Transfer Stations & Landfills

Year	Renewal Expenditure ($) 000	Costs of Maintenance ($) 000	Total Expenditure ($) 000
2011-12	0	207	207
2012-13	0	218	218
2013-14	0	202	202
2014-15	0	208	208
2015-16	0	213	213
2016-17	0	217	217
2017-18	0	237	237
2018-19	0	248	248
2019-20	0	266	266

Figure 6.9 Historical Expenditure: Rural Transfer Stations & Landfills



Asset Valuation

The infrastructural assets were revalued by Opus using the Depreciated Replacement Value method, as at 30/06/2020. Landfills do not have a specific asset value, other than within the land, buildings and plant category but a decline in service potential provision has been made to reflect the future costs of closure.

Table 6.10 Rural Landfill Asset Valuation approx. (2017)

Location	Assessment No.	Area (Ha)	Use	Value
West Rd, RD 2	1787016703	0.5312	Kopuaranga - Mauriceville Transfer Stn	10,900
Jetty Road Castlepoint	1797015101	1.1549	Castlepoint Transfer Stn	139,000
Homewood Road	1800010100	3.1857	Riversdale Transfer Stn	98,000
North Rd R D 2	1787003500	2.6507	Hastwell landfill	92,500
Tinui Valley Rd	1797025300	7.4235	Tinui landfill	15,000

Critical Assets

There are no critical assets associated with these sites.

Significant Negative Effects

The potential negative economic, environmental, social and cultural effects associated with this site are outlined in Table 6.11

Table 6.11Significant Negative Effects of Solid Waste Services

	Significant Negative Effects	How we Mitigate
Social	None Identified	
Cultural	None Identified	
Environmental	• Pollution due to leachate. • Gas, odour and dust production. • Poor closed landfill management that may lead to the siting of buildings on old landfills. • Erosion and / or land slips. • Vector problems. • Illegal dumping (incl. farms). • Inadequate fencing or screening. • Inadequate management of vehicles at tipping face or transfer station, including operating hours. • Insufficient control of hazardous wastes. • Scavenging. • Disposal of residuals from wastewater treatment plants.	Maintenance and renewal plans aim to minimise risks.
Economic	None Identified	

Resource Consents

- Resource consent (WAR 010116) Riversdale Landfill
- Resource consent (WAR 010117) Mauriceville Landfill
- Resource consent (WAR 060004) Castlepoint Landfill
- Resource consent (WAR 010118) Hastwell Landfill
- Resource consent (WAR060005) Tinui Landfill

These consents for each of the sites include the following discharge permits:

- Discharge solid and liquid waste to land (contaminants to land)
- Discharge landfill gas and odours to air (stormwater to land)
- Discharge leachate to ground water and surface water (contaminants to water)
- Discharge stormwater to land (stormwater to water)

Data Confidence Level

The data confidence levels for the closed rural Landfill assets are shown in Table 6.12.

Table 6.12 *Rural Landfill Data Confidence Levels*

Attribute	D	C	B	A
Physical Parameters				
Asset Capacity				
Asset Condition				
Valuations				
Historical Expenditures				
Design Standards				

Maintenance Plan

Management measures are being used to mitigate adverse effects of the rural landfill sites. These include:

- Shaping of the top of the landfill in a domed manner to shed stormwater.
- Clearing out of any existing perimeter drains.
- Planting and landscaping on and around the site will be continued to further increase rainwater removal by evapotranspiration, therefore protecting the sites from erosion, and to reduce visual effects of the landfill.
- The monitoring of effects of any leachate that may percolate through the base of landfill to groundwater and then to surface water.
- Annual monitoring for subsidence and excessive cracking and addressing the problems as they may arise by renewal of soil cover.
- A monitoring report to be submitted by the consent holder for consented sites to Greater Wellington Regional Council every three years for the first 21 years, and every five years for the remaining 14 years.
- A record of complaints is kept at Council offices and included in the report to GWRC.

Table 6.13 shows the groundwater and surface water monitoring programme proposed by the MfE Guidelines following the closure of clean filling operations.

Table 6.13 Groundwater & Surface Water Monitoring Frequencies after Closure of Clean fills

Years since Closure	Monitoring Frequency
0 - 5	Yearly
5 - 15	Nil

The Landfill Closure Plan details the monitoring and management of the site after operations of clean filling cease.

Renewal/Replacement Plan

There are no renewals programmed for these sites.

Rural Transfer Stations

Introduction

Two Rural Transfer Stations are established at what were previously landfill sites at Riversdale & Castlepoint for the collection and handling solid waste. These two rural landfill sites have been altered to cater to the surrounding catchment areas changing their original purpose to exporting solid waste as 'Transfer Stations' from the sites.

Rural Transfer sites have been rationalised to meet the Council aim to provide a service for at least 95% of the resident population to be within 20 minutes of a waste transfer facility.

Asset Description

- Physical Parameters

Rural Transfer Station sites are.

- Riversdale Transfer Station

- Castlepoint Transfer Station

Sites are at the same locations as the closed Landfills of the same name.

Riversdale Transfer Station

Castlepoint Transfer Station

Asset Condition

Rural transfer sites are small in scale and well fenced. They are located remote from residential habitation; structures are in reasonable condition and maintenance is performed in an 'as required' programme when items requiring attention are identified.

Asset Valuation

The Rural Transfer Stations were revalued by Opus using the Depreciated Replacement Value method, as at 30 June 2020. Renewals and extensions of service capacity are capitalised. Transfer Stations do not have a specific asset value, other than within the land and buildings category.

Replacement cost is the cost of building anew the existing infrastructure using present day technology but maintaining the originally designed level of service. Assuming current technology ensures that no value results from the additional cost of outdated and expensive methods of construction. Maintaining the original level of service ensures that the existing asset with all its faults is valued, not the currently desirable alternative.

Values include actual purchase/construction price plus expenses incidental to their acquisition and all costs directly attributable to bringing the asset into working condition and location. These additional costs include:

- Professional fees of all types
- Delivery charges
- Costs of site preparation and installation
- Non-recoverable GST and other duties and taxes

The basic value of the assets reduces in accordance with the wear and tear and deterioration undergone over their lives. This reduced value is called the depreciated replacement value and has been calculated as 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 service potential of the assets.

Table 6.14 Rural Transfer Station Asset Valuation approx.2017

Location	Description	Value $
Castlepoint	Castlepoint Transfer Station - building fit out	533
Castlepoint	Castlepoint Transfer Station - building services	1,278
Castlepoint	Castlepoint Transfer Station - building structure	12,171
Castlepoint	Castlepoint Transfer Station - other site improvements	58,227
Castlepoint	Castlepoint Transfer Station - roof	2,630
Mauriceville	Mauriceville Transfer Station - building fit out	550
Mauriceville	Mauriceville Transfer Station - building services	1,210
Mauriceville	Mauriceville Transfer Station - building structure	10,111
Mauriceville	Mauriceville Transfer Station - other site improvements	13,177
Mauriceville	Mauriceville Transfer Station - roof	2,372
Riversdale	Riversdale Reserve Security Fencing	21,160
Riversdale	Riversdale Transfer Station - building fit out	622
Riversdale	Riversdale Transfer Station - building services	1,461
Riversdale	Riversdale Transfer Station - building structure	13,896
Riversdale	Riversdale Transfer Station - other site improvements	15,059
Riversdale	Riversdale Transfer Station - roof	3,006

Critical Assets

Transfer station access roads are considered critical as the loss of these prevents the removal of solid waste from the transfer station. Mitigation for the loss of this critical item would be the extended storage capacity that is available for stored waste should a situation arise.

Significant Negative Effects

There are no significant effects associated with these assets.

Design Standards

Operations are carried out as per the Landfill Guidelines (CAE, 2000) where appropriate.

Specific standards for each construction project are outlined in the applicable contract documents.

Maintenance Plan

Maintenance is the on-going day-to-day work activity required to keep assets serviceable and prevent premature deterioration or failure.

Council's Solid Waste Services Contract is held by Earthcare Environmental Ltd. This contract includes all management (as per the site management plan) and operation of the Transfer Stations facilities. The term of contract has been granted extensions until

2024, as the Contractor has met the performance requirements specified in the contract.

In 2017 Masterton District Council reviewed the cost-effectiveness of the current arrangements for meeting the needs of the community within the district for good-quality local infrastructure, local public services, and the performance of regulatory functions according to the LGA act 2002 (section 17a). This will be reviewed next no later than in July 2022.In particular, this contract covers the following:

- Management of sites and operation
- Planning and programming of works
- Cleaning and maintenance of Transfer Stations
- Ensuring that no nuisances (odour, dust, litter, vermin and the like) emanate from the sites
- Provision of a safe user-friendly environment for users of the facilities
- Management and control of the waste being presented for disposal
- Maintenance of records and provision of records as required by the contract specification
- Loading and removal of "waste residue" to Nursery Road Transfer Station
- Operation, including fee collection
- A record of complaints is kept at the Masterton District Council offices and included in the annual report to Greater Wellington Regional Council

The information collected during monitoring is collated in a Monitoring Report and sent to the Greater Wellington Regional Council annually.

Renewal/Replacement Plan

There are no renewals or replacements planned for the two transfer stations.

Asset Creation Plan

There are no capital expenditures programmed at this stage

Disposal Plan

There are no disposals programmed at this stage.

FINANCIAL SUMMARY

Introduction

This section summarises the forecast level of expenditure required to enable the proposed level of service and action the proposed projects set out in this Asset Management Plan. Here we also discuss historical expenditure, funding sources (past & future) and the implications of these for Council's financial sustainability.

Estimates of future costs and revenues have been developed using best available information and expected flow on effects calculated using established financial assumptions and policies in the Long-Term Plan 2021

The intended approach to service delivery for the activities of Solid Waste Management have been selected considering resource availability and cost efficiency and effectiveness. The refuse collection, transfer station operations and recycling services across the district are carried out under performance-based contracts by private sector providers.

As a Council we try to strike the optimal balance between maintenance and renewals. One of our key outcomes for the community is a sustainable healthy environment. We recently consulted on our waste management system and are actively focusing our efforts and proposed spending to reduce waste and encourage recycling. In the next 10 years we also wish to upgrade our cemeteries to honour those passed and provide a beautiful, serene place for visitors.

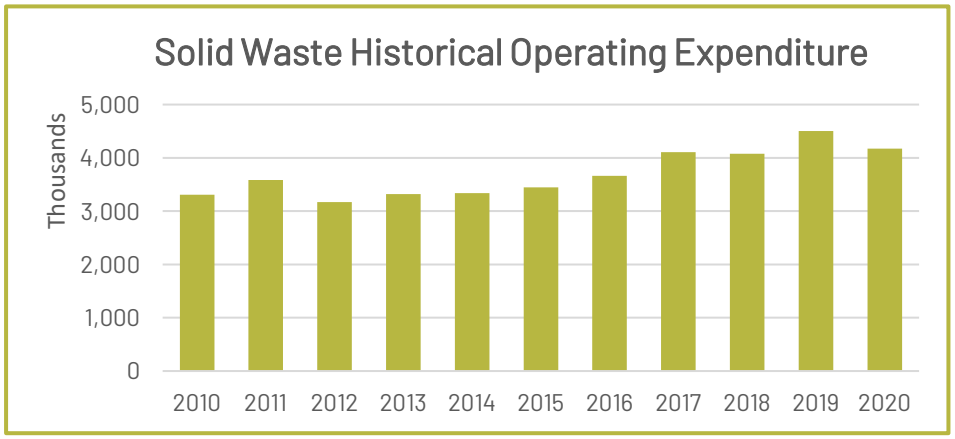
Historical Financial Performance

We summarise in the table and graphs below historical financial performance of Solid Waste Management to place in context our current 10-year projections.

Past spending must be considered when we make our forecasts as it impacts our current financials through interest, depreciation and maintenance costs that arise when we make capital asset purchases, and the appropriateness of past operational spending influences the required maintenance programme going forward and available reserve funding.

The graphs below set out the operating income including transfers from reserves, operating expenditure including depreciation and resulting rates requirement for each Activity for the past thirteen years. Through our close monitoring of these services due to the nature of the contracts let we have attempted to ensure our pricing is in line with market and attempted to breakeven in the disposal operations. Over time we have steadily increased expenditure on recycling activities. In the capital expenditure in 2011 was the construction of a regional recycling facility.

Historical Solid Waste Expenditure



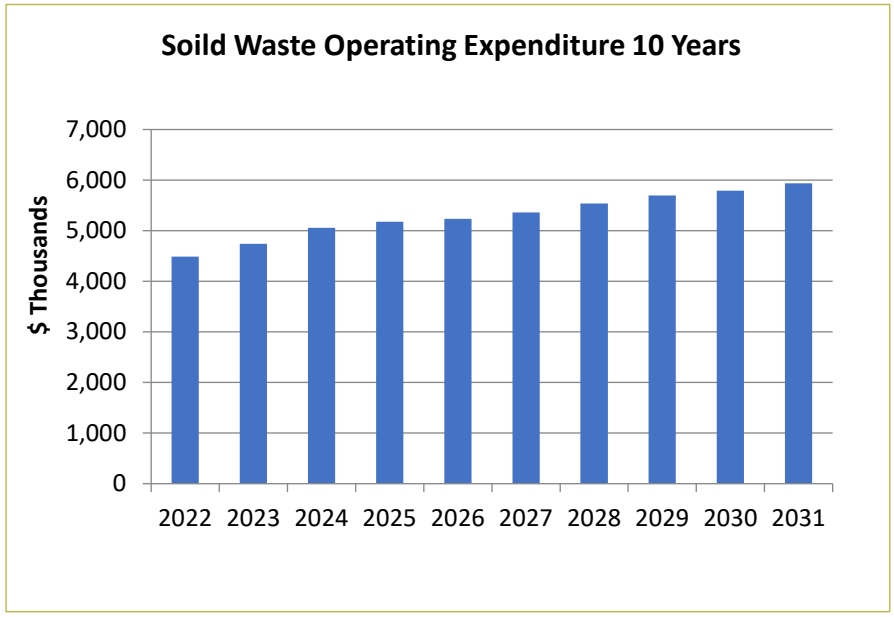
Historical Operating Expenditure

Activity	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Solid Waste											
Operating Expenditure	3,307,565	3,586,438	3,167,752	3,319,443	3,339,013	3,446,781	3,660,887	4,105,623	4,077,539	4,502,943	4,171,775

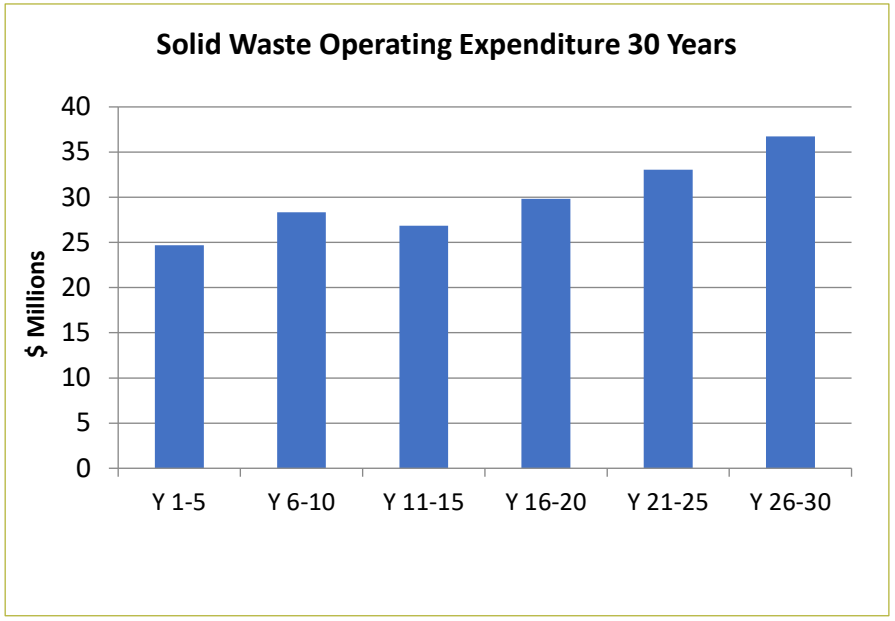
Forecast Operating Expenditure

Solid Waste	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Operating expenditure	4,271,227	4,451,746	4,768,063	4,881,542	4,998,685	5,130,477	5,319,941	5,464,861	5,621,391	5,756,167
Depreciation	215,354	286,144	291,486	297,600	235,836	228,020	221,273	232,245	171,455	179,866
Total Operating expenditure	**4,486,581**	**4,737,890**	**5,059,549**	**5,179,142**	**5,234,521**	**5,358,497**	**5,541,214**	**5,697,106**	**5,792,846**	**5,936,034**

Forecast Solid Waste Operating Expenditure 2021 – 2031



Forecast Solid Waste Operating Expenditure 2021 – 2051



Capital Expenditure

Investment in long life assets is essential to our Solid Waste Management as it is intended that these assets encourage and enable our community to reduce waste and responsibly dispose of refuse.

Over the current LTP 2021-31 timeframe we are projecting to invest $1M into our Solid Waste Management services.

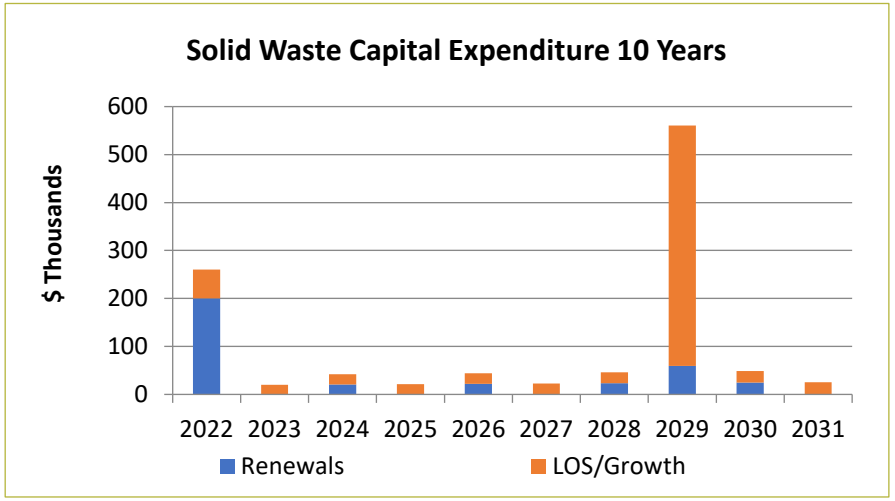
Key Projects and History by Activity

Over the next 10 years we are planning to invest in renewals and new assets to enhance our solid waste management services for our community.

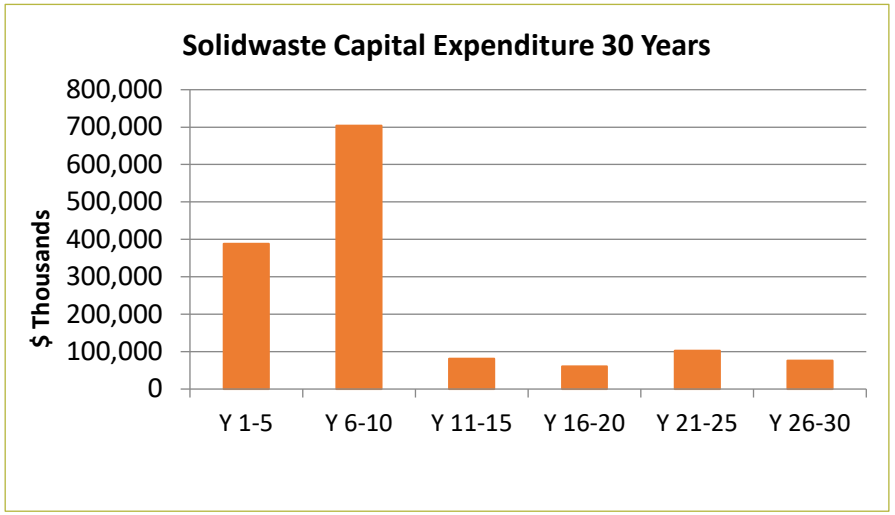
- Collection & Disposals

- Nursery Road Transfer station renewals Years 1-10 $291K
- Clean fill / Hardfill site, YEAR 8, $477K
- Nursery Road landfill capping, YEARS 1-10, $246K

Forecast Solid Waste Capital Expenditure 2021 – 2031



Forecast Solid Waste Capital Expenditure 2021 – 2051



Forecast Solid Waste Capital Expenditure Summary

SOLID WASTE SERVICES											
Annual Plan 2020/21	Capital Expenditure Summary	Source of Funds	LTP Year 1 2021/22	LTP Year 2 2022/23	LTP Year 3 2023/24	LTP Year 4 2024/25	LTP Year 5 2025/26	LTP Year 6 2026/27	LTP Year 7 2027/28	LTP Year 8 2028/29	LTP Year 9 2029/30	LTP Year 10 2030/31
$	**Capital Projects**		$	$	$	$	$	$	$	$	$	$
	Solid Waste Management											
40,420	Nursery Road landfill capping	Depn Reserve	60,420	20,320	20,920	21,460	22,020	22,620	23,200	23,840	24,500	25,220
50,000	Nursery Road transfer station renewals	Depn Reserve	200,000	-	20,920	-	22,020	-	23,200	-	24,500	-
-	Cleanfill/hardfill site	Loan	-	-	-	-	-	-	-	476,800	-	-
-	Recycling Wheely Bins	Depn Reserve	-	-	-	-	-	-	-	59,600	-	-
-			-	-	-	-	-	-	-	-	-	-
90,420	**Total Solid Waste Management**		**260,420**	**20,320**	**41,840**	**21,460**	**44,040**	**22,620**	**46,400**	**560,240**	**49,000**	**25,220**
	Capital Funding											
-	Loan funds		-	-	-	-	-	-	-	(476,800)	-	-
(90,420)	Transfer from reserves		(260,420)	(20,320)	(41,840)	(21,460)	(44,040)	(22,620)	(46,400)	(83,440)	(49,000)	(25,220)
($90,420)	**Total capital funding**		**($260,420)**	**($20,320)**	**($41,840)**	**($21,460)**	**($44,040)**	**($22,620)**	**($46,400)**	**($560,240)**	**($49,000)**	**($25,220)**
$0	**Rates Requirement (Capital)**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Estimated Future Public Debt

New borrowings are proposed to fund future capital projects. Details of the proposed new borrowings are shown on the Forecast Solid Waste Capital Expenditure Summary.

Insurance Coverage

The Council insures its buildings and structures under a comprehensive material damage policy.

Estimated Future Loan Repayment and Loan Interest Cost

Future borrowing requirements are shown Forecast Solid Waste Capital Expenditure Summary, loan repayment costs on any existing borrowings are included within the activity budgets.

Financial Forecast

The *Forecast Operating Expenditure and* Forecast Solid Waste Capital Expenditure Summary show the financial forecasts for operational and capital and operational expenditure for the next 10 years.

Future Depreciation Projections.

Future depreciation will be based on existing depreciation that flows out of infrastructural valuations, plus the additional depreciation that is generated by new capital expenditure and revaluations.

Financial Summary

All capital expenditure in the Forecast Solid Waste Capital Expenditure Summary is funded by a mixture of loans and reserves.

Changes in Service Potential

Council maintains the assets to retain their condition and overall value at nationally accepted levels. A programme of routine maintenance where and when required is used to achieve this.

Assumptions and Confidence Levels

- Basis of Preparation

The financial information in this plan has been prepared following the provisions of Public Benefit Entity (PBE) Standard - Financial Reporting Standard 42 'Prospective Financial Statements' (PBE FRS 42). The purpose of the financial forecasts in this long-term plan is to provide "best endeavours" costing of Masterton District Council's plans to enable it to achieve its Community Outcomes, in collaboration with other stakeholders, over the 10-year period 2021-2031.

- Basis of Assumption

Prospective information is based on several assumptions. Risks and uncertainties surround these assumptions. The basis of the assumptions surrounding the information is found in Planning Assumptions in the LTP. The information should therefore be used carefully, with these best endeavours purpose in mind. The Local Government Act 2002 Schedule 10 (1)(e) requires that information relating to levels of service, estimated expenses and revenue be provided in detail for three financial years, and indicative for the subsequent seven financial years. Over time, information becomes increasingly indicative from the time it was first prepared.

The approach taken to budget development has been that of preparing 'forecasts' on a best estimate basis. In this case, a forecast refers to financial information based on assumptions on future events the Council expects to occur and based on Council's expected response to these events. The Council has not taken an approach where hypothetical ("what-if") projections are used.

The figures presented are budgeted. However, the opening balance of the 2020/21 year is based on the estimated actual result, with this estimation having been made on 30 June 2021.

The major limitation of the forecasting approach, as with any approach, is that events may change over time and undermine the accuracy of assumptions made. The actual financial results achieved for the period are likely to vary from the information presented and the variations may be material.

The review of assumptions underlying the financial information was undertaken in preparation of the Long-Term Plan (LTP). However, the assumptions themselves were adopted by Council resolution to approve the Draft LTP for public consultation in April 2021.

- Assumptions and Risk Assessments

A number of assumptions were made in preparing the Draft 2021-2031 Long Term Plan (LTP). These assumptions are necessary as the planning term is for 10 years and the stating of assumptions ensures

that all estimates and forecasts are made on the same basis. There are four categories of planning assumptions in this document:

- Demand Assumptions
- Resident population
- District growth
- Policies
- Political Environment
- Governance
- Operating Environment
- Resource consents
- Natural disasters
- External factors
- Human resources
- Financial Assumptions

(Please see the full LTP document for the assumptions detail.)

Funding Mechanism

Operating costs are to be funded by rates and user charges as per the Council's Revenue & Financing Policy. Capital renewals should be funded from depreciation reserves (to the extent that the reserve funds can sustain the renewals programme). Upgrade projects should be loan funded to ensure intergenerational equity (i.e., those receiving the benefits should pay.

PLAN IMPROVEMENT AND MONITORING

Introduction

In preparing this Plan there remain a number of areas where improvement to the level of detail is needed. This improvement will be phased reflecting a process of continuous enhancement of the management confidence provided by the Plan. This further work will have the effect of:

- Enhancing analysis for planning purposes.
- Improving operational efficiency.

Current Improvement Plan

Recommendations for improvement were made throughout this Plan.

An implementation and/or completion year is also proposed.

Table 8.1 summarises the improvement plan by priority summarises the status of the improvement plan from the previous Asset Management Plan.

Monitoring and Review

Council should monitor and review the above 'Improvement Plans' once in every 12 months. Appropriate actions then can be taken for further improvement. This Plan will be reviewed regularly every three years

Table 8.1 Solid Waste Asset Management Plan Improvement Plan

Item	Plan Section	Year	By Whom
Update AMP with WMMP action	LOS	From 2022	MAO
Develop an accurate inventory of assets, and their capacity and condition	Lifecycle	From 2021	Asset Manager
Investigate options for data capture, quality checking, storage, manipulation & reporting.	Lifecycle	From 2021	Asset Manager
Update Estimated Future Public Debt Section once data available	Finance	2021	Finance Manager
Update Estimated Future Loan Repayment and Loan Interest Cost Section once data available	Finance	2021	Finance Manager
Update Estimated Future Operational Revenue once data is available	Finance	2021	Finance Manager
Update Financial Forecasts once data is available	Finance	2021	Finance Manager

REFERENCES

Centre for Advanced Engineering (2000) Landfill Guidelines

GHD Ltd (2006) Report for Masterton Demographic Projection and Growth Forecast Review.

Good Earth Matters Consulting Ltd (2005a) Masterton District Council Landfill 2004/2005 Annual Report.

Good Earth Matters Consulting Ltd (2005b) Mauriceville, Riversdale and Castlepoint Landfills 2004/2005 Annual Report.

Good Earth Matters Consulting Ltd (2006) Assessment of Environmental Effects - Change of Conditions to Resource Consents Riversdale Landfill (WAR 010116), Mauriceville Landfill (WAR 010117), Castlepoint Landfill (WAR 010118).

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Ministry for the Environment (2002) A Guide to the Management of Clean fills.

MWH NZ Ltd (2005a) Hastwell Landfill - Assessment of Environmental Effects.

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MWH NZ Ltd (2005c) Masterton Landfill Draft Closed Landfill Aftercare Management Plan.

MWH NZ Ltd (2005d) Proposals at Nursery Road.

MWH NZ Ltd (2005e) Solid Waste Funding and New Facilities at Nursery Road.

MWH NZ Ltd (2005f) Solid Waste Management at Nursery Road.

MWH NZ Ltd (2005g) Tinui Landfill and Transfer Station Assessment of Environmental Effects.

MWH NZ Ltd (2005h) Waste Management Wairarapa Management of Problem Wastes - Version 1.

MWH NZ Ltd (2006) Masterton Landfill Assessment of Environmental Effects.

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National Research Bureau (2005) *Communitrak Survey.*

Standards New Zealand (2003) NZS3910: 2003 Conditions of Contract for Building and Civil Engineering Construction.

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Opus International Consultants (2005b) Water and Sanitary Services Assessments Local Government Act 2002.

Waste Management Wairarapa (2005) Solid Waste Management Plan for Wairarapa.

Councils of the Wellington Region Waste Management and Minimisation Plan 2017 – 2023

Local Government Act 2002 No 84 (as of 01 July 2011). Part 7

Part 63 of the Waste Minimisation Act 2008 No 89

Section 25 of the Health Act 1956

Climate Change Response (Emissions Trading) Amendment Act 2008 No 85

Hazardous Substances and New Organisms Act 1996 No 30 (as of 18 August 2011)

Waugh Report 2006

Waugh Report 2011

Waugh Report 2014

Waugh report 2020 Risk review (Assets and Operations)

Communitrak surveys (to 2018)

KeyResearch 2020 Survey of residents Report

Waste Volume tracking (Finance held)

Masterton District Councils Annual Plan and Annual Reports (Various years)

BERL Inflation Summary 2021

Informetric Population Report 2020 (updated 2021)

APPENDICES

Figure 10.1 *Forestry land use data*

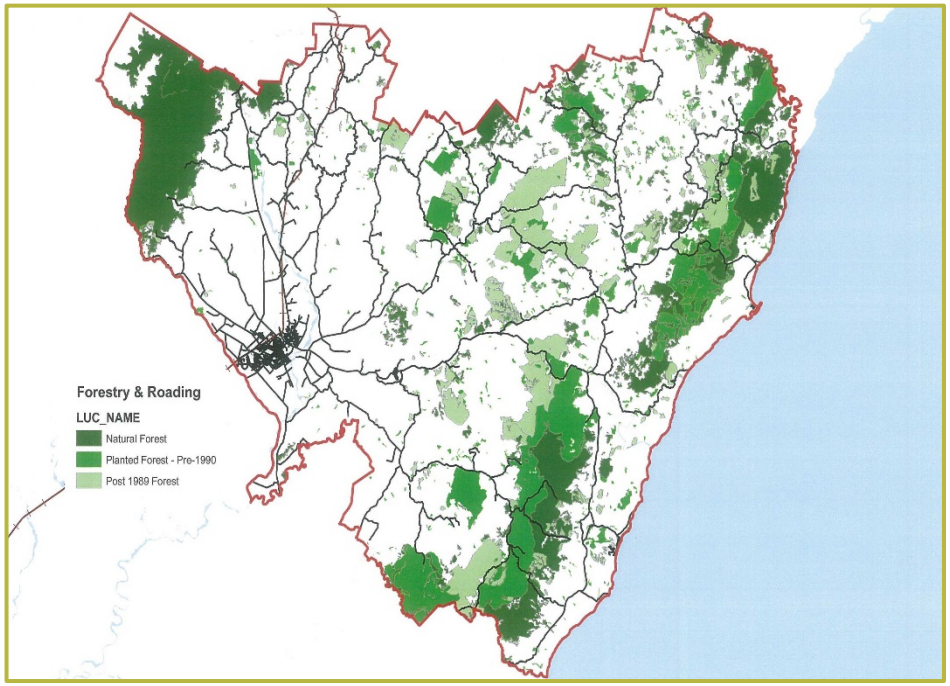
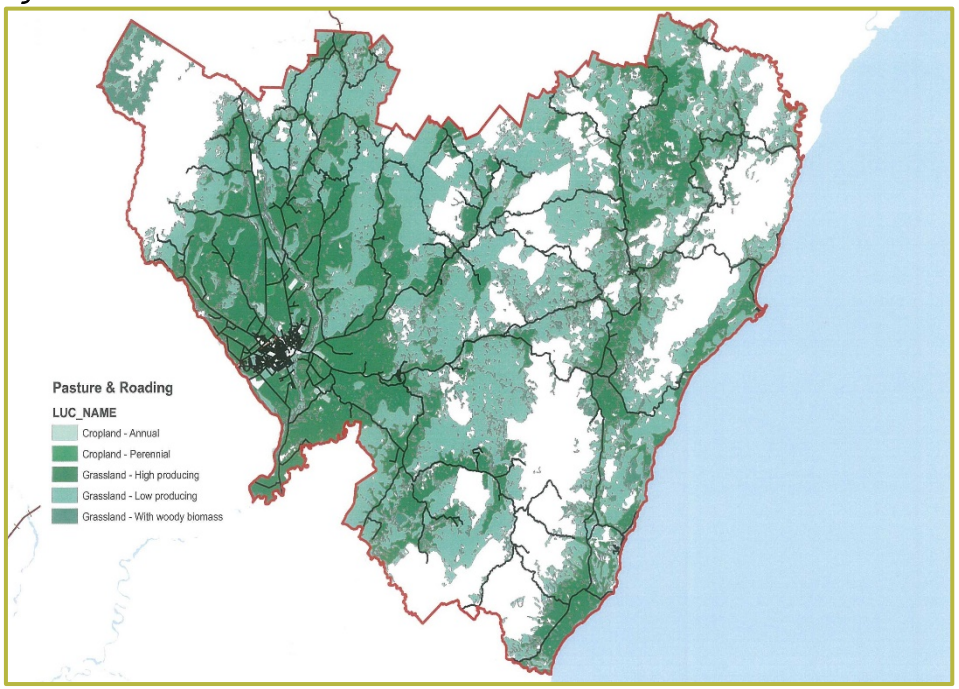


Figure 10.2 *Pastoral land use data*



Following page; Action Plan for Masterton, Carterton and South Wairarapa District Councils

Action refer	Description	Implementation/ Delivery/Timeframe			New/Expanded/Existing Action	Funding Source	Position on the Waste Hierarchy
		1 - 2 Years	3 - 5 Years	5+ Years			
ALL ASPECTS OF THE WASTE HIERARCHY							
WAI1	Take a collective approach to waste management, where appropriate, including the following: Reviewing end markets for recyclable materials, compost and re-useable goods Hazardous waste collection, storage and disposal Residual disposal options Bylaws (solid waste)	Ongoing			Existing action	Rates/waste Levy	All aspects of the waste hierarchy Re-use, Recycling, Treatment, Disposal.
WAI2	Take into account costs when assessing the benefit of a collective approach	Ongoing			Existing action	Rates/waste Levy	All aspects of the waste hierarchy
WAI3	Employ Waste Minimisation staff Note linkage to project E1 of Regional Action Plan	Ongoing			Existing action	Rates/waste levy	All aspects of the waste hierarchy
WAI4	Investigate partnering with community groups and businesses and with local authorities outside the Wairarapa.	Ongoing			Existing action	Rates/Waste Levy	All aspects of the waste hierarchy
WAI5	Encourage the active participation of tangata whenua in waste management issues in the Wairarapa Facilitate consultation with iwi on solid waste management matters in the Wairarapa region Encourage iwi participation in decision making on waste management issues in the Wairarapa.	Ongoing			Existing action	Rates/Waste Levy	All aspects of the waste hierarchy

WAI6	Provide for effective collection and delivery mechanisms of recycled material and residual waste Encourage individual councils to facilitate the collection of household residual waste at least once per week. Encourage individual councils to provide a timetable for collection of kerbside recyclable materials to all relevant households in the region. Encourage individual councils to regularly review waste management contracts, including assessing the benefits of collectively tendering out the services. Encourage individual councils to collect general household items, such as white ware and furniture, at least once per year or to otherwise provide for their re-use. Encourage individual councils to provide clear and consistent signs at landfills and transfer stations to show compost, re-use and recycling facilities. Encourage individual councils to adopt in-house waste minimisation programmes and "green" purchasing policies.	Ongoing			Existing action	User pays, targeted rates	Reduction, reuse, recycling, disposal
WAI7	Encourage good waste management practices in rural areas and holiday communities Encourage individual councils to provide extra collection services in holiday areas to meet demand. Facilitate the provision of information on management of hazardous chemicals in rural areas. Facilitate the collection, transportation and disposal where appropriate of rural hazardous wastes. Encourage individual councils to undertake regular reviews of the level of service provided for waste management in rural areas and rural residential settlements.	On-going			Existing action	User pays, targeted rates/ waste levy	Recycling, disposal

WAI8	Encourage the community, through education and promotion, to adopt sustainable waste minimisation practices Establish Wairarapa Waste Management Environmental Awards for industrial, commercial and household categories. Regularly publicise recent achievements and future initiatives in waste management in the Wairarapa Liaise with the Ministry for the Environment, the Department of Conservation and Greater Wellington Regional Council to ensure a consistent approach to education and promotion. Work with organisations to assist with maintaining a database of reusable and recyclable materials wanted by, or available from, businesses in the Wairarapa. Encourage the market for reusable goods, recycled goods and composting products. Promote sharing of information to encourage reduced use of hazardous materials. Promote industrial and commercial waste reduction mechanisms by: *Promoting waste audits of businesses* *Promoting Cleaner Production* Facilitate education and the dissemination of information to individual households on best practice minimisation and recycling processes	Ongoing			Existing action To be actioned	Rates/Waste Levy	Reduction, re-use, recycling, treatment
REDUCTION							
WAI9	Encourage Central Government to take a consistent national approach to Waste Policy Support central government in implementing a consistent statutory and regulatory framework in the waste management area. Encourage central government to facilitate the development of a national approach to identifying the benefits and costs of waste management initiatives. Note linkage to projects P2, S1 of the Regional Action Plan.	Ongoing			Existing action	Rates/Waste Levy	Reduction, recycling

WAI10	WMW proposes to facilitate the provision of information to the public on how they can use the waste hierarchy to reduce the amount of waste being disposed of in the Wairarapa. Where practical this will include encouraging the processing and use of diverted resources locally. Emphasising the importance of the Waste Hierarchy is one of the keys to the success of the Zero Waste management philosophy. Note linkage to project E1 of the Regional Action Plan.	Ongoing			Existing action	Rates/Waste Levy	Reduction
WAI11	Encourage reduced use of hazardous materials Promote knowledge and awareness of alternatives to hazardous materials in the home and at work.	Ongoing			Existing action	Rates/Waste Levy	Reduction
WAI12	Reduce construction and demolition waste and clean fill to landfill Establish a Wairarapa measurement programme to quantify the amount of construction and demolition waste. Note linkage to project R1 of the Regional Action Plan.	Ongoing			Existing action	Rates/Waste Levy	Reduction
WAI13	Encourage waste minimisation through collection and disposal charges Encourage the councils to put in place systems that will achieve full cost recovery of waste management operations. Encourage waste minimisation practices through collection and disposal charges which reflect the full cost of treatment and disposal Ensure charges for disposal of hazardous or difficult wastes reflect the nature of the waste. Have differential charges for green waste Encourage a consistent charging policy for waste disposal across the Wairarapa.	Ongoing			Existing action	User pays, rates	Reduction, recycling, recovery
WAI14	Encourage the regional and territorial councils to develop consistent policies and approaches to the matter of clean spoil within their respective statutory plans. Note linkage to project R4 of the Regional Action Plan.	Ongoing			Existing action	Rates/Waste Levy	Reduction, disposal

WAI15	Promote the adoption of the Ministry for the Environment's Clean fill Guidelines for all clean fill sites. Note linkage to project R4 of the Regional Action Plan.	Ongoing			Existing action	Rates/Waste Levy	Reduction, disposal
REUSE AND RECYCLING							
WAI16	Provide kerbside recycling	Ongoing			Existing action	Targeted rates	Recycling
WAI17	Provide green waste separation, re-use and recycling, and resource recovery facilities at all landfills and transfer stations.	Ongoing			Existing action	User Pays Rates/Waste Levy	Reuse, recycling, recovery
WAI18	Promote competitions based on re-used and recycled material use.	Ongoing			Existing action	Rates/Waste Levy	Reuse, recycling
WAI19	Record the amount of material diverted to recycling each year. Note Linkage to project R1 of Regional Action Plan	Ongoing			Existing action	Rates/Waste Levy	Recycling
WAI20	Ensure that recycling facilities are available to at least 95% of the community.	Ongoing			Existing action	Rates/Waste Levy	Recycling
WAI21	Require new multi-unit residential and commercial buildings to include space for appropriate recycling facilities.	Ongoing			Existing action	Rates/Waste Levy	Recycling
	Address recycling facilities within the building and subdivision consent process	Ongoing			Existing action	Rates/Waste Levy	Recycling
RECOVERY							

WAI22	Reduce the volume of land filled organic waste through composting and vermiculture Promote the benefits of home composting and vermiculture Provide drop-off facilities for green waste at all transfer stations and landfills in the Wairarapa Sponsor compost and vermiculture bins to target groups such as schools Investigate end markets for compost and vermiculture products. Monitor the organic waste stream Investigate options for achieving 95% diversion of commercial organic waste.	Ongoing			Existing action	Rates/Waste Levy	Recovery
TREATMENT							
WAI23	Continue to include in transfer station and landfill management plans guidelines for safe collection, storage and disposal (where appropriate) of hazardous and difficult wastes, including hazardous household wastes	Ongoing			Existing action	User Pay	Treatment, disposal
WAI24	Liaise with Greater Wellington Regional Council to find acceptable solutions for storage and disposal of hazardous wastes by December 2014	Ongoing			Existing action	User Pay/Rates/ Waste Levy	Treatment, disposal
WAI25	Investigate and encourage periodic collection of unwanted hazardous chemicals in the Wairarapa. Coordinate collection with Agrecovery	Ongoing			Existing action	Rates/Waste Levy	Treatment, disposal
WAI26	Establish a monitoring and recording programme to document the amount of hazardous chemicals collected. Note linkage to project R1 of the Regional Action Plan	Ongoing			Existing action	Rates/Waste Levy	Treatment, disposal
WAI27	Investigate current recovery and recycling rates for a list of priority wastes and increase rates by 20% by December 2012.	Not implemented			Existing action	Rates/Waste levy	Recovery, recycling
DISPOSAL							

WAI28	Ensure the residual disposal needs of the Wairarapa community are provided for now and in the future Provide for disposal of residual solid waste from the Wairarapa. Contract in place for disposal of residual waste to landfill to 2024.	Ongoing			Existing action	User Pay	Disposal
WAI29	Produce, comply with and regularly revise management plans for council transfer stations and landfills.	Ongoing			Existing action	User Pay	Disposal
WAI30	Effluent Disposal - the three Wairarapa District Councils are all going through the process of upgrading their wastewater plants and effluent discharges.						