# SOLID WASTE

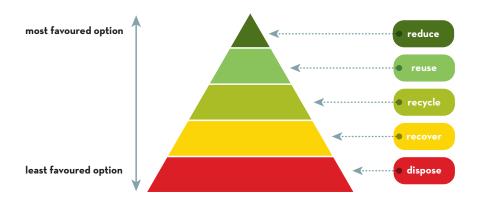


## **SOLID WASTE**

#### **OVERVIEW**

Human activity is inextricably linked to the health of our natural environment. A healthy environment is essential for overall well-being and prosperity. With our population growing, so demands on our natural resources will increase. The challenge is to lessen our impacts on the environment and reduce consumption and waste. Our Solid Waste Strategy sets out our sustainable development approach to the management of solid waste activities across our District.

The primary aim of this Strategy is to reduce the amount of waste produced by reducing, reusing, recycling and recovering. This is commonly referred to as the 'waste hierarchy'.



Our Strategy and actions have been developed in response to the changing waste management environment. Many of the actions are focused on encouraging change at an individual and household level. We also look at what actions can be taken at a community level to ensure that our District retains a healthy, waste-free environment for this and future generations.

Consistent with a community/household focus we do not plan to widely subsidise waste services to encourage a change in behaviour. Instead we will use other incentives to encourage responsible actions where necessary, such as providing recycling and greenwaste facilities and education programmes in schools, supported by a greater emphasis on enforcement for illegal dumping.

Our strategy seeks to progress the Joint Waste Management and Minimisation Plan's aspirational goal of 'zero waste' by 2015 and focus on waste minimisation to achieve this goal.

The Plan is available on our website www.westernbay.govt.nz/Documents/Services/A-Z%2OServices/Joint-waste-minimisation-Plan.pdf

There are no significant variations between the proposals in the Joint Sub-Regional Waste Management and Minimisation Plan and this Solid Waste Strategy.

The Joint Sub-Regional Waste Management and Minimisation Plan will be reviewed in 2015/16.

We see our main roles being in planning for solid waste activities, education and enforcement to ensure individuals, households and businesses are dealing with their waste in the most responsible way. Our 'polluter-pays' principle guides our planning for this activity. This principle requires that those producing waste should pay the appropriate cost for its disposal and that by paying for its disposal people are more likely to change their behaviour and attitudes towards waste minimisation.

The Waste Minimisation Act 2008 puts a levy on all waste disposed of to landfills to generate funding to help local government, communities and businesses reduce the amount of waste. Territorial authorities receive 50% of the total money collected through the waste disposal levy and these payments are made on a population basis. The money must be spent on promoting or achieving waste minimisation in accordance with our Joint Sub-regional Waste Management and Minimisation Plan. We will continue to investigate suitable waste-related projects that could be either District-wide or benefit a specific area, subject to approval through the Annual Plan or Long Term Plan processes.

Free drop-off points for recyclable materials are provided at the Council owned and operated Community Recycling Centres at Athenree, Katikati and Te Puke. They accept:

- · Glass bottles and jars
- Paper and cardboard
- Steel cans
- Aluminium cans
- Fluorescent light bulbs
- Printer cartridges
- Plastic soft drink bottles (number 1)
- Plastic milk bottles (number 2).

and, for a fee, we offer greenwaste disposal services at the above sites and also Omokoroa.

Greenwaste is collected from the drop-off points by contractors for composting. At the recycling centres we also take small quantities of domestic hazardous waste.

We maintain closed and capped landfills at Te Puke, Waihi Beach and Athenree in accordance with consent conditions. We have no plans to develop new cleanfill or landfill facilities in the District.

### WHAT WE PROVIDE



RECYCLING & GREENWASTE CENTRES

Katikati, Te Puke, Athenree

GREENWASTE DROP-OFF

Omokoroa



ONGOING MONITORING OF

CLOSED & CAPPED LANDFILLS

Athenree, Te Puke, Waihi Beach

**MONITOR** 

ILLEGAL DUMPING (FLY-DUMPING)

across our District

### WHY WE PROVIDE IT

#### **OUR COMMUNITY OUTCOME**

Efficient waste management practices minimise environmental harm and waste.

#### **OUR GOALS**

- · Minimise the total quantity of residual waste for disposal through effective planning, education and enforcement so people reduce, reuse and recycle.
- Provide good information so people dispose of residual waste in an environmentally acceptable manner.
- Work with our communities to create a clean environment by encouraging and recognising innovative solutions to waste problems.

### HOW WE WILL ACHIEVE OUR COMMUNITY OUTCOME

GOAL	OUR APPROACH	OUR ROLE
Minimise the total quantity of residual waste for	Illegally dumped waste	
disposal through effective planning, education and enforcement so people reduce, reuse and	• Change attitudes towards fly-dumping by ensuring that people know where they can dispose of their waste safely.	Lead
recycle.	Work with local communities to achieve clean roadsides and waterways.	
	<ul> <li>Monitor public spaces where fly-dumping occurs and where appropriate install mobile closed circuit television cameras at problem sites.</li> </ul>	
	• Pursue infringements and prosecutions where there is sufficient information to support such action.	
	Refuse by-law	
	Enforce the Refuse By-law to ensure that all people in our District take responsibility for the proper disposal of their waste.	Lead
	Design principles for new developments	
	Eco-design principles result in well-planned, well-executed and sustainable developments. We support the application of eco-design principles in developments when opportunities are available and will consider the inclusion of these principles in Council plans.	Facilitator
	Advocacy	
	Advocate where possible for stronger responsibility by producers, brand owners, importers and retailers for the minimisation of waste accompanying their goods, e.g. packaging.	Advocate

GOAL	OUR APPROACH	OUR ROLE
Minimise the total quantity of residual waste for	Composting	Advocate/Facilitator
disposal through effective planning, education and enforcement so people reduce, reuse and	• Educate communities, households and workplaces on the benefits of composting organic waste and greenwaste.	
recycle (cont.)	• Provide greenwaste drop-off facilities that accept garden waste for composting off site.	
	Recycling services	
	(a) Recycling drop-off facilities	Lead
	Where viable options for recycling are proposed by private or community sectors we will investigate whether these options can enhance or replace our operated services.	
	(b) Weekly residential recycling collection	Lead/Research and Monitoring
	Continue to monitor the effectiveness of private sector weekly 'kerbside' residential recycling collection through the licensing system and where necessary take enforcement action against private sector operators through the Waste Management and Minimisation Bylaw 2013.	
	Public recycling	
	Subject to community demand and willingness-to-pay, work with community boards to establish public recycling facilities in public places.	Facilitator
	Education and information	
	Education and information are vital tools for changing attitudes and behaviours towards waste minimisation and management	
	(a) Partners in providing education and distributing information	Partner
	Partner with organisations that specialise in waste matters, for example Tauranga City Council the Bay of Plenty Regional Council, Bay of Plenty / Waikato Waste Liaison Forum, Ministry for the Environment, Environmental Education for Resource Sustainability Trust, Waste Watchers, Zero Waste Education Ltd and waste service businesses to ensure a co-ordinated, consistent and up-to-date response to education and information needs.	
	(b) Schools	Partner/Advocate
	• Support the waste minimisation education programme in schools across our District.	
	<ul> <li>Advocate for central government to assume responsibility for waste minimisation education as a core part of the education curriculum.</li> </ul>	
	(c) Community	Partner
	Assist in funding waste minimisation education programmes for the wider community, targeting community groups and organisations in the first instance, as well as community events.	

GOAL	OUR APPROACH	OUR ROLE
Minimise the total quantity of residual waste for	(d) Business and rural sectors	Facilitator
disposal through effective planning, education and enforcement so people reduce, reuse and recycle (cont.)	Support key business and rural sector groups to establish waste minimisation education programmes that each sector can own and sustain into the future.	
, so year (comp	(e) Communication	Lead
	Provide user-friendly access to waste services information available through our libraries and service centres and our online Waste Services Directory. We operate libraries and service centres at Katikati, Omokoroa, Te Puke, Waihi Beach and a service centre at Barkes Corner, Tauranga. These centres will provide the first line of response on waste services and information requests. From time to time, we may tour special displays on solid waste. We will establish a web page on waste services information. This information will be updated regularly as part of administering the licensing system for waste operators. Other related businesses will also be encouraged to list information with us on their location and the types of waste material that they specialise in.	
	(f) Welcome pack	Lead
	Include information on weekly kerbside collections and drop-off facilities within the welcome pack we distribute to all new residents in our District.	
	(g) Waste exchange	Partner
	Continue to support the Waste Exchange Register, a Waikato-Bay of Plenty information database of business waste materials that are available for others to use.	
	(h) Signage	Lead
	Ensure that industry-standard signage is provided showing where waste materials can be disposed of at known fly-dumping trouble spots.	
Provide good information so people dispose of	Hazardous waste management	
residual waste in an environmentally acceptable manner.	Small quantities (30kg or litres) of household hazardous waste will be accepted at the Katikati, Athenree and Te Puke centres. All waste must be accompanied by a completed household hazardous waste declaration form that can be ordered from Council customer services.	Lead
	Landfills	
	Continue with our aftercare responsibilities for closed landfills at Athenree, Strang Road, Te Puke and Waihi Beach as required by the conditions of resource consent. Landfill facilities and user-pays drop-off sites for specific waste are provided by the private sector.	Lead

GOAL	OUR APPROACH	OUR ROLE
Work with our communities to create a clean	Community waste initiatives	
environment by encouraging and recognising innovative solutions to waste problems.	(a) Provide grants to community groups interested in establishing local waste management initiatives that adopt environmentally sound practices.	Partner/Advocate/Facilitator
	(b) Support community organisations in their applications to appropriate funding sources to establish such new community waste initiatives.	Partner/Advocate
Work with our communities to create a clean	Events and promotions	
environment by encouraging and recognising innovative solutions to waste problems.	(a) National promotions	Partner
The factor of th	Assist in the promotion of national campaigns that contribute to the goals for solid waste by providing community group contacts and local administrative support.	
	(b) Recognition of community actions	Advocate
	Advocate for the introduction of local awards to recognise outstanding contributions and innovations by communities and businesses to achieving our solid waste goals.	
	(c) Mobile recycling and waste services	Advocate
	Provide event organisers with a resource kit to encourage waste reduction and recycling at major events in line with the Western Bay of Plenty Sub-regional Events Strategy.	



### Average weights for recyclable material per cubic metre

- On average: Kg/m3
- Glass: 240kg (Source: Recyclonomics)
- Plastics: 25kg (Source: Recyclonomics + averages)
- · Cardboard: 30kg (Source: Recyclonomics)
- Paper: 90kg (Source: Full Circle)
- Aluminium: 30kg (Source: Recyclonomics)
- Steel cans: 90kg (Source: CMA recycling)
- Solid steel: 700kg (Source: CMA recycling)

### WHAT WE ARE PLANNING TO DO

All information from 2017 - 2025 includes an adjustment for inflation.

This is not a complete list of the projects/programmes we have planned for this group of activities. The full list is available on our website, www.westernbay.govt.nz

PROJECT		\$'000									
NUMBER	PROJECT NAME	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
318601	District Solidwaste Waste Minimisation Funding Pool	65	135	139	143	148	153	159	165	172	179
319902	District Wide Trade Waste Implementation	50	52	53	55	57	59	61	64	66	69

### **MAJOR PROJECTS PLANNED FOR 2015 - 2025**

#### WASTE MINIMISATION FUNDING POOL

This pool of funding is set at \$130,000 each year between 2017 - 2022 (\$1.46 million in total including an adjustment for inflation).

Future projects may include:

- · Investigation of a recycling/drop-off facility on Matakana Island in conjunction with an upgrade of the Omokoroa greenwaste facility (dependent on population growth).
- Installation of weighbridge facilities at Katikati and Te Puke recycling facilities to assist in reporting accurate data on recycled volumes to the Ministry for the Environment
- · Investigation of composting for sewage sludge disposal.

### HOW OUR PLANS HAVE CHANGED

The timing and costs of some of our projects have been updated since we adopted our 2012 - 2022 Long Term Plan (LTP).

To see how our plans have changed click here for the complete list of the projects/programmes that have been revised or alternatively visit our website www.westernbay.govt.nz.

### **DID YOU KNOW...**

#### Weights for whiteware on average/per piece:

- Dishwasher 55kg
- Refrigerator 80kg
- Oven/stove 90kg

• Dryer - 45kg

- Microwave 20kg
- Washing Machine 50kg

Total percentage by weight of recyclables from Katikati & Waihi Beach Recycling Centres:

• Glass - 70%

• Paper - 17%

• Plastic - 4%

Total percentage by weight of recyclables from Te Puke Recycling Centres:

• Glass - 48%

• Paper - 28%

• Plastic - 4%

### HOW WE WILL TRACK PROGRESS TOWARDS OUR GOALS

OUTCOME

Efficient waste management practices minimise environmental harm and waste

		ACTUAL			TARGET		
GOAL	WE'LL KNOW WE'RE MEETING OUR GOAL IF	2014	2015	2016	2017	2018 - 20	2021 - 25
Minimise the total quantity of residual waste for disposal through effective planning, education and enforcement so people reduce, reuse and recycle.	Percentage of actions, identified in the Solid Waste Action Plan for the year that have been completed. This identifies the total annual actions required for this strategy. Actions are required within specification and budget.	100%	97%	97%	97%	97%	97%
Provide good information so people dispose of residual waste in an environmentally acceptable manner.	Percentage level of customer satisfaction with household rubbish disposal methods. As measured through our Annual Residents' Survey, those customers who are 'very satisfied' and 'satisfied'.	78%	78%	78%	78%	80%	80%
Work with our communities to create a clean environment by encouraging and recognising innovative solutions to waste problems.	Percentage of waste recycled or recovered as estimated and reported by licensed operators (excludes waste disposed of privately).  We include estimates because we do not have weighbridges.	33%	36%	38%	40%	42%	45%
	Number of initiatives funded by the Ministry for the Environment Waste Minimisation Scheme.	1	1	1	1	2	3

### **HOW WE WILL TRACK PROGRESS - LEVELS OF SERVICE**

	ACTUAL	TARGET					
WHAT WE PROVIDE	WE'LL KNOW WE'RE MEETING THE SERVICE IF	2014	2015	2016	2017	2018 - 20	2021 - 25
All Council-owned solid waste facilities, including closed landfills, meet environmental standards.	Number of abatement/infringement notices received.	0	0	0	0	0	0
Provide and maintain drop-off recycling services.	Number of greenwaste and/or recycling facilities provided.	4	4	4	4	5	5
Assist in the provision of opportunities for the removal of hazardous waste.	Number of hazardous waste drop off points.	3	3	3	3	4	4

### **KEY ASSUMPTIONS**

ASSUMPTION	DESCRIPTION	RISK
Solid waste changes in technology	Technology could potentially reduce operational and disposal costs and reduce impacts on the environment.	Innovative technologies may increase costs in the short term if economies of scale cannot be easily achieved.
Changes to attitude that 'waste needs to be disposed of', based on research and implementation of the Waste Minimisation Act 2008	Research opportunities to provide ways of trialling alternative practices that make waste a valuable resource. It is recognised that research opportunities take a reasonable time to establish and deliver results. Product stewardship and waste levy provisions in the Waste Minimisation Act 2008 should assist in attitude change.	The proportion of different types of waste diverted for uses other than disposal does not increase.
Solid waste generation rate Note: this includes diverted materials	Estimate of 640kg per year of municipal solid waste per person, reducing over ten years.	Progress towards waste minimisation not achieved. Potentially heading to greater landfill and less waste minimum levy.
Solid waste levels of service	It is assumed that levels of service for recycling facilities may increase and all other levels of service will remain constant.	Changes in funding required due to changes in levels of service.
Solid waste socio-economic profile	Social changes and economic growth lead to increased waste generation created by increased consumption, less time to sort and separate waste and less need to reuse materials. Conversely in an economic downturn individuals may not have money to pay for rubbish collection and may resort to fly-dumping and illegal disposal or maybe more likely to recycle and reuse products.	If changes in the socio-economic profile of residents leads to a change in behaviour facilities will either be under-or overutilised. This may lead to increased costs or uneconomic operation of facilities.
Solid waste environmental consciousness profile	Communities in the western Bay of Plenty district are more conscious of the environmental impact of their actions. Willingness to take actions to reduce this acknowledged impact will take time to establish.	If changes in the environmental- consciousness profile of our residents leads to behaviour contrary to the assumption made, facilities will either be under-or over- utilised. This may lead to increased costs or uneconomic operation of facilities.
Waste Minimisation Act	The Waste Minimisation Act was passed in September 2008. The Act provides for, among other things, additional funding through a waste levy to be collected on waste delivered to landfill sites and applied to waste minimisation activities and product stewardship schemes.	Changes to the Act could result in reduced funding or elimination of the waste levy. This may lead to additional costs or a reduction in the services offered.
Joint Solid Waste Management and Minimisation Plan	Tauranga City Council and Western Bay of Plenty District Council will continue to maintain a Joint Solid Waste Management and Minimisation Plan. Waste management and minimisation plans are required by section 41 of the Waste Minimisation Act 2008.	If partner councils fail to work together on the Plan there may be additional costs.

### SIGNIFICANT EFFECTS OF PROVIDING THIS ACTIVITY

WELL-BEING	POSITIVE	NEGATIVE	HOW WE ARE ADDRESSING THESE EFFECTS
Social	+ Providing recycling facilities promotes environmental consciousness.	- Under-provision of recycling facilities fails to promote a positive shift in the community's attitude to waste.	Each main urban community in our District has greenwaste and/or recycling facilities.
	+ Community and school involvement in programmes.		
	+ Better awareness of waste minimisation methods fosters improved community health, safety and well-being.		
	+ Community participation in services and events provides positive social feedback.		
Environmental	+ The hazardous waste collection removes household quantities potentially harmful substances.  + Protection and enhancement of our District's environment.	- Landfill sites can create leachate that infiltrates groundwater and gases that are discharged into the environment.  - Collection services can lead to visual pollution on roadsides.	<ul> <li>We will continue to manage and monitor the closed landfill sites to meet compliance with Resource Consent conditions.</li> <li>We will not develop additional landfill sites.</li> <li>We will continue to license and monitor waste collection operators.</li> </ul>
Economic	+ Provision of user-pay services ensures that the generator of waste pays for the provision of the service.	<ul> <li>User-pays can lead to illegal dumping of rubbish to avoid payment.</li> <li>Financial cost of recycling and disposal services. The cost of recycling services is affected by the world markets for recyclable materials, for example glass and plastic.</li> </ul>	We monitor trends in these markets and revise the expected costs of our recycling services through the Annual Plan or Long Term Plan processes. These cost are weighed against the environmental benefits of recycling.
Cultural	+ Waste disposal services protect culturally sensitive Māori land and water resources.	- Waste entering water bodies affects the mauri of the environment.	We will continue to take enforcement action against fly dumping.

### **SUMMARY FINANCIAL FORECAST**

### SOLID WASTE

All information from 2017-2025 includes an annual adjustment for inflation.

	ACTUAL \$'000	BUDGET \$'OOO	_	_			FOREC					
FOR THE YEARS ENDED 30 JUNE	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Analysis of expenditure by activity			'									
District solid waste	272	506	682	774	797	819	844	872	902	935	970	1,006
Western solid waste	373	332	465	471	480	485	492	500	505	512	517	524
Eastern solid waste	303	384	461	474	487	500	514	530	534	550	569	585
Omokoroa Greenwaste	133	144	155	164	173	183	193	203	214	224	236	247
Total operating expenditure	1,080	1,366	1,763	1,883	1,936	1,988	2,042	2,105	2,154	2,221	2,292	2,362
Analysis of expenditure by class												
Direct costs	543	819	1,216	1,325	1,362	1,403	1,446	1,493	1,545	1,601	1,660	1,725
Overhead costs	429	452	490	504	519	528	539	557	571	585	608	622
Interest	81	72	30	26	27	29	29	27	24	19	13	6
Depreciation	27	23	28	28	28	28	29	28	15	16	11	9
Total operating expenditure	1,080	1,366	1,763	1,883	1,936	1,988	2,042	2,105	2,154	2,221	2,292	2,362
Revenue			_									
Targeted rates	973	1,001	1,055	990	1,024	1,070	1,118	1,167	1,219	1,272	1,328	1,385
User fees	67	66	67	71	74	80	84	89	97	102	108	114
Subsidies	134	130	65	135	139	143	148	153	159	165	172	179
Other income	45	20	10	10	11	11	11	12	12	13	13	14
Total revenue	1,219	1,217	1,197	1,206	1,247	1,304	1,361	1,421	1,487	1,552	1,620	1,692
Net cost of service - surplus/(deficit)	138	(149)	(566)	(677)	(689)	(684)	(681)	(684)	(667)	(668)	(672)	(670)
Capital expenditure	57	-	-	-	-	-	-	-	-	-	-	-
Vested assets	-	-	-	-	-	-	-	-	-	-	-	-
Total other funding required	81	(149)	(566)	(677)	(689)	(684)	(681)	(684)	(667)	(668)	(672)	(670)
Other funding provided by												
General rate	-	-	-	-	-	-	-	-	-	-	-	-
Environmental protection rate	273	507	617	639	658	676	696	719	743	769	798	827
Debt increase/(decrease)	(36)	-	-	-	-	-	-	-	-	-	-	-
Reserves and future surpluses	(317)	(358)	(51)	38	31	8	(15)	(35)	(76)	(101)	(127)	(157)
Total other funding	(81)	149	566	677	689	684	681	684	667	668	672	670

### WHERE THE MONEY COMES FROM

#### **SOLID WASTE**

#### **COMMUNITY OUTCOME**

Efficient waste management practices minimise environmental harm and waste.

#### **GOALS**

- · Minimise the total quantity of residual waste for disposal through effective planning, education and enforcement so people reduce, reuse and recycle.
- · Provide good information so people dispose of residual waste in an environmentally acceptable manner.
- · Work with our communities to create a clean environment by encouraging and recognising innovative solutions to waste problems.

#### **DISCUSSION / RATIONALE**

Education, promotion of waste minimisation benefits, planning for and monitoring waste benefits our district as a whole. When individuals make use of education and information on waste and hazardous waste issues the community benefits as a result.

If the remediation and monitoring of closed landfills were not undertaken it would affect the community as a whole, through downstream effects on the environment.

The existence of greenwaste and recycling facilities will benefit those in the local area.

If convenient facilities are not provided to dispose of greenwaste it may be more likely that it will be illegally dumped and may result in increased enforcement and regulatory costs for the whole community.

It is sometimes possible to identify individuals who are illegally dumping cars and other rubbish. They may be prosecuted.

Individuals using greenwaste and recycling facilities can be identified and charged for the service.

Council wishes to encourage recycling and therefore chooses not to charge gate fees at its recycling drop off facilities.

Council also wishes to consolidate its revenue collection for this activity by geographical area of benefit and has chosen to combine targeted rates for greenwaste and recycling with targeted rates for landfill remediation and monitoring where facilities are available.

The life of greenwaste and recycling assets is estimated at 25 years. Achieving a cleaner environment benefits future generations through not leaving a legacy of waste.

Illegal dumping and littering requires cleaning up which increases costs. Offenders often cannot be identified.

We have a responsibility to ensure that remediation and monitoring of closed landfills continues.

#### **FUNDING APPROACH**

#### Capital expenditure excluding renewals

Initially financed by loans and serviced from solid waste targeted rates (uniform annual charges). over the applicable area of benefit (currently Eastern, Western and Omokoroa).

Waste minimisation levy received from the Ministry of the Environment to fund waste minimisation activities.

#### Operational, maintenance and renewals expenditure

Provided from:

- Environmental protection rate to fund District-wide operational expenditure
- · Area of benefit targeted rates uniform annual charges (Eastern and Western) and user fees to fund renewals and all operating, maintenance and financing costs of closed landfills, green waste and recycling centres
- Waste Minimisation levy to fund waste minimisation activities
- · User fees, area of benefit targeted rates to fund renewals of capital and all operational, maintenance and financing costs of Omokoroa greenwaste facility.

### Funding sources - Solid waste 2015/2016

