

Solid Waste



Solid Waste

Key Issues:

Waste is generated as part of everyday living when people throw things away that they no longer require. Refuse collection services are currently provided to approximately 8,000 households and 800 commercial properties throughout the District. Council is responsible for controlling the environmental effects arising from waste disposal as well as promoting effective and efficient waste management and waste reduction practices within the District. Are the Anticipated Environmental Results (AERs) relating to solid waste being achieved?



Indicators

Pressures:

- Total quantity of waste disposed to transfer stations from residential and business sources;
- Composition of waste disposed at transfer stations;
- Total quantity of hazardous waste disposed to transfer stations and sewer; and
- Number of incidences and spills involving hazardous waste.



State:

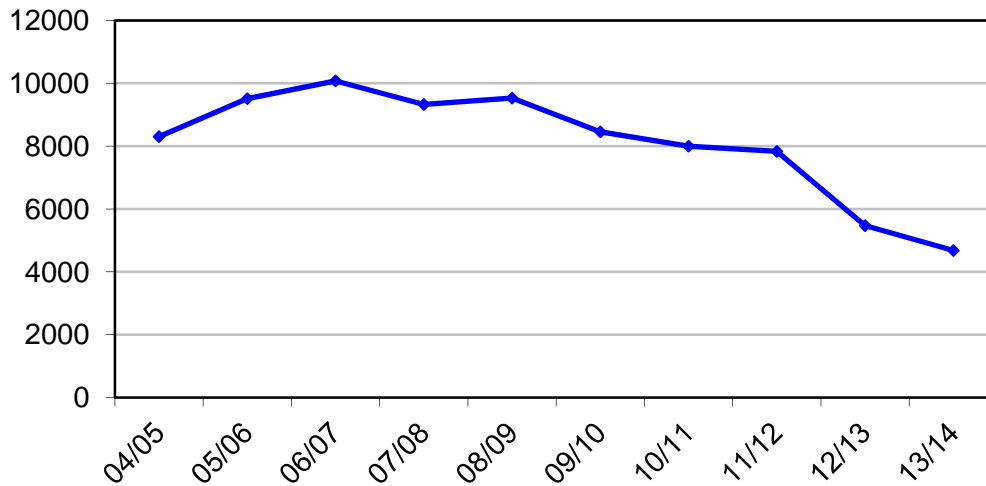
- Compliance of disposal facilities with resource consent conditions;
- Groundwater quality upstream and downstream of closed landfills;
- Area of land designated for landfills; and
- Number of potentially contaminated sites.

Response:

- Number of landfills fully consented;
- Quantity of waste recycled, composted or re-used as proportion of total waste generated;
- Participation rates for recycling;
- Quantity of hazardous waste safely disposed;
- The amount Council spends on leachate and receiving waters; and
- Number of households receiving waste collection from Council.

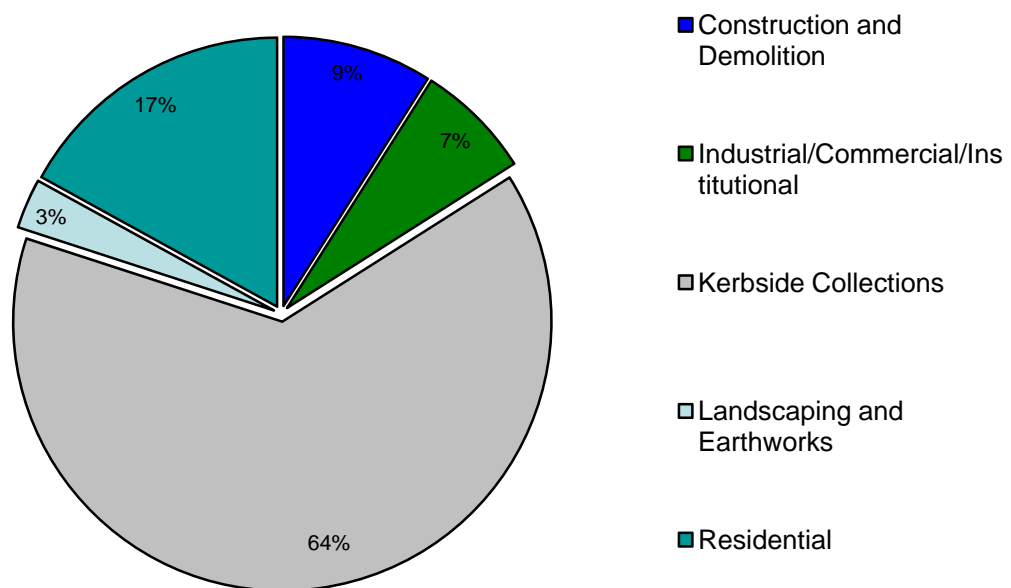
Results:

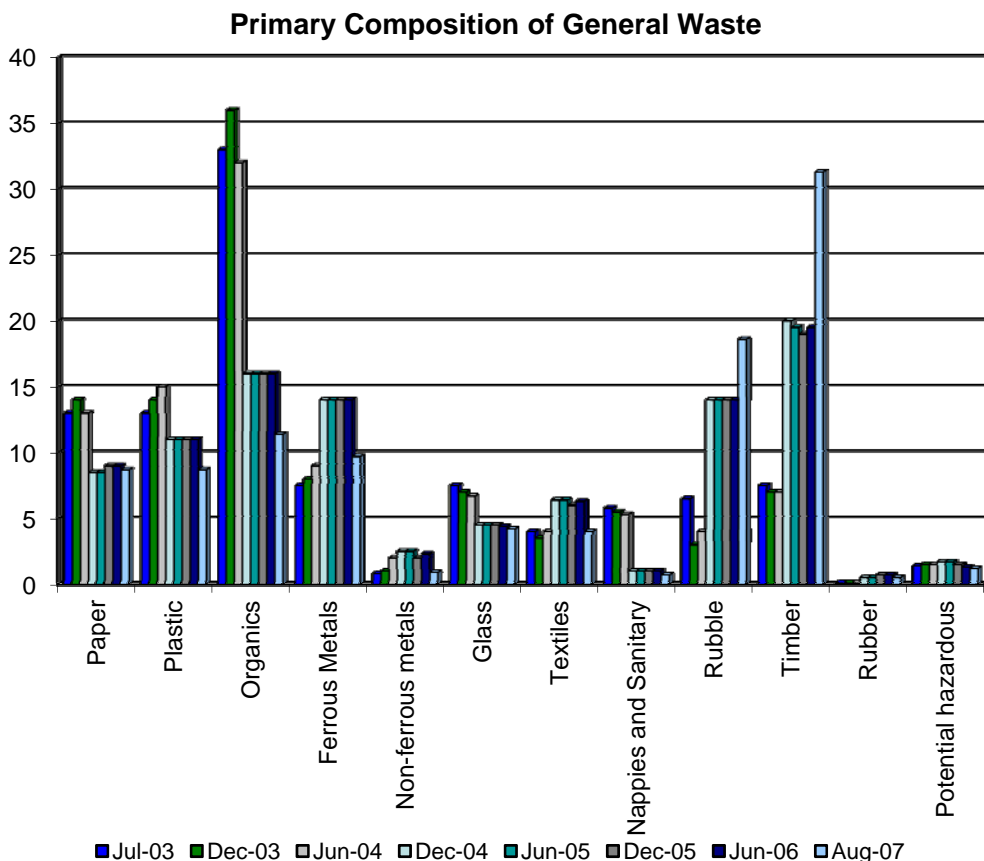
Quantity of waste disposed to transfer stations at Waihou, Morrinsville, and Matamata and then sent to landfill (tonnes)



This graph shows how much waste is being disposed to transfer stations in our District. A general decrease is observed.

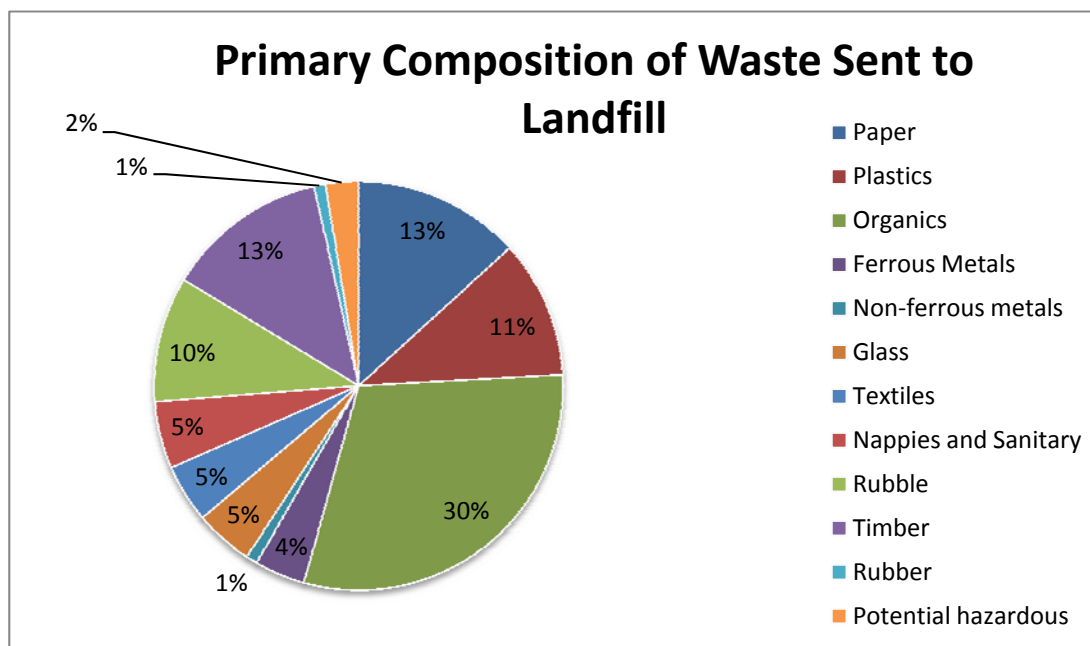
Waste Streams Entering Transfer Stations





The Matamata-Piako District Council in partnership with the Waikato Regional Council undertake waste audits on solid waste entering the Matamata refuse transfer station and recycling centre. The primary composition is shown in the bar chart above.

The increase in the timber and organic material to the transfer station during the 2004/05 period has been attributed to the weather at the time of the audits, when the weather was predominately sunny. This type of weather is usually associated with an increase in residential gardening activities and as a result subsequently increases the disposal of green waste. Of the waste in August 2007, 31% was timber. The majority of this timber was from construction and demolition loads and is linked to the increase in development in the District.



Note: The above figures come from a survey period in August 2007 at the Matamata Transfer Station. Analysis of the waste stream that has been taken to the Matamata Transfer Station suggests that a good proportion of waste material could have been recycled.

Matamata-Piako Waste	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Quantity of hazardous waste collected at transfer stations (tonnes)	0.28*	1.85	0*	1.36	0.2	1.2	0.71	1.5	0	0*

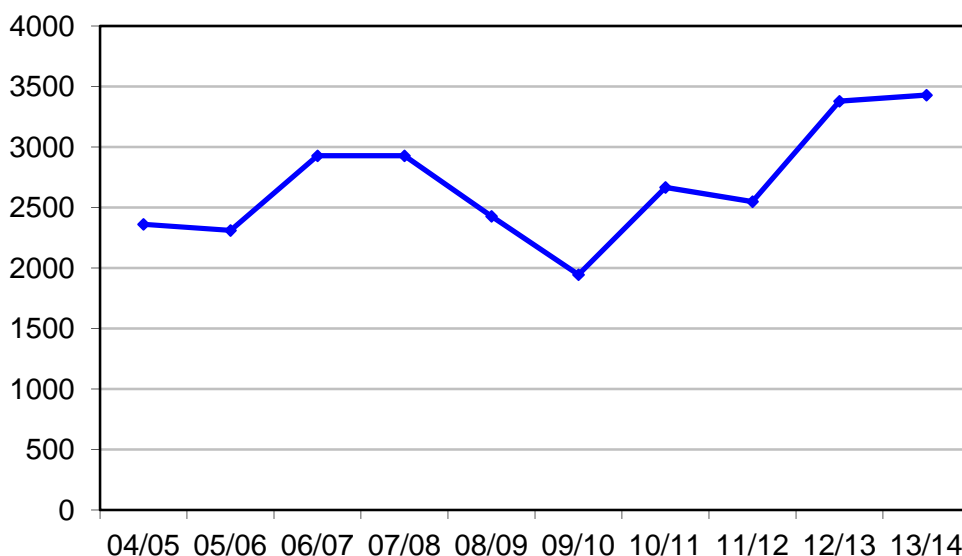
*There is some variation in the yearly totals as hazardous waste is not collected at regular intervals. As it is not cost-effective to collect small quantities of hazardous waste, it is stored until collection is economically viable.

The quantity of hazardous waste results show a trend of regular disposal of hazardous waste at transfer stations. This result may reflect public awareness regarding hazardous waste disposal and capacity by transfer stations to receive hazardous wastes.

There have been no reported incidents or spills involving hazardous waste in the District, since 2000/1

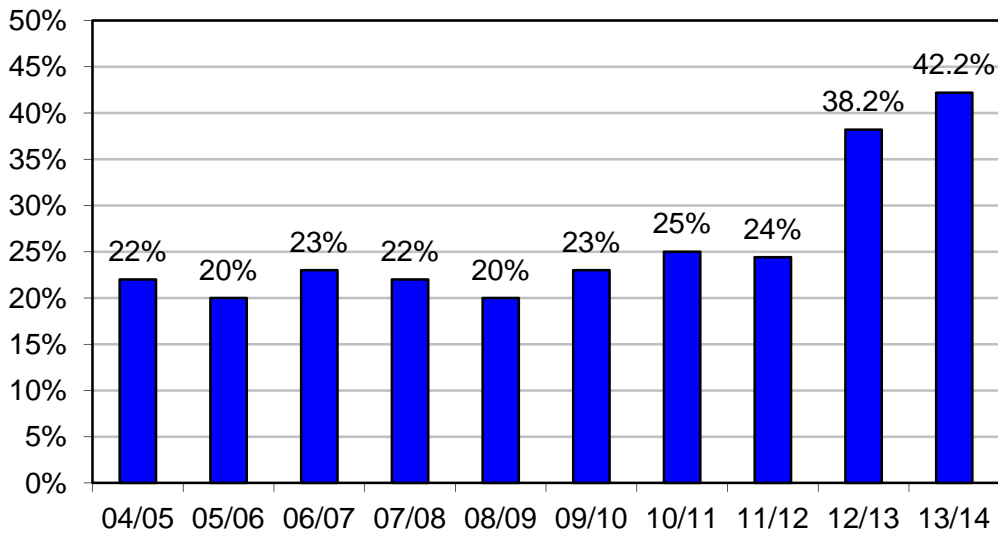
Within the Matamata-Piako District, Council has three transfer stations, located at Waihou, Morrinsville and Matamata. These sites are all adjacent to landfills which are no longer operational, although the sites are still managed to ensure unfavourable effects on the environment are avoided. Waste from the transfer stations is transported out of the District to a privately owned landfill at Tirohia, south of Paeroa. Compliance of the District's landfills with their respective discharge consent conditions are monitored regularly. Council monitors the amount and quality of leachate from the landfills to nearby surface water bodies, both up and downstream of all the landfill locations. Council also monitors three to four sampling bores near the landfills. The groundwater quality at the sampling sites has been good to satisfactory since 2000. Council's sampling sites achieved a compliance rate of 100 percent with the Waikato Regional Council's Standards during 2007/08.

Quantity waste recycled / composted (tonnes)



The quantity of waste recycled/composted generally decreased between 2007/08 – 2009/10. Since 2009/10 there has been a steady increase in the quantity of waste recycled/composted.

Proportion of total waste recycled/composted from Council transfer stations



The proportion of waste portrays perhaps a clearer picture, showing that the percentage of waste recycled increased in recent years, particularly during the last two financial years (2012/13 and 2013/14).

Council spending on leachate and receiving waters

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14
Amount spent (\$)	74,212	17,643	20,266	15,000	30,000	25,000	30,000	40,000	Not measured	Not measured

Council continues to spend significant amounts every year on monitoring and avoiding, remedying, and mitigating the adverse effects of leachate on the receiving waters.

District Plan Provisions

Section 3.3.2 Land and Development

Objective:

- To maintain and enhance the District's land resource to enable activities that do not threaten the life supporting capacity of the soil and consequently water and ecosystems.

Policy:

- To avoid, remedy or mitigate any adverse effects on the intrinsic values of the land from the disposal of solid and liquid wastes and/or stormwater.

Anticipated environmental results

- A reduction on the number of contamination incidents caused by indiscriminate and poorly managed waste disposal.

Hazardous substances

Objective:

- To avoid, remedy or mitigate the potential for adverse effects on the environment that may result from the use, storage, disposal and transportation of hazardous substances.

Policy:

- Hazardous wastes should be disposed of to authorised disposal sites with appropriate management systems in place.

Objective:

- To ensure that contaminated sites in the District are managed and/or redeveloped in a manner which avoids, remedies or mitigates any adverse environmental effects.

Policy:

- The risks associated with the use, storage, disposal and transportation of hazardous substances or contaminated sites must be comprehensively documented to enable Council and the public to manage potential adverse effects.

Anticipated environmental results

- Minimal adverse effects from hazardous substances.

Section 3.7.2 Works and Network Utilities

Objective:

- To ensure the appropriate storage, disposal and reduction of solid and hazardous wastes through the avoidance, remediation or mitigation of adverse effects on the environment.

Policies:

- Solid waste storage and disposal must be safe and effective with minimal adverse effects on the environment.
- To introduce and support other organisations' practices, which reduce the generation of waste, and recover and conserve resources for the community.

Anticipated environmental results

- Progressive reduction in the generation of solid waste including hazardous waste.
- Safe and effective solid waste storage and disposal.
- Reduction in adverse effects on the environment.

Efficiency and Effectiveness

Are the District Plan's objectives and policies the most effective and efficient way to achieve the following anticipated environmental results?

- *A reduction on the number of contamination incidents caused by indiscriminate and poorly managed waste disposal.*
- *Minimal adverse effects from hazardous substances.*
- *Progressive reduction in the generation of solid waste including hazardous waste.*
- *Safe and effective solid waste storage and disposal.*
- *Reduction in adverse effects on the environment.*

It is acknowledged that the role of solid waste management lies primarily outside of the District Plan. The Plan does have some objectives, policies, rules and AER's related to the control of adverse effects of waste disposal activities and others which are primarily related to hazardous substances, but unfortunately we do not have much information or data on hazardous wastes.

The Plan's hazardous substances objectives, policies and rules reflect the Regional Council's policy which aims for consistent, comprehensive management. The AER '*minimal adverse effects from hazardous substances*' is achieved as there have been no reported incidents or spills involving hazardous waste in the District since 2000/01. Also the quantity of hazardous waste collected at transfer stations has remained stable. This indicates that hazardous waste is disposed of safely at the transfer stations.

The AER '*progressive reduction in the generation of solid waste including hazardous waste*' is being achieved in terms of waste. There has been an overall decrease in the quantity of solid waste being generated. Some components of waste have decreased such as paper, plastics and organic waste, while others have increased, such as timber and rubble.

The AER '*safe and effective solid waste storage and disposal*' is being achieved through compliance with the Waikato Regional Council's resource consents for closed landfills, and operation of Council managed transfer stations. Within Matamata-Piako District, Council has three refuse transfer stations, located at Waihou, Morrinsville and Matamata, these sites are all adjacent to landfills which are no longer operational, although the sites are still managed to ensure unfavourable effects on the environment are avoided. Waste from the transfer stations is transported out of the District to a privately owned landfill at Tirohia, south of Paeroa. Compliance of the District's landfills with their respective discharge consent conditions are monitored regularly. Council monitors the amount and quality of leachate from the landfills to nearby surface water bodies, both up and downstream of all the landfill locations. Council also monitors three to four sampling bores near the landfills. The groundwater quality at the sampling sites has been good to satisfactory since 2000. Council's sampling sites achieved a compliance rate of 100 percent with the Waikato Regional Council's standards during 2007/08.

The AER seeking a '*reduction in adverse effects on the environment*' requires broad consideration of all of Council's activities in waste management. The overall quantity of waste to landfills is reducing thereby reducing the adverse effects on the environment. Improvements in technology for managing hazardous substances and a broader policy for accepting hazardous wastes by the Regional Council means the adverse environmental effects of hazardous wastes are reducing, thereby meeting the Anticipated Environmental Result.

In conclusion, although the majority of the role of solid waste management lies outside of the District Plan, the AER's that are in the Plan are being effectively achieved through the objectives, policies, rules and other methods in the Plan as well as other external factors.

Summary

Anticipated Environmental Results Solid Waste	Achieved? 😊 - Achieving → - Progress towards achievement 😞 - Not achieving ? - Not monitored
A reduction on the number of contamination incidents caused by indiscriminate and poorly managed waste disposal	😊 (no reported cases)
Minimal adverse effects from hazardous substances	😊
Progressive reduction in the generation of solid waste including hazardous waste	😊
Safe and effective solid waste storage and disposal	?
Reduction in adverse effects on the environment	😊