



# WASTE, RECYCLING AND AIR

## RUBBISH AND RECYCLING



### Principal findings

- Gisborne has achieved a significant reduction in solid waste: in 2004 only 10.2% of our total waste stream was sent out of the district to be landfilled, and we intend to reduce this further;
- There is no longer a city landfill operating in Gisborne; waste from transfer stations north of Tolaga Bay goes to the new Waiapu area landfill in Ruatoria;
- Gisborne residents are good at recycling;
- Private contractors are accepting an increasing amount of waste; waste is a resource for several innovative businesses;
- Our interactive educational centre "Rethink" has opened;
- "Second-hand Sundays" are becoming increasingly popular;
- Council responded to an increased number of pollution incidents;
- Our air quality remains high;
- Noise complaints are on the increase;
- We are progressively implementing more detailed monitoring.

The good news is: Gisborne people have embraced the idea of recycling. The trend since kerbside recycling began in 2000 has been a steady increase in the amount of recyclables collected at the gate and dropped off at the new AllBrite Industries resource recovery facility, opened in 2003. There has been a corresponding decrease in the amount of waste needing to be sent to a landfill.

Our jargon and the way we speak about waste in Gisborne reflects our progress on the pathway to zero waste. We talk about a 'resource' and 'recyclables' instead of 'rubbish', and we now try to find a new use for all our refuse. Gisborne people have come to realise you cannot simply "throw stuff away" - because there is no such place as "away" any longer.

Rural people are also into recycling: all our rural transfer stations (except Matawai) now have recycling depots. The rural transfer stations operate for restricted hours with a staff member on site to ensure users are encouraged to recycle and divert as much waste as possible.

The material collected at the inland transfer stations is taken to AllBrite where it is further sorted and diverted to other uses.

Residual material from the coastal transfer stations is disposed of in the new Waiapu landfill (Ruatoria) opened in March 2004.



### What can be recycled in Gisborne -

Glass bottles and jars, plastic bottles and soft drink bottles, all paper, cardboard, aluminium and tin cans.

### - and where does it go?

Glass, separated by colour, is all sent to AHI Glass in Auckland where it is added to 'new' glass being made.

All metal, including cans, car bodies and the casings of whiteware, are crushed and sold to Simms Pacific (Auckland) for reuse.

Any trade-in whiteware collected by Fisher and Paykel is degassed and collected from Gisborne six-weekly, to be dismantled by F&P.



Above: A truckload of baled recyclable metal sets off for Simms Pacific in Auckland for reuse.

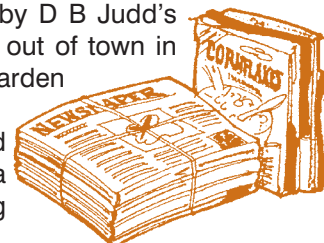
### Green waste

Waste surveys prior to 1999 revealed, alarmingly, over half the material going into the former Paokahu landfill was organic - garden rubbish, tree branches, lawn clippings and kitchen scraps. Most of this now has a further life as mulch or compost.

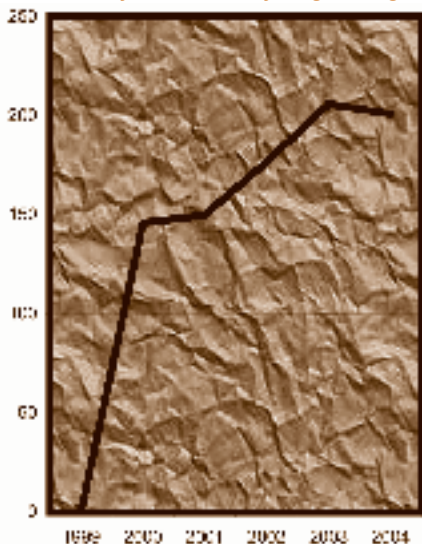
There are a number of contractors now operating in Gisborne offering green-waste services at the gate in the form of wheelie bins, fadge collection and chipping of garden rubbish. Many residents have prunings and tree limbs chipped and utilise the chips on the garden.

The bulk of Gisborne's organic waste, including pine bark and vegetable processing waste, is mulched and made into compost by D B Judd's in MacDonald Road. Much of the compost is exported out of town in commercial bulk lots, and it is also available bagged as a garden product.

Green waste arriving at the AllBrite facility is baled and sent to the Matokitoki restricted-waste site, which has a consent to accept a proportion of organic material along with soil and concrete.



Monthly kerbside recycling tonnages



### What about the residual rubbish?

There are two privately owned restricted waste facilities in Gisborne; one opened in 2003 and the other in 2004. These are able to accept untreated timber and other waste acceptable to their operations (such as concrete, topsoil and chopped tyres).

There is no longer a landfill accepting domestic or municipal waste in Gisborne: the former city landfill at Paokahu was closed at the end of 2003. By mid July 2003 rehabilitation of the Paokahu site was complete, the landfill sealed and topsoil placed on top. The site is closely monitored and sheep now graze the land.

Waste unable to be reused or recycled is sent out of town to a consented landfill. This amounts to three truck-and-trailer-loads per day, down from the equivalent of fifteen truck-and-trailer-loads per day disposed of at the former Paokahu landfill back in 1997.

We have certainly come a long way.

### What's the Council doing 'in house' to reduce waste?

Big changes have been made to the office rubbish bins: separate bins in the offices require paper (for recycling) to be separated from other rubbish; special bins have been placed by the photocopiers for unwanted paper which is reused by staff and any surplus recycled.

In the tearoom waste is separated; there are bins for recyclable material and for food scraps, which are fed to the council worm farm.

The worms are able to deal with a kilogram of food scraps every two days and this has significantly reduced the overall waste from the tearoom. The remaining small 'rubbish' bin is now emptied once a week (at the most), since there is now no smelly organic material mixed in with the 'rubbish'!

Council's little worm-house receives a lot of compliments when we hold our regular worm-farming workshops for the public.

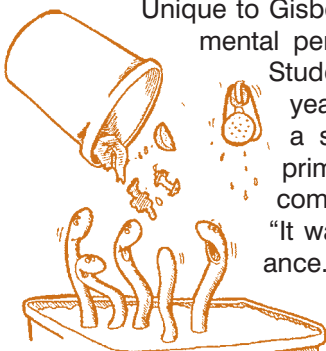


Above left: Council's special bin requiring separation of recyclables. Above right: The Council worm-house.

### Educating on waste matters

There is a lot of environmental education happening in Gisborne: in addition to the new Rethink centre, our "Willy on Waste" newsletter for schools is ongoing. Council staff frequently assist school students with environmental projects, and many local schools have now established worm farms and recycling stations.

Unique to Gisborne is our annual school environmental performance. Ilminster Intermediate Students act in the production each year, presenting a series of plays with a strong environmental message to primary school children. One principal commented on the 2003 performance: "It was an extremely polished performance. Our children responded to this



presentation better than some professional ones... Our children bubble when we discuss The Three Litterers."

The National Youth Environment Forum began in 2003 and two secondary students attended the first stimulating symposium in Wellington. Three students attended the 2004 Sir Peter Blake Youth Environment Forum and had hands-on experience with some exciting projects on water quality, urban design and recycling.

The local Eastland Trader magazine features the "sort yourself out" column, facilitating the exchange of waste, informing on recycling and promoting upcoming waste events and trials.

Council holds two composting and worm-farming workshops, for businesses and the public, each year in autumn and spring. Around twenty participants attend each session, indicating interest is high.

### Rethink environmental education centre

Believed to be the most up-to-date of its kind, Rethink is an interactive display and learning experience for school children and the public. The centre is a joint venture between the Gisborne District Council and AllBrite Industries, located on the site of the resource recovery centre.

Rethink takes participants through Gisborne's journey towards zero waste, explains recycling, composting, the anatomy of a landfill and provides hands-on activities where children and adults can test their knowledge of minimising packaging when shopping, and sorting recyclable materials.

Environment Minister Marion Hobbs opened the centre on August the 1st, 2004. During the last school term of '04 fifteen schools participated in teacher training sessions and eighteen classes went through the Rethink centre. Feedback was very positive, with many schools booking class visits for the new year.

It is hoped the ideas presented at Rethink, along with the projects the children do at school, will make them aware of their role in protecting the future environment of Gisborne.



Above: Council education officer Anne Lister demonstrating composting to schoolchildren at the Rethink Centre.



Above: Children take a quiz on how long various types of rubbish persist in a landfill.

# Second-Hand SUNDAY

This Council initiative has been so popular with the treasure-hunters of Gisborne that Second-hand Sundays were held four times in the 2003-04 period, attracting around 200 participants each time.

Based on the premise that “one man’s junk is another man’s treasure”, participants who register for Second-hand Sunday are able to place any unwanted items at their gate for people to take away from 10am. Imagine a big community garage sale, except everything is given away free.

The original idea was to get people to be creative in how they deal with unwanted junk, and that landfilling should be the absolute last resort. At least 20 tonnes of “stuff” is diverted from the landfill on each Second-hand Sunday. One participant commented: “Our old 1970s light shade went so fast it would make your head spin. I’m all for it as my husband is a hoarder so it gets rid of junk we don’t need.”

## Hazardous waste

The Council holds an inventory of businesses in Gisborne utilising hazardous substances. The premises are regularly inspected and advice is given on disposal of any haz-waste.



A collection of unwanted agricultural chemicals from farms has been arranged to take place in 2005, however we do not yet have a storage facility or local disposal site for hazardous waste, and many other businesses have been asked to continue to store it. Council does provide advice on companies outside our area specialising in hazardous waste packaging, transport and disposal.

## Contaminated sites

There are several such sites currently monitored in Gisborne where chemicals used in timber treatment, hydrocarbons, solvents and heavy metals have entered the soil.

Rehabilitation of the former gas works site was deferred from 2004 until next year.

There are around 1,200 farms in the district and these are being surveyed as an ongoing project. There may be contaminated sites such as old farm landfills and dips that may warrant further investigation.

In 2004 a project was begun to locate former landfills and record the GPS coordinates. This information will become available in future PIM and LIM reports.

## Liquid waste

There are four septage sites, all located from Tolaga Bay northward, six campervan disposal points within Gisborne and one at Te Araroa.

There has been an increase in travellers using campers and mobile homes in our district, and the level of enquiries on waste disposal indicates the need for more disposal sites on the coast. Council is currently identifying locations these could be provided.

Stock trucks now have a code of practice and complaints of stock effluent on roads have decreased as a result. Trucks are required to have effluent storage tanks, however there is only one disposal site, provided by a Gisborne stock firm. Farmers can help by standing stock in the yards at least four hours prior to trucking.



## Our air – clean and clear (mostly)

Gisborne District enjoys air quality of a high standard; measured pollutants generally fall well within acceptable guidelines, and residents feel strongly about safeguarding our air quality.



Possible pollutants in air include emissions (including vehicle fumes, smoke, industrial output, landfill gases, odours, farm animals and spray drift), and dust (or PM10, which refers to respirable particulate matter, less than 10 microns in size).



PM10 monitoring is carried out continuously at nine sites and to date all data has fallen well within MfE guidelines, with just a few exceptions (such as ash from the eruption of Ruapehu in '95, and when dust from newly ploughed paddocks has coincided with gale force winds).

There are 43 businesses and sites with resource consents to discharge to air, ranging from quarries, spray painters and processing plants to the former Paokahu landfill. All are monitored on an ongoing basis to ensure compliance with conditions of their consents.

Short-term monitoring of emissions has been carried out previously in the city for: nitrogen dioxide (NO<sub>2</sub>) from vehicles and industry, sulphur dioxide (SO<sub>2</sub>) from vehicles and smoke, lead from traffic fumes and formaldehyde at a rural site. Levels of all these pollutants were found to be low, and therefore do not require monitoring on an ongoing basis.

Of air quality complaints, odour and smoke (usually from back-yard burning of rubbish) predominate. Spray-drift complaints normally contribute 10% of the total. In 2003 there were 218 air quality complains; 182 in 2004.

	Mean PM10 monitoring results (micrograms per cubic metre air)	
	2003	2004
Residential	7.4	6.7
Rural/industrial	10.3	9.2
MfE guideline: 50		



## Noise

Is noise part of our environment? At 2 in the morning with a stereo blaring close by, noise can become, at least temporarily, the most significant environmental pollutant. Of course defining noise is very subjective (those at the party are enjoying the music), however sound is physical and measurable.


While stereos are the subject of the vast majority of after-hours noise complaints (1,250 in 2003 and 1,285 in '04), crashing surf can be just as loud in Gisborne, and receives no complaints whatsoever! In rural areas the common complaints received concern vehicle noise and bird-scarers (around 100 complaints each year).

Background noise data has now been collected from 21 different Gisborne locations over the past five years. Traffic noise is the most significant in the city, and surprisingly is measured as ‘medium’ to ‘high’ against national guidelines; consistent with any other city in New Zealand.

## Trends in Recycling and Disposal

Year	Monthly Refuse Disposed to Landfill (tonnes)	Total Refuse Disposed to Landfill (tonnes)	Monthly Kerbside Recycling Tonnages	Annual Kerbside Recycling Tonnages
1995	5,792	69,500	Not operating	Not operating
1996	not available	not available		
1997	not available	not available		
1998	3,500	42,006		
1999	2,547	30,570		
2000	1,571	18,862	146	1,752
2001	1,561	18,277	160	1,926
2002	1,432	18,732	177	2,119
2003	1,416	17,186	189	2,273
2004	1,166	13,989	201	2,412

### Summary of Consented Waste Collection and Disposal Sites as at 2004

Waste Disposal Site Location	Consent Status	Diversion	Recycling Provided for
Te Araroa Transfer Station and Septage Disposal (Gisborne District Council)	To be renewed in 2005	Greenwaste, cars and metal	Glass bottles and jars, plastic bottles, tins, paper and cardboard
Tikitiki Burn Pit and Septage Disposal GDC)	Consent for upgrade of septage at existing site and consent for new site (applied for 11/04)	Cars only	No
Waiapu Area Landfill – Septage Disposal and Transfer Station (GDC)	New site operational March 2004	Greenwaste, cars, metal, tyres	Glass bottles and jars, plastic bottles, tins, paper and cardboard
Te Puia Transfer Station and Septage Disposal	Consents issued 2001	Greenwaste, cars and metal	
Tokomaru Bay Transfer Station (GDC)	Consents issued 2001	Greenwaste, cars and metal	
Tolaga Bay Transfer Station (GDC)	Consents issued 2002	Greenwaste, cars and metal	
Tolaga Bay Privately Owned Septage Pits	Consents issued 2001 – not upgraded yet	N/A	
AllBrite Industries Resource Recovery and Transfer Station – 24 hour drop-off	Consents issued 2003	Diversion areas for all types of salvageable material	Glass bottles and jars, plastic bottles, tins, paper and cardboard
Te Karaka Transfer Station (GDC)	Consents issued 2002	Greenwaste, cars and metal	
Whatatutu Transfer Station (GDC)	Consents issued 2003	Greenwaste, cars and metal	
Matawai Transfer Station (GDC) Upgrade	Consents issued 2001	To be operational June 2005	
Matokitoki Restricted Waste Disposal Facility (privately owned)	Consents issued 2003		
Tonylan Restricted Waste Disposal Facility (privately owned)	Consents issued 2004		
Judd's Compost Facility	Consents issued 1999		
Bay Waste Privately Owned Worm Farm	Consent issued 2001		
Agrich Organics Composting Facility (privately owned)	Consents issued 2003, however not operating		

**For further information on any topic contained within this report,  
Phone Environmental Health at the Gisborne District Council on (06) 867 2049**