



# Zero Waste to Landfill by 2020

Staffordshire and Stoke-on-Trent Joint Waste Management Board

Municipal Waste Strategy 2007

Summary Document

July 2007

## Who are we?

The Staffordshire and Stoke-on-Trent Joint Waste Management Board (JWMB) was formed in 2003 and is made up of all the local authorities in Staffordshire who are responsible for the collection and disposal of your waste. Our aim is to work together with the public to help improve the environment of Staffordshire by dealing safely and effectively with all the household and municipal waste in the county and city.



## The problem

The residents of Staffordshire and Stoke-on-Trent create and dispose of about 600,000 tonnes of waste each year. That is enough waste to fill the National Exhibition Centre in Birmingham nearly 5 times over. By 2020 Staffordshire will have to deal with an extra 100,000 tonnes of rubbish a year. We need to decide how to deal with this waste in the future.

## Our 2007 strategy

The councils in Staffordshire and Stoke-on-Trent have put together a strategy to deal with our household waste in the future. The central aim of this strategy is to increase re-use and recycling and to stop using landfill sites by 2020.

This document sets out the strategy and provides you with an opportunity to have your say on our plans.

We need your views on how you think we should deal with our waste in Staffordshire. Please take a few minutes to complete the questionnaire at the back of this document and return it to us at **FREEPOST - STAFFS WASTE 2020**.

Alternatively you can go to [www.staffswaste2020.info](http://www.staffswaste2020.info) where you can fill in the questionnaire online and review several government and independent websites which provide background and more detailed information about the issues raised in this document.

For more information you can also call the Staffs Waste 2020 information line on **0845 300 6630**.

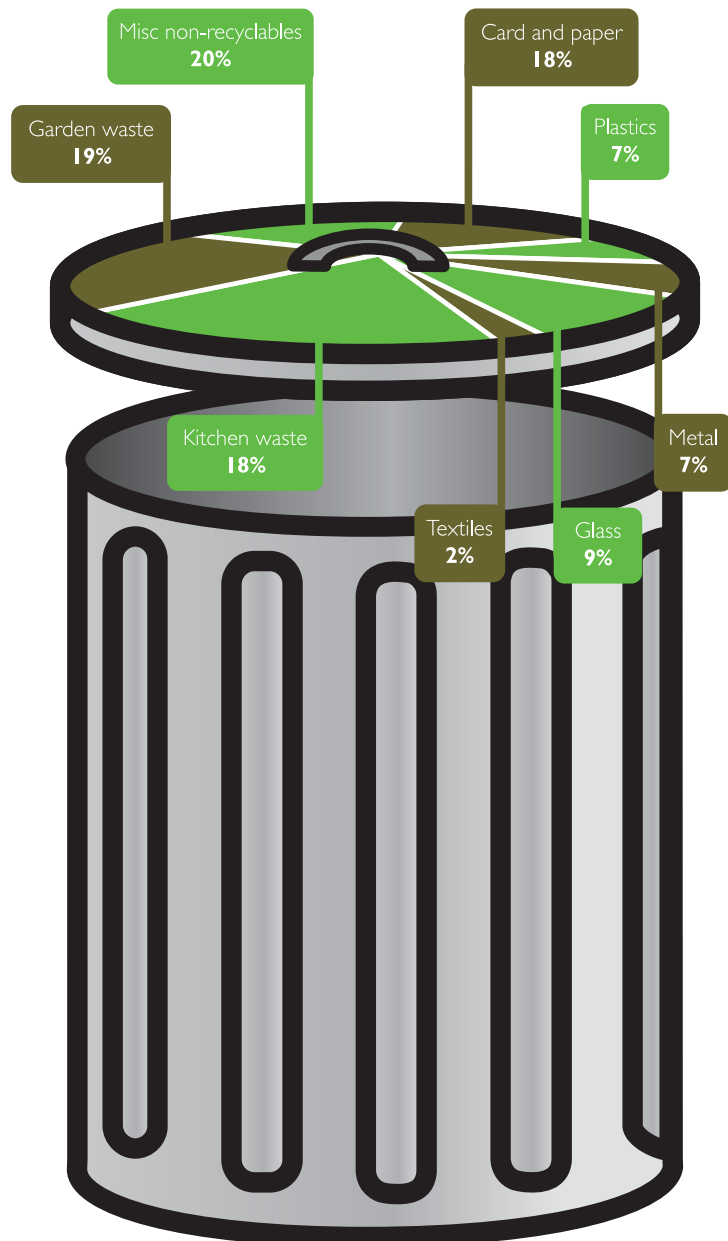



## What's in your bin?

The average household in Staffordshire and Stoke-on-Trent produces over one tonne of waste a year (the same weight as a small car).



As the chart below shows, this rubbish is made up of food waste, plastics, paper and garden waste.





Currently, over 35% of this waste is either recycled or composted by the councils who:

- encourage **waste reduction and re-use** through minimisation schemes
- collect **garden waste** for composting
- collect **paper, glass and cans** for recycling
- collect **bulky waste (furniture, etc.)** for re-use or recycling
- collect all leftover **black bag waste**
- provide a network of **recycling banks and Household Waste Recycling Centres** (Civic Amenity Sites) for recycling and general waste.

After recycling and composting, the rest of the waste is either used to make energy at our Hanford Waste to Energy Plant, or is sent to landfill sites in Staffordshire and Stoke.

This work means that, with your help, last year Staffordshire recycled or composted over 200,000 tonnes of household rubbish and garden waste. This is twice as much recycling and composting as compared to 5 years ago. Staffordshire Councils, and the public, have already done a great job in achieving an above national average recycling rate, but there is much more that needs to be done if we are to meet our ambitious targets.

## Why do we need to change?

The amount of waste we are producing each year is **increasing** so that by 2020 we will have increased our waste production from the current 600,000 tonnes to nearly 700,000 tonnes of rubbish a year. At the same time the councils in Staffordshire and Stoke-on-Trent want to stop using landfill sites because landfill is not a long-term solution to our waste problems. We have to take action now to control this increasing problem.

## Why is waste increasing?

Waste in the UK, and in particular in Staffordshire, is predicted to grow over the next decade for three main reasons:

1. For the last 30 years, as the nation has become wealthier, we have become more of a “consumer society”, which means that we spend more on goods and consumables and, as a consequence, make more waste than ever before. Each year on average we all produce a little bit more waste.
2. The population of the UK and Staffordshire is predicted to increase, so even if we don't individually produce more waste, there will be more of us producing it and more waste in total.
3. As society changes, more of us live in smaller family units. Staffordshire is predicted to increase the number of houses and flats in proportion to its population over the next few years. Studies have shown that smaller families produce more waste per person than larger households so as the number of households increases, so does the amount of waste.

These three factors combine to give a slow but steady increase in the amount of household waste produced each year in Staffordshire. Our predictions show that the growth in waste production will not have halted until nearly 2020, meaning that we will have to deal with more and more rubbish.





## Why no more landfill?

By continuing to rely on landfill we are taking up valuable space in our countryside, creating more pollution and contributing to climate change because of the greenhouse gases emitted from landfill sites.

Another reason to reduce our reliance on landfill is the financial burden which we could be facing if we fail to find an alternative. The government has set out minimum targets to reduce reliance on landfill. These targets are to:


send **25%** less rubbish to landfill by **2010**

send **50%** less rubbish to landfill by **2013**

send **65%** less rubbish to landfill by **2020**

Staffordshire needs to meet these targets or the councils could face fines of up to £150 per tonne for every extra tonne of waste we send to landfill. Also, Landfill Tax is levied on all waste we send to landfill; this tax is set to increase to £48 per tonne by 2012 and is expected to rise even higher. These fines and taxes mean that landfill is becoming the most expensive, as well as the most environmentally damaging, way of dealing with our waste and could result in an overall increase in council taxes.

It is because of these issues that Staffordshire is developing a strategy to reduce Landfill to Zero by 2020.



# What do we want to do?

By 2020 we want to:

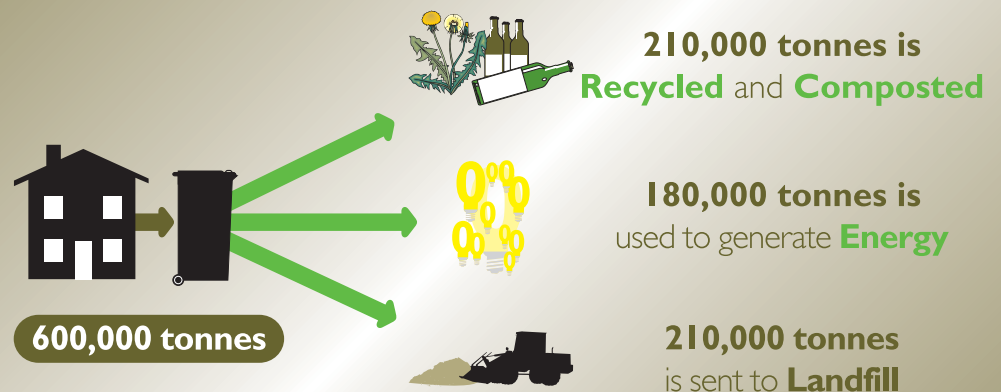
- stop producing more and more waste
- recycle and compost at least 50% of household rubbish
- stop sending household waste to landfill
- turn more residual waste into energy.

Residual waste is the rubbish that cannot be recycled or composted.

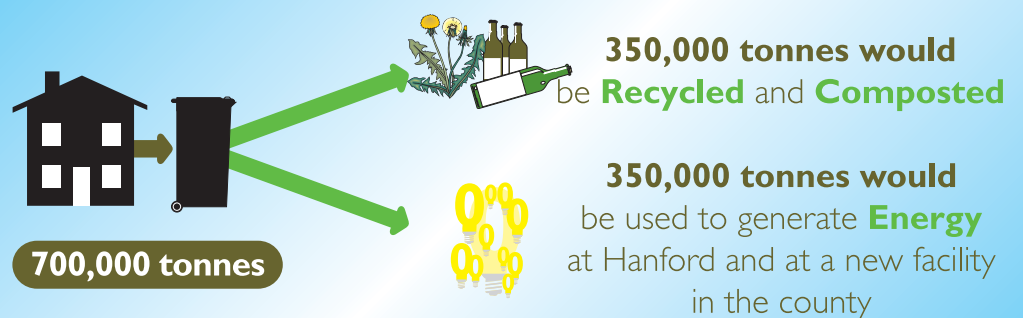


Energy from Waste means using residual rubbish to generate electricity and heat.

## What happens now?



## What we want to achieve by 2020



# How do we achieve this?

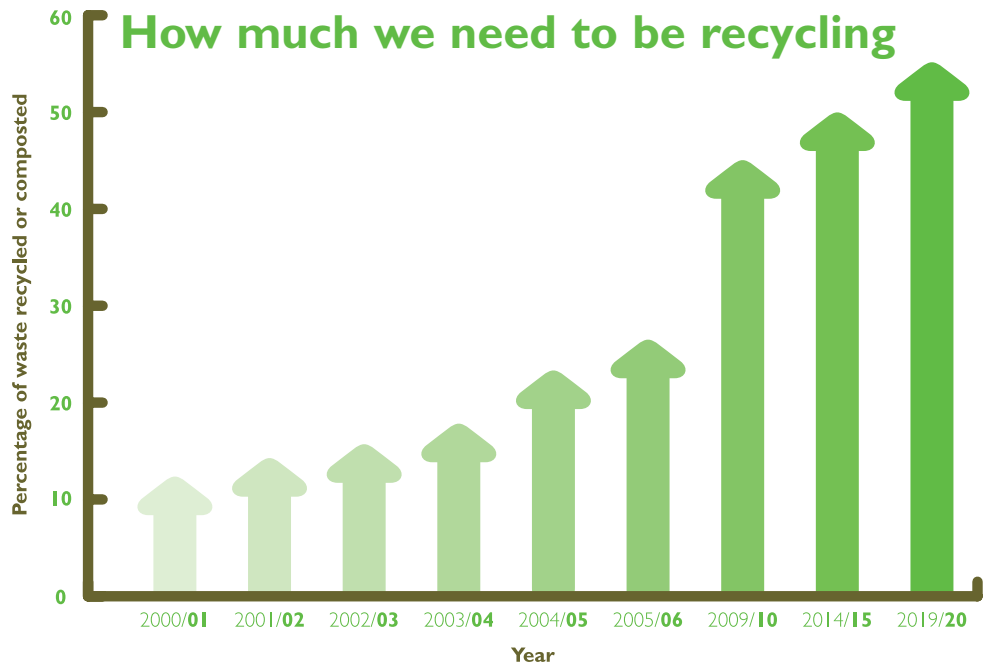
To help achieve our targets and to stop using landfill sites, the strategy involves:



**Waste minimisation** - by reducing the amount of waste we produce, the need to manage and dispose of the waste reduces, thereby saving resources and money. Your councils are already working together to support a variety of waste minimisation and re-use schemes such as the real nappy campaigns, furniture re-use network and home composting. We will continue to support and encourage existing schemes and develop new waste minimisation initiatives wherever they can be effective.



**More recycling and composting** - we want to recycle at least 50% of our waste by 2020. This will involve providing more kerbside recycling and providing more recycling opportunities in local communities. Some districts in Staffordshire are near the top of the league for the collection and recycling of household waste and are not far away from the 50% recycling target already. That said, we need to do more by increasing opportunities for the recycling of a wider range of materials. As members of the public, we all need to put more effort into recycling more of our rubbish.



**Turning waste into energy** - even if we successfully manage to recycle and compost 50% of our waste by 2020, there will still be a need to manage the remaining 50% which is known as residual waste. Our strategy involves plans to use this residual waste to create energy which can then be used to provide electricity and heat. This energy will also replace the use of fossil fuels, helping with our efforts to limit climate change and conserve natural resources.





## Working together for everyone's benefit

To achieve our goal of 50% recycling and zero waste to landfill will require everyone's commitment to reduce, re-use and recycle more of their rubbish. At the same time our strategy is designed to provide us with options for turning more residual waste into energy meaning that we can stop using landfill.


## What will happen to the residual waste?

Even if we recycle and compost as much waste as practicable, we will still have about half of the waste leftover as a residual form. It is very difficult and expensive to remove any further useful material from this residual waste.

In its recent document "Waste Strategy for England 2007" the government acknowledges that even countries like Denmark, Sweden, Germany and Holland, who are renowned for their environmental standards, still produce about 50% residual waste for which further recycling is not practical.

Currently some of Staffordshire's residual waste is treated at the modern Waste to Energy Plant in Hanford, where it produces some 13 Mega Watts of electricity, enough to power all the homes in Newcastle-under-Lyme (130,000 homes) saving about 60,000 tonnes of coal a year. However, this facility is working at full capacity, so we need to find additional means by which we can make best use of the remaining residual waste.





The County Council has been working with independent consultants to assess which technologies could be used to treat the residual waste and produce the most environmentally and economically beneficial solution for the people of Staffordshire.

The decision in regard to what technology should be used or where any facility would be located has not yet been finalised. However, we need to act quickly if we are to avoid escalating costs to our Council Tax payers.

In assessing technology, so far the Joint Waste Management Board and the County Council have set certain factors which any new facility must meet. The technology must:

- meet or better all UK environmental controls and regulations
- be reliable and safe in operation
- offer the Council Tax payers best value for money for up to 25 years of operation
- maximise the diversion of waste away from landfill
- minimise the amount of energy wasted in treating or transporting the waste
- maximise the recovery of energy or other resources contained within the waste
- minimise the overall carbon footprint of the treatment system as a whole and thereby reduce the production of greenhouse gases.

So far our research has shown that the best economic and environmental option is to use technology which directly recovers energy from waste through the generation of electricity and, where possible, the additional use of surplus heat for steam or hot water production (which can be used in industry or for domestic and office heating).

## What happens if we do nothing?

- We will spend more and more money sending household rubbish to landfill.
  - Landfill sites will continue to take up valuable space in our countryside and contribute to climate change.
  - We will waste more natural resources by not recycling and composting more household rubbish.
  - We will not be able to get as much benefit from residual waste if we do not turn more of it into electricity and heat.
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