

Our Vision for Waste Management in Newcastle upon Tyne 2018

In June 2018 we want to gather the views of residents, businesses and stakeholders on our proposed **vision, ambitions and outcomes** for how we manage waste in Newcastle. In August/September 2018 we will ask people about possible options and actions to deliver the outcomes once these have been agreed.

Why we are doing this

The world is producing more and more waste. There is also a renewed and widespread passion for environmental issues. Nationally, the government has published its 25-year Plan to Improve the Environment, and a new Resource and Waste Strategy is due to be published this year.

The response to documentaries such as 'Blue Planet' and widespread concern about plastics, particularly in marine environments, has galvanised public opinion and actions. For Newcastle it is too a time of growth and for change. We want rubbish not to be a problem to be got rid of but to be a valuable resource to be reused or recycled into something else or utilised in energy recovery or manufacturing.

We want everyone in Newcastle, businesses, major organisations, residents and visitors, to recognise that rubbish is not a council problem but a personal choice. As consumers we have a responsibility to consider carefully what we are buying and think about what will happen to things once we have finished with them. We need to think about our impact on the environment now and for the sake of future generations.

We need to think differently about the things we throw away and make sure that we have given them every chance to become useful again. At the same time, we need to encourage and educate residents and businesses to reduce the amount of rubbish they produce in the first place. This may be through small acts such as careful meal planning and shopping or for businesses radical procurement



strategies. There are opportunities for small companies to work together, to innovate and create using waste as a resource to grow the local economy.

Following on from the work of the Waste Commission, the time is right to launch our vision for changing hearts and minds. We hope our residents and businesses will embrace the principle of waste as an asset and be part of our vision to think and act differently regarding rubbish from now on. No-one should waste ‘waste’. The new Waste Strategy will recognise this and include options to deliver this new vision.

What we want your views on

We think our vision should be:

“We want our Newcastle to be a city that aspires to be a world leader in resource management, that wastes less and recycles more.”

We think we should have the following ambitions:

1. To be recognised as a city that is a world leader in resource and waste management.
2. To see waste as an asset, not as a problem.
3. To change the way people, businesses and organisations think about waste.
4. To build communities where excess waste and litter are socially unacceptable.
5. To reduce the production of waste.
6. To maximise the quality and quantity of reuse and recycling.
7. To get as much value as possible from waste.
8. Where prevention, reuse or recycling are not possible, maximise recovery of our waste through sustainable and affordable collection and disposal channels.
9. To minimise the use of landfill, which is a poor environmental and economic option.
10. To explore partnerships and commercial opportunities.

We think we should aim for these outcomes:

- Newcastle to be a cleaner, greener and more sustainable city that is an example of best practice nationally and internationally.
- Benefits should be seen and felt by local people, businesses and the environment.
- Less waste in the bins and on the streets.

You can **give us your views**

about this online at:

<http://letstalknewcastle.org.uk>

Before you do that, please read on to find out:

- Context – what’s happening now and in the future
- What have we done since the last Waste Strategy in 2005?
- Why do we need a new Waste Strategy now?

- Second-hand is no longer seen as ‘second best’.
- Zero food waste in homes, schools and businesses.
- Everyone takes personal responsibility for waste.
- Waste is valued as a resource, and managed accordingly.
- Communities, public and private sectors naturally work together to minimise the impact of and maximise the value of waste.
- In time, a stronger local ‘circular economy’ bringing hundreds of new jobs and millions of pounds of investment.

Strategic Drivers

The **proposed vision, ambition and outcomes** are based on the intention that the new Waste Strategy will recognise the diverse external and internal forces that impact on waste management, from public demand for more recycling, to the impact of the global market on waste as a commodity. It will respond to significant drivers for change, including:

- **Demographics** – a growing population and number of businesses
- **Environmental**, sustainability, and carbon reduction ambitions
- Renewed and widespread **passion** for environmental issues
- **Public demand** for change
- **Legislation**, targets, national strategies and policies
- Council Plan, Local Plan, **local strategies and policies**
- Increasing **cost pressures** / affordability
- **Waste Markets**
- Future impact of **Brexit**

What will success look like?

The Waste Commission saw success as follows:

- Newcastle upon Tyne recognised as a **world leader** in waste reduction.
- Overall waste per household and businesses **down** by 10% by 2025.
- Waste sent to **landfill** reduced to less than 10% by 2025.
- **Recycling** rate increased to 65% by 2030.
- By 2030, **millions of pounds** and hundreds of new jobs added to the local economy.
- Helping to reduce **food poverty** in Newcastle.

How should we measure success? Should the city set key targets?

As part of drafting the Draft Waste Strategy, key targets will be developed. These could include:

- Recognition as a world leader in waste reduction
- Reduction in food poverty
- Inward investment and jobs
- Waste collected per household
- Waste sent to landfill
- Household recycling rate
- Carbon reduction

What have we done since the last Waste Strategy in 2005?

As a city we are responsible for the collection and disposals of household waste together with a wide range of street-scene related services.

When the last Strategy was prepared in 2005 we collected nearly 182,000 tonnes of Municipal Solid Waste (MSW) each year, and of this only 15% was recycled. The rest, 85%, was landfilled.

Last year (2016-2017) we collected a lot less waste. The total was 144,000 tonnes; over 40% of this was recycled and only 20% was sent to landfill. Household waste made up most of this.

So how have we done this?

- In 2006 we opened the Byker Resource Recovery Centre which operates as a Mechanical Biological Treatment (MBT) facility. This process captures the organic / food content of the rubbish which is sent to an In-Vessel Composting (IVC) site in Northumberland to produce a compost like output that benefits the environment. Other recyclables, mainly metals, are extracted at the MBT and the final residue is baled and used as a Refuse-Derived Fuel (RDF). This process means recovers 68% and recycles 6% of the material that is sent to the facility.
- In 2008 in response to demand from residents for more capacity and more materials to recycle we introduced the blue wheeled bins. This has doubled the amount of dry mixed recycling collected at the kerbside; around 18,000 tonnes were collected last year.
- We worked with our contractor to look at how we could divert more waste from landfill. Since 2010 thousands of tonnes of residual waste that would otherwise have gone to landfill have been used instead to produce energy and heat, either

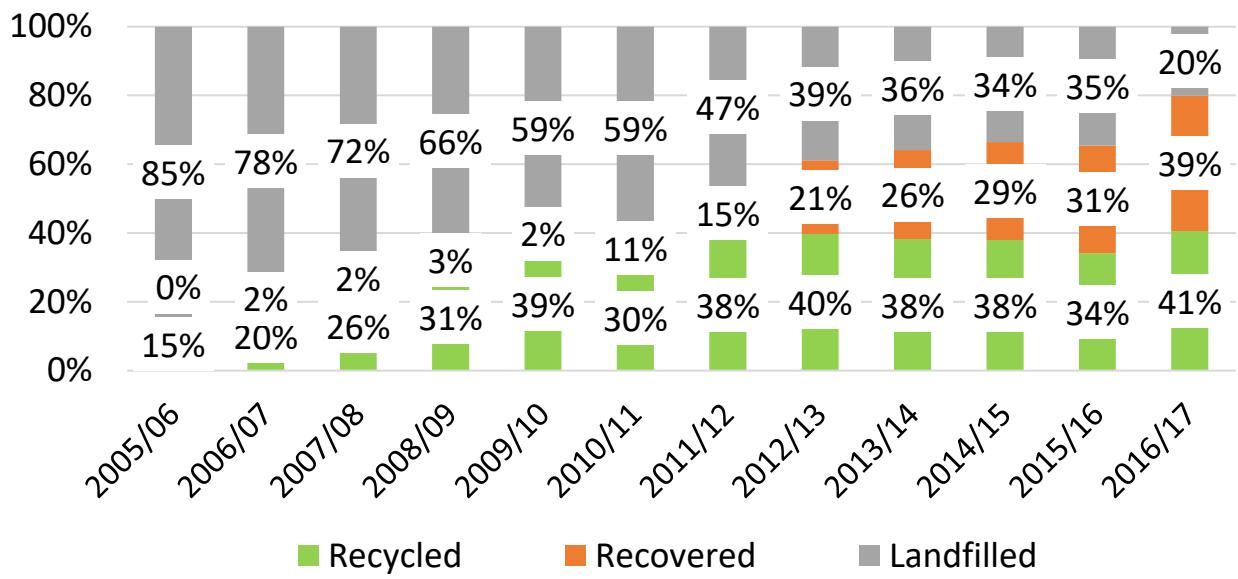
within the region or in Sweden as a Refuse-Derived Fuel or in an Energy from Waste Facility (EfW) in the UK. Last year over 40,000 tonnes were used in this way.

- In 2013 moving to a weekly alternating collection of rubbish and recycling resulted in an increase of around 2,000 tonnes in dry recycling collected.
- Worked with Schools through the bespoke Enviroschools programme to educate and inform the next generation about waste and their role and responsibility to the wider environment. Thousands of students and the wider school community have benefited from this.
- Delivered many innovative and effective projects with Community groups to reduce waste, particularly food waste, to reuse material and increase recycling.
- Ran an Incentives and Reward scheme that increased recycling using the old recycling box system.
- We compost the collected green and garden waste within the City, the only such facility operated in-house in England, and promote the sale of the high-grade compost to local allotments, community groups, businesses and residents.
- In 2017 we reviewed the use on-street litter bins using remote sensors so they are placed where they are most needed, and increased the volume by nearly 19%
- We have provided home composters at a subsidised rate to minimise the amount of garden waste entering the collection system. Monthly about 40 composters are bought, which over the years means thousands are in use across the city.
- Delivered an Independent Waste Commission to review how the management of waste in the city can be improved (<https://www.wiseonwaste.co.uk/>).
- Recognised nationally as being a lead local authority for successfully prosecuting people who litter and fly tip. Our successful and tough approach to enforcement has resulted in 2,350 hours of community payback, 50 months' imprisonment and nearly £200,000 in fines and penalties.

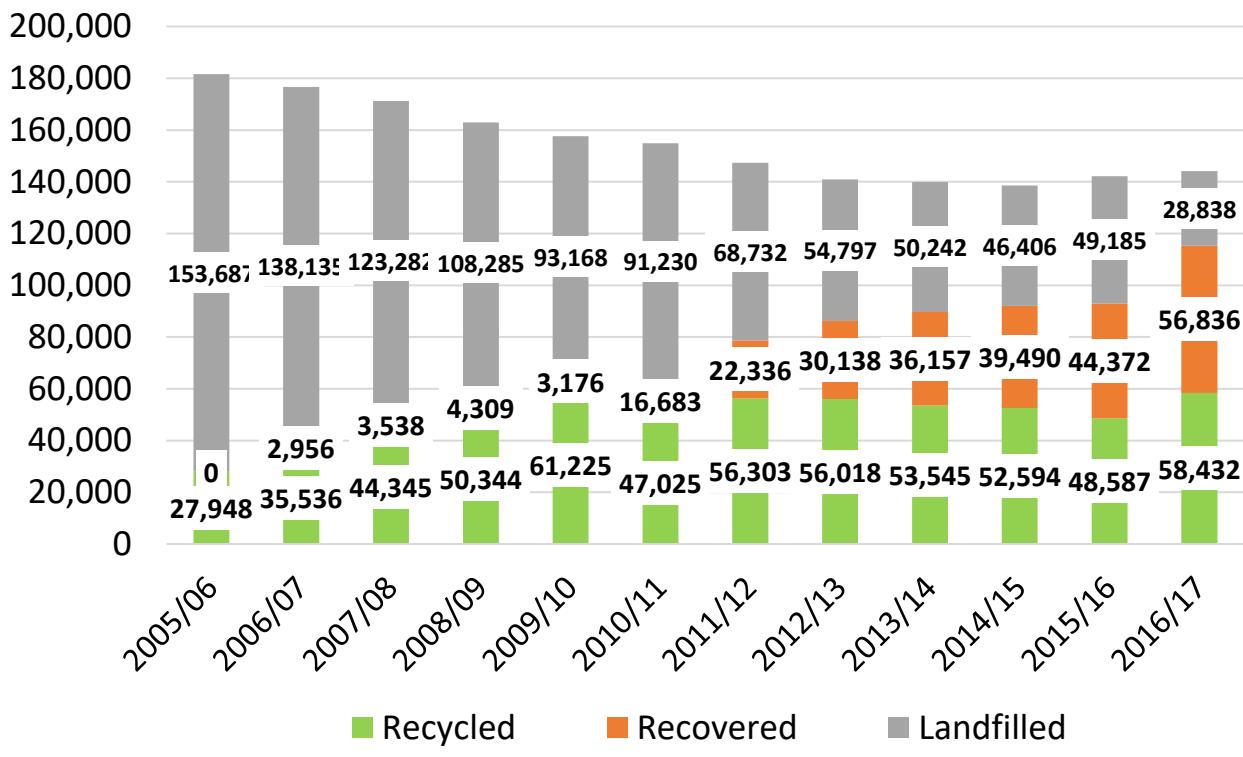
What do we do with rubbish now?

By introducing more opportunities for recycling we have increased the rate of recycling, from around 15% when the last Waste Strategy was produced in 2005 to over 40% last year (2016/17). We have found valuable uses for more of the remaining material, including using it as a fuel to produce heat and energy. Around 40% of waste collected is now recovered, so last year only 20% was sent to landfill, compared with 85% in 2005. This is shown in the charts on the next page.

The proportion of Municipal Waste collected in Newcastle being recycled or recovered has increased during 2005 - 2017



The amount of Municipal Waste (in tonnes) collected in Newcastle has decreased during 2005 - 2017



So, why do we need a new Waste Strategy now?

The UK is committed to recycling 50% of municipal waste by the 2020. The EU's Circular Economy Package proposes increasing recycling rates to 65% by 2035.

Newcastle is growing. By 2030 planners expect 21,000 new homes and 14,000 new jobs and a population increase of almost 30,000.

The City Council has a statutory duty to consider the Waste Hierarchy (shown on the right) when thinking about how it manages the waste it is responsible for, starting with the most favoured option and only using the least favoured option (landfill) when we cannot find other alternatives.



1. Options from most to least favoured

Reduce - Waste is going up

We have promoted waste reduction schemes such as promoting the mail preference service to stop junk mail, providing subsidies for home composters and education, and running campaigns to reduce food waste. Since 2005 overall levels of waste have fallen both in total and per household. However, since 2014-2015 we have started to see this picture change, with more waste being collected. This is partly to be expected because the city is growing, but we are

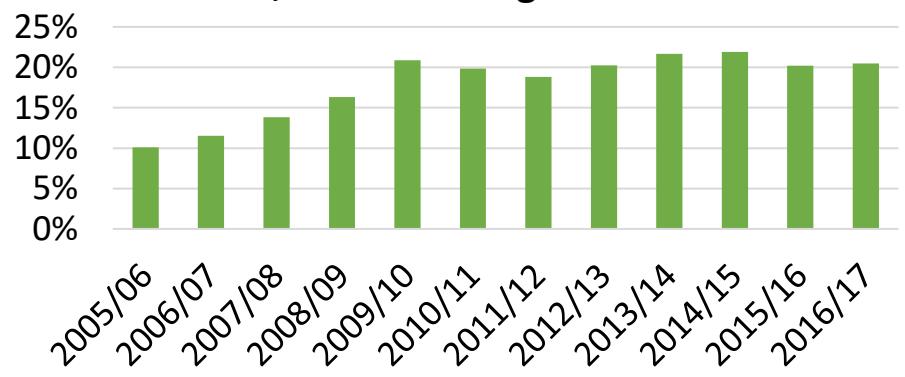


also collecting more rubbish from each household – nearly a tonne per year. The new Waste Strategy will need to challenge the total amount of waste being produced and the amount created per household.

Reuse and Recycling – We're doing better but could do more

We have promoted reuse through the support of organisations and charities that collect and repair furniture and other household goods, worked with community groups on repurposing a whole range of items and promoted the use of online portals to redistribute items.

The amount of dry mixed recycling waste in Newcastle increased during 2005 - 2014, but is starting to level off



However, the Waste Commission found that many of these activities were not joined up, and could be more effective if brought together and their scope and scale increased.

We introduced new schemes and improved facilities for recycling, which has increased the rate of recycling from around 15% when the last Waste Strategy was produced in 2005 to over 40% last year (2016/17).

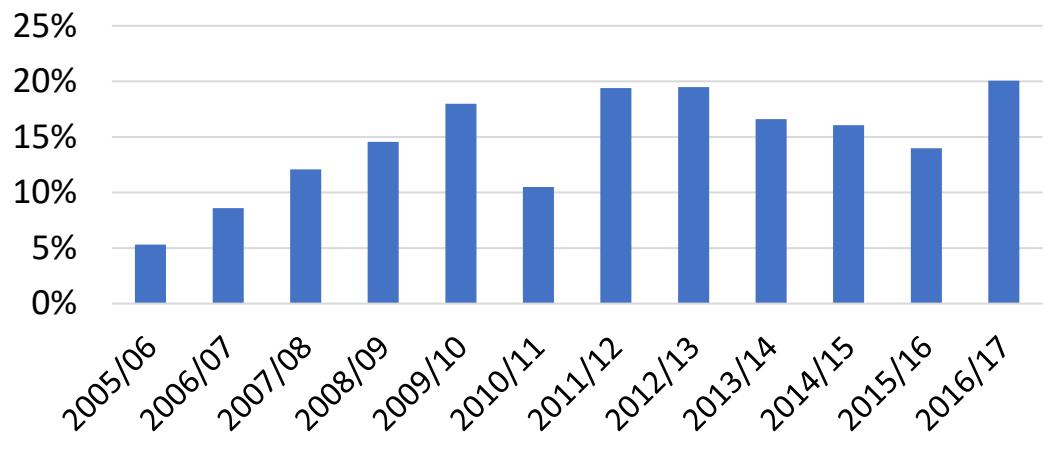
Recycling rates, however, are levelling off, particularly for the dry mixed recycling that we collect at the kerbside. We have also seen increasing levels of valuable recycling lost due to contamination. This is not good environmentally and even worse economically, with it costing sometimes four or five times as much to recover or dispose of a tonne of waste rather than reuse or recycle it, which takes away resources from other key Council services.

Composting

We have been very successful in capturing garden waste from brown bins and the HWRCs. We then compost the garden waste within the City, the only such facility operated in-house in England, and promote the sale of the high-grade compost to local allotments, community groups, businesses and residents.

We have also been very successful in capturing organic material as part of the MBT / IVC (In-Vessel Composting) treatment process. but the evidence from organisations like WRAP is

The percentage of Municipal Waste composted during 2005 - 2017 has varied



that too much food is being wasted, hitting families who are just about managing and costing the environment.

The recycling of the organic / green element of waste collected is also variable, resulting in the overall recycling rate going up and down over the years. This is due in part to the weather that results in different amounts of green waste being produced, and the dependence on the technology to treat the organic fraction. For example, the lower composting and recycling rate in 2010 / 11 was due to the IVC (In-Vessel Composting) being refurbished and not available for part of the year.

So, while we can capture and treat the organic material, as with all waste, including recyclable material, the ideal is to reduce the amount produced in the first place. We already have processes in place to capture a lot of recycling so achieving higher recycling levels in future will be harder. The new Waste Strategy will need to include options to increase recycling of both dry mixed recycling, and organic & green waste.

Recovery

Following the waste hierarchy, this is all about getting value from waste that can't be reused or recycled. This includes anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat and power) and other materials from waste.

Landfilling rubbish is a poor economic and environmental option

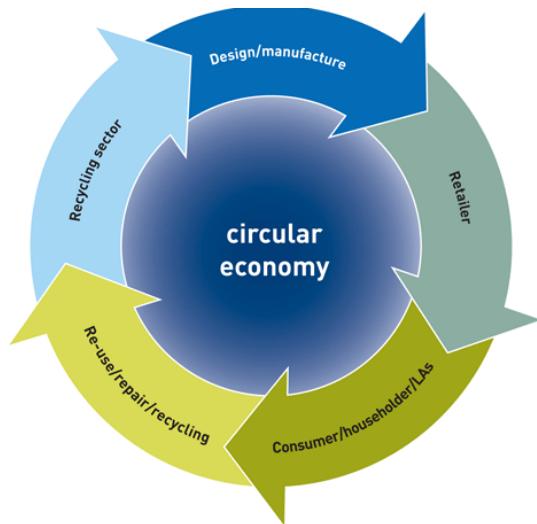
Landfilling rubbish is poor economically and environmentally, and the last option in the waste hierarchy.

Landfill Tax Landfill Tax is payable on every tonne of waste sent to landfill. The tax originated as a driver for change, as making landfill more expensive makes alternatives such as recycling more financially attractive. In 2018/19 the rate is £88.95 for every tonne landfilled. At present there is no set of solutions that can remove the need for some landfill of municipal waste. What we can aspire to is minimising this to the lowest level practicable.

What is a circular economy?

A ‘circular economy’ is an alternative to a traditional ‘linear economy’. In a linear economic, resources are used to make things, which are then used, and disposed of at the end of their life (the ‘make, use, dispose’ model). In a circular economy, we keep resources in use for as long as possible, extract the maximum value from them whilst they are in use, then recover and regenerate products and materials at the end of each service life. As well as creating new opportunities for growth, a more circular economy will:

- reduce waste
- drive greater resource productivity
- deliver a more competitive economy.
- better addresses emerging resource security / scarcity issues in the future.
- help reduce the environmental impacts of production and consumption both here and abroad.



2. Circular economy model

You can find out more about this online here:

<https://www.veolia.co.uk/media/media/circular-economy-case-studies>

An example from Denmark can be found here:

<https://stateofgreen.com/en/profiles/state-of-green/news/10-examples-of-circular-economy-solutions>

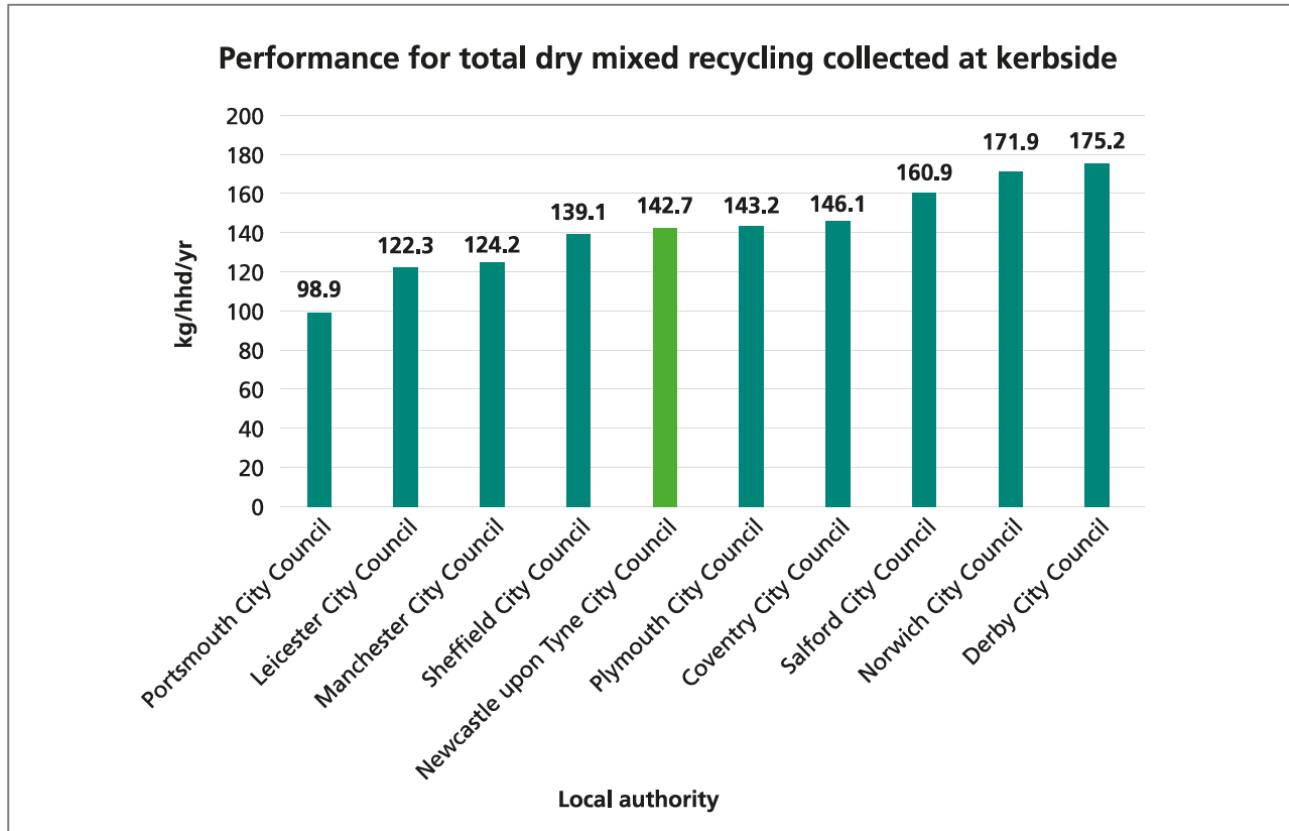
What goes in the average bin? Waste composition analysis

Our analysis of waste going into the Byker Resource Recovery Centre shows that there is a lot more recyclable material in rubbish bins that we could be capturing in separate recycling collections. Estimates, using data from the MBT process, indicate that there is as much recyclable material in the city’s green rubbish bins as is collected in the blue recycling bins. This would mean the city is collecting no more

than 50% of all possible recycling from households. As part of the development of the Waste Strategy we will commission work to look at what's in the rubbish bins in more detail.

How do we compare with other areas?

As shown in the chart, the proportion of waste within Newcastle that is sent for reuse, recycling or composting is heading in the right direction, but it is still below that of other cities, and well below the best-performing authorities.



3. Dry mixed recycling collected at kerbside: comparing local authorities

Context – what's happening now and in the future

Newcastle is a modern city, with exciting plans for growth

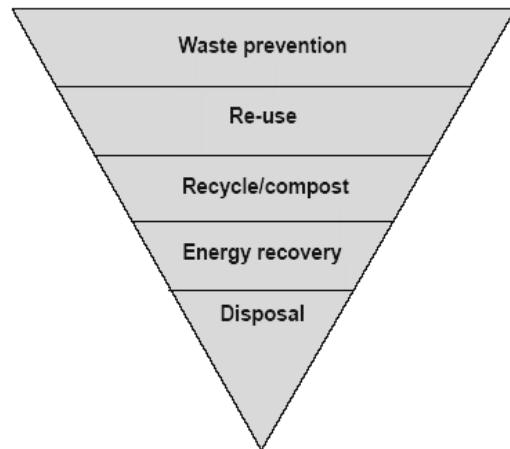
- By 2030 planners expect 21,000 new homes, 14,000 new jobs and a population increase of almost 30,000 in Newcastle.¹
- The city's economy is growing, with the fastest growing digital sector in the UK outside London. Newcastle has become a leader in Life Sciences, with significant growth in sub-sea engineering and financial services.

¹ 'Planning for the Future: Core Strategy and Urban Core Plan for Gateshead and Newcastle upon Tyne 2010-2030'. Adopted March 2015

- We aim for an approach to waste in keeping with our ambition for a modern, vibrant, fair and sustainable city.

The European and UK legislative context

- The ‘Waste Hierarchy’ (on the right) shows the priorities for current waste policy in the EU and UK. First, prevent waste from arising; then reuse products and materials; recycle into new materials; recovery (energy); and finally, disposal.
- Through the EU’s Waste Framework Directive, the UK is committed to recycling 50% of municipal waste by 2020².
- The EU Circular Economy Package has even more ambitious plans to reduce the waste we produce, re-use and re-cycle more. Headline targets include increasing recycling rates to 65% by 2035.
- Currently, the UK is committed to adopting the Circular Economy Package as part of the proposed arrangements for leaving the EU.



4. The Waste Hierarchy

Resources are getting scarcer

- As we leave the EU, the UK needs to become ever more productive. Using resources more wisely is sensible, and Newcastle can be a big part of this.
- Using measures based on how efficiently we use resources, rather than the current weight-based targets, may become necessary once the UK leaves the EU.

Newcastle has high levels of social deprivation

- In Newcastle, there are significant inequalities between the most and least affluent parts of the city³.
- The ‘lowest ten’ recycling routes in the city tend to be clustered around some of our most deprived areas in the West and East⁴. We need to think more about why people in more deprived parts of the city either do not want to or are for some reason unable to recycle as much as they could⁵. Equally, we could highlight the need to address the link between greater affluence and higher levels of waste generated.

² ‘Waste Framework Directive (2008/98/EC)’, which is translated into the national framework through the Waste (England and Wales) Regulations 2011.

³ ‘Know Newcastle’ (Newcastle Future Needs Assessment).

⁴ ‘Waste Commission Tour of City and Presentation of Baseline Data’, March 2017

⁵ ‘Too Good To Waste – Final Report’, BAN Waste Select Committee, 2003

- Encouraging more people in our most disadvantaged communities to reduce, reuse and recycle more could have practical benefits for people in those communities; for example, reducing household food waste as a way of reducing pressure on family budgets⁶ and a way into healthier eating.

People are living their lives differently

- Traditional consumer and shopping patterns are changing and this will have big impacts on future waste generation and management.
- The move to online shopping has significantly changed the volume and types of packing waste, but has also delivered an innovative approach to grocery shopping.
- The opportunity in the long-term is for less consumption in terms of food and packaging. However, there is the risk in the short-term of more packaging and wastage⁷.

We want to reduce, re-use and recycle

- The UK is committed to recycling 50% of municipal waste by the 2020. The EU's Circular Economy Package proposes increasing recycling rates to 65% by 2035
- Since 2005, Newcastle, like most places in the UK, experienced improvement in household recycling rates. However, the rate of improvement has levelled off in the past three years⁸.

We want Newcastle to be amongst the best

- On measures of recycling and waste arisings, Newcastle sits roughly mid-lower table when compared with all authorities in England. Newcastle is not the worst performer on these measures either in comparison with authorities across England or with the Core Cities (the group of 10 large regional cities in the UK)⁹.
- There is much more we can do to improve. There is evidence to show that up to 50% of waste put into residual bins¹⁰ (not into recycling bins) could be recycled.

Further Work

As the consultation and development of the Waste Strategy and subsequent action plan progresses, we will need more evidence. For example, to help answer the question of how to choose the best rubbish disposal method, we will need to have

⁶ 'Household Food Waste in the UK', 2015, WRAP

⁷ 'Digital Technology and Consumer Trends: Future Scenarios for Waste and Resource Management', CIWM 2017

⁸ 'NCC Policy Cabinet: Waste', January 2017

⁹ 'Waste and Recycling Statistics (various)', DEFRA, 2017

¹⁰ Based on ongoing operational estimates and observation.

Compositional Analysis of the city's waste done, and a Technology Appraisal of potential solutions. The Waste Strategy will have to support options that are sustainable and affordable.

Timeline

Milestones	Timing
Agree vision, themes and consultation approach	April
Hold Initial stakeholder sessions using focus groups, ward meetings, questionnaires	May, June
Refine and agree vision and options	July
Further consultation on options	August / September
Draft final Waste Strategy	October
Approval of Waste Strategy and publication	End of 2018

Themes

- Behaviour Change and Education
- Waste prevention including reuse
- Food waste
- Recycling and composting
- Recovering value from waste
- Operations
- Markets and Technology
- Enforcement
- Partnerships, public and private

