

NEWCASTLE WASTE COMMISSION
SUMMARY OF EVIDENCE AND EMERGING THINKING
OCTOBER 2017

Introduction

Since March 2017, the Newcastle Waste Commission has heard evidence from a range of residents, partners and experts. It has looked at baseline data and information on waste in Newcastle, including comparisons with other places and has considered a number of key research documents on waste. More importantly, the Commission has engaged and listened to stakeholders through an online call for evidence as well as a series of stakeholder sessions held throughout the summer.

We are very grateful for the time taken by stakeholders to contribute to the work of the Commission during this period. As we move into the final reporting stage, the Commission want to share their initial findings and emerging conclusions set out in this summary document. This provides an opportunity for stakeholders to: highlight areas they feel need further exploration; challenge emerging conclusions and provide additional evidence; and, put forward additional ideas for how the city can approach the waste challenge in future.

Section 1: Why a Waste Commission for Newcastle?

Newcastle is a modern city, with exciting plans for growth

- By 2030 planners expect 21,000 new homes and 14,000 new jobs, with the combined population of Newcastle and Gateshead forecast to continue to grow beyond half a million.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 sectors in sub-sea engineering and financial services.
- 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' sets the priorities for current waste policy in the EU and UK: firstly, prevent waste from arising; then, reuse of products and materials; recycling 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.
- Through its *Circular Economy Package*, the EU has even more ambitious plans to reduce the waste we produce, re-use and re-cycle more. Headline targets include increasing recycling rates to 70% by 2030³.
- Currently, the UK is committed to adopting the Circular Economy Package as part of the proposed arrangements for leaving the EU.

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 Core Cities⁴.

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

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

³ Report from the Commission on the implementation of the Circular Economy Action Plan, EU Commission, January 2017

⁴ Waste and Recycling Statistics (various), DEFRA, 2017

- We know there is much more we can do to improve – the Commission heard evidence that up to 50% of waste put into residual bins⁵ (i.e. not recycle bins) is capable of being recycled.

Resources are getting scarcer

- As we leave the EU, the UK needs to become ever more productive. Using resources more wisely is therefore sensible – many would argue critical. And Newcastle must be a big part of that.

Newcastle has high levels of social deprivation.

- In Newcastle, there are significant inequalities between the most and least affluent parts of the city⁶.
- We know the lowest ten recycling routes in the city tend to be clustered around some of our most deprived areas in the West and East⁷. 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 could⁸. Equally, we need to address the link between greater affluence and higher levels of waste generated.
- Encouraging more people in our most disadvantaged communities to reduce, re-use and recycle more could have practical benefits for people in those communities – e.g. reducing household food waste as a way of reducing pressure on family budgets⁹ 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 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 wastage¹⁰.

⁵ Based on ongoing operational estimates and observation

⁶ Know Newcastle (Newcastle Future Needs Assessment)

⁷Waste Commission Tour of City and Presentation of Baseline Data, March 2017

⁸ Too Good To Waste Final Report, BAN Waste Select Committee, 2003

⁹ Household Food Waste in the UK, 2015, WRAP

¹⁰ Digital Technology and Consumer Trends: Future Scenarios for Waste and Resource Management, CIWM 2017

Newcastle's people want to reduce, re-use and recycle

- During the Commission's stakeholder sessions and call for evidence, people and partners demonstrated real willingness to reduce the waste generated in the city¹¹.

The Commission's Terms of Reference:

The Commission's Terms of Reference¹² include engaging with communities and partners, to develop long-term, ambitious approaches to ensure:

- Waste is reduced wherever possible;
- Recycling and re-use is maximised;
- We get as much value as possible from waste; and,
- Where prevention, reuse or recycling are not possible, we maximise recovery through waste to energy.

¹¹ Summary of responses from Waste Commission Stakeholder Sessions

¹² Wiseonwaste web pages: <https://www.wiseonwaste.co.uk/our-aims>

Section 2: Waste is reduced whenever possible

Introduction

- As resources become scarcer, our future choices need to be within the framework of us wanting / needing to create a low-carbon, resilient and resource-efficient economy.

The evidence

Do we produce too much waste?

- On the measures of waste per-household and waste per-person, Newcastle sits roughly mid-lower table when compared with all authorities in England¹³.
- Newcastle is not the worst performer in terms of waste either in comparison with authorities across England or with Core Cities. But, it's not amongst the best.
- The trend in Newcastle had been decreasing waste per household, likely impacted by the recession in 2008 and ongoing pressure on household budgets but that trend is starting to reverse. Population and households are forecast to continue rising¹⁴. This suggests without further action, intervention and changes in behaviour, we are not going to see significant reduction in the waste in Newcastle in the coming years.

Packaging and wrapping

- Partners in the city can drive positive behaviour change amongst residents, businesses, and communities. Yet, consumers have limited, local control over the packaging waste that is 'fed' to them by producers and retailers.
- In the UK there already exists producer responsibility requirements for certain goods – i.e. packaging, electrical goods, batteries and cars. Under these schemes, the producer pays a fee related to how much product they produce for sale, and this in turn helps to pay for future collection and recycling.
- Packaging Waste Recovery Notes are purchased from accredited re-processors, with the overall aim being to support recycling. Whilst this is not waste reduction, in theory this should also incentivise producers to produce less packaging.
- Supporters of the PRN scheme highlight overall, the UK is amongst the best at packaging recycling in Europe (over 60%¹⁵), but critics argue the system is opaque.
- There are examples of big companies creating alternative, voluntary schemes for processing packaging waste at a local level. For example, in 2010, M&S invested £1.25m in Somerset (with the Waste Partnership) to directly collect

¹³ Waste and Recycling Statistics (various), DEFRA

¹⁴ Planning for the Future: Core Strategy and Urban Core Plan for Gateshead and Newcastle upon Tyne 2010-2030, Adopted March 2015

¹⁵ PRN System Guide, Advisory Committee on Packaging, February 2016

packaging to be recycled as packaging for their goods¹⁶. There are other examples of big companies piloting similar schemes around the country, creating the possibility for Newcastle to pursue a similar approach with leading producers or retailers.

Community-based initiatives

- The Commission heard many, positive examples of small-scale, community-based initiatives to encourage reductions in waste – including ‘fix-it’ cafes supporting people to extend the life of everyday household items¹⁷.
- The Commission also saw strong evidence of a thriving re-use sector across the city, including charities and online networks¹⁸. This links to the development of a more circular economy. Yet there was little evidence of all of these organisations operating as a collective system in the city.

Food Waste

- There is significant potential for food waste reduction to drive overall waste reduction across the city. The estimated amount of household food waste in the UK for 2015 was 7.3 million tonnes – with a retail value of £13bn. Avoidable food waste in 2015 was 4.4 million tonnes.
- On average, we throw away 20% of the food and drink we buy – £700 worth each year for a family of four¹⁹.
- In Wales, there is evidence that household food waste reduced between 2009 and 2015, now lower than the rest of the UK. This may be the result of lower average earnings in Wales and, perhaps implementation of widespread separate food waste collections²⁰.
- The **Courtauld Commitment 2025** was launched in March 2016, with a target to reduce food waste across the UK by 20% by 2025. Achieving significant further reductions in household food waste will be essential to meeting this target.
- Research suggests it’s possible to make big reductions in food waste through simple changes at an individual and community level, combined with more sophisticated campaigns and mechanisms, including better use of social media and other digital channels to target the right messages on food waste to the right audiences²¹.

¹⁶ Somerset Retailer Helps Extend Recycling, BBC News, February 2010

¹⁷ Presentation from Greening Wingrove to Newcastle Waste Commission, May 2017

¹⁸ Summary of responses from Waste Commission Stakeholder Sessions and NCC Presentation to Newcastle Waste Commission, May 2017

¹⁹ Household Food Waste in the UK, 2015, WRAP

²⁰ Household Food Waste in the UK, 2015, WRAP

²¹ Reducing The Amount of Food And Drink That Gets Wasted In The Home, WRAP

What are partners doing?

- The Commission heard evidence from Newcastle's Hospitals Trust outlining impressive progress in reducing waste to landfill (zero waste to landfill from 40% landfilled in 6 years), delivering a decrease in waste costs over this period. This has been delivered through a mixture of communication and engagement with staff, use of new technologies and strong leadership in a large and complex organisation²².

Planning for waste reduction

- Estimates suggest the combined population of Newcastle and Gateshead will continue to grow beyond half a million. On this basis we are planning for 21,000 new homes in Newcastle by 2030. In addition, it is expected that at least 2,000 units of purposed built student accommodation will be built in the short term.
- As the city expands there is the opportunity to do more to build-in reduction, re-use and recycling to new developments.

²² Presentation to Newcastle Waste Commission, The Newcastle Upon Tyne NHS Foundation Trust, May 2017

Section 3: Recycling and re-use is maximised

Introduction

- The UK is committed to recycling 50% of municipal waste by the 2020. The EU's Circular Economy Package proposes increasing recycling rates to 70% by 2030²³.
- 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 years²⁴.
- The Commission considered evidence which argued current approaches to weight-based recycling targets can produce negative outcomes, including: higher costs; falling markets for recyclables; and environmental impacts²⁵.
- However, there is also compelling evidence that recycling paper, cardboard, plastics, metals, glass and biopolymers provides more environmental benefits than other waste treatment options, based on life cycle analysis²⁶.

The evidence

Newcastle context

- Currently, Newcastle collects approximately 19,000 tonnes annually of recyclable materials in fortnightly kerbside recycling collection (blue bins collection). Additional recycling through Household Waste Recycling Centres and other collections amounts to around 6,700 tonnes. And, over 8,000 tonnes of garden waste is separately collected²⁷.
- The long-term forecast is for recycling processing costs to rise due to the impacts from increased quality control internationally on mixed material (including in China and India).
- Estimates suggest there is as much recyclable materials in green bins as is collected in blue bins. So, we estimate we are capturing no more than around 50% of all possible recyclable materials in the blue bin recycling collection²⁸.
- Newcastle is currently experiencing an increase in contamination of blue, recycling bins by non-recyclable waste that should have been placed in green bins.

²³ Report from the Commission on the implementation of the Circular Economy Action Plan, EU Commission, January 2017

²⁴ NCC Policy Cabinet: Waste, January 2017

²⁵ Going Round in Circles: Developing a new approach to waste policy following Brexit, Policy Exchange, 2017

²⁶ Environmental Benefits of Recycling – 2010 Update, WRAP, March 2010

²⁷ NCC Operational Data

²⁸ Based on ongoing operational estimates and observation

The role of technology

- New, 'in-cab' technology in Newcastle could use data and intelligence to more accurately identify hot spots – e.g. areas of low or contaminated recycling or high levels of waste being generated.
- Drilling down data to street level to report the picture of waste across the city could lead to innovative ways of supporting communities to benefit from waste reduction in their neighbourhoods²⁹.

What have stakeholders have told us?

- People are passionate about maximising recycling and re-using more. Some 37% of respondents to our engagement ranked these two issues as most important in terms of defining the city's future vision for waste³⁰.
- A key issue highlighted is the need for better education and communication on recycling. This includes basic information on what people can and cannot recycle.
- On re-use, stakeholders highlighted the need for more access to repair facilities (particularly for electrical items).
- People are very attracted to the idea of sharing points or re-use shops within Household Waste Recycling Centres.

Re-use 'shops'

- The Commission considered evidence of places where re-use shops or designated re-use areas have been established in Household Waste Recycling Centres. This is a simple and effective way of extracting monetary and social value from waste and retaining this a local level.

How are partners leading on recycling and re-use?

- The Hospitals Trust in Newcastle has achieved: a 4-fold increase in recycling; lower costs for waste disposal and, zero waste to landfill (from 40% in 2010).
- Evidence from community-based groups highlights what can be achieved at a neighbourhood level by residents coming together to drive environmental behaviour change³¹.

²⁹ NCC Presentation to Newcastle Waste Commission, June 2017

³⁰ Summary of responses from Waste Commission Stakeholder Sessions

³¹ Presentation to Newcastle Waste Commission by Greening Wingrove, May 2017

Food waste and recycling

- Analysis of the best performing places (in terms of recycling), suggests a strong correlation between high rates of recycling and composting and separate, weekly food waste collection³².
- Through its 'Collections Blueprint', Wales has achieved the highest recycling rate in the UK, second highest recycling rate in Europe and third highest in the world. Evidence from Wales suggests the 'game changer' for recycling rates has been the introduction of segregated, weekly, food waste collection³³.

³² Waste and Recycling Statistics (various), DEFRA

³³ Presentation to Newcastle Waste Commission, Welsh Government, July 2017

Section 4: We get as much value as possible from waste

Introduction

- The concept of the circular economy is set to gain momentum in the coming years.
- This is about keeping resources in use for as long as possible, extracting maximum value whilst in use, then recovering and regenerating materials at the end of life. It is an alternative to the traditional economy which 'makes, uses and disposes'.
- As things stand, the UK is set to adopt the EU's Circular Economy Package – this includes proposals to increase recycling rates to 70% by 2030.

The evidence

The Newcastle Context

- The Council currently converts around 12,000 tonnes of green waste into the highest-grade compost. This is a powerful example of how value from waste material can be retained in Newcastle, generating an income, supporting jobs and, of course, ensuring an element of the city's waste is turned into something positive locally³⁴.
- There are many small-scale examples of organisations in the city and region, promoting and supporting re-use of everyday household items, including everything from online sharing networks, traditional charity shops to fix-it cafes as well as firms specialised in repairing electrical equipment.
- Yet, these operations exist in the absence of an overarching ambition, plan or network for support, promotion and growth.

Other places are showing real ambition on the circular economy

- The London Waste and Recycling Board (LWARB) has a vision to create Circular London – supporting a circular economy to grow in the capital. Its Circular Economy Route Map sets out ambitious plans to provide London with some £7bn (and 12,000 new jobs) annually from re-use, remanufacturing and materials innovation³⁵.
- The LWARB Routemap recommends actions for stakeholders, including from higher education, digital and community sectors as well as London's businesses and social enterprises³⁶.

³⁴ Waste Commission Tour of City and Presentation of Baseline Data, March 2017

³⁵ London Waste and Recycling Board Presentation to Newcastle Waste Commission, June 2017

³⁶ London's Circular Economy Routemap, London Waste and Recycling Board, June 2017

- The Welsh Government is actively creating and supporting markets for recycling, in partnership with businesses, councils and waste industry.
- The Welsh Government's Sector Plan aims to: identify and develop markets within Wales for the recyclable materials; assess the infrastructure needs; ensure waste infrastructure and facilities are seen as valuable and desirable assets by the local communities; and, increase skills needed for re-use and refurbishment within the jobs market, so these sectors can grow. They recognise developing local markets for recyclables and re-use requires a high rate of recycling to feed these markets³⁷.

³⁷Towards Zero Waste: One Wales, One Planet, Welsh Government, June 2010 (Progress Report, Welsh Government, July 2015)

Section 5: We maximise recovery through waste to energy

Introduction

- Producing energy from waste is a contentious subject. Despite, substantial improvements in the technology of energy from waste in recent decades, there remain arguments over the environmental benefits of energy from waste when compared with recycling³⁸.
- Proponents argue energy from waste for some materials is less harmful from a greenhouse gas perspective than recycling³⁹. Equally, critics contend the evidence on this is partial and that using whole life cycle analysis supports the case for recycling of most products⁴⁰.
- Projections on future waste suggests less paper and cardboard entering the waste streams (partly as a result of increased digital and less packaging) – so less easy-to-burn materials to feed energy from waste plants⁴¹.

The evidence

Newcastle context

- Around 25% of Newcastle's municipal waste goes to energy from waste plants in Sweden and Teesside⁴².
- The city currently pays to export RDF to Sweden and this cost could increase in the coming years⁴³.
- Producing energy from waste continues to be a widely-used solution across Europe⁴⁴.
- Countries with some of the highest rates of incineration in Europe — Denmark, Norway, and Sweden (all incinerating at least 50 percent of their waste) — also tend to have good rates of recycling and composting of organic materials and food waste⁴⁵.

³⁸ "Myth takes: it's greener to incinerate paper than recycle it" Peter Jones, June 2nd, 2017 (Insomnia)

³⁹ Going Round in Circles: Developing a new approach to waste policy following Brexit, Policy Exchange, 2017

⁴⁰ Environmental Benefits of Recycling – 2010 Update, WRAP, March 2010

⁴¹ Presentation by WRAP on Resource Management to Newcastle Waste Commission, July 2017

⁴² NCC Operational Data

⁴³ NCC Operational Data

⁴⁴ Municipal Waste Statistics, Eurostat: Statistics Explained, July 2017

⁴⁵ Incineration Versus Recycling: In Europe, A Debate Over Trash – Nate Seltenrich Environment 360, 2013 and Municipal Waste Management and Country Fact Sheet: Denmark, 2016, European Environment Agency

What other proven energy from waste technologies might Newcastle consider?

- There is established evidence of the benefits anaerobic digestion (AD) of waste – in particular food waste⁴⁶.
- There is established capacity for AD in the North East region⁴⁷.

⁴⁶ Towards Zero Waste: One Wales, One Planet, Welsh Government, June 2010 (Progress Report, Welsh Government, July 2015)

⁴⁷ Summary of Waste Commission Stakeholder Sessions

Section 6: The Commission's emerging thinking

1. As the Commission has progressed, Commission Members have identified with partners, the opportunity to develop a ground-breaking, citywide approach to reducing food waste in the city. This would seek to address all elements of the food-waste hierarchy and so engage households, community groups, manufacturers, retailers and other partners. This could include a sustained and high-profile campaign to reduce food waste. The Commission were particularly attracted to an approach which reduces waste but also helps to tackle disadvantage. This would be developed with and build on the work of Food Newcastle Partnership.
2. As part of the commitment to tackle food waste, the Commission considered what infrastructure needs to be in place to support and encourage food waste recycling. In particular consideration should be given to implementing a segregated food waste collection as a way of increasing recycling and minimising residual waste.
3. The Commission were impressed with the London Waste and Recycling Board's plans to develop a circular economy for the Capital. And, the Welsh Government have established UK leading recycling rates and are now taking a leading role in stimulating and growing markets for recyclable materials. Newcastle should consider establishing a city-wide waste partnership model. This could emulate LWARB's circular economy route-map approach. Alongside this, organisations in the city should be encouraged to lead by example in applying circular economy principles to their everyday operations. This could be developed at a city level although the Commission considers there is potential to broaden this to include other authority areas.
4. The concept of a citywide (or even regional) waste partnership to coordinate, support and grow the circular economy could explore how existing re-use initiatives can be better promoted within the city to provide a more joined-up, virtual offer. It could also support and promote community-based and social networks.
5. The Commission acknowledges the limitations on reducing packaging at a local level. However, Newcastle should play a more active part in the national conversations on this important aspect of the waste stream. This should include direct representations to Government. Alongside this, the city should use the opportunity of a food-waste reduction programme to engage leading businesses in packaging and wrapping reduction.
6. Given forecast housing growth in Newcastle, the Commission believes partners must seize opportunities to 'build in' waste minimisation, re-use and recycling. The Commission accepts the limitations in the planning system to mandate such approaches. Instead, consideration should be given to partnership working with developers, perhaps through local, voluntary agreements. And, alongside this the city should start a national conversation on how the planning system can more effectively build reduce, re-use and recycle into new housebuilding.

7. The Commission considers Newcastle should aim to improve its recycling rate to that of the best performing places nationally and internationally through: recycling the right things; improving recycling infrastructure; strengthening education and refreshing communication; and, creating a city-wide culture of recycling. However, recycling targets must be tied to a compelling goal that residents, partners and businesses can engage with. The Commission were impressed by the relationship in Wales between a high recycling target and investing in growing markets for recyclables. A recycling target in Newcastle that is based on growing jobs and circular economic growth has potential to grab the imagination. Alongside this, a clear message that recycling saves the city money could prove impactful. Newcastle could also explore the concept of 'highest net resource value' as a framework for ensuring it continues to recycle the right things as markets and trends change.
8. The Commission sees great potential to use 'in-cab' technology for reducing waste and increasing recycling. Establishing neighbourhood and even individual waste performance data and communicating this could drive positive behaviour change. Consideration could also be given to ways in which this data could be used with communities to incentivise improved performance.
9. The Commission believes the city's Household Waste Recycling Centres are a valuable source of reusable materials and a good way of retaining the value of waste in the city. Other places have embraced this opportunity, by establishing re-use shops or zones within HWRCs and this is something the city could consider.
10. The Commission are persuaded by the pivotal role segregated food waste collection could play in both reducing waste and increasing recycling. Alongside this, there is the opportunity to generate energy through anaerobic digestion. The established and growing AD capacity in the region makes this an option worthy of consideration.

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