

A row of green recycling bins is lined up on a city street. The bins are positioned next to a brick building. In the foreground, there is a stone wall and some greenery. The background shows a street with a red car and a sign.

# A Municipal Resources and Waste Strategy

## For Nottingham

2023-2050



**Nottingham**  
**City Council**

## Foreword

### Councillor Sally Longford, Portfolio Holder for Energy Environment and Waste Services



I am delighted to present a Municipal Resources and Waste Strategy for Nottingham covering the period 2023 to 2050. Our city seeks to achieve carbon neutrality by 2028 and I recognise the contribution we can all make to achieving this goal through the way that we all manage the waste that we generate in going about our daily lives. By working together, the small improvements in the decisions we take, from the purchases we make to our choices around what to do with our unwanted items (i.e. seeking to reuse or recycle them to recover maximum value) can all make a significant contribution to reducing our carbon impact on our city and the world.

We published our draft strategy in October 2022 and asked for your opinions as stakeholders. These opinions have helped shape the vision, objectives and ambitions set out in this final strategy document. We recognise that improvement must be delivered in the waste collection services provided, that the range of items collected to be recycled must be broader, and that better information has to be available to encourage everyone to do the right thing whilst also maintaining a waste management service which protects public health and delivers clean and tidy neighbourhoods for people to live in.

We also recognise that more needs to be done to prevent waste from arising in the first place, and that reuse and repair of many items discarded as waste is a more sustainable way of managing our resources. By considering waste as a resource, rather than something to be disposed of, we can all contribute to improving our great city by extending the useful life of products that would otherwise be thrown away.

Our Strategy also recognises that we must deal with waste that is left over and recommits our efforts to ensuring that we deliver maximum benefit to the citizens and businesses of Nottingham by harnessing its energy as an alternative to fossil fuels.

Our Strategy sets out to how we intend to improve performance to achieve higher levels of reuse and recycling across Nottingham, whilst also delivering a cost-effective, quality-led service which seeks to maximise the value and environmental benefit of the materials we collect.

Our ambition is to deliver a significantly better solution to managing our resources and waste. This Strategy and its Action Plan sets out what the Council can achieve with your support.

A handwritten signature in black ink that reads "S Longford". The signature is written in a cursive, flowing style.

Councillor Sally Longford

Portfolio Holder for Energy Environment and Waste Services

## Executive Summary

Nottingham City Council (the Council) are responsible for the management of waste and recycling in the city. This means it is the role of the Council to plan the collection, treatment (composting, recycling, and recovery) and disposal of waste and to ensure an efficient collection service is provided for residents and communities, including businesses. A resources and waste strategy acknowledges the importance of using resources (reusable items, recycling etc.) within waste and provides the opportunity for a council to set out the key objectives and ambitions for the future management of waste and recycling within its administrative area.

The first waste strategy for Nottingham ‘**A Waste-Less Nottingham**’ (2010-2030) was originally written in 2010. Since this time, rapidly changing approaches to resource and waste management has warranted a review of the Strategy to bring it up to date and reflect current global thinking. This new, updated Resources and Waste Strategy (R&WS / the ‘Strategy’) outlines the intentions for the recycling and waste management service which will be delivered by Nottingham City Council from 2023 up to 2050.

The vision of the Strategy is:

***“The Resources and Waste Management Strategy aims to deliver a high-quality service driven by the need to conserve resources, protect the local environment and reduce carbon emissions in line with the Councils carbon neutral policy for 2028 and beyond. This means reducing the amount of waste that is generated; through prevention, reuse, repair, recycling and recovery.”***

This vision is supported by 10 objectives. They focus on encouraging waste prevention, promoting reuse and repair, and enhancing recycling; reducing the environmental impact of the service in line with wider Council ambitions on carbon emissions; working in partnership to promote environmental awareness; and ensuring delivery of an efficient, high-quality and cost effective service. The objectives are supported by 14 ambitions made by the Council. A summary of the ambitions is shown below in **Table A**.

*Table A: A summary of Nottingham City Councils ambitions for the Strategy*

Theme	Ambition No.	Aim
Preventing Waste and Promoting Re-use	1 - 2	Encourage waste prevention Promote repair and reuse
Enhancing Recycling	3 - 5	Expand materials collected for recycling Encourage greater separation of waste for recycling Introduce food waste collections
Managing Household and Business Waste	6 - 9	Deliver an effective and hygienic collection service across Nottingham Develop the waste and recycling collection service from households, businesses and organisations to improve recycling performance. Improve accessibility and facilities at the Household Waste and Recycling Centre (Redfield Road HWRC) Reduce litter and fly-tipping
Dealing with the Waste that is Leftover	10	Avoid waste going to landfill and prioritise energy recovery for waste left over after recycling
Purchasing & Waste Management	11	Lead by example within City Council internal operations
Comms and Engagement	12 - 13	Provide clear and effective communication of resource & waste messages Promote best practice behaviours to reduce environmental impact Engage with residents, businesses, community groups and schools
Working towards Net Zero carbon in Nottingham	14	Expand use of alternative fuel vehicles (Ambitions 1 -6 & 10-13 will all also contribute to net zero targets)

The way that waste and recycling is managed in Nottingham is influenced by national policy and legislation, including the Environment Act 2021. The UK Government has set key targets for recycling, reducing waste left over (residual waste or 'rubbish') and the maximum amount of our waste that is sent to landfill. Nottingham City Council are already ahead of the national targets for sending less than 10% of waste to landfill, in particular due to the City Council's use of the Eastcroft Energy from Waste (EfW) plant. However, Nottingham City Council currently fall below the national average recycling rate of 43.4% for 2020/21, reporting a rate of 23.9% for the same year. Current Government targets aim for a 65% national recycling rate by 2035. Analysis shows that 75% of items that are disposed of in general waste could be reduced, reused, or recycled in some way and as such we need to consider how our service can be changed to increase our performance, and reduce our demand on natural resources. As such, each ambition within this Strategy has been reviewed against all relevant policy and legislation to ensure Nottingham achieves its maximum potential in line with national targets.

Table B below outlines the **current service** provided to residents and the potential impact of the latest Government thinking.

*Table B: Current waste and recycling collection service for residents in Nottingham City Council*

<u>Collection Service Summary</u>	<u>Materials</u>	<u>Frequency</u>	<u>Potential impact of current Government thinking</u>
<b>Brown Bin with Grey Lid or larger recycling container</b>	<u>Recycling:</u> Paper Cardboard Catalogues and brochures Newspapers and magazines Telephone directories Large tins Food and drink cans Aerosols Plastic bottles Plastic tubs, pots and trays Glass bottle and jars	Fortnightly	There is a requirement to increase the range of materials collected to include foil, plastic film and cartons, which the Council does not currently collect. This approach is designed to provide a common set of recyclables collected from all Council areas in England.  The Council may need to move to a collection service where recyclable items are sorted into separate collection containers, changing the way that household recyclables are currently collected. The reason for this is that separately collected recycling usually has a higher quality than all the different materials mixed together, meaning they can be recycled into better applications (for example glass remelted to make new glass bottles).
<b>Brown Bin with Brown lid</b>	<u>Garden Waste</u> Grass cuttings Hedge clippings Twigs, leaves and weeds Dead flowers	Fortnightly  Seasonal	No changes proposed by Government.



<b>Green Bin or larger general waste container</b>	<u>Residual Waste / 'Rubbish'</u> Any household waste that cannot be put out as part of your recycling collections (and is suitable for a bin)	Fortnightly	Food waste is over a third (by weight) of the residual waste bin. Government have mandated that this is to be collected weekly and in a separate container. This (in addition to the changes to the recycling collection) would reduce the amount of residual waste generated in Nottingham.
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This Strategy has also been developed in consideration of local council policy including the Councils aspiration to achieve net zero carbon by 2028 (becoming the first carbon neutral city in the country) and its commitment to make Nottingham a clean and connected community. Nottingham City Council is a leader in the use of electric vehicles in its fleet, and in capturing the energy generated from the waste not recycled, through its electricity generation and district heating scheme. This Strategy introduces even more ways that we can reduce the carbon emissions associated with the recycling and waste management service, through avoiding waste production, repairing and reusing items and recycling more effectively. The potential net effect of the measures proposed within this Strategy is a reduction in the amount of carbon (as measured in CO<sub>2</sub> equivalents) of up to 3,400 tonnes of CO<sub>2</sub> equivalent each year from improved collection and management of wastes and resources in the city.

The Strategy has been informed by research, analysis and public consultation. This includes an options appraisal to explore alternative resource and waste service delivery options. A public consultation was also held to seek views and feedback from residents, communities and businesses that use, or are impacted by this Strategy. The results from the consultation have been reflected within this Strategy.

The Council is committed to improving performance to achieve higher levels of recycling across Nottingham, whilst delivering a cost-effective, quality-led service. This Strategy provides a focus for identifying solutions for resources and waste management which addresses these often-opposing pressures. Recycling is only one part of the Strategy however. There is more benefit in reducing the amount of waste we generate in the first place and then reusing or repairing what we can, to prevent waste occurring in the first place. We have put these aspects into the heart of this Strategy, but this document represents but one element of what needs to be a whole community effort, addressing how we live, what goods we buy and what we do with them when they reach the end of their lives. If we can make collective improvements here, we will help reduce climate change impacts to the benefit of our own generation and for all those generations to come.

## Contents

<b>Foreword</b> .....	1
<b>Executive Summary</b> .....	2
<b>1 Introduction</b> .....	7
1.1 What is a Resources & Waste Strategy? .....	7
1.2 How is the service delivered now?.....	7
1.3 Where have we come from? .....	10
1.4 What is in your bin?.....	11
<b>2 National and Local Policy &amp; Influences</b> .....	11
2.1 National Drivers.....	12
2.1.1 Circular Economy.....	12
2.1.2 25-Year Environment Plan.....	12
2.1.3 Environment Act 2021.....	13
2.1.4 Resources & Waste Strategy for England.....	13
2.2 Local Drivers .....	14
2.2.1 You Said, We Did .....	14
2.3 The Waste Hierarchy .....	15
2.4 Summary.....	16
<b>3 The Strategy Vision and Objectives</b> .....	17
3.1 Our Vision .....	17
<b>4 How will we deliver the vision?</b> .....	17
<b>5 How can the Strategy be delivered?</b> .....	17
5.1 Preventing waste and promoting reuse.....	19
5.1.1 Waste Prevention .....	19
5.1.2 Re-use & Repair .....	20
5.2 Enhancing recycling.....	21
5.2.1 Food Waste.....	21
5.2.2 Consistent Collections .....	21
5.2.3 Enhancing Recycling Further .....	23
5.2.4 Additional Changes.....	24
5.3 Managing Household and Business Waste.....	25
5.3.1 Service Provision.....	25
5.3.2 High Quality Recycling .....	25
5.3.3 Household Waste Recycling Centres .....	25

5.3.4	Fly-tipping & Litter.....	26
5.4	Dealing with the waste that is left over .....	26
5.5	Purchasing and Waste Management .....	26
5.6	Communications & Engagement.....	27
5.7	Working towards Net Zero carbon in Nottingham.....	27
6	Where will this Strategy take us? .....	28
7	Supporting Documents.....	29

# 1 Introduction

## 1.1 What is a Resources & Waste Strategy?

This document presents the Resources & Waste Strategy ('R&WS' or 'Strategy') for Nottingham City Council 2023-2050.

This R&WS is an update to the Waste Strategy 'A Waste-Less Nottingham' 2010-2030 which has been in place since 2010 and is presented in acknowledgement of the changes to legislation, policy, global and local context affecting waste and street scene services since that time which now need to be reflected in an updated Strategy. This Strategy sets the foundations to deliver best value for residents and to update these commitments so that waste is managed as a resource that can be used again, rather than rubbish to be disposed of.

The Strategy outlines key objectives and ambitions for the future management of waste and recycling (also known as municipal waste) that is generated by households and similar wastes from businesses and other organisations across Nottingham city and identifies important actions that could be undertaken to deliver these. The actions will be targeted to change how waste is viewed in Nottingham, highlighting its potential as a usable resource, through engagement, education and policy decisions that can drive the changes required. As a result, the Council aims to improve the sustainability of waste management practices, make increased use of waste as a resource, ensure legislative compliance moving forward and improve our environment.

Since the last Strategy was published, momentum has increased in respect of global commitments to reduce carbon emissions. The publication of a national Resources & Waste Strategy for England<sup>1</sup> and the introduction of the Environment Act 2021<sup>2</sup> has introduced new obligations on all stakeholders to contribute to achieving this aim. By moving to a 'circular economy', materials and resources can be kept in use for as long as possible (through design, reuse, repair, recycling) to minimise waste and improve what is known as 'resource efficiency'<sup>3</sup>. This will not only help to protect the environment, but also improve and enhance the local economy.

The Strategy sets out:

- The policy framework at a national and local level which sets the context for resources and waste management
- The vision, objectives and ambitions required to deliver the Strategy
- The plans for delivery – how resources and waste could be collected from its residents and communities, before being treated and managed by the Council to achieve the vision and objectives.

The Strategy runs up to 2050, however it will be reviewed at appropriate periods to make sure the Strategy remains current and in line with national guidance.

## 1.2 How is the service delivered now?

As a Unitary Authority, Nottingham City Council ('NCC' or 'the Council') is the statutory Waste Collection Authority, (WCA), Waste Disposal Authority (WDA) and Principal Litter Authority responsible for waste and recycling in the city. This means that NCC are responsible for planning the collection, treatment (composting,

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<sup>1</sup> [Our waste, our resources: a strategy for England \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/94821/our-waste-our-resources-a-strategy-for-england.pdf)

<sup>2</sup> <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>

<sup>3</sup> Meaning using less raw materials in our daily lives, and those materials that are used are reused, repaired or recycled / composted to return materials into useful circulation



recycling, and recovery) and disposal of waste and to ensure efficient waste management service delivery for residents and communities, including businesses.

The Council provides a range of services for the collection of municipal recycling, waste and litter. These include:

- Kerbside collections – recycling, garden waste and non-recyclable waste,
- A bulky waste collection service (e.g. sofas, mattresses, furniture and electrical items),
- A trade waste service which collects recycling and general waste streams from businesses across the East Midlands (in particular, Nottingham and Derby),
- Redfield Road (Lenton) Household Waste Recycling Centre (HWRC),
- Litter and dog waste bins,
- Street and road sweeping,
- Clearing of fly tipped waste.



Residents of Nottingham City Council currently receive household collections of recycling, residual (general mixed ‘rubbish’) and, where practicable, seasonal garden waste collections on a fortnightly basis. Food waste is not currently collected separately. Household bins must be presented for collection at the kerbside or curtilage of the property. Residual and recycling collections occur on alternating weeks.

All the main items suitable for recycling are currently collected in one container (usually a wheeled bin). This is commonly referred to as a ‘commingled’ collection.

This material is then sent to a materials recovery facility (often referred to as an ‘MRF’) which uses a range of equipment to sort and separate the recycling into the different materials streams which can then be sent for reprocessing and recycling.

Garden waste is collected free of charge from all households with gardens throughout the main growing season (April to November). Each household with a garden is provided with one wheeled bin to collect organic waste including grass cuttings, hedge clippings, flowers, leaves, weeds and small twigs and branches. Households with larger amounts of garden waste can pay for an additional bin at a cost of £25 a year, per bin. This material is sent to an open-air windrow composting facility which turns the garden waste into compost, for use on land and to improve soil quality.





For any household waste that cannot be put into the recycling or garden waste collections, a wheeled ‘rubbish’ bin is provided, and this is also collected fortnightly.

This material is sent to the Eastcroft Energy from Waste facility<sup>4</sup> for incineration and energy recovery. Due to its central location in the city, steam generated by the incineration process is used to supply heat to over 5,000 households and several public and commercial premises. This provides low carbon heating for these premises. This process of dealing with residual waste reduces the Councils reliance on fossil fuels to meet the city’s energy needs and any excess steam is used to generate electricity to export to the grid, power local businesses directly, and also to operate the Eastcroft EfW facility.

<u>Collection Service Summary</u>	<u>Materials</u>	<u>Frequency</u>	<u>Potential impact of current Government thinking</u>
<b>Brown Bin with Grey Lid or larger recycling container</b>	<u>Recycling:</u> Paper Cardboard Newspapers and magazines Catalogues and brochures Telephone directories Large tins Food and drink cans Aerosols Plastic bottles Plastic tubs, pots and trays Glass bottle and jars	Fortnightly	There is a requirement to increase the range of materials collected to include foil, plastic film and cartons, which the Council does not currently collect. This approach is designed to provide a common set of recyclables collected from all Council areas in England.  The Council may need to move to a collection service where recyclable items are sorted into separate collection containers, changing the way that household recyclables are currently collected. The reason for this is that separately collected recycling usually has a higher quality than all the different materials mixed together, meaning they can be recycled into better applications (for example glass remelted to make new glass bottles).
<b>Brown Bin with Brown lid</b>	<u>Garden Waste</u> Grass cuttings Hedge clippings Twigs, leaves and weeds Dead flowers	Fortnightly Seasonal	n/a
<b>Green Bin or larger general waste container</b>	<u>Residual Waste / Rubbish</u> Any household waste that cannot be put out as part of your recycling collections	Fortnightly	Food waste is over a third (by weight) of the residual waste bin. Government have mandated that this is to be collected weekly and in a separate container.  This (in addition to the changes to the recycling collection) would reduce the amount of residual waste generated in Nottingham.

Nottingham City Council have been proud to deliver a cost-effective waste collection and disposal service for its residents. The Council has been a high performer in the diversion of waste from landfill, since the

<sup>4</sup> [FCC Eastcroft EfW Energy from Waste \(fccenvironment.co.uk\)](http://fccenvironment.co.uk)

development of the Eastcroft Energy from Waste plant in 1972, which treats the residual waste collected from residents. In a typical year, less than 8% of waste is sent for landfill<sup>5</sup>.

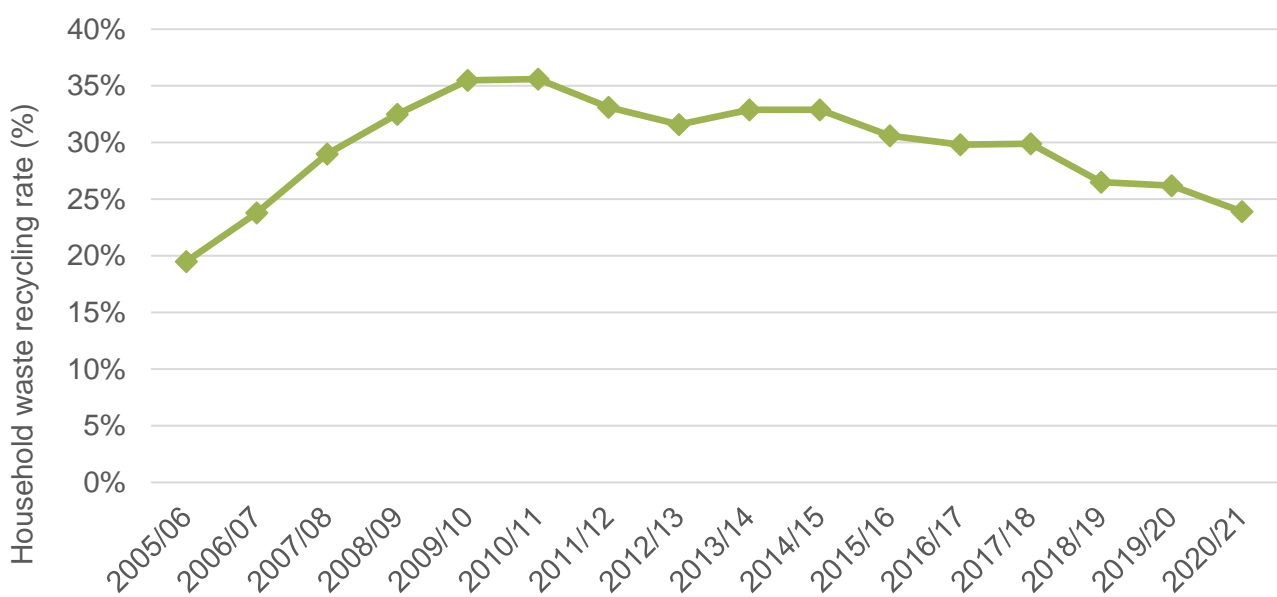
### **Trade Waste**

Nottingham City Council also provide a ‘trade waste’ service which collects recycling and general waste streams from businesses across the East Midlands, in particular the Nottingham and Derby areas. The trade waste team serves over 6,500 businesses and averages over 12,000 collections per week<sup>6</sup>. The services available to businesses include collections of residual waste, recycling, separate glass collection, bulky waste (furniture, mattresses), and collections of any unused electronics (known as Waste Electrical and Electronic Equipment (WEEE)).

### 1.3 Where have we come from?

As of 2020/21, the recycling rate for Nottingham was 23.9%. This is well below the average national performance of 43.8% for the same period<sup>7</sup>. As shown in Figure 1 below, recycling performance improved between 2005/6 and 2010/11, peaking at 35.9%, before steadily decreasing since that time. There are a number of factors which could be attributed to this decline, including a change in the definition of recycling (and as such the materials which could be counted towards the Council’s recycling performance), impacts of austerity, and in recent years the effects of the Covid-19 pandemic (which has nationally shown a small decrease in recycling rate).

Figure 1 – Recycling performance in Nottingham (2005 to 2021)



Financial pressures to provide local services and a need to improve recycling performance can often be conflicting and competing requirements. However, the Council is committed to improving its performance to achieve higher levels of recycling across Nottingham, whilst delivering a cost-effective, quality-led service.

<sup>5</sup> To account for periods when the Eastcroft facility is shut down for routine maintenance.

<sup>6</sup> Some businesses will have multiple collections each week.

<sup>7</sup> However it should be noted that cities have more challenges to hit higher recycling rates than other types of Council area, the key reasons being: less garden waste, which is a significant contributor to recycling rate; more challenging housing types to collect from (e.g. flats) where recycling storage and separation can be more difficult, and; issues of effective communication with transient populations (e.g. students) or where there are multiple ethnicities.

This Strategy provides a focus for identifying solutions for resources and waste management which addresses these often-opposing pressures.

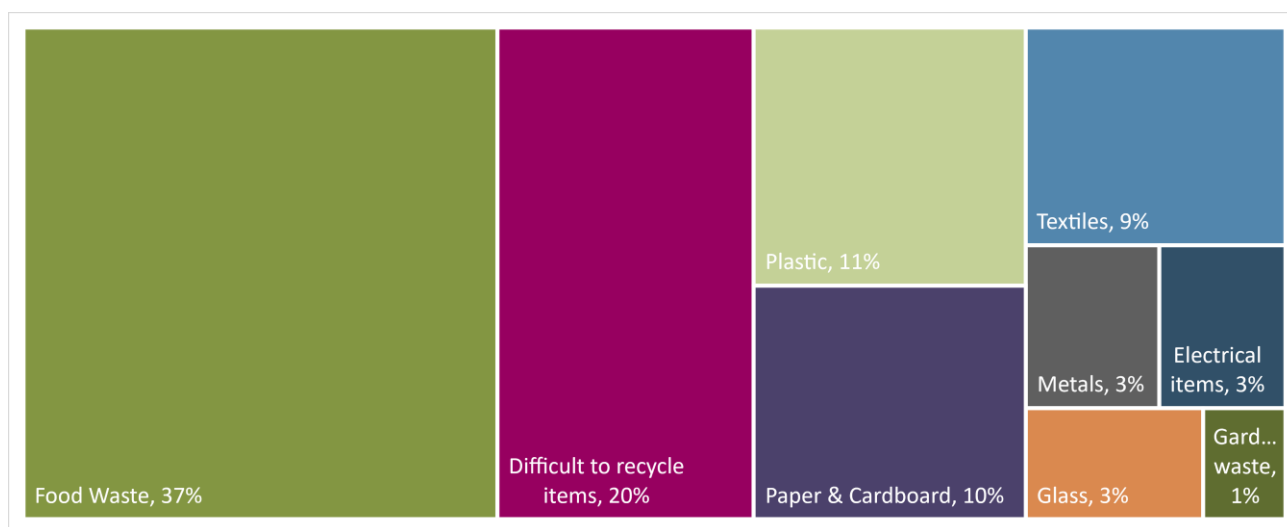
### 1.4 What is in your bin?

Figure 2 shows the contents of a typical rubbish bin in Nottingham. It shows that over three quarters<sup>8</sup> of items that are thrown away by residents could be reduced, reused or recycled in some way. Materials found in the rubbish bin include materials that we would typically associate with recycling, for example, paper and cardboard, glass, plastic and metals. Other materials found in the bin include food waste (which makes up over a third of the bin) and waste electrical and electronic equipment (WEEE), which could be collected separately and have its resource value recovered.

By separating out these additional materials for recycling, residents of Nottingham could help the Council contribute to achieving the national recycling target of 65% for 2035<sup>9</sup>.

Furthermore, other items found in the rubbish bin may be preventable or reused to stop them from becoming waste at all. This is preferable to recycling, and options such as using washable nappies, reusable water bottles for drinks and refilling containers with goods from a refill shop or station to avoid new packaging all help conserve resources and avoid packaging and other wastes from being generated. It is great for the environment in other ways too, saving the carbon emissions associated with making new packaging or products.

Figure 2: Nottingham’s residual waste bin composition<sup>10</sup>



## 2 National and Local Policy & Influences

This section outlines the key national and local drivers which directly impact upon the Strategy and how they have been accommodated. These policies focus on managing resources efficiently and effectively, keeping

<sup>8</sup> Waste is measured by weight, therefore bulky but light items (like plastic) may appear to fill a lot of a bin (by volume), have a lower quantity when considered in terms of weight. Food waste conversely is dense (heavy) and therefore makes a large proportion of the waste composition as a result.

<sup>9</sup> This is included in ‘Our Waste, Our Resources; A Strategy for England’, Defra 2018, and includes wastes from commercial and industrial sources that are similar to household waste.

<sup>10</sup> Based on Acorn waste composition analysis undertaken in 2013.

materials in use for as long as possible, encouraging the development of a ‘circular economy’ whilst supporting and working towards net zero (climate change) ambitions.

The development of this Strategy has considered these policies, so that it can be practically implemented through action, and to ensure that the Strategy either complements or does not diverge from any of the aims set out in these policies. The main influences at a national and local level are discussed in turn below.

## 2.1 National Drivers

### 2.1.1 Circular Economy

In a circular economy, materials and resources are kept in use for as long as possible (through design, reuse, repair, recycling). The result is that waste is minimised and resource efficiency<sup>11</sup> improves. A circular economy encourages a move away from the more traditional ‘take-make-dispose’ economy by targeting how products and services are designed, encouraging more sustainable consumption (e.g. using less raw materials) and ensuring waste is prevented and minimised at all levels of the supply chain by keeping resources in use for as long as possible. The EU Circular Economy Package (CEP), introduced in 2018, provides a revised legislative framework to this approach, identifying steps for the reduction of waste and establishing an ambitious and credible long-term path for waste management and recycling. This has been largely transposed into UK Government strategy and policy to create key elements within “Our Waste, Our Resources: A Strategy for England” (2018, see below).

### 2.1.2 25-Year Environment Plan

The 25 Year Environment Plan sets out the government long term management strategy to improve our environment. The Plan sets out interrelated environment targets relating to clean air, water quality, biodiversity, biosecurity, enhancing the natural environment and heritage and mitigating and adapting to climate change. The effective management of resources is one of the core goals of the Plan and the following targets are set for maximising resource efficiency and minimising waste:

- Using resources more sustainable and efficiently
  - o *Maximising the value and benefits we get from our resources,*
  - o *Doubling resource productivity<sup>12</sup> by 2050*
- Minimising waste
  - o *Zero avoidable waste by 2050, and no food waste to landfill by 2030*
  - o *Target of eliminating avoidable plastic waste by end of 2042*
  - o *Meet all existing waste targets – including those on landfill, reuse and recycling – and developing ambitious new future targets and milestones*
  - o *Eliminate waste crime and illegal waste sites over the lifetime of this Plan, prioritising those of highest risk, including litter*
  - o *Significantly reducing and where possible preventing all kinds of marine plastic pollution – in particular material that came originally from land*

In March 2022, Government announced plans to halve the amount of residual waste that goes to landfill or incineration by 2042 (based on 2019 levels of 560kg per person, per year). Interim waste reduction targets have been set for 2028 through the Environmental Improvement Plan (Feb 2023)<sup>13</sup>, a 5-year delivery

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<sup>11</sup> Resource efficiency means creating more with less, maximising the use of materials and services to function effectively, with limited waste and detriment to the environment

<sup>12</sup> A measure of the total amount of materials directly used by an economy.

<sup>13</sup> [Environmental Improvement Plan \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/111111/Environmental_Improvement_Plan.pdf)

framework supporting the vision of the 25-year Environment Plan. The targets to be met by 2028 for the reduction in residual waste produced per person (unless stated otherwise) are:

Table 1 Interim residual waste targets for 2028 as per Environmental Improvement Plan (2023)

Interim residual waste reduction targets	
→	residual waste (excluding major mineral waste) by 24%.
→	residual waste (excluding major mineral waste) in total tonnes by 21%.
→	municipal residual waste by 29%.
→	residual municipal <b>food waste</b> by 50%.
→	residual municipal <b>plastic waste</b> by 45%.
→	residual municipal <b>paper and card waste</b> by 26%.
→	residual municipal <b>metal waste</b> by 42%.
→	residual municipal <b>glass waste</b> by 48%.

### 2.1.3 Environment Act 2021

The Environment Act 2021 is a key piece of government legislation which aims to address fundamental environmental issues such as air and water quality, wildlife and climate. The first part of the Act is to provide measures to address environmental governance gaps following withdrawal from the EU and beyond. The Act puts into legislation a series of environmental principles and establishes an Office for Environmental Protection, which will have scrutiny, advice and enforcement functions. It also makes provision for the setting of long-term, legally binding environmental targets in four “priority areas” identified as air quality, water, biodiversity, resource efficiency<sup>14</sup> and waste reduction, along with the production of statutory Environmental Improvement Plans.

The Act is the primary legislation for a number of the key waste management measures in the R&WS. The provisions in the Act introduce an extended packaging producer responsibility scheme<sup>15</sup>, the power to regulate for eco-design standards and resource efficiency information across a wider range of products, and amendments to the responsibilities and powers for separating and recycling waste. It also provides a framework for a deposit return scheme (DRS) for single use drinks containers<sup>16</sup>. The Act also provides the legislative mechanism for implementing aspects of the national Resources & Waste Strategy for England.

### 2.1.4 Resources & Waste Strategy for England

The national Resources & Waste Strategy for England, “Our Waste, Our Resources: A Strategy for England” (2018), is focussed on recycling quality and increasing recycling rates from households and businesses. It includes substantial reforms to municipal waste collection and management services, including a requirement of WCAs to collect a common set of materials (consistent collections) to be separately collected from households for recycling. In the case of NCC this means expanding the materials collected for recycling to include plastic film and cartons. The Strategy also includes proposals to mandate the separate collection of food waste for all Local Authorities in England. It also puts a greater responsibility on producers of goods and packaging to play their part in dealing with the products at the end of their life. New measures include

<sup>14</sup> Good resource and waste management improves ‘resource efficiency’

<sup>15</sup> A system designed to make producers of packaging 100% responsible for the costs of managing the packaging at the ends of its life (e.g. its collection, recycling or disposal)

<sup>16</sup> A Deposit Return Scheme (DRS) aims to improve overall recycling and resource recovery by placing a redeemable deposit on ‘in scope’ materials. At the time of writing, it is understood that the DRS system implemented for England will be an ‘all in’ system which means it applies to all single use drinks containers (excluding glass, HDPE plastics, primarily milk bottles). The deposit is estimated to be a 20p value added to plastic and metal beverage containers



Extended Producer Responsibility for packaging materials (EPR) and the introduction of a deposit return scheme (DRS) for single use drinks containers. The goal of the national strategy is to reach at least 65% municipal waste recycling by 2035, with no more than 10% being sent to landfill.

The direction of the national strategy will have a significant impact on the services delivered in Nottingham through this R&WS.

## 2.2 Local Drivers

The Strategy is also implemented in recognition of local policies which both influence and affect its delivery.

The City first declared a Climate and Ecological Emergency in 2020. Nottingham has since committed to becoming the first carbon neutral city in the country, with a target for reaching this status by 2028. This means cutting carbon dioxide (CO<sub>2</sub>) emissions from direct and indirect sources arising from the energy used across the city to near zero and offsetting any emissions that cannot be eliminated. The Nottingham 2028 Carbon Neutral Charter (CN28) sets out high-level objectives to achieve this target. Waste and resource management have a key role to play in supporting Nottingham's net-zero ambitions. This Strategy has been developed with the visions of this commitment in mind and is aligned to the aspirations of the Council to meet carbon neutrality by 2028. Further information can be found in the CN28 Strategy document<sup>17</sup>.

Other policies influencing the Strategy include the Strategic Council Plan for Nottingham<sup>18</sup>. This Plan supports the aspirations set out within this document including the CN28 goal as one of the key Strategic Outcomes, promoting the use of refill stations across the City Centre to reduce plastic use and measuring percentage of household waste recycled as one of the key monitoring parameters. Outcome One focuses on providing 'Clean and Connected Communities' which directly links to waste and recycling, including the provision of street cleansing, clean up (and prevention of) fly tipping, collecting household waste and providing a year round commercial waste collection service. It also includes a commitment to maintain efficient fortnightly waste collections and bulky waste collections. The Plan also commits to 'Serve People Well' (Outcome Eleven) focusing on ensuring that residents and businesses are provided good public services that are both efficient and effective.

Nottingham City Council are also currently working with Nottinghamshire County Council to prepare a new Waste Local Plan which will provide the future planning policy framework for waste management sites in Nottinghamshire and Nottingham to 2038. The Nottingham Growth Plan makes reference to Nottingham being one of the cleanest, greenest and least-car dependent UK cities. Key actions for growth include fostering enterprise (which provide opportunities for fostering a new circular economy), developing a skilled workforce and expanding green energy supply, all of which will influence this Strategy.

### 2.2.1 You Said, We Did

Engaging local stakeholders through a public consultation provided the Council opportunity to recognise respondent's values and preferences and to incorporate these into the Strategy. The public consultation on our draft strategy identified 14 key themes for improvement covering the 3 broad topics of public health and amenity, service provision and understanding and compliance. The ambitions contained herein, and actions identified within the accompanying Action Plan reflect the feedback received from service stakeholders.

Notably, three additional ambitions have been added to the Strategy to address concerns regarding:

- the need to improve public health for residents

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<sup>17</sup> <https://www.nottinghamcity.gov.uk/cn2028>

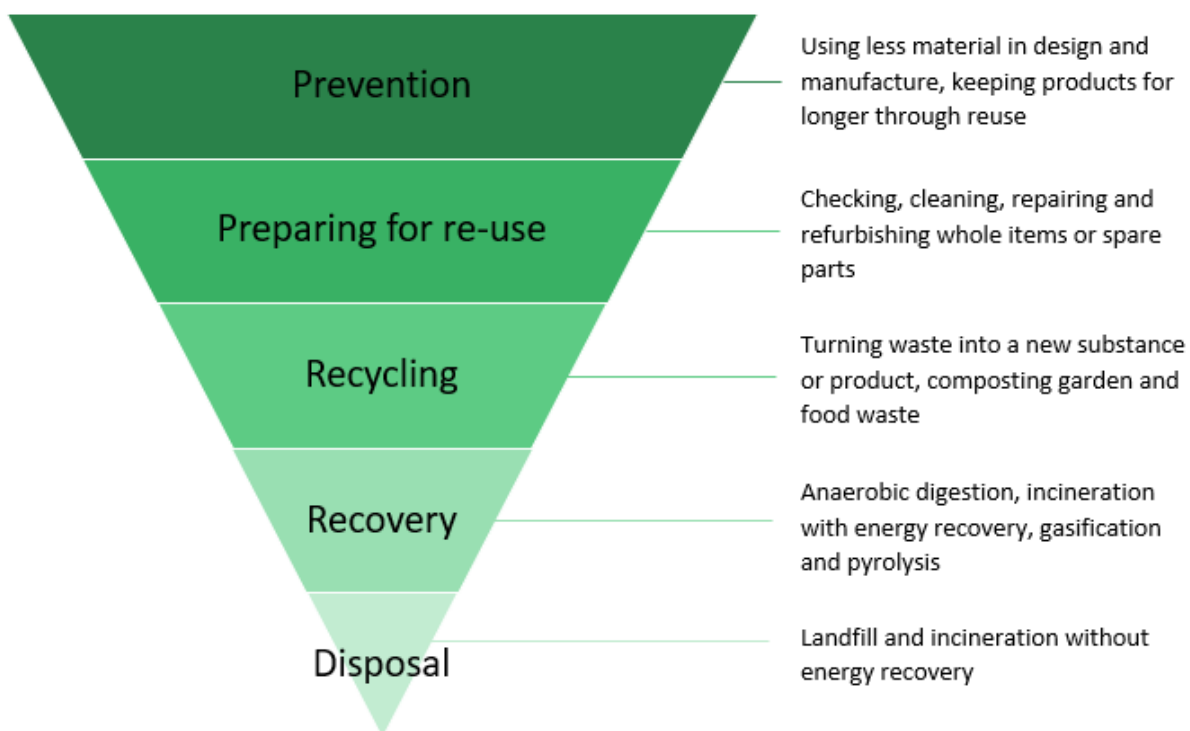
<sup>18</sup> [full-strategic-council-plan-2021-23.pdf \(nottinghamcity.gov.uk\)](https://www.nottinghamcity.gov.uk/full-strategic-council-plan-2021-23.pdf)

- access to and facilities at HWRCs (to increase levels of accessibility for residents with the aim of producing less waste and more recycling)
- fly-tipping and litter across the city with the aim of improving public health and amenity for residents

### 2.3 The Waste Hierarchy

This Strategy is underpinned by the principles of the waste management hierarchy (Figure 3). The waste hierarchy prioritises not producing waste in the first place, then for waste that is produced, reusing it where possible, followed by recycling and composting as an effective treatment method. The hierarchy then recognises that, even with all these measures in place, there is still a requirement to manage non-recyclable waste and as a city Nottingham do this through recovering energy from this residual waste fraction at the Eastcroft EfW facility.

Figure 3 – The Waste Hierarchy



## 2.4 Summary

A summary of the legislation, national and local policies that are relevant to the Strategy are presented in Table 2, demonstrating how they align with the ambitions set out in Section 5 of this R&WS.

Table 2 Summary of ambitions and how they align with policy and legislation

Legislation / policy	Requirement	Ambition
25-year plan	Maximising the value and benefits we get from our resources	2, 3, 4, 7
	Doubling resource productivity <sup>19</sup> by 2050	2, 4, 5, 7
	Zero avoidable waste by 2050, and no food waste to landfill by 2030	1, 2, 3, 5, 7, 10
	Target of eliminating avoidable plastic waste by end 2042	1, 2
	Meeting all existing waste targets – including those on landfill, reuse and recycling – and developing ambitious new future targets and milestones	1, 7, 10
	Eliminate waste crime and illegal waste sites over the lifetime of the Plan, prioritising those of highest risk (litter)	9
	Significantly reducing and preventing all kinds of marine plastic pollution (particularly material from land)	9
Environment Act (2021) / Our Waste, Our Resources: A Strategy for England (2018)	Consistent collections	4, 5, 7
	Separate food waste collection	3
	Extended packaging producer responsibility scheme (EPR) – from 2024 [nationwide initiative]	
	Deposit return scheme (DRS) for single use drinks containers – from 2025 [nationwide initiative]	
	National 65% recycling target by 2035.	3, 7
Residual Waste Reduction Target (Environmental Improvement Plan)	Reduction in per capita residual waste (50% reduction of 2019 levels of 560kg per capita) by 2042	1, 2, 3, 5, 7, 10
	Interim waste reduction targets for 2028 (reduce municipal residual waste produced per person )	1, 2, 3, 5, 7, 10
Nottingham Carbon Neutral Charter (CN28)	Carbon neutral by 2028 (aiming to be the first carbon neutral city in England)	11, 14
Strategic Council Plan for Nottingham	Promoting the use of refill stations	2
	Measuring percentage of household waste recycled as one of the key monitoring parameters	7
	Street cleansing, clean up (and prevention of) fly tipping	9
	Collecting household waste	6
	Year-round commercial waste collection service	6
	Maintain efficient fortnightly waste collections	6
	Bulky waste collections	2, 6

<sup>19</sup> A measure of the total amount of materials directly used by an economy.

### 3 The Strategy Vision and Objectives

By setting a vision and strategic objectives the Council can begin to develop a route-map to transform waste collection and waste disposal services for the city.

#### 3.1 Our Vision

The vision of the Resources & Waste Management Strategy defines the approach for the waste management services in Nottingham, and is as follows:

***“The Resources and Waste Management Strategy aims to deliver a high-quality service driven by the need to conserve resources, protect the local environment and reduce carbon emissions in line with the Councils carbon neutral policy for 2028 and beyond. This means reducing the amount of waste that is generated; through prevention, reuse, repair, recycling and recovery.”***

### 4 How will we deliver the vision?

The following objectives provide the areas of focus for delivery of the vision set out.

1. Manage wastes as resources, using the waste hierarchy as a guide: to prevent wastes arising in the first instance; then reuse; then recycle / compost; then recover energy, and; finally to dispose of waste as a last resort.
2. To reduce the amount of waste landfilled, working towards zero waste to landfill.
3. Continually seek to reduce carbon emissions to improve performance and contribute to the City and Council ambitions on carbon emissions.
4. ‘Lead from the front’ and improve the environmental performance of activities within Council buildings and via services it provides, including the management of waste and resources.
5. Deliver high quality, customer focussed waste management services that are accessible and inclusive.
6. Work in partnerships with the community sector, private sector or other public sector bodies to expand the resource and expertise available to the municipal waste management service and engage with the residents and the customers of the service to promote environmental awareness and improve participation in waste reduction, re-use and recycling schemes.
7. Ensure that options facilitate / integrate the management of commercial, industrial and other wastes where it is environmentally, socially and economically feasible to do so.
8. Seek efficiencies and economies of scale through partnering and procurement to retain a cost effective service.
9. Utilise and improve existing infrastructure where it can contribute to sustainable waste management and innovate in the development of new infrastructure where required
10. Develop local solutions wherever practicable to minimise transport impacts of the service. The value of secondary raw materials / energy should be used locally where practicable.

The vision and objectives presented inform the rest of the Resources & Waste Strategy and have taken into account both national and local policy as outlined in Section 2, and public and stakeholder views presented through a consultation exercise.

### 5 How can the Strategy be delivered?

The Strategy will be delivered through a set of commitments, defined as ambitions, which will form the basis of, and support any future decisions taken in respect of the waste management services provided by the

Council. This section outlines the commitments (ambitions) made by Nottingham City Council to deliver the vision and objectives of the Strategy (see Table 3).

Table 3 Summary of Strategy Ambitions

Theme	No.	Ambition
Preventing Waste and Promoting Re-use	1	<b>Waste Prevention</b> - Encourage a reduction in consumption by highlighting the environmental benefits of waste reduction and prevention, and signposting to waste prevention and reuse activities and services in the City.
	2	<b>Reuse &amp; Repair</b> - Nottingham City Council aim to work with local businesses and community groups to expand and promote repair and reuse services. Opportunities to reuse / repair goods collected through the Household Waste & Recycling Centre and the Bulky waste collection service will be explored with the community and voluntary sector
Enhancing Recycling	3	<b>Food Waste</b> - Introduce a separate weekly food waste collection to its residents and treat food waste in a manner that reduces carbon emissions and generates energy.
	4	<b>Consistent Collection</b> - Explore the potential expansion of the materials collected for dry recycling from its residents and businesses to ensure that the full range of recyclables can be collected from both the kerbside service and the Household Waste Recycling Centre service by 2027.
	5	<b>Enhancing Recycling Further</b> - Continue to prevent recyclables from going into the residual waste collections, including enforcement and education around side waste (additional waste placed at the side of the relevant collection container) and restrictions on the amount of residual waste presented for collection.
Managing Household & Business Waste	6	<b>Service Provision</b> - Work with partners and stakeholders to deliver an effective collection service for the residents and businesses across Nottingham to maintain high standards of public health.
	7	<b>High Quality Recycling</b> - Review the collection system for dry recycling from residents, businesses and organisations to ensure that the service maximises the collection of high-quality recycling and contributes to the achievement of the national 65% recycling target by 2035.
	8	<b>Household Waste Recycling Centres (HWRCs)</b> - Nottingham City Council will aim to improve accessibility to, and the facilities provided at the HWRC.
	9	<b>Fly tipping &amp; Litter</b> - Nottingham City Council will work to reduce fly-tipping and litter across the city and educate residents, businesses, or anyone disposing of rubbish, about their legal duty of care to dispose of their rubbish responsibly.
Dealing with the Waste that is Leftover	10	<b>Avoiding Landfill</b> - Prioritise energy recovery and avoidance of waste to landfill to continue to keep waste sent to landfill under 10%.
Purchasing and Waste Management	11	<b>Leading by Example</b> - Lead by example by reviewing Nottingham City Council's internal purchasing activities and waste management services to promote waste prevention and encourage reuse and recycling within its internal operations.
Comms and Engagement	12	<b>Education</b> - Provide more education on sustainable living; Reduce, Reuse and Recycle, and how management of resources helps to tackle climate change.
	13	<b>Communication and Engagement</b> - Nottingham City Council will continue to provide clear and effective communication and engagement regarding waste prevention, reuse, repair and recycling services
Working towards Net Zero carbon	14	<b>Carbon Reduction</b> - Expand alternative fuel vehicles to lower carbon emissions & improve local air quality during waste collection operations.

The ambitions are designed to be compatible with local priorities including clean streets, CN28, local waste planning policy drivers detailed in the recently drafted Waste Local Plan whilst also supporting key outcomes of the Strategic Council Plan including Serving People Well. The 14 ambitions are grouped into themes which are discussed in turn within this section of the Strategy.

The ambitions have also been reviewed and revised from their draft form in light of the feedback from the public consultation on the draft Strategy to ensure comments from residents, communities and stakeholders

have been addressed, see Section 2.2.1. The public consultation was held between October and December 2022 and involved an online survey and a number of in-person and online engagement events. In total, over 3,600 responses were received to the online survey.

## 5.1 Preventing waste and promoting reuse

### 5.1.1 Waste Prevention

Preventing waste is the highest priority of the waste hierarchy and should be the foundation of any Resources & Waste Strategy. Preventing waste eliminates or reduces the adverse environmental impacts of waste generation and management. It also reduces our demand on the Earth's limited resources, which in turn reduces the carbon emissions associated with waste management activity.

This can be achieved by preventing waste from arising in the first place (avoiding the creation of waste for disposal, recovery or recycling) or by extending a product or services useful life through reuse or repair.

Waste prevention is most effective when it is targeted at a particular material, or at a sector level. This means that any action or communication can be individually targeted to address the specific issues, engage with relevant stakeholders, and seek the best opportunities for improvement to maximise effectiveness.

NCC will work, through education, communication, engagement and their service design, to encourage residents to reduce the amount of waste they produce. Reducing the amount of waste produced reduces its burden on Council budgets and the taxpayer as well as having those broader benefits of reducing our carbon impact. At the most local level – at home – reducing what is put in the bin (perhaps by making decisions in the supermarket not to accept over-packaging or by using 'zero waste' shops) all contributes to the objective of reducing the amount of waste produced.

As such, in recognition that prevention should precede all other elements of resources and waste management, NCC will pursue the following ambition:

<b>Ambition No. 1</b>	<b>Waste Prevention</b> - Encourage a reduction in consumption by highlighting the environmental benefits of waste reduction and prevention, and signposting to waste prevention and reuse activities and services in the City.
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### 5.1.2 Re-use & Repair

Reuse is the second highest priority of the waste hierarchy and aims to extend the 'useful life' of a product or service, including through repair. Encouraging reuse and repair has wide ranging benefits which include saving money, conserving finite materials and lowering carbon emissions. Reuse and repair activities often support social and economic development, through skills training, employment and community volunteering.

Examples of reuse activity across Nottingham include:

- Bike Works Nottingham – a not for profit organisation which fixes bikes but also helps to repair and rehome unwanted bikes which helps community projects.
- Haven Housing Trust – accepts donations of good, clean furniture and household items.
- Furniture Project Nottinghamshire – accepts furniture, textiles, electrical items and kitchen appliances that are in a reusable condition.
- Nottingham Fixers – a group of volunteers who bring together people to share and develop repair skills, often through Repair Café events. Items repaired so far include clocks, bikes, radios, sewing machines, lamps and clothes.
- Sycamore Dining – a Community Interest company set up by City of Nottingham District Scouts which sources its meals from surplus food from the supply chain (working in Partnership with Fareshare, Tesco and Co-Op). The group provide social dining and meals at home services, and regular community events such as BBQs and training in food hygiene.

There has also been growing interest in refills as a means for reducing waste and there are a number of 'zero waste' shops set up across the city. The aim of these shops is to help people live more sustainably and reduce their impact on the environment by using reusable containers to purchase home staples such as pasta, rice, cereals, nuts and seeds or other domestic items like detergents, hand wash etc.

Residents of Nottingham City are also able to engage in reuse activities at Redfield Road Household Waste and Recycling Centre (HWRC) on Lenton Industrial Estate. Residents can use this site to dispose of recycling and waste. However, a number of the materials separately collected will be sent for reuse where possible, including waste electricals and bric-a-brac.

The Council recognise the integral role and huge benefit of working in partnership with key businesses and community groups to increase the use of repair and reuse, supporting this with the services provided by our HWRC. As such, NCC state the following ambition:

<b>Ambition No. 2</b>	<b>Reuse &amp; Repair</b> - Nottingham City Council aim to work with local businesses and community groups to expand and promote repair and reuse services. Opportunities to reuse / repair goods collected through the Household Waste & Recycling Centre and the Bulky waste collection service will be explored with the community and voluntary sector
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## 5.2 Enhancing recycling

Recycling uses fewer natural resources from the earth and less energy to produce the same new product. Recycling can also help to reduce greenhouse gases being released and waste being produced. The extraction of raw materials from the earth, material processing, manufacturing and transport are all stages in the process that use energy and emit greenhouse gases, much of which can be avoided through effective recycling.

Recycling of waste can take several forms, the most recognisable of which is the recycling of packaging type materials (plastics, cans, card, paper and glass). This Strategy aims to improve the recycling of all of these materials, as well as to continue to compost collected garden waste and to introduce a food waste collection. This section explores the ways that Nottingham City Council can improve their levels of recycling.

### 5.2.1 Food Waste

After preventing food waste occurring (for example through meal planning, use of leftovers in recipes etc.), the next best method of reducing carbon emissions from food waste is to separately collect and treat it. The most effective way of doing this is to collect food waste from households and businesses on a weekly basis, as a separate material stream, and to process the food waste, most commonly in Anaerobic Digestion (AD) facilities. Anaerobic digestion is a process that breaks down food waste in the absence of oxygen to generate flammable biogas (which is roughly half methane and half carbon dioxide) and a residual slurry called digestate. This gas can be either combusted in a gas engine to generate electricity, used to fuel vehicles with 'biomethane' or, after further processing, injected directly into the gas grid. After some further 'maturation' (like a composting process), the digestate can be applied to land as a soil conditioner or fertiliser.

Energy recovery (energy from waste, or the use of AD for managing food waste) has a supporting role in reducing the need for landfill. However, in accordance with the principles of the waste hierarchy, the priority should always be to reduce, re-use and recycle (in order of preference) as much as possible.

The Government is requiring (through the Environment Act 2021) all households to have a separate collection of food waste, on a weekly basis, from 2025, and NCC will deliver this new obligation through the following ambition:

<b>Ambition No. 3</b>	<b>Food Waste</b> - Introduce a separate weekly food waste collection to its residents and treat food waste in a manner that reduces carbon emissions and generates energy.
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### 5.2.2 Consistent Collections

The residents and communities of Nottingham have a range of materials collected for recycling as discussed previously (see Section 1.2). This Strategy sets out the intention for Nottingham to enhance this collection service in line with the Government intention to have a standardised set of materials collected for recycling by 2027 from each house and business across the country (consistent collection policy, see Section 2.1.4). As described previously, this will include:

- Metals (cans, foil trays, foil, aerosols)
- Plastics (plastic film, bottles, trays, pots, tubs)
- Cartons
- Card
- Paper
- Glass

Consistent collections will enable standardised product labelling for recyclability to be established by consumers and enable more targeted and consistent nationwide communications. Furthermore, residents moving from one area to another will know what materials can be separated for recycling (although there might be different coloured or different types of containers in which to separate them). For Nottingham, this would mean the collection of cartons and plastic film added to the list of materials already suitable for dry recycling collection services.

The national R&WS proposes a preference for collection systems that can reduce contamination of recycling (the wrong materials in the recycling bin) and collect good quality materials through separate collections. The capture of quality recyclate is important to enable more materials to be reprocessed, supporting a circular economy. This, however, needs to be married with other Council requirements (e.g. a cost effective service) and housing requirements (e.g. sufficient storage capacity for containers and different recyclables).

As part of the development work undertaken to present this Strategy, we have considered different recycling collection systems for the city. The appraisal of different collection systems (see supporting Options Appraisal document) demonstrates a preference for maximising recycling by introducing additional levels of separation for dry recycling material collected at the kerbside. Subject to further deliberation by Government, the current approach of commingled collection of recycling materials operating in Nottingham may not be acceptable in the future. Further materials separation, alongside restricting the residual waste capacity to maximise participation in recycling performs well in the appraisal of options. The addition of a weekly food waste collection should also reduce the need for the current levels of residual waste capacity (see Ambition No.3 and ‘What is in your bin’ section of this Strategy).

NCC recognise the need to improve its recycling performance, both in terms of targeted materials for recycling, and in the way that recycling and waste collections are currently undertaken in the city. NCC commit to improving performance under the following ambition:

<b>Ambition No. 4</b>	<b>Consistent Collection</b> - Explore the potential expansion of the materials collected for dry recycling from its residents and businesses to ensure that the full range of recyclables can be collected from both the kerbside service and the Household Waste Recycling Centre service by 2027.
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### 5.2.3 Enhancing Recycling Further

On average a typical residual bin presented for collection, contains 27% of target materials for recycling that should have been placed in the recycling collection system instead (see Section 1.4). When additional materials are included for recycling collections to achieve national uniformity (including food waste which accounts for another 37% of an average bin), more waste can be more easily recycled through smarter separation of materials at source.

The Council will adopt an evidence based approach to ensure the right bins are provided to maximise participation in recycling collection systems and to discourage the presentation of side waste. Further communication and education with residents to encourage and promote the right behaviours will ensure collection systems are used correctly and recycling capture rates should improve.

The analysis of what is in our residents bins indicates that the high rate of residual waste in the city is due to recycling materials being placed in the residual green bin. As a result, a significant number of residents are unable to present their bin with a closed lid and/or place additional bin bags either next to their bin or by public bins for collection. Over an additional million pounds of taxpayers money is spent each year addressing these practices. Not only does waste on streets look unsightly, it encourages pests as bags are easy to get into and often split, spilling the content on the street. Not having a closed lid on wheeled bins also has the same impact, with waste often escaping to the street. We are aware that, whilst education and communication are our preferred method of engaging with residents, there are times when it may be necessary to ensure compliance with our collection scheme and systems through enforcement. This is another aspect of maximising participation and would support a change in behaviour where the communication campaigns have not had an impact. The Council will adopt the following ambition:

<b>Ambition No. 5</b>	<b>Enhancing Recycling Further</b> - Continue to prevent recyclables from going into the residual waste collections, including enforcement and education around side waste (additional waste placed at the side of the relevant collection container) and restrictions on the amount of residual waste presented for collection.
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#### 5.2.4 Additional Changes

As part of the wide-ranging national changes being implemented, Government has announced the introduction of a deposit return scheme (DRS) for all single use drinks containers (excluding bottles made of High-Density Polyethylene plastic, primarily milk bottles and glass). The detail of the DRS scheme is still unclear but is due to be implemented from 2025. The DRS is likely to place an additional 20p charge (the deposit) onto bottles and cans containing drink, which then may be redeemed (returned) when the bottle / can is placed in an authorised collection point. The collection points are likely to be at shops and supermarkets and are known as reverse vending machines, although alternative methods of redeeming deposits are also being investigated. This could have the effect of changing consumer behaviour to an extent, and also potentially reducing the amount of littering of drinks containers. The DRS may also reduce the amount of recyclables and waste handled by local authorities as people choose alternative routes to dispose of their drinks containers.

To encourage greater resource recovery from waste, the Government are also intending to implement Extended Producer Responsibility (EPR) for all producers of packaging. EPR means that all packaging producers will need to pay for the costs of dealing with their packaging at the end of its life (e.g. when it is recycled or thrown away). In future (and this is intended to be implemented from 2024), packaging producers will be responsible for the net costs of collecting, handling, recycling, treating and disposing of packaging waste, by providing monies to local government equivalent to that cost. This, together with the DRS scheme, will also provide an incentive to product and packaging producers to consider how their products can be designed better to improve their recovery, i.e. by making them easier to recycle. Packaging that is hard to recycle will cost more to dispose of which will ultimately cost the producer of that packaging. This approach will assist

councils by improving resource recovery and recycling over the medium and long term by making communication and collections simpler to understand.

### 5.3 Managing Household and Business Waste

Nottingham City Council is committed to delivering a cost-effective, quality-led service to its residents, businesses and wider community. This section outlines the Council's ambitions to deliver against this commitment whilst also striving to improve performance and achieve higher levels of recycling across Nottingham.

#### 5.3.1 Service Provision

The public consultation identified a need to review and improve the current services provided and, as such, Nottingham City Council commit to the following ambition:

**Ambition  
No. 6**

**Service Provision** - Work with partners and stakeholders to deliver an effective collection service for the residents and businesses across Nottingham to maintain high standards of public health.

#### 5.3.2 High Quality Recycling

Residents cannot deliver the aspirations of this Strategy alone. It will take the support and action of the city's businesses and wider communities too. Nottingham City Council operate a well-established trade waste collection service, providing collection services for recycling and residual waste for many businesses across Nottingham.

Aligning the options for managing resources and waste in commercial settings in a manner similar to that which residents are used to at home helps to ensure consistency, improve recycling behaviour and therefore increases overall recycling performance. As such, the Council states the following ambitions:

**Ambition  
No. 7**

**High Quality Recycling** - Review the collection system for dry recycling from residents, businesses and organisations to ensure that the service maximises the collection of high-quality recycling and contributes to the achievement of the national 65% recycling target by 2035.

#### 5.3.3 Household Waste Recycling Centres

As part of Nottingham's Strategic Council Plan, Nottingham City Council commit to ensuring local services are easily accessible to all. This includes reviewing how they deliver key services, which includes providing public access to Household Waste Recycling Centres (HWRC's) to donate items for reuse, recycle or dispose of unwanted household waste.

The public consultation identified areas for potential improvement at Redfield Road HWRC and, as such, the Council commit to the following ambition:

**Ambition  
No. 8**

**Household Waste Recycling Centres (HWRCs)** - Nottingham City Council will aim to improve accessibility to, and the facilities provided at the HWRC.

### 5.3.4 Fly-tipping & Litter

The public consultation<sup>20</sup> demonstrated that Nottingham residents want the city to be a clean environment. There are concerns about litter and fly-tipping. Preventing litter and fly-tipping makes good sense for both communities and businesses alike. It can impact on the economy, tourism and above all the health and well-being of our citizens. Nottingham City Council will work with residents and organisations to make sure that they have the correct facilities to keep levels of waste and litter down. To encourage a reduction in street litter and fly-tipping and alleviate concerns regarding fly-tipping across the City, we commit to the following:

**Ambition  
No. 9**

**Fly tipping & Litter** - Nottingham City Council will work to reduce fly-tipping and litter across the city and educate residents, businesses, or anyone disposing of rubbish, about their legal duty of care to dispose of their rubbish responsibly.

### 5.4 Dealing with the waste that is left over

Only once all other options of the waste hierarchy (prevention, reuse, repair, recycling) have been exhausted, will Nottingham address how to manage the waste that is left over.

Currently, the majority of residual waste collected in Nottingham is transported to the Eastcroft Energy from Waste (EfW) plant after recyclables have been taken out.. This residual waste is incinerated to maximise energy recovery which is used to provide heat and power through Nottingham's district heating system. Since 1972, Nottingham City Council have provided an EfW solution for the residual waste left over after recycling to keep waste away from landfill<sup>21</sup>.

Any residual waste not suitable for Eastcroft is processed to produce Refuse Derived Fuel (RDF) which is used as a substitute fuel to replace coal and other fossil fuels used for the manufacture of cement.

Landfill is utilised as a last resort when EfW capacity or RDF production is not available.

The Government has set a target for England, that no more than 10% of municipal waste should be sent to landfill by 2035. Nottingham already achieves this target with less than 8% disposed of to landfill in a normal year, and sets the following ambition:

**Ambition  
No. 10**

**Avoiding Landfill** - Prioritise energy recovery and avoidance of waste to landfill to continue to keep waste sent to landfill under 10%.

### 5.5 Purchasing and Waste Management

Nottingham will set an example to its residents and businesses by ensuring that they are at the forefront of developing sustainable waste management solutions, leading by example to reduce waste and conserve resources.

Nottingham is aware of its role in managing wastes and conserving resources in Council buildings or through delivering council services and activities, and makes the following ambition:

<sup>20</sup> Undertaken in 2022, to inform the development of this Strategy

<sup>21</sup> NCC also recover the ash that is left over from the energy recovery process. The metal and aggregate content of this material (known as Incinerator Bottom Ash) is sent for recycling.



**Ambition  
No. 11**

**Leading by Example** - Lead by example by reviewing Nottingham City Council's internal purchasing activities and waste management services to promote waste prevention and encourage reuse and recycling within its internal operations.

## 5.6 Communications & Engagement

Communication and engagement are an essential part of the waste and recycling service to ensure that residents are well informed and able to participate fully in services. To do so, residents need to fully understand what services are available to them, how to access them, how they operate and the role they play. Well-designed communications are also those that target particular or perceived barriers and offer solutions or information to overcome them. They demonstrate an understanding of the current situation, are consistent with their messaging and clearly identify the desired outcomes (i.e. separating food waste from residual waste or reducing contamination).

Clear and effective communication between NCC and its residents and businesses is essential to ensure that the objectives of this Strategy are met. NCC will work, through education, communication, engagement and their service design, to encourage residents and businesses to reduce the amount of waste they produce. As such, Nottingham commits to the following two ambitions:

**Ambition  
No. 12**

**Education** - Provide more education on sustainable living; Reduce, Reuse and Recycle, and how management of resources helps to tackle climate change.

**Ambition  
No. 13**

**Communication and Engagement** - Nottingham City Council will continue to provide clear and effective communication and engagement regarding waste prevention, reuse, repair and recycling services

## 5.7 Working towards Net Zero carbon in Nottingham

The measures throughout this Strategy will make significant reductions to carbon emissions from the municipal waste management service. Modelling undertaken in the development of this Strategy indicates that by implementing all of the best performing collection measures available to the Council, using current data, the carbon savings of a range of 650 – 3,400 tonnes of CO<sub>2</sub> equivalent could be delivered each year, compared to the present service. This is the equivalent (in carbon emissions terms) of taking up to 1,200 cars off the road permanently.

Nottingham has led from the front for many years in terms of its use of energy recovery and district heating capabilities. However, we live in a changing world and as we move forward, more challenges will arise. As a civic leader, the Council will need to adapt and change in order to meet these requirements.

Nottingham City Council is also a leading authority in the transition to alternative fuel vehicles. As of 2021, Nottingham has switched over 40% of its fleet to electric vehicles and has a target to convert 100% of its fleet to electric or renewable fuel fleet by 2028, in line with its CN28 targets. Amongst its electric fleets are over 130 vans, 50 cars, 14 cage tippers and 8 sweepers.

Nottingham City Council currently operates 8 electric waste collection vehicles (eRCVs) and this fleet is due to expand with up to 20 eRCVs out of a fleet of 29 collection vehicles to be delivered shortly. The Council therefore commits to the following ambition:

**Ambition  
No. 14**

**Carbon Reduction** - Expand alternative fuel vehicles to lower carbon emissions & improve local air quality during waste collection operations.

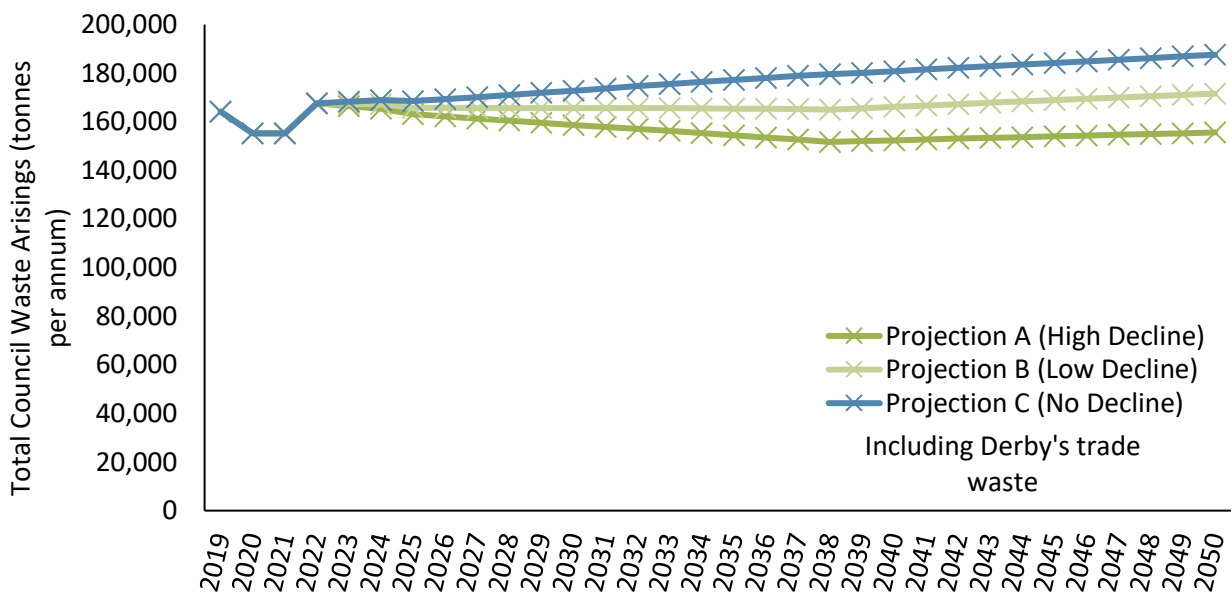
## 6 Where will this Strategy take us?

We have seen significant changes in resources and waste management across Nottingham over the last 20 years and upcoming policy ensures that our waste management services will continue to evolve. This will be driven by both lifestyle changes (more on-line shopping) and by advancements in technology and design (lighter weight packaging, new materials) which will change the materials we use and dispose of.

Managing these uncertainties and ongoing changes to resource and waste management requires a Strategy that is both robust, but also flexible and responsive to be able to approach new challenges. Within this Strategy we have set out a number of ambitions to deliver real change and improvements to the management of resources and waste within Nottingham.

Figure 4 below offers a look ahead across the Strategy period, to see how total waste arisings might change between now and 2050. These are informed by housing forecasts and residual waste reduction assumptions with High, Low and Core projections shown. The changes illustrated will be delivered by a variety of local waste prevention and reuse activities but will also be driven by national changes and the obligations placed on packaging producers affected by the Extended Producer Responsibility (EPR) measures.

Figure 4: Waste growth projections for wastes collected by Nottingham City Council, 2019 – 2050



The measures explored in developing this Strategy show that Nottingham’s recycling performance could increase from c.23% to c.42% through effective recycling and implementation of improved separation systems. The ambitions adopted by this Strategy demonstrate that a potential carbon saving of c.3,400tonnes of CO<sub>2</sub> per annum is achievable. National changes, as explained in section 2.1 of this R&WS, could drive separation and recycling in the city to over 50% in the longer term as recycling is made easier and clearer.

The vision and objectives of the R&WS cannot be met by the actions of Nottingham City Council alone. It requires residents and businesses of the city to consider their purchases and consumption of resources and then to seek to use the available reuse, repair and recycling systems provided for them when products or materials are no longer wanted. The Council's primary role in delivering these changes is to help provide good information on waste prevention activity and encourage the right behaviours through education and enforcement. As such the Council can either directly provide or facilitate the collection, reuse, repair and recycling of unwanted materials, goods or wastes.

## 7 Supporting Documents

The Strategy has been informed by research, analysis and public consultation. It is supported by the following documents:

- **Options Appraisal.** This is an assessment of alternative resource and waste service delivery options, analysing combinations of factors such as waste collection methods, recycling options, or treatment approaches. The outcome was a selection of possible approaches to meet the Strategy aims and objectives.
- **Non-technical Summary of the Options Appraisal** report to aid and assist in consultation feedback.
- **Stakeholder engagement.** The Strategy has been informed by officers and Councillors of Nottingham City Council.
- **Public Consultation.** A report summarising resident and community feedback of 3,646 respondents from a public consultation campaign, including consultation questionnaire survey, on the key elements of the draft R&WS.
- **Action Plan.** This document provides an internal route map for delivering the vision, objectives and ambitions of the Strategy. It is a living document, to be reviewed and monitored on an-going basis to ensure that resources and waste are managed efficiently and achieve the desired outcomes of this Strategy.

## Acknowledgements:

*Produced by Nottingham City Council with the support of Frith Resource Management Ltd.*

## Disclaimer:

*Frith Resource Management Ltd (FRM) is an independent waste and resource management consultancy providing advice in accordance with the project brief. FRM has taken all reasonable care and diligence in the preparation of this report to ensure that all facts and analysis presented are as accurate as possible within the scope of the project. However no guarantee is provided in respect of the information presented, and FRM is not responsible for decisions or actions taken on the basis of the content of this report.*