

Draft Resources and Waste Strategy for Leicestershire 2022-2050



Executive Summary

How we view 'waste' has changed; it is no longer only something to get rid of, but is considered a valuable resource, to be retained and reused, or avoided at all where possible. Using waste as a resource can help to reduce the raw materials needed for producing new goods, which has environmental, social and financial benefits. This updated draft Leicestershire Resources and Waste Strategy (LR&WS / the 'Strategy') reflects this global current thinking and describes the recycling and waste management services which will be delivered by the Leicestershire Waste Partnership (LWP)¹ from 2022 up to 2050. The Vision of the draft LR&WS is:

To work towards a circular economy and contribute to achieving net zero carbon by 2050 in Leicestershire. This means fully embracing the waste hierarchy by preventing waste and keeping resources in circulation for as long as possible, through reuse, repair and recycling, to realise their maximum value whilst minimising environmental impacts.

This vision is supported by specific Strategy objectives and a range of pledges and measures that sit alongside national policy changes - setting a direction for long term management of material resources for the benefit of the residents and communities of Leicestershire². In addition, the Strategy includes:

- The policy framework - the current and future context for resources and waste management, considering local issues e.g. air quality, and global issues such as carbon reduction or greenhouse gas reduction and climate change
- Strategy delivery - how resources and waste will be managed to achieve the vision and objectives, through the services provided by the LWP to its residents and communities and 11 pledges regarding commitments, actions and performance.

The draft LR&WS includes a focus on waste prevention (avoiding waste generation in the first place) and developing more initiatives on reuse of goods - both at the Household Waste and Recycling Centres and in the community. There are challenging targets around recycling and reuse, aiming to enhance Leicestershire's performance from current levels (around 44% recycling rate) to 65% by 2035, with the majority of progress made over the next five years through the Countywide implementation of weekly food waste collections, more consistent and effective recycling collections and, subject to Government guidelines, funding and potential changes to garden waste collections.

If the national 65% recycling rate is to be met the amount of residual waste (all general mixed 'rubbish') managed by Councils will need to fall from around 620kg per household to around 360kg per household by 2035. Furthermore, the management of residual waste in Leicestershire is also set to change with a pledge to reduce the amount of waste landfilled from current levels (of around 30%) down to 5% by 2025. This is substantially ahead of the new national target of 10% landfilled waste by 2030.

The net effect of the measures within the draft LR&WS is a reduction in the amount of carbon (as measured in CO₂ equivalents) in the range of 5,000 -10,000 tonnes of CO₂ eq. each year from the collection and management of wastes and resources in the County. This is equivalent to taking between 1,800 – 3,600 cars off the road, in terms of annual emissions savings.

¹ Leicestershire Waste Partnership comprises Leicestershire County Council and the seven District and Borough Councils. Leicester City Council is an associate member.

² Note that this Strategy does not cover Leicester City Council which is a unitary authority with its own waste collection and disposal arrangements

This document is the 'consultation draft' of the Strategy. The LWP are asking for views and feedback from residents and communities, including businesses that use, or are affected by, the proposed resource and waste services in this Strategy by 25th April 2022.

CONSULTATION DRAFT

Contents

Executive Summary.....	2
1. Introduction	5
What is a Resources and Waste Strategy?	5
How is the service delivered?	6
What is in your bins?.....	10
2. What is the proposed Strategy for Leicestershire?	12
Our Strategic Vision	12
Our objectives to deliver the vision	12
National Policy & Influences	13
Resources & Waste Strategy for England	13
Waste Prevention Programme for England	14
Net Zero Carbon.....	14
Circular Economy	14
Clean Growth Strategy.....	15
Air Quality	15
Local Policies and Influences.....	15
Supporting Documents	15
3. How can the Strategy be delivered?.....	17
This section identifies LWP’s commitments required to deliver the Strategy. These are divided into the topic areas needed to meet the overall vision.....	17
Working in partnership	17
Preventing waste and preparing items for reuse	17
Collecting food waste and garden waste.....	19
Expanding recycling for homes and businesses.....	20
Avoiding landfill as much as possible.....	23
Contributing to Net Zero Carbon in Leicestershire.....	24
4. Where will the Strategy take us?	25
Projecting ahead to 2050.....	25
5. Consultation and Next Steps.....	28

1. Introduction

What is a Resources and Waste Strategy?

This document is the consultation draft of the Leicestershire Resources and Waste Strategy (LR&WS) for the Leicestershire Waste Partnership (LWP). The partnership comprises Leicestershire County Council (the Waste Disposal Authority) and the seven Leicestershire Waste Collection Authorities (the District and Borough Councils). Leicester City Council manages its waste via separate arrangements as a Unitary Authority.

This LR&WS is an update to the Leicestershire Municipal Waste Management Strategy 2020 which has been in place since 2002 and was reviewed and updated in 2006 and 2011 respectively.

The LR&WS describes the recycling and waste management services which will be delivered by the LWP up to 2050. The Strategy sets out:

- The policy framework - the current and future context for resources and waste management, considering local issues e.g. air quality, and global issues including carbon/greenhouse gas reduction and climate change
- The vision, aims, and objectives - what the LWP wants to achieve in terms of resources and waste management; and
- Strategy delivery - how resources and waste will be managed to achieve the aims and objectives, through the services provided by the LWP to its residents and communities.

How we view 'waste' has changed; it is no longer only something to get rid of, but is now considered a valuable resource, to be retained and reused, or avoided at all where possible. Also, the adverse impacts of raw material inputs e.g. the resources we use, are becoming increasingly apparent, meaning now more than ever raw materials need to be used efficiently and conserved. Using the resources from waste can help to reduce the raw materials needed for producing new goods, which has environmental, social and financial benefits. This updated LR&WS reflects this global current thinking.

The Strategy covers services for managing municipal solid waste (MSW). MSW is all the waste collected by the local authorities in the LWP³. This includes household, commercial and street cleansing wastes, and wastes taken to the Household Waste and Recycling Centres (HWRCs).

As Waste Collection Authorities, the District and Borough councils have a legal duty to collect municipal waste and Leicestershire County Council, as the Waste Disposal Authority (WDA), has a legal duty to treat, manage and dispose of MSW. The WCAs and WDA work in partnership, recognising that joint working on planning the collection, treatment (composting, recycling, and recovery) and disposal of waste supports efficient service delivery for residents and communities, including businesses.

This Strategy runs up to 2050, however it will be reviewed regularly at appropriate periods during this time. Reviews are needed to make sure the Strategy remains current and in line with national guidance.

This Strategy is a 'Consultation Draft'. For the next steps during and after the consultation, see section 5 'Consultation-Next Steps' in this document.

³ It also applies to similar wastes collected by other parties; however this is not under the control of the local authorities.

How is the service delivered?

All districts in Leicestershire currently have household collections of recycling, residual⁴ and garden waste. Food waste is not currently collected district wide by any WCA, however some have either collected this in the past or have trialled weekly food waste collections over the last few years, including Harborough District Council, Hinckley & Bosworth Borough Council and Oadby & Wigston Borough Council. North West Leicestershire District Council have been successfully trialling a food waste collection since November 2019, and continue to do so.

Recycling

How recycling is collected is broadly consistent across the LWP. Six of the Districts collect all recycling material together in one container (typically a wheeled bin), this is often referred to as a 'commingled collection' and is collected every two weeks. Residents in North West Leicestershire District on the other hand, are provided with a mixture of bags and boxes to separate out key recyclable materials, which are then placed in different compartments on a specialist vehicle. This is often referred to as a 'kerbside-sort' or 'multi-stream' collection. Examples of the containers for each District and Borough council are shown below.

	
<p>Commingled collections for: Blaby District Council, Charnwood Borough Council, Harborough District Council, Hinckley & Bosworth Borough Council, Melton Borough Council and Oadby & Wigston Borough Council.</p>	<p>Kerbside sort or 'multi-stream' collections for North West Leicestershire District Council (Image: NWLDC website)</p>

All of the commingled recyclable materials collected from residents are currently sent to a Materials Recycling Facility (MRF) in Leicester. At this facility, recycling is separated using a combination of manual and automatic sorting processes to sort material streams before being baled and sent for reprocessing.

North West Leicestershire District Council has its own arrangement for processing recycling (which is already separated on the vehicle as it collects from households). Their recycling is transported to a depot in Coalville. Here, the materials are unloaded from the collection vehicles and tipped into dedicated bays where further separation is used where needed. For example, magnets are used to separate the metals from the plastic. Once baled, the collected recyclables are sold on, and this can be directly to reprocessors.

⁴ 'Residual' waste is 'black bin' waste that is not separated, so is mixed waste or 'general rubbish'

Garden waste

Unlike recycling and residual waste, the collection of garden waste is a non-statutory service and is a discretionary service provided by Local Authorities. As such, Local Authorities are able to provide this service for free, or to ask residents to pay for its collection. All authorities in the LWP charge for the collection of garden waste, except for North West Leicestershire District Council who offer this service for free. Residents wishing to have their garden waste collected typically pay an annual subscription fee which covers the cost of a wheeled bin, vehicles and crew that collect garden waste.

Residents are also encouraged to use other methods to dispose of garden waste. Firstly, via home composting garden waste (cuttings, trimmings, plants, branches and other garden waste which can be composted). Alternatively, residents can also take their garden waste to any of the Household Waste and Recycling Centres.

Household Waste and Recycling Centres (HWRCs)

Household Waste and Recycling Centres (HWRCs)⁵ are provided for residents to dispose of any bulky or additional waste and recycling which cannot be collected through the kerbside collection. There are fourteen HWRCs located across Leicestershire, as shown in the image below. These sites are managed by Leicestershire County Council.

⁵ Locally in Leicestershire known as Recycling and Household Waste Sites (RHWS) or historically known as 'the tip'



Figure 1: HWRCs across Leicestershire

The HWRCs take a wide range of items which can be sent for reuse, recycling or disposal. Opening hours and the waste accepted varies across each site. Leicestershire residents are generally able to use these sites for free. Some charges may apply for specific materials, including hardcore and rubble, tiles, plasterboard and asbestos. Vans, pick-ups and cars with trailers, and any vehicle bringing asbestos, chemicals or liquid paint, require a permit to visit the sites.

In 2019/20, the combined reuse, recycling and composting performance was 45.5% for household waste from collections at the kerbside and from the HWRCs. This is lower than the UK's target to recycle 50% of household waste by 2020. The average for England within the same period was 43.8%, meaning that Leicestershire did perform above national average, despite the fall in overall performance shown below. A key reason for the fall, shown in Figure 2, was not that householders were recycling less, but that a facility which was extracting extra material for recycling from residual waste had closed.

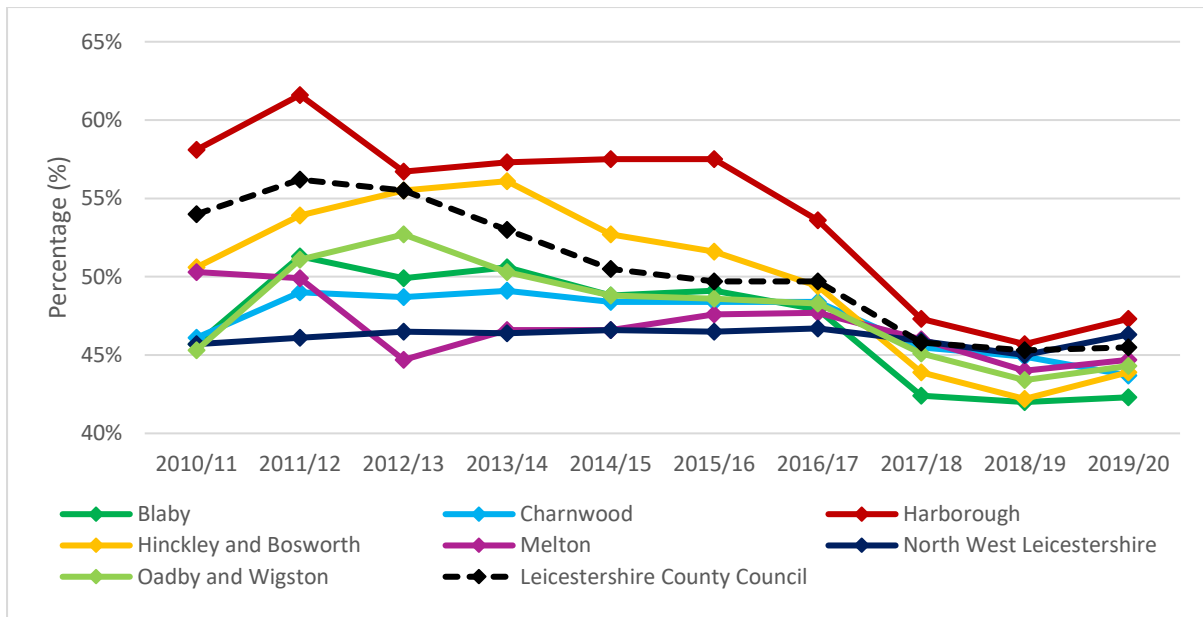


Figure 2: Current and historic recycling rates for Leicestershire Councils 2010/11 – 2019/20

Although the recycling rate is above the national average, the amount of waste sent to landfill (the least desirable outcome) was 31.8% in 2019/20, this is much higher than the average landfill rate for local authorities in England, for the same time period (8.5%). Both reducing the waste sent to landfill and increasing recycling are key elements of this Strategy (see section 3).

Who delivers the collection services?

The collection of waste and recycling is the responsibility of the District and Borough Councils. The delivery of this service can be managed in several ways; in-house (the Council run the collections using their staff), via a Local Authority Trading Company (a type of publicly owned 'arms length' company), or by outsourcing the service to a private contractor (also known as contracting out the service). At present, four of the District and Borough Councils operate this service in house (Blaby, Hinckley & Bosworth, North West Leicestershire and Oadby & Wigston) and three are outsourced to the private sector (Charnwood, Harborough and Melton). Collection service contracts typically last between 7 and 10 years.

Bulky Waste

Across the County, residents can arrange for the collection of larger items - this is known as a bulky waste collection. Each District and Borough Council has its own service in place for its residents. This service is chargeable (price varies per Council), often with a minimum collection fee. The types of items that can be collected include domestic furniture, appliances (televisions, fridges, freezers, washing machines), beds etc.

Trade Waste

Some District and Borough Councils also offer a collection service from businesses in their area, this is known as a trade waste collection. An overview of the trade waste services is provided below.

Council	Waste types collected	Other characteristics
Blaby District Council	General Waste Mixed Recycling	Customers can choose from a range of options for both the frequency of

	Glass Only	collection and the size of containers provided.
Charnwood Borough Council	General Waste	Weekly (or multiples of weekly) collections of residual waste. Intention to start mixed recycling collection soon.
Harborough District Council	General Waste Mixed Recycling	Customers can choose from a range of options for both the frequency of collection and the size of containers provided.
Hinckley & Bosworth Borough Council	General Waste Mixed Recycling	Customers can choose from a range of options for both the frequency of collection and the size of containers provided.
Leicestershire County Council	N/A	LCC run a trade service at Whetstone Waste Transfer Station (WTS) which includes an outlet for general waste and also source separated waste such as cardboard, green waste, wood and inert waste.
North West Leicestershire District Council	General Waste Mixed Recycling	Customers can choose from a range of options for both the frequency of collection and the size of containers provided.

What is in your bins?

The average composition of what a Leicestershire resident puts in their bins each year is shown in the pie chart below. What this illustrates is that the vast majority of items that are disposed of can be prevented, reduced, reused or recycled in some way. This isn't just the materials that we are familiar with recycling like paper, card, metals, glass and plastic, but also other materials like food waste and waste electrical and electronic equipment (WEEE), which can be collected separately and have their resource value recovered.

Separating these additional materials for recycling can help contribute towards achieving 65% recycling, the national recycling target for 2035, set by Government ⁶.

Furthermore, other items may be reused to prevent them 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. There is more on this in sections 3 and 4 of this Strategy.

⁶ This is included in the 2020 Circular Economy Package (CEP)

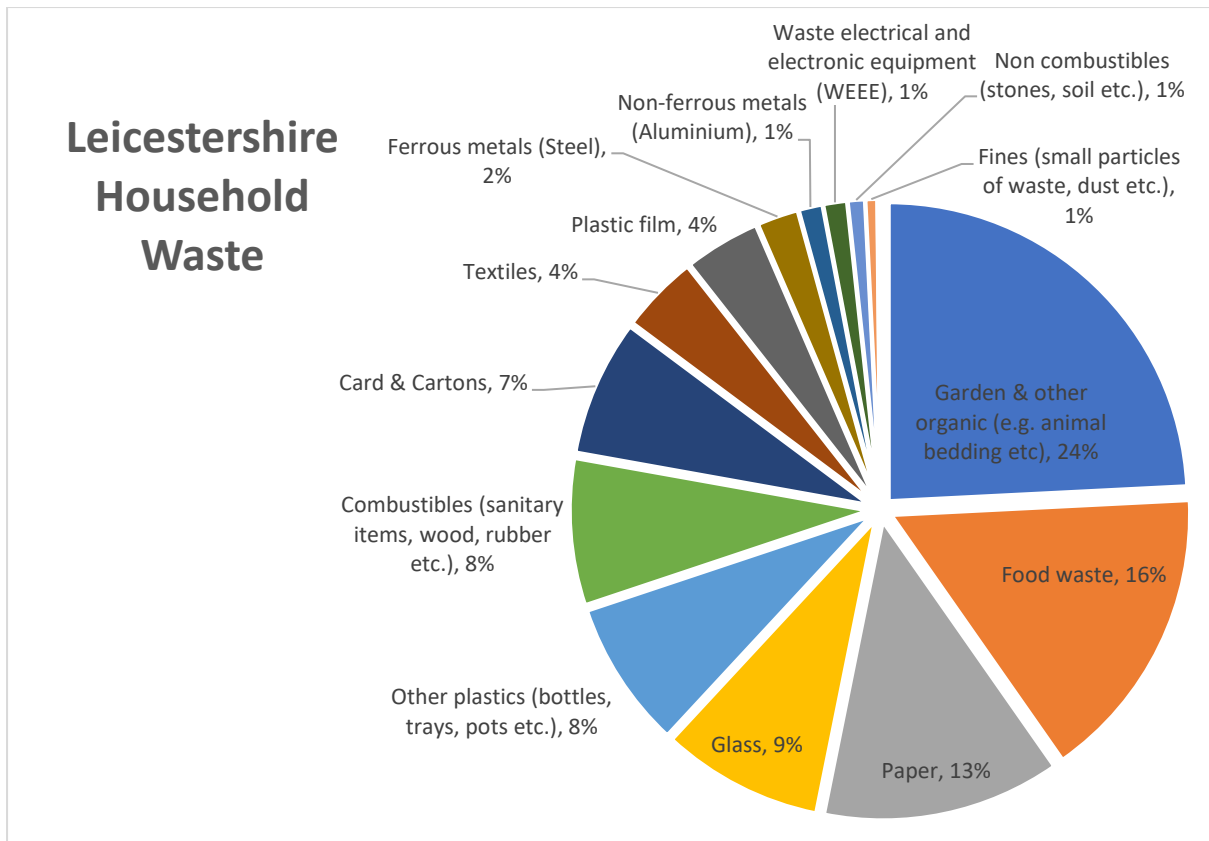


Figure 3: Waste composition of all bins (residual, recycling and garden) combined - 2019/20 data⁷

⁷ Data may not add up to 100% due to rounding

2. What is the proposed Strategy for Leicestershire?

This section explains the direction envisaged for the LR&WS and includes a summary of influences (both national and local) that have shaped its development.

The Strategy focuses on municipal waste that is waste generated by households and similar wastes from businesses and commerce. It explores different options to reduce the amount of waste arising in the first place (see ‘the waste hierarchy’ described later in this section), and then to manage the remaining material in a way that gives benefit from its resource value.

The management of the residual waste (the remaining waste left for disposal) is managed by long term contracts. Whilst there are different ways to manage this waste, the Strategy takes the position that the prime aim is to avoid waste going to landfill. When new contracts are to be let for managing residual waste, they should review the latest options available and adhere to the principles of this Strategy for subsequent decision making on residual waste management technologies.

The vision and objectives of the LR&WS are explained below.

Our Strategic Vision

The overarching vision of the draft LR&WS is:

To work towards a circular economy and contribute to achieving net zero carbon by 2050 in Leicestershire. This means fully embracing the waste hierarchy by preventing waste and keeping resources in circulation for as long as possible, through reuse, repair and recycling, to realise their maximum value whilst minimising environmental impacts.

Key aspects of this vision, like what we mean by a circular economy and the waste hierarchy are explained in more detail later in this section of the Strategy.

Our objectives to deliver the vision

To achieve the vision outlined above, the following objectives have been developed, and grouped into themes. These are all important guiding principles for the service as a whole and are not in order of priority.

Deliver services in accordance with circular economy principles

Objective 1: Manage materials in accordance with circular economy principles, except where costs are prohibitive, or where the environmental consequences can be demonstrated to be negative.

Objective 2: As local authorities, set an example by preventing, reducing, reusing, recycling and composting our own waste and use our buying power to positively encourage sustainable resource use.

Reduce the climate change / carbon / air quality impact of waste services in Leicestershire

Objective 3: Reduce carbon emissions from Leicestershire’s waste management services.

Deliver services that are financially sustainable and equitable across the Partnership

Objective 4: Consider the whole life financial, social and environmental impact, and deliver quality services designed to allow flexibility, innovation and improvement.

Objective 5: Promote the economic and employment opportunities of sustainable waste management where this is consistent with circular economy principles. Consider local / regional supply chain and markets for recycle and other secondary raw materials.

Delivery of high quality waste services for the residents of Leicestershire

Objective 6: Work together to adapt and deliver coordinated services and infrastructure for waste services with lower environmental impacts.

Objective 7: Aim to reduce and manage residual waste within the County where this is consistent with the proximity principle and to manage all other waste at the nearest appropriate facility by the most appropriate method or technology.

Work in partnership with local communities across Leicestershire

Objective 8: Work with the community and businesses to raise awareness about environmental matters (including climate change, energy and resource management) and increase participation in waste prevention, reuse and recycling initiatives and link to national campaigns.

Objective 9: Lobby and work with others, in pursuit of the Partnership's vision of sustainable waste and resource management.

The Strategy also includes a number of pledges setting out specific actions to support and achieve these objectives, these are presented in Section 3.

National Policy & Influences

A guiding principle of managing waste and resources is the 'waste hierarchy', this is shown below with definitions as to the meaning of each level. The most beneficial method is 'prevention' of waste and the least beneficial 'disposal'. This Strategy sets out Leicestershire's intentions on each level.

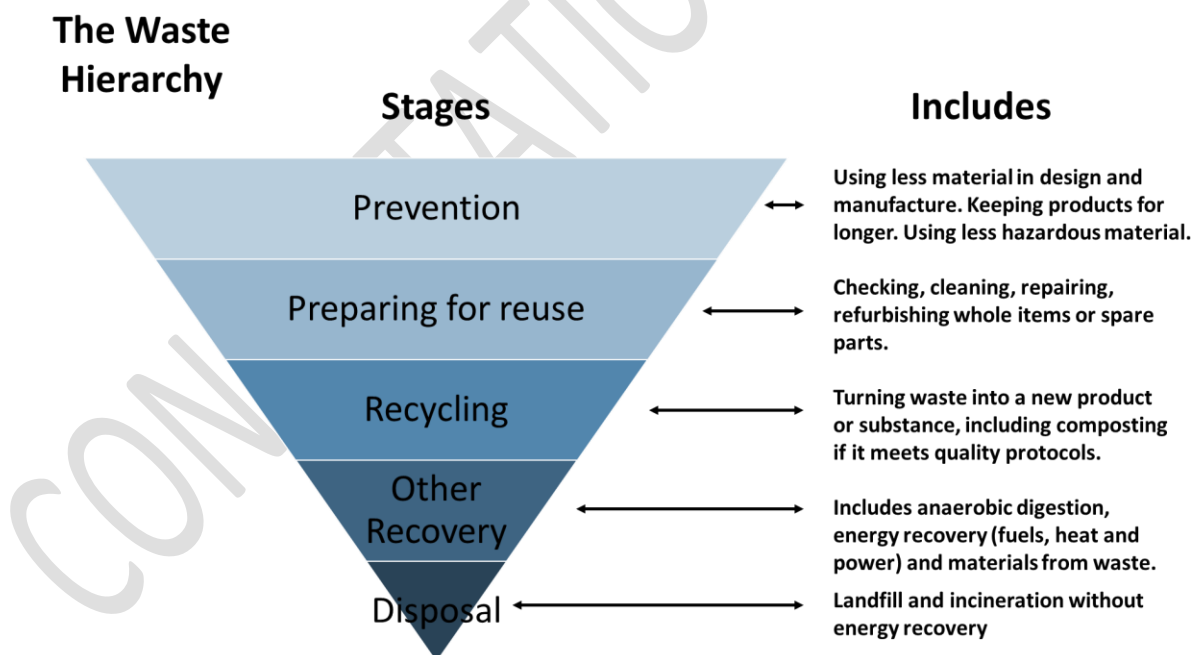


Figure 4: The Waste Hierarchy (2011)

Resources & Waste Strategy for England

"Our Waste, Our Resources: A Strategy for England" (2018), is focussed on improving recycling quality and increasing recycling rates from households and businesses. It includes substantial reforms to municipal waste collection and management services, including requiring the separate collection of food waste from households. 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 proposed include Extended Producer Responsibility for packaging materials (EPR)⁸ and the introduction of a deposit return scheme (DRS) for single use drinks containers. This is explained in more detail in section 3. These measures are likely to have a significant impact on the services delivered in Leicestershire and who pays for them. The direction of the national Strategy has had a major influence on the LR&WS.

Waste Prevention Programme for England

Waste prevention activity reduces the amount of waste which is generated, and the Government's view on how this can be achieved is set out in the Waste Prevention Programme for England, "Prevention is better than cure: the role of waste prevention in moving to a more resource efficient economy" (2013). Key actions for Central Government include setting a clear direction, leading by doing, driving innovation, and ensuring that information regarding waste prevention is available to all. In March 2021, a consultation on a revised Waste Prevention Programme for England was held. The consultation document outlines how waste prevention could be achieved through transforming product design, making it easier for consumers to make sustainable choices or purchases and aligning policy with a circular economy approach (see below).

Net Zero Carbon

Climate change is the greatest environmental challenge facing the world and is driven by rising levels of greenhouse gases in the atmosphere (which include gases such as carbon dioxide and methane). This results in global heating, rising sea levels and changing patterns of rainfall. These changes can increase the risk of flooding, heatwaves, droughts, and wildfires. To overcome this, the Government has committed the UK to achieving net zero by 2050. This means that there will be an equal balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere, through planting trees or using technology such as carbon capture. The waste management sector is estimated to have contributed around 4% of greenhouse gas emissions in the UK in 2019⁹. These emissions can be addressed through minimising the quantity of waste sent to landfill (which is a large contributor of methane emissions), and by applying the waste hierarchy (prioritising prevention, reuse, recycling and recovery).

Circular Economy

In a Circular Economy, we see a transition away from a take-make-dispose ideology to a more circular system in which we keep resources in use for as long as possible. This is achieved through maintaining the maximum value when in use, and then recovering and repurposing material at the end of its life. The EU Circular Economy Package (CEP) introduces a revised legislative framework, 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 incorporated into UK Government strategy and policy and key elements within "Our Waste, Our Resources: A Strategy for England" (2018).

⁸ The National Strategy also raises the potential for further producer responsibility measures including for textile wastes (e.g. to help tackle 'fast fashion' impacts), bulky waste (e.g. mattresses, carpets) and other waste streams.

⁹ Department for Business, Energy & Industrial Strategy (2021). 2019 UK Greenhouse Gas Emissions, Final Figures.

Clean Growth Strategy

The Clean Growth Strategy was published in 2017 by HM Government, which aims to increase national income while reducing greenhouse gas emissions in order to meet the UK's 2050 net zero goal. The Strategy highlights that the UK waste sector has contributed to significant falls in carbon, with the large reduction in waste being sent to landfill resulting in lower greenhouse gas emissions. 12.5% of the UK's energy was generated from 'renewable sources and waste' in 2019. The incineration of waste (Energy from Waste or 'EfW') made up 13.3%¹⁰ of the renewable energy generated.

Air Quality

Air quality is used to describe the condition of our air, it can be negatively impacted by a number of pollutants including sulphur dioxide and nitrogen oxide. Road transport is a contributor to poorer air quality, demonstrated by the fact that it accounted for 33% of nitrogen oxide emissions across the UK in 2019. The impact of waste management activity on air quality is most likely to arise through transport impacts, for example, when collecting household waste and recycling and the transport of this to transfer, recycling, treatment and disposal facilities. However, alternative fuels for Refuse Collection Vehicles (RCVs, or 'bin lorries') are coming into the market which will help to reduce the impact that the waste management sector has on air quality, this is because these fuels are cleaner and have a lower environmental impact in comparison to diesel. A pledge on alternative (low emission) vehicle fuels is included in section 3.

Local Policies and Influences

The LR&WS will be implemented in the context of local policies, which both shape and affect it. The proposals in this draft Strategy have been developed in consideration of these policies, in order to check that the Strategy can be practically implemented and that it either complements or does not diverge from the wider aims of the LWP member authorities, as set out in other relevant policies.

The types of policies influencing the Strategy include the Leicestershire Minerals and Waste Local Plan (the Local Plan). For waste, the Local Plan aims to provide adequate facilities for waste management and mineral extraction/processing facilities within Leicestershire to meet identified needs. The current plan runs from 2019 to 2031. The Local Plan includes Leicester City; Leicester City Council is not within the LWP, but both parties cooperate to deliver plans which affect a wide geographic area.

Further policies and plans considered during the Strategy update cover a wide range of environmental and social issues, such as carbon management, climate emergency declarations and net zero ambitions, community strategies, air quality management, biodiversity and transport. It is important that, to the extent possible, the LR&WS is aligned with these other documents. This is specifically addressed by an Environmental Report (see below) which gives more consideration to the local policy influences.

Supporting Documents

This draft LR&WS is not developed in isolation; it is supported by research, analysis and consultation. This has been undertaken through the following processes.

¹⁰

<https://www.ons.gov.uk/economy/environmentalaccounts/datasets/ukenvironmentalaccountsenergyconsumptionfromrenewableandwastesources>

Firstly, an **Options Appraisal** was prepared. 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.

Secondly, a **Strategic Environmental Assessment (SEA)** was undertaken. SEA considers wider policy influences and assesses the Strategy options against important environmental effects and proposed mitigation. An Environmental Report is the outcome of the SEA; the assessment and mitigation measures in the **Environmental Report** have influenced the final selected strategy option(s).

Thirdly, an **Equalities and Human Rights Impact Assessment (EHRIA)** was conducted. This assesses, at a strategic level, if the proposed resource and waste services are accessible to the entire community, regardless of characteristics such as age, gender, health, disability, race, or socio-economic status. The EHRIA also includes a public consultation which helps identify any additional unknown barriers the community may have in accessing services in the Strategy. The EHRIA influences the Strategy, identifying if any proposed options need adjusting in order for everyone to have access to the services.

Lastly, there is a **consultation questionnaire** on key elements within the draft Strategy to gain feedback from the residents and communities of Leicestershire.

CONSULTATION DRAFT

3. How can the Strategy be delivered?

This section identifies LWP's commitments required to deliver the Strategy. These are divided into the topic areas needed to meet the overall vision.

Working in partnership

The draft LR&WS has been developed jointly by LWP members, and it will be implemented by the LWP members working together. The Strategy update has included consultation with officers and elected members from all the LWP authorities. The LWP also recognise that waste issues cross administrative boundaries, and therefore it works with Leicester City Council. Leicester City Council is a Unitary Authority, which makes its own independent waste collection and disposal arrangements, but it co-operates with the LWP on strategic waste issues.

The LWP also works in partnership with residents and communities as they are central to the Strategy. The Strategy objectives are to deliver resource and waste services in which residents and communities can participate effectively. This requires clear and effective communication between the LWP and its residents. Residents are encouraged to maximise resource recovery by using the wide range of recycling services provided by the LWP; in turn, the LWP is required to provide accessible services for the residents, responding to their needs and aspirations.

In the near future, the LWP will also be working with private sector 'Producers' of waste under new Extended Producer Responsibility (EPR) legislation. EPR is intended to promote packaging¹¹ design which considers resource inputs and easier end of life recovery (e.g. reuse or recycling) of the resources within the products. Once finalised, EPR regulations will require the LWP members to participate in its implementation with possible service changes.

The Partnership is also aware of its role in managing wastes and conserving resources from materials generated in Council buildings and activities and makes the following pledge:

Strategy Pledge no. 1:

All Councils within the partnership will review their purchasing activities and internal waste management services to seek to promote waste prevention, reuse and recycling to support the objectives of this Strategy and lead by example

Preventing waste and preparing items for reuse

Waste prevention is the highest priority of the waste management hierarchy and is an integral part of any R&WS. Waste prevention measures ensure that the quantity of waste is reduced (either through the avoidance of waste creation in the first place, reuse of products and services, or the extension of its useful life). It therefore reduces the adverse impacts on the environment of waste generation and management, and subsequently prevents impact on human health.

It also eases our demand on finite natural resources and as such, reduces the carbon emissions associated with waste management activity.

The most effective waste prevention activities are often focused on particular waste streams or products. Over recent years, LWP members have implemented a number of initiatives in support of waste prevention and reuse. These projects have included food waste reduction training through

¹¹ Government has indicated that EPR may be expanded beyond packaging into other goods and products

Adult Learning Services, supporting the use of reusable nappies by offering free trials of reusable nappies, encouraging home composting via compost bin subsidies and training, and providing guidance on reducing unnecessary waste such as contamination or junk mail.

As part of the options appraisal supporting this draft Strategy, we have explored the impact of waste prevention measures and make the following pledge:

Strategy Pledge no. 2:

The Partnership pledge to support and encourage waste prevention activity across LWP. This will include working with stakeholders, residents and communities to prevent unnecessary waste arising, for example through food waste reduction campaigns such as Love Food Hate Waste

The second highest priority of the waste hierarchy is 'preparing items for reuse', the aim of repair and reuse is to extend the useful life of a product or service. This has wide ranging benefits which include saving money, conserving the Earth's limited resources and lowering carbon emissions. Reuse activities often support social and economic development, through skills training, employment and community volunteering.

Recent examples of reuse activity across Leicestershire include:

- **Adult Learning Service** – Furniture reuse workshops are available to all Leicestershire residents, free of charge. These workshops take place regularly and teach individuals how to fix and upcycle items of furniture.
- **Textiles repair** – An online guide is available on the Less Waste website, which aims to reduce clothing waste. It encourages more sustainable purchasing habits, gives advice about how to care for and repair clothes, how items can be upcycled and where clothing can be donated/sold. Free classes are also available for residents to learn sewing skills, such as how to make new items out of existing fabric at home.
- **Give or Take Day toolkit** – A Give or Take Day is an event where people can exchange unwanted goods for items which they may need. A toolkit is available on the Less Waste website to help individuals set up their own event.

Leicestershire residents are also able to engage in reuse activities at the HWRCs across the County. Leicestershire County Council have been investing in developing its provision for reuse at its HWRCs, creating signage and designated deposit areas called 'ReHome Zones', for items which residents deem eligible for reuse or repair. This currently includes bric-a-brac and bicycles however Leicestershire County Council have a vision to expand and enhance the range of materials which can be saved from going into the 'waste' stream, retaining the definition as a 'product' thereby extending its useful life.

LWP also run the 'Less Waste' website which serves as an online platform for the Partnership to provide information on recycling and waste management to its residents, focusing on themes of 'reduce', 'reuse' and 'recycle'. The website also includes links and information on many of the initiatives quoted above¹².

¹² www.lesswaste.org.uk

As part of the options appraisal supporting this draft Strategy, we have explored the role of reuse in developing a waste strategy and as such make the following pledge:

Strategy Pledge no. 3:

The Partnership pledge to continue delivering reuse services and expand activities where practicable, working in partnership with other stakeholders and to signpost to places that advocate for waste prevention and reuse, in support of developing a circular economy. This includes a pledge to continue to improve the collection of items for reuse at Household Waste Recycling Centres and explore the development of reuse shops at suitable sites.

Collecting food waste and garden waste



Figure 5: Food waste collection trial taking place in North West Leicestershire DC

After preventing food waste occurring (see Love Food Hate Waste example referred to previously), the next most important 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 in Anaerobic Digestion (AD) facilities.

The Government has recognised that a key method of avoiding damaging methane emissions from landfill (methane is a powerful greenhouse gas 28 times more potent than CO₂), is to remove food waste from the residual waste stream, through a dedicated collection service. The Government is requiring (through the Environment Act) all households to have a separate collection of food waste, on a weekly basis, from the mid 2020's.

Food waste collections have been trialled in parts of the County and there are increasing numbers of councils implementing them across the UK.

They tend to use small, dedicated collection vehicles and the carbon benefits from separating and effectively managing the food waste far outweigh the carbon emissions of the collection fleet. An image of the collection trial in North West Leicestershire is shown in Figure 4. More separation of waste for recycling can mean additional mileage to operate the collection service and this can add to local air pollution if not appropriately managed. Electric Refuse Collection vehicles, and some fuelled by hydrogen have been trialled and implemented in the UK, and these have the potential to dramatically reduce local air emissions and save significant amounts of carbon emissions. Vehicles running on alternative fuels are currently much more expensive and require new infrastructure around refuelling / charging, however this is an important area to be evaluated by the Partnership as new vehicles are procured and the cost of technology falls.

The separately collected food waste is usually sent to an AD process. Anaerobic digestion is a process that takes place in sealed vessels in the absence of oxygen. Food waste is fed into the vessels which act like a digestion process, breaking down the food waste using bacteria (in a similar way and a slightly higher temperature than your stomach digesting food). The waste degrades and releases a flammable biogas (which is roughly half methane and half carbon dioxide), this gas is then usually combusted in a gas engine to generate electricity, which can be fed back into the national grid as renewable electricity. The gas can alternatively be used to fuel vehicles with 'biomethane' or, after further processing, as an input into the gas grid. The remaining residue from the food waste is reduced to a slurry and can be, after some further 'maturation' (like a composting process), applied to land as a soil conditioner or fertiliser. As part of the options appraisal supporting this draft Strategy, we have modelled the introduction of separate food waste collections across the County and make the following pledges:

Strategy Pledge no. 4:

The Partnership will implement and promote separate food waste collections to all households, subject to confirmation of Government policy, legislation and the provision of funding. This will be as soon as required and when contracts and circumstances dictate. The County Council will procure Anaerobic Digestion capacity to treat the collected food waste in a manner that contributes to effective carbon emissions reduction across the County and improves soil quality.

Strategy Pledge no. 5:

The Partnership will explore the use of alternative fuels for collection vehicles and the transportation of waste and resources to further reduce carbon emissions of the service and improve air quality

A garden waste collection is offered to all residents in Leicestershire on a fortnightly basis, as described in section 2. There is currently no duty on WCAs (the Districts / Borough Councils) to collect garden waste, however the Government is considering making a free garden waste collection a mandatory requirement (or introducing a maximum charge), through the National Resources and Waste Strategy for England, this is subject to separate consultation.

The collected garden waste from the County is sent to composting facilities and the resulting compost applied to land to improve soil quality and add nutrient value.

As part of the options appraisal supporting this draft Strategy, we have modelled both free of charge and subscription based garden waste collection systems and make the following pledge:

Strategy Pledge no. 6:

The Partnership will continue to offer a garden waste collection system to Leicestershire residents. This will follow Government guidelines as to the form of the collection and will be subject to legislation and total Government funding. The Partnership will continue to procure composting capacity to treat the collected garden waste in a manner that supports carbon reduction and improves soil quality.

Expanding recycling for homes and businesses

The residents and communities of Leicestershire already have a wide range of materials collected for recycling. This mirrors the Government intention to have a standardised set of materials collected

for recycling from each house and business across the Country. This will include food waste (as described previously) and each of the following:

- Metals (cans, foil trays, foil, aerosols)
- Plastics (plastic film, bottles, trays, pots, tubs)
- Cartons (e.g. Tetra Pak)
- Card
- Paper
- Glass

The aim is that all of England has the same range of materials collected (by 2023) and that this will enable more targeted nationwide messages and standardised product labelling for recyclability to be established. Furthermore, residents moving from one area to another will know what materials can be separated for recycling (although there might be different colours or types of containers in which to separate them).

In addition to these changes, Government are seeking to introduce a deposit return scheme (DRS) for all single use drinks containers (excluding bottles made of High-Density Polyethylene plastic, primarily milk bottles). This 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 / supermarkets and are known as reverse vending machines, although alternative methods of redeeming deposits are also being investigated. The DRS scheme is still undergoing consultation but is due to be implemented in 2024. This could have the effect of changing consumer behaviour to an extent, also potentially reducing the amount of littering of containers (covered by the DRS) and may reduce the amount of recyclables and waste handled by the local authorities.

As part of the wide-ranging national changes and 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 for their resource recovery, for example by making them easier to recycle. Packaging that is hard to recycle will cost more for disposal which will ultimately cost the producer of that packaging. This approach helps the role of the Councils and should assist in improving resource recovery and recycling over the medium and long term.

The appraisal of different collection systems (see supporting Options Appraisal document) demonstrated a preference for maximising recycling through the establishment of a food waste collection. This would be alongside maintaining similar recycling collection systems as at present but increasing participation and use of the recycling service by restricting the residual waste. The preferred method of restricting residual waste was by providing smaller wheeled bins whilst still allowing for plenty of space in the recycling containers. The addition of a weekly food waste collection should also reduce the need for the current levels of residual waste capacity. The Options Appraisal also demonstrated the benefit of providing collection services for other materials like batteries and textiles from households. As part of the modelling for this draft Strategy we have

considered EPR and DRS in addition to different recycling collection systems across the County and make the following pledges:

CONSULTATION DRAFT

Strategy Pledge no. 7:

The Partnership shall ensure that the full range of recyclables (as specified by Government and subject to funding) are collected from residents (and businesses where applicable) across Leicestershire by 2025, or as soon as possible when contracts and circumstances dictate

Strategy Pledge no. 8:

The Partnership shall continue to explore the viability of adding extra materials to recycling collections (e.g. for batteries, small electric goods or clothing) aiming to keep Leicestershire performance above the national average

Strategy Pledge no. 9:

The Partnership will put in place collection systems to contribute towards the achievement of the national 65% recycling target by 2035, this may include restricting residual waste capacity to encourage greater materials separation, carbon savings and resource recovery. Improvements in materials recovery at Household Waste Recycling Centres will also contribute towards the national target

Strategy Pledge no. 10:

The Partnership will continue to allocate a communications budget sufficient to help promote good recycling behaviour and maximise resource recovery to support the circular economy and low carbon objectives of this Strategy

Avoiding landfill as much as possible

At present, Leicestershire landfills more waste than the national average. This is explained in section 2 of this draft Strategy and is an area that the County Council are working to reduce. A recent procurement process to secure alternative residual waste treatment capacity should enable Leicestershire to exceed national targets for landfill. The Government has set a target for England, that no more than 10% of municipal waste should be sent to landfill by 2030.

The County Council, over the period of this draft Strategy (to 2050), are likely to procure further contracts for waste treatment capacity. The technologies and options available to utilise for residual waste treatment change over time, but they should be assessed in the light of the vision and objectives of the final form of this LR&WS, to ensure that they are consistent with the direction expressed in this document, and wider (local and national) objectives.

Leicestershire County Council makes the following pledge:

Strategy Pledge no. 11:

The County Council will reduce waste sent to landfill to less than 5% by 2025, well in advance of the 10% national target by 2030. The County Council will undertake future procurement processes for residual waste treatment (alternatives to landfill) in line with the vision and objectives of this Strategy.

Contributing to Net Zero Carbon in Leicestershire

The measures throughout this Strategy will make significant reductions to carbon emissions from the municipal waste management service. Modelling undertaken for the Options Appraisal and Strategic Environmental Assessment process indicates that by implementing all of the measures within this Strategy, carbon savings of the range of 5,000 – 10,000 tonnes of CO₂ equivalent would be delivered each year, compared against the current situation. This is the equivalent (in carbon emissions terms) of taking approximately 1,800 – 3,600 cars off the road.

CONSULTATION DRAFT

4. Where will the Strategy take us?

Projecting ahead to 2050

Although it is impossible to predict the future for resource and waste management, we can be sure that 2050 will be very different from today; consider how we manage waste in our households now, compared with 20 years ago. The need to reduce carbon emissions to achieve net zero will require many changes to our current lifestyles and to our environmental impacts. This lifestyle change is part of the global movement towards a circular economy model, essential to reduce our demands on limited resources and to dramatically decrease our carbon impacts. These influences will affect the future amount and type of resources and waste in Leicestershire.

Already, Leicestershire has seen major changes in its resources and waste. Recently, increasing digitisation means residents and communities produce less paper. By contrast, more on-line shopping has increased quantities of household cardboard; this was exacerbated by the lifestyle changes resulting from the COVID-19 pandemic. Also, over the last 20 years, although each person is now producing less waste because of lighter weight packaging, the waste they do produce includes far more plastic. Because plastic is usually oil based (fossil carbon), this conflicts with the aims of a low carbon future, unless we can recycle that material multiple times.

Dealing with these uncertainties and changes to resource and waste arisings needs a responsive and flexible LR&WS, which tackles new challenges with a broad range of solutions. We have set out a range of pledges and measures to support national changes and set a direction for long term resource recovery for the benefit of residents and communities of Leicestershire. We recognise however that there will be many substantial changes impacting on materials and wastes over the next five years, as the national Strategy takes effect. There is likely to be a need to review or update this Strategy before the end of the 2020's.

A projection of future waste growth rates, informed by housing forecasts, is shown in Figure 6, with High, Low and Core projections shown. This projection is also affected by the waste prevention and reuse activities, discussed in section 3. We are basing the core waste growth projection (the grey line) on an assumption of 0.1% reduction in waste per household each year across the Strategy period. This would be delivered by a variety of local waste prevention and reuse activities and also national changes driven by packaging producers affected by the Extended Producer Responsibility (EPR) measures (see section 3 for national and local influences)¹³.

¹³ High projection: Assumes short term Covid impacts to 2021/22 with static arisings per household from 2022/23 based on 2019/20 kg per household data.

Low projection: Assumes short term Covid impacts to 2021/22, static total arisings based on 2019/20 tonnages

Core projection: Assumes short term Covid impacts to 2021/22 arisings revert to 2019/20 levels as kg per household with a waste reduction (kg per household) of 0.1% per annum.

All projections have adjustments to kerbside from DRS & EPR (2025) and adjustments to kerbside and HWRCs from free garden waste collections (2023).

Trade waste tonnages are assumed to be the same as 2020/21 in 2021/22 and return to 2019/20 arisings (tonnage) in 2021/22 and remain static thereafter for all projections.

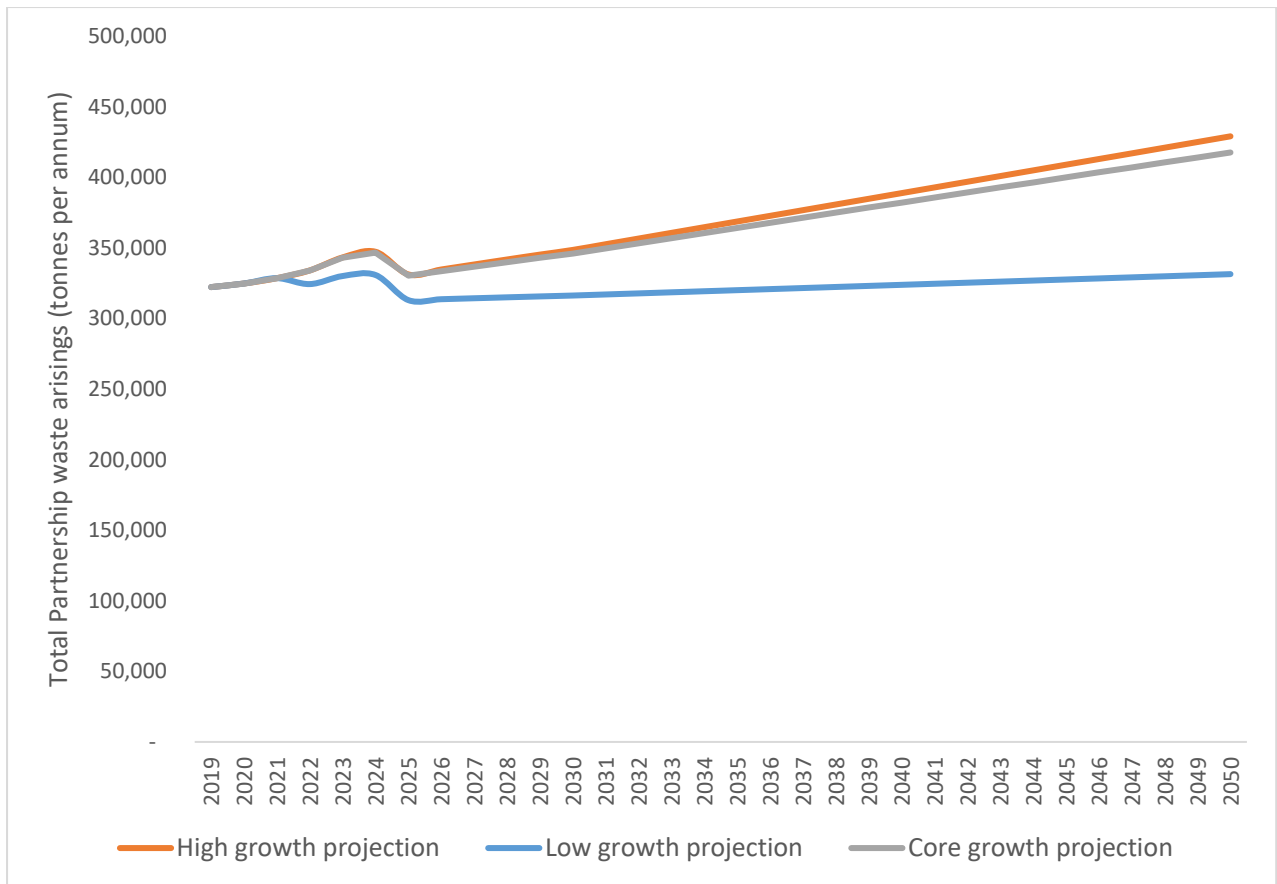


Figure 6: Waste growth projections for wastes collected by Local Authorities, 2019 – 2050

The increase in waste shown around 2020 and 2021 is the extra arisings generated by the Covid-19 pandemic (and associated behavioural changes such as home working, use of Personal Protective Equipment and internet shopping), this is assumed to revert back to 2019 levels in the following years, albeit influenced by rising numbers of households and other factors. The subsequent sharp dip in waste arisings is the estimated result of the implementation of a national Deposit Return Scheme (DRS) and Extended Producer Responsibility (EPR) in the period 2023 – 2025 (this is described in section 3).

Figure 7 shows delivery in Leicestershire of the national target for 65% of municipal waste to be recycled and prepared for reuse by 2035.

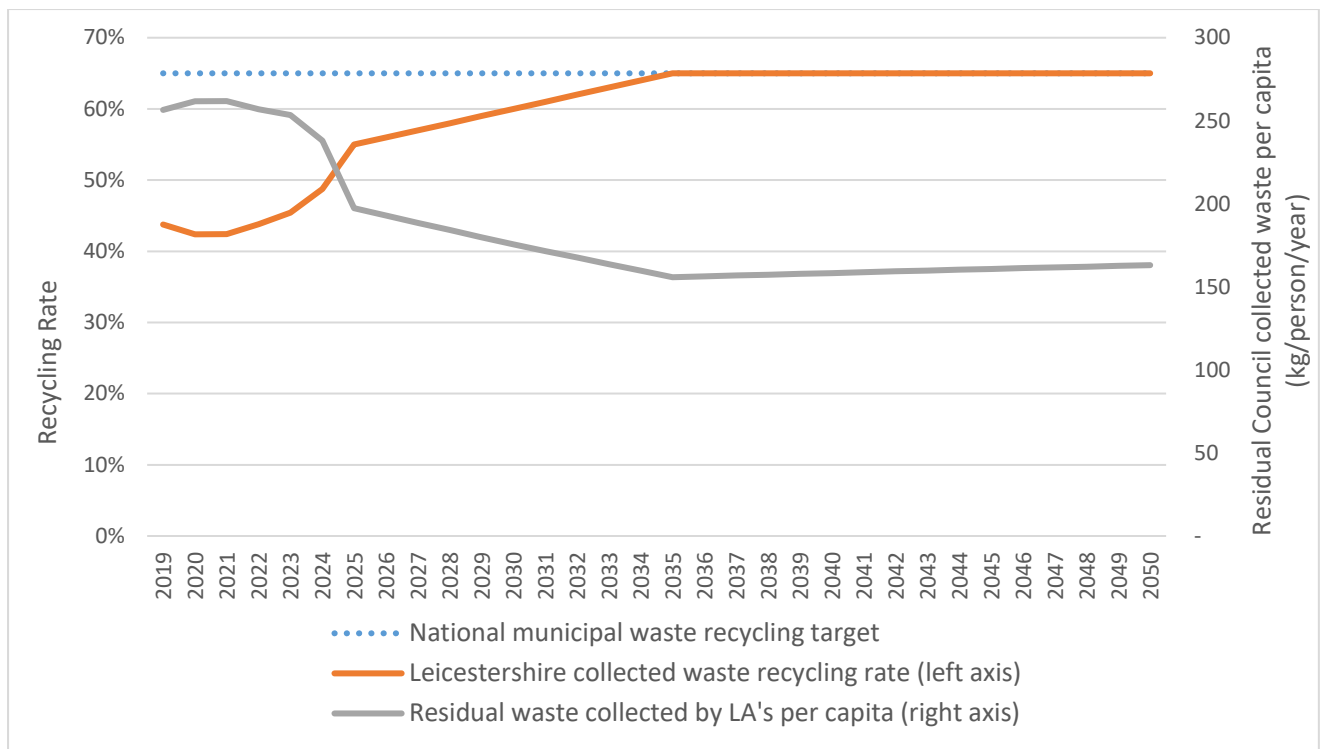


Figure 7: Recycling rate & residual waste per household projections for wastes collected by Local Authorities, 2019 – 2050

The modelling which informs this Strategy shows that c.62% recycling can be achieved through combinations of the options described in section 3, such as expanding recycling and food waste collections (Pledges 4, 6, 7, 8 & 9). In addition to these options, recycling and reuse will be further enhanced to reach the 2035 target by:

- The LWP continuing to promote and develop systems for reuse of usable goods and packaging (Pledge 3)
- the LWP promoting ongoing education and awareness raising for its residents and communities (Pledge 10)
- the County Council aiming to increase recovery from the Household Waste Recycling Centres (Pledge 9)
- the national changes around product labelling, and extended producer responsibility (making products and packaging easier to recycle); and
- residual waste treatment procurement, which may also deliver additional recycling (Pledge 11)¹⁴.

Figure 7 also shows that the actions set out within this draft Strategy, supported by national policy, should also reduce the amount of Council collected residual waste (general rubbish not separated for recycling). If the national 65% recycling rate is to be met the amount of residual waste (all general mixed 'rubbish') managed by Councils will need to fall from around 620kg per household to around 360kg per household by 2035. Furthermore, the management of residual waste in Leicestershire is also set to change with a pledge to reduce the amount of waste landfilled from current levels (of around 30%) down to 5% by 2025. This is substantially ahead of the new national target of 10% landfilled waste by 2030.

¹⁴ Subject to clarifications on how recycling performance is calculated in the future

5. Consultation and Next Steps

This document presents a 'consultation draft' of the Strategy. The LWP are asking for views and feedback from residents and communities, including businesses that use, or are affected by, the proposed resource and waste services in this Strategy. The feedback obtained from a Public Consultation Questionnaire and other consultation mechanisms will be used to develop the final LR&WS. The Consultation Questionnaire is available at www.leicestershire.gov.uk/have-your-say/current-engagement, until the consultation closes on 25th April 2022.

If you have further comments or wish to request another format, please email lesswaste@leics.gov.uk or call 0116 305 7005.

Following the consultation, the LWP aim to adopt the Strategy in late summer 2022. Once the Strategy is in place, the individual member authorities in the LWP will implement the services in a way that is appropriate to their context, residents and communities.

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