

Essex Waste Partnership



# WASTE STRATEGY

# FOR ESSEX

2024 - 2054

**RETHINKING**  
OUR WASTE

Working together for Essex  
Essex County Council,  
Essex District, Borough  
and City Councils

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# 1. EXECUTIVE SUMMARY

The Waste Strategy for Essex sets out the vision and principles of the Essex Waste Partnership (the 'partnership'). It provides a framework detailing how we will manage the waste that is produced by homes and businesses in the county for the next 30 years.

## WHAT IS A WASTE STRATEGY AND WHY DO WE NEED ONE?

This new joint waste strategy for Essex covers the period to 2054. It brings a new focus on how we will deliver an effective and efficient waste service. In line with national policy and legislation, this strategy sets out our approach to reducing the impact that waste has on climate change. Our strategy is research based and sets out the reasons for our approach, the principles of what we will do and the targets we will strive to meet.



The partnership is made up of the 12 district, borough and city councils in Essex and the county council. The partnership aims to ensure cost-efficient and sustainable waste management across the county.

## OUR STRATEGY

This strategy commits the partnership to work together to minimise the impact that waste has on the environment. The best way of doing this is through embracing the circular economy. This means minimising our waste and recycling more. We will also rethink how we will manage the waste that can't be recycled. We propose to do this by recovering energy and materials to conserve resources. This will ensure we offer value for money to the taxpayer.

The partnership will coordinate the design and delivery of services to achieve the vision, targets and ambitions of this strategy. We will support residents and businesses to reduce their waste and recycle more, we will be an active voice in influencing government and will support and encourage businesses to adopt sustainable practices. Our ambitious targets will enable residents to hold the partnership to account for achieving our aims.

## THE PARTNERSHIP'S VISION

### RETHINKING OUR WASTE

By everyone working together, we will reduce, reuse and recycle more. This will protect the environment and save resources.

## OUR APPROACH

To deliver our vision, the partnership has identified the following priorities for Essex:

**Move to a circular economy** - where natural resources are used efficiently and products are designed to be durable, easy to repair and recyclable.

**Apply the waste hierarchy** - by designing services that prioritise waste reduction, reuse and recycling, and recovering energy and materials from waste that can't be recycled.

**Collaborate and innovate** - with each other and with government, businesses and communities to create a more sustainable waste system.

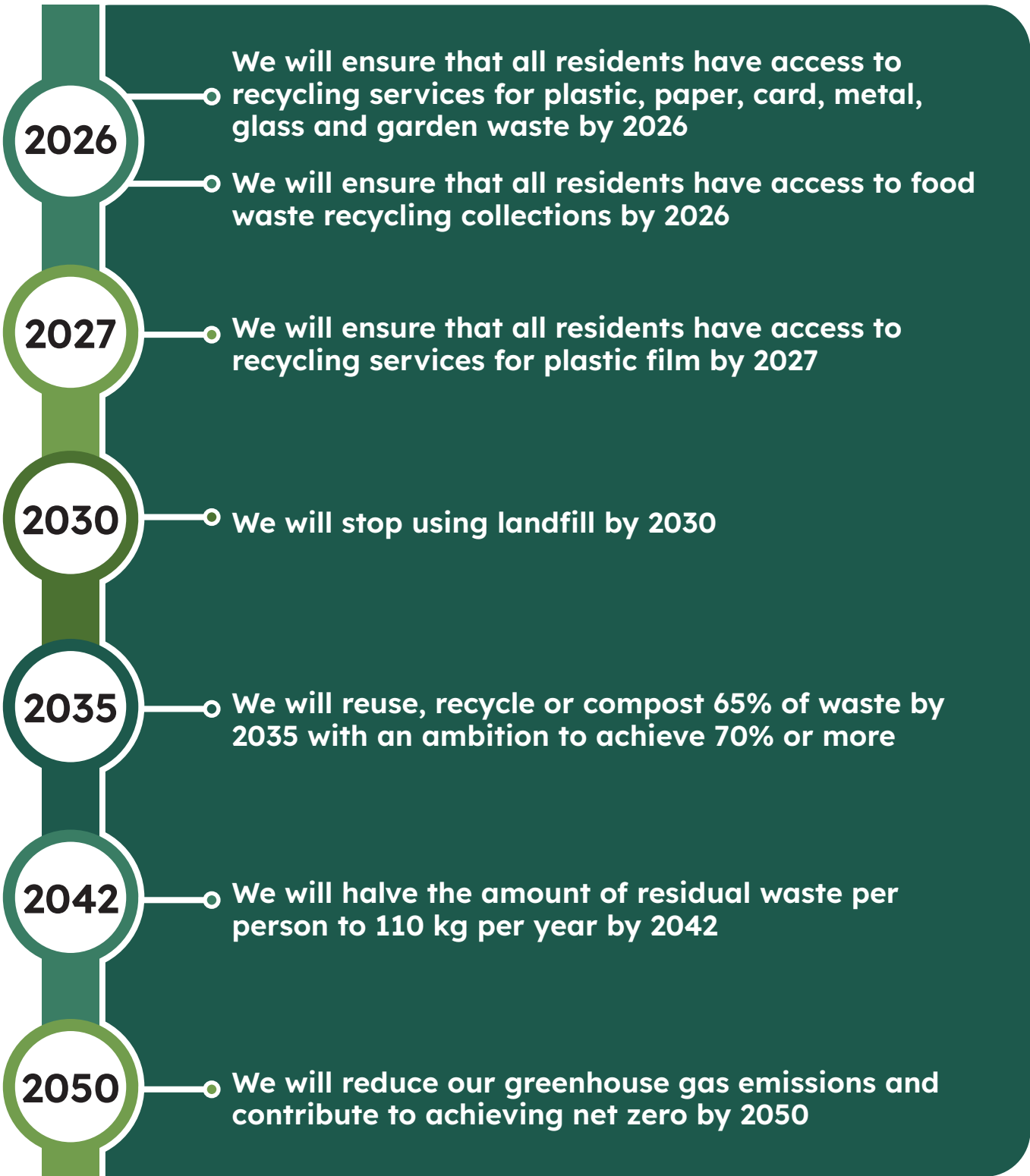
**Educate and engage** - by listening to feedback and delivering information and initiatives to support residents and businesses to reduce waste and recycle more.



The waste hierarchy is a legal framework that ranks waste management options according to what is better for the environment.

## OUR TARGETS AND AMBITIONS

The partnership is committed to achieving the government’s national targets as a minimum standard, but we would like to go beyond these targets and have a bigger impact more quickly.



The partnership will create action plans and continuously review our progress to ensure we are on track. The partnership will publish progress and performance updates enabling residents to hold us to account. This strategy will be reviewed regularly to ensure it remains fit for purpose.

## 2. WHY DO WE NEED TO ACT?

In Essex, we are rethinking waste to meet our ambitious targets designed to minimise the environmental impact of waste.

### CLIMATE CHANGE

We are facing a significant climate challenge. We need to act now to reduce greenhouse gas emissions and achieve the goal of Essex becoming a net zero county by 2050.

Large quantities of greenhouse gases are generated during the manufacture and transport of goods, food production and waste disposal. Preventing waste, reusing products and recycling materials saves resources and reduces emissions.

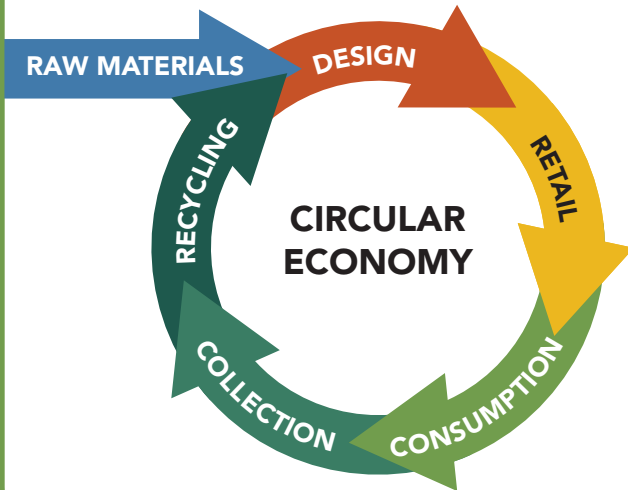
We need to make different choices about how we collect and treat waste to meet the climate challenge, for example: removing plastic from general rubbish.

Stricter limits on greenhouse gas emissions from waste treatment processes such as Energy from Waste (EfW) will also require us to take further action, for example capturing carbon dioxide so it is not released into the atmosphere.



## THE CIRCULAR ECONOMY

The best way to reduce the impact of waste is to move towards a circular economy. This is where our finite resources are conserved and used efficiently. Most products are still designed and created using a linear economy model. This is where resources are taken, manufactured, used and disposed of. We have moved into a recycling economy where a proportion of materials are recycled but not retained at their highest quality.



The transition to a circular economy requires us all to rethink how resources are valued and managed. In a circular economy, products are designed to be durable and easy to repair. This encourages and enables individuals to use products for as long as possible. Finally, products should be designed to be recycled when they can no longer be reused or repaired.

## LEGISLATION

In recent years, the government has introduced new policy and legislation, the most important being the Environment Act 2021. This guides the management of waste and will help us realise the benefits of a circular economy. These measures will change the type and amount of waste we manage and place new requirements on councils and businesses. The measures will take time to be fully embedded, and further changes are expected.

The government's legislative and policy changes will help the United Kingdom transition to a more circular economy by:

- incentivising businesses that are responsible for packaging to design out waste and take greater responsibility for the environmental impact of their packaging
- promoting closed-loop recycling. This is where waste is collected and recycled to make the same type of product
- driving councils to reduce the environmental impact of managing waste
- encouraging residents to reduce and recycle their waste



## PEOPLE AND LIFESTYLES

Residents have told us they are becoming more concerned about climate change and the environment. They want to see real change from businesses to help them reduce their waste.

An increase in online shopping and greater home working has changed the type and amount of waste produced. An increasing number of smaller properties and flats – with limited space and facilities for recycling – will require us to consider the future design of waste collection services.

Multi-generational living and an ageing population may also impact both waste collection and the types of waste we need to manage. Overall, the population in Essex is forecast to grow by 125,000 to 1.6 million by 2030.

It is important that waste services respond to these trends and changing attitudes and behaviours. This will help us reduce the environmental impact and cost of managing waste.



## WE HAVE TOO MUCH WASTE

Although we need to recycle more, we also need to address the problem that we create too much waste. We have increased the proportion of waste recycled from 21% in 2001 to around 50% in Essex. However, there are still recyclables being thrown away in general rubbish and we continue to produce more waste than other areas of the country. A significant change is needed to protect the environment and conserve resources.





## COST AND AFFORDABILITY

If we avoid producing waste altogether, or recycle it, it is much cheaper than trying to treat or dispose of it. Waste generated by Essex residents costs the taxpayer more than £130 million a year. Managing one tonne of general rubbish costs more than recycling or composting the same amount of waste. Without changing how we operate and reducing the proportion of waste treated as general rubbish, waste management will cost more in future. All council budgets are facing significant pressures. This compels us to look at what we need to do differently.



## MANAGING WHAT CAN'T BE RECYCLED

Essex still relies too heavily on landfill as the main method for disposing of waste. In 2023 we sent over 340,000 tonnes of waste to landfill.

Even if we achieve our reduction and recycling targets, we will still have large amounts of non-recyclable waste. It is important we have a suitable approach for this. Landfill is the least preferred option and we must act now to ensure that the impact of waste disposal is minimised for future generations.



**340,000 tonnes of waste is almost as heavy as the Empire State Building in New York.**

## OUR RESEARCH

To develop this strategy, the partnership considered a range of research to help inform our priorities and to test the deliverability of our vision, targets and ambitions.

Our research included:

- how waste management can reduce greenhouse gas emissions to tackle climate change
- understanding attitudes and behaviours towards recycling and waste
- understanding future waste growth
- looking at the different types of waste
- investigating different ways of collecting and managing waste

## THE WASTE HIERARCHY





## SUMMARY

The key findings of our research and analysis are:

### Principles

- our targets are challenging, but can be achieved if councils, residents, and businesses all play their part
- we need to support the move to a circular economy – where we use resources efficiently, minimise waste and maximise recycling
- following the waste hierarchy is the best approach to minimise the environmental impact of managing Essex’s waste. Applying the waste hierarchy will help us make the right decisions about the services we provide and how we manage waste

### Services and support

- many residents find reducing their waste difficult. They want to see real change from businesses to reduce packaging and improve repair services. We need to support residents and businesses to reduce waste and reuse more
- recycling is a day-to-day activity for most people, however, opportunities are missed to recycle common items
- the impact of waste on the environment is not fully understood by all communities
- comprehensive, easy to use and accessible collection services for all households are necessary to reach our recycling targets. The design of services should enable the collection of high-quality materials for recycling and reduce the amount of waste not recycled
- increasing the range of recycling services to businesses will be needed to reduce the environmental impact of business waste in Essex

## Reducing the impact of waste

- recycling garden waste into compost, and recovering energy and fertiliser from food waste through the use of anaerobic digestion, are the best approaches for these materials
- although we can recycle more, we can't recycle everything. Some non-recyclable waste will remain. Non-recyclable waste has the biggest impact on the environment and costs the most to deal with
- landfill is not a long-term option for non-recyclable waste. Landfill is environmentally the worst approach and likely to continue to cost more than other options
- once we have reduced, reused, and recycled all we can, using Energy from Waste (EfW) with heat capture to recover energy is likely to be the best option for what is left. EfW facilities need to be correctly and flexibly sized. They also need to be efficient and designed with emerging technologies in mind such as carbon capture, utilisation and storage. This will ensure we further reduce greenhouse gas emissions and improve efficiency in future
- taking opportunities to decarbonise waste operations and offset emissions will reduce the climate impact of managing Essex's waste

New research and best practice will emerge over time. The partnership will carry out further research in future reviews of this strategy and when developing action plans.



Energy from Waste (EfW) is a recovery process that takes residual waste and turns it into electricity. Capturing and using the waste heat generated significantly increases the overall efficiency of the process.



## 3. WHAT IS OUR APPROACH?

Our approach to addressing the waste management challenge and to achieve the vision, targets and ambitions of the partnership is built upon delivery of the following priorities:

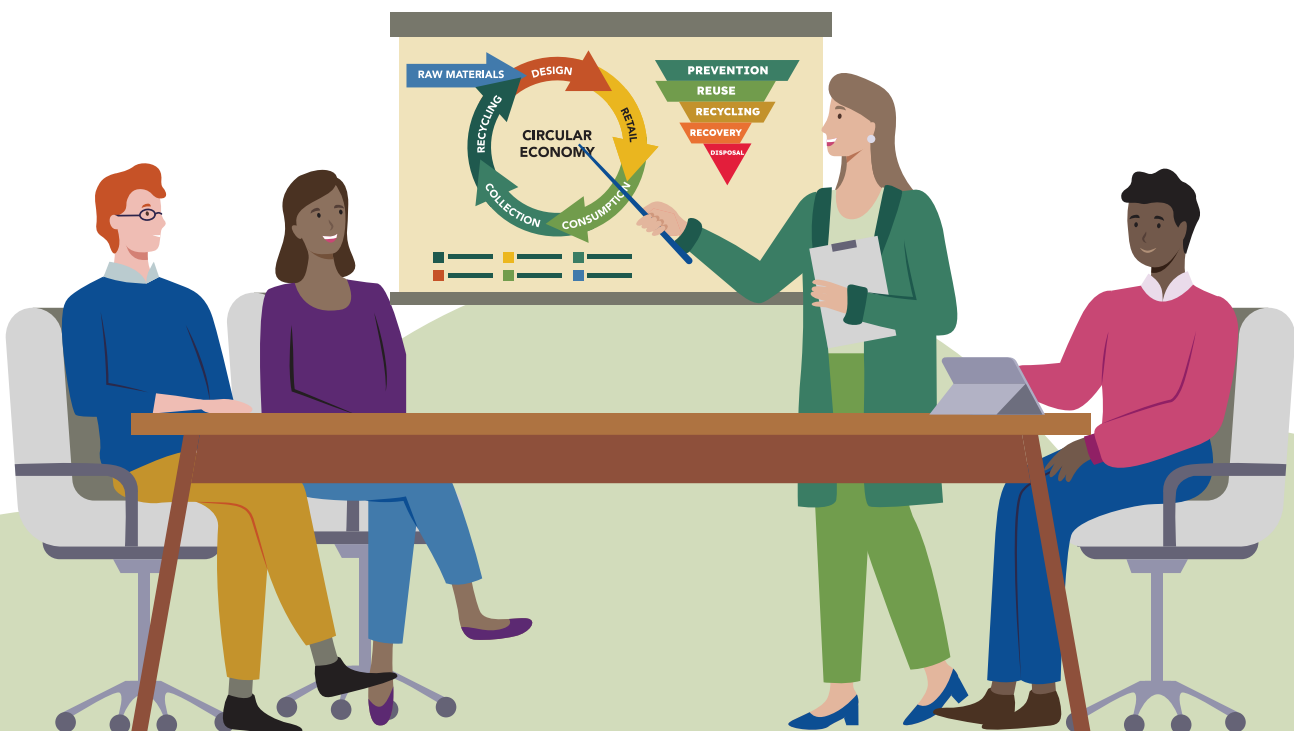
**Move to a circular economy** - where natural resources are used efficiently and products are designed to be durable, easy to repair and recyclable.

**Apply the waste hierarchy** - by designing services that prioritise waste reduction, reuse and recycling, and recovering energy and materials from waste that can't be recycled.

**Collaborate and innovate** - with each other and with government, businesses and communities to create a more sustainable waste system.

**Educate and engage** - by listening to feedback and delivering information and initiatives to support residents and businesses to reduce waste and recycle more.

The partnership recognises that how we achieve our priorities may differ across the county. We are committed to continuously reviewing best practice to inform our approach and publishing our plans, progress and performance.



## MOVE TO A CIRCULAR ECONOMY

The best way to deliver change is to rethink our approach to waste and embrace a circular economy. This is where our finite resources are conserved and used efficiently.

There are clear environmental benefits from reducing waste during manufacture. It is important to design products that are easy to repair and recycle. The move to a circular economy can also deliver opportunities for green growth and jobs.



Our target for moving to a circular economy is:

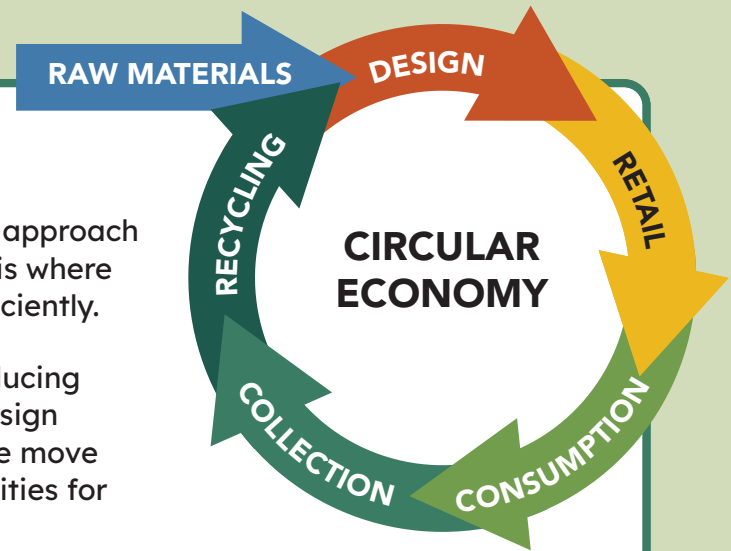
We will reduce our greenhouse gas emissions and contribute to achieving net zero by 2050

**Lead by example to eliminate waste by keeping materials in circulation through reuse, remanufacture, recycling and composting. Drive manufacturers to design products that save resources.**

To deliver this priority, the partnership will:

- lobby government and work with businesses to reduce packaging and improve repair services
- encourage the growth of green businesses to find innovative solutions to deal with waste
- include the circular economy in council strategies, policies and service design
- apply the principles of the circular economy in how we buy goods and services
- design waste services that increase closed-loop recycling
- support communities to reduce their waste and reuse and repair more through education and services

SMALL  
CHANGES,  
**BIG  
DIFFERENCE**





## APPLY THE WASTE HIERARCHY

The best environmental approach to waste management is to apply the principles of the waste hierarchy. When designing services and making decisions, the partnership will follow the waste hierarchy, prioritising waste prevention and minimising disposal.

Our targets for applying the waste hierarchy are:



We will ensure that all residents have access to recycling services for plastic, paper, card, metal, glass and garden waste by 2026



We will ensure that all residents have access to food waste recycling collections by 2026



We will ensure that all residents have access to recycling services for plastic film by 2027



We will stop using landfill by 2030



We will reuse, recycle or compost 65% of waste by 2035 with an ambition to achieve 70% or more



We will halve the amount of residual waste per person to 110kg per year by 2042

Applying the waste hierarchy will help us achieve our vision and targets. The partnership has set out its approach for delivering each layer of the hierarchy.

# RETHINKING OUR WASTE

## PREVENTION

The preferred option on the waste hierarchy is to prevent waste being produced in the first place.

### Deliver a system that puts waste reduction at its centre.

Businesses can help by reducing the amount of packaging used in products. Redesigning products to last longer, and be easy to repair and upgrade, will prevent waste and save resources.

Residents can help by only buying what they need and reusing what they already have.

To deliver this priority, the partnership will:

- lobby government to put in place stronger measures to prevent waste, reduce packaging and support use of materials with lower environmental impact
- support local businesses to work sustainably and reduce waste
- change the way we work, leading by example to design out waste
- design waste services to deliver waste reduction
- provide information to help and inspire residents to reduce waste





## REUSE

The next best option is to reuse as much as possible.

**Work together to encourage and support reuse and repair initiatives.**

Businesses can help by providing services to upgrade and repair products.

Residents can help by using repair services, borrowing rather than buying and renting or buying second-hand products.

To deliver this priority, the partnership will:

- lobby government to enhance the right to repair and measures to increase repair and reuse
- support businesses and communities to deliver local reuse and repair services
- develop a directory of services, organisations and groups that promote reuse
- support activities that promote repair and sharing of pre-loved items
- develop reuse and repair services at recycling centres
- maximise reuse of bulky waste items such as furniture and household appliances
- provide information to help and inspire residents to reuse and repair more



## RECYCLING

If waste can't be prevented or products and materials reused, then turning materials into new products by recycling is the next option on the waste hierarchy.

**Increase recycling by delivering comprehensive services and supporting residents to recycle.**

Manufacturers can help by designing products and packaging that use materials that can be easily recycled.

Businesses can help by recycling as much of their own waste as possible.

Residents can help by using all their recycling services. This can be at home, at community collection points, on-the-go and at recycling centres.

To deliver this priority, the partnership will:

- lobby government to take further measures to increase the proportion of material recycled and the amount of recycled material used in products and packaging
- support businesses to recycle as much of their own waste as possible
- work with businesses to provide community collection and return points
- provide services that collect high quality material for recycling
- make it easier for residents to recycle different materials
- continue to support home composting
- develop a directory of services and local collection points for recycling
- provide information to help and inspire residents to recycle as much as possible



## RECOVERY

The waste hierarchy shows that once we have reused and recycled all we can, recovering energy and materials is the next best approach for what is left.

**Use appropriate technologies for the treatment of food and non-recyclable waste that aim to minimise the environmental impact and maximise energy and material recovery.**

To deliver this priority, the partnership will:

- stop using landfill
- use a technology called anaerobic digestion that recovers energy and fertiliser from the treatment of food waste
- use a technology called Energy from Waste (EfW) that recovers energy and materials from the treatment of residual waste
- aim to capture and use heat from EfW facilities to improve the efficiency of residual waste treatment



## COLLABORATE AND INNOVATE

The partnership will look beyond the operation of collection and treatment activities to identify innovative opportunities to:

- reduce waste
- recycle more
- reduce the environmental impact of waste
- deliver value for money services

We can achieve more when we work together and in partnership with others, learning from each other and trying new things.

**Innovate and work collaboratively with government, businesses and communities to create a more sustainable waste system.**

To deliver this priority, the partnership will:

- be an active voice lobbying and engaging to shape government policy and legislation
- lobby government to secure investment in research and development of new approaches to managing waste
- work to reduce the carbon impact of waste operations by increasing use of alternative fuels for our vehicles and equipment
- work together to develop employment and skills opportunities
- investigate how best to reduce greenhouse gas emissions from EfW processes by reducing plastic waste in general rubbish and using carbon capture, utilisation and storage
- explore ways to offset the impact of unavoidable greenhouse gas emissions
- research and investigate new ways of working and adopt examples of best practice
- work together to increase recycling in public spaces and reduce litter and incidents of fly-tipping



## EDUCATE AND ENGAGE

Supporting residents, businesses and communities to inspire changes in attitudes. This will help to empower people to adopt new behaviours that are essential to achieving our vision.

**Listen to feedback and deliver information and initiatives to support residents and businesses to reduce waste and recycle more.**

To deliver this priority, the partnership will:

- understand what businesses are doing to reduce waste and how the partnership can support
- engage regularly with residents and communities to understand the barriers to waste prevention and recycling
- use feedback and best practice when designing services
- examine the composition of waste and participation in services. This will help to design services, and target initiatives
- deliver county-wide campaigns that inspire and enable behaviour change
- focus education and engagement activities on the waste materials that have the biggest impact on the environment
- work with schools and young people to inspire life-long waste reduction behaviours
- support and enable community action to care for the local environment



## RESEARCH, PLAN AND MONITOR PERFORMANCE

We know our targets are ambitious and we expect our progress towards achieving them to fluctuate and take time. However, we want residents to be able to hold the partnership to account for achieving our aims. Therefore, the partnership will:

- continue to engage with residents and communities throughout the life of this strategy
- create and regularly review action plans that set out how we will achieve milestones and targets
- adopt best practice indicators to monitor performance and track progress
- publish annually our progress in delivering this strategy
- publish performance information about how waste is managed and how much is recycled

We recognise things will change during the life of this strategy. New national policies and legislation will arise. Waste composition and the volume of our waste will be different. New technologies will emerge and our attitudes to waste will change. As a result, this strategy and the services and initiatives delivered by the partnership should be updated to reflect this. Therefore, the partnership will review this strategy at least every five years. However, if significant change occurs, this strategy will be reviewed earlier.

Our stretching targets and ambitious approach will enable the partnership to contribute to reducing the county's greenhouse gas emissions to net zero by 2050.



## 4. GLOSSARY

### Anaerobic digestion

A process where biodegradable material (typically food) is placed in a container and broken down by microorganisms without oxygen. The process produces biogas, a renewable energy which can be used to generate heat and electricity and by-products known as digestate which can be used as fertiliser and compost.

### Carbon capture, utilisation and storage

Carbon capture, utilisation and storage is the process of capturing carbon dioxide emissions and either using them to make things such as building materials or permanently storing them underground.

### Circular economy

A circular economy is an economic system designed with the intention that maximum use is extracted from resources and minimum waste is generated for disposal.

### Climate change

Climate change refers to a change in the state of the climate, causing changes in weather patterns on a global scale and for an extended time. Effects include changes in rainfall patterns, sea level rise, potential droughts, habitat loss and heat stress.

### Closed-loop recycling

Closed-loop recycling is a process where waste is collected and recycled to make the same type of product. For example, glass bottles can be remade into more glass bottles.

### Composting

Shredded garden waste is placed in elongated heaps, called windrows, normally outdoors. The windrows are turned mechanically every so often to push air into the composting waste. The process takes at least 16 weeks. At the end, the compost weighs around half the original waste and is distributed for agricultural and domestic use.

### Decarbonisation

Decarbonisation is the term used for removal or reduction of carbon dioxide output into the atmosphere. We achieve decarbonisation by switching to low carbon energy sources.

### Energy from Waste (EfW) with heat capture

Energy from waste is an incineration process that takes residual waste and turns it into electricity. Capturing and using the heat generated significantly increases the overall efficiency of the process and the environmental benefits.

### Essex Waste Partnership

A partnership comprising all 12 district, borough and city councils and the county council in Essex (Basildon Borough Council, Braintree District Council, Brentwood Borough Council, Castle Point Borough Council, Chelmsford City Council, Colchester City Council, Epping Forest District Council, Essex County Council, Harlow Council, Maldon District Council, Rochford District Council, Tendring District Council, Uttlesford District Council). The partnership was set up to ensure cost-efficient and sustainable waste management across the county.

## Greenhouse gas

Gases that trap heat in the atmosphere and contribute to climate change. This causes the greenhouse effect. Water vapour, carbon dioxide, nitrous oxide, methane and ozone are the primary greenhouse gases in the atmosphere.

## Home composting

The manufacture of compost material at home (from the breakdown of food and garden waste) using a compost heap, a purpose-made container or a wormery.

## Landfill or landfill sites

Land in which waste is deposited, often disused quarries.

## Local Authority Collected Waste (LACW)

Local Authority Collected Waste is household waste and any other waste that is collected for treatment and disposal by a local authority. LACW comprises of waste from households, recycling centres for household waste, street sweepings and local authority-collected commercial waste.

## Non-recyclable waste

Materials that are not collected for recycling at kerbside, recycling centres, through take-back schemes or at community collection points.

## Procurement

The process of buying goods, works and services from third parties and in-house providers. This refers to all stages of the process from identifying what is needed, to the end of a service contract or the end of the useful life of an asset.

## Recovery

In recovery, a waste treatment process is used to recover energy and new raw materials from the waste. Recovery waste treatment processes include anaerobic digestion and Energy from Waste (EfW).

## Recycling

The reprocessing of waste materials into the same products or different ones.

## Residual waste

Waste that is not reused, recycled, composted or anaerobically digested.

## Resources

Materials that can be used to create products. Resources can be virgin materials or secondary raw materials.

## Reuse

In the commercial sector – using products designed to be used many times, such as reusable packaging.

In homes, reuse includes buying products that use refillable containers or reuse plastic bags. It contributes to sustainable development and can save raw materials, energy and transport costs.

## Right to repair

The ‘right to repair’ intends to extend the life of products by making manufacturers legally obliged to make available spare parts and information to help people repair their products.

## Strategic Environmental Assessment (SEA)

SEA is the environmental assessment of plans, programmes or strategies. It seeks to provide high level protection for the environment; integrate the environment and sustainable development into planning processes; promote sustainable development; and promote a more open, transparent and evidence-based planning culture.

## Waste hierarchy

The waste hierarchy sets out the order in which options for waste management should be considered based on environmental impact. It is a legal framework that has become a cornerstone of sustainable waste management.



## **Waste reduction (waste prevention)**

Action to prevent waste being produced to reduce or minimise the amount of waste requiring final disposal. Minimising waste saves on collection and disposal costs and helps to reduce the demand for raw materials.

This information is issued by:  
Essex County Council (on behalf of Essex Waste Partnership)  
Recycling and Waste

Contact us:  
[wastestrategyforessex@essex.gov.uk](mailto:wastestrategyforessex@essex.gov.uk)  
0345 743 0430

Environment and Climate Action  
Essex County Council  
County Hall, Chelmsford  
Essex, CM1 1QH

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Published June 2024

## WORKING TOGETHER FOR ESSEX

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 **Braintree District Council**

 **BRENTWOOD BOROUGH COUNCIL**

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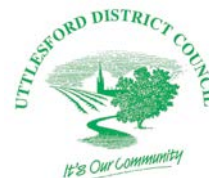
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