



**Lincolnshire Waste Partnership  
Annual Report 2019/20**



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## **Introduction – A message to the Lincolnshire public**

Welcome to the first annual report for the Lincolnshire Waste Partnership (LWP) which explains how we are performing against the objectives we set ourselves in the Lincolnshire waste strategy we approved and adopted in early 2020. Please note that this report covers the period up to March 2020 and thus does not refer in detail to the huge impacts of the COVID-19 pandemic on our services which will be covered in our 2020/21 Annual Report.

Waste and recycling in Lincolnshire is delivered through a number of partners working together. Your waste and recycling is collected by the Waste Collection Authorities – In Lincolnshire these are the City of Lincoln, Borough and District Councils. This waste and recycling is then delivered to the county council, the Waste Disposal Authority, who arrange for its treatment or disposal through a combination of solutions including reuse where possible, delivery to recyclers and composters, mechanical sorting facilities, energy from waste and landfill.

So you can see that many organisations contribute to how well we manage your waste and recycling to choose the most sustainable solution to minimise our environmental impact and protect our natural resources.

Lincolnshire is a beautiful, largely rural county with pockets of urban areas. This can be a challenge for waste management as we have to drive many miles to collect and dispose of waste. Transporting waste like this greatly increases our carbon footprint. This is why we have already worked to optimise routes and are investigating how, in the longer term, we can change to different vehicle fuels to reduce our carbon emissions.

In December 2018 the Government published its national Resources and Waste Strategy for England. This proposed a number of changes that we have to plan for. One of the ones that may affect our residents directly will be proposed weekly food waste collections from 2023. This will require a lot of new collection vehicles and a new treatment solution. We have been running a trial for food waste collections in South Kesteven to help us understand the challenges that this change will bring. We believe there is a sustainable and renewable solution which we will be exploring over the next few years.

In January 2019 the LWP created and adopted a Lincolnshire wide waste strategy and since the adoption of that strategy, the world has seen a blaze of interest in plastic waste and how the recycling we collect is handled. Media investigations into plastic waste in the oceans, and the refusal by countries in the Far East to accept containers of what is supposed to be recycling, has challenged waste management practices in the West and raised the profile of accountability and social responsibility. In many instances the fault lies with rogue or criminal waste management operations, sometimes working for councils under contract, who are only interested in money and ignore their social and environmental obligations.

That is why the Environment Agency, the key regulatory authority for waste and recycling, has an open invitation to meetings of the Lincolnshire Waste Partnership. They give us advice and guidance and we support them in waste crime operations in the county. Together we want to remove operators who blight our countryside with fly tipping and illegal waste sites, and to send to prison those who show no remorse for the environmental damage they cause. That is why the

partnership support “SCRAP”, the anti-fly tipping campaign, and the days of action where we target such sites and those transporting waste to them.

Some of you will now be part of our new separated paper and card collections that began last September in Boston, North Kesteven and South Holland. Instead of putting paper and card in with your plastics, metals and glass, you now put them in a separate receptacle for collection. As more of us shop online, and what we buy is delivered in cardboard packaging, the need to recover good quality paper and card so the paper mills can make more recycled material becomes ever more important. By collecting paper and card separately it avoids liquids and food coming into contact and keeps it clean and dry. This means we can meet the high quality standards of the paper mills. The trial in these three council's areas has been a great success, particularly in providing experience of what works best, and we are now planning how we can expand these collections to more areas in Lincolnshire.

September 2019 saw the one millionth tonne of rubbish processed through our Energy from Waste plant at North Hykeham. This facility helps us to reduce our dependence on landfill to just 4% of the waste we collect from you and creates enough electricity to power 29,000 homes.

This report looks back over the last year and forward to the next. We expect the Government to provide more detail about the policies they intend to implement, and their Environment Bill is progressing through Parliament as the next step towards achieving these. Once this has happened we will know what we have to change and when so the next year will be very exciting for the Lincolnshire Waste Partnership and I look forward to next year's annual report which will tell you all about it.

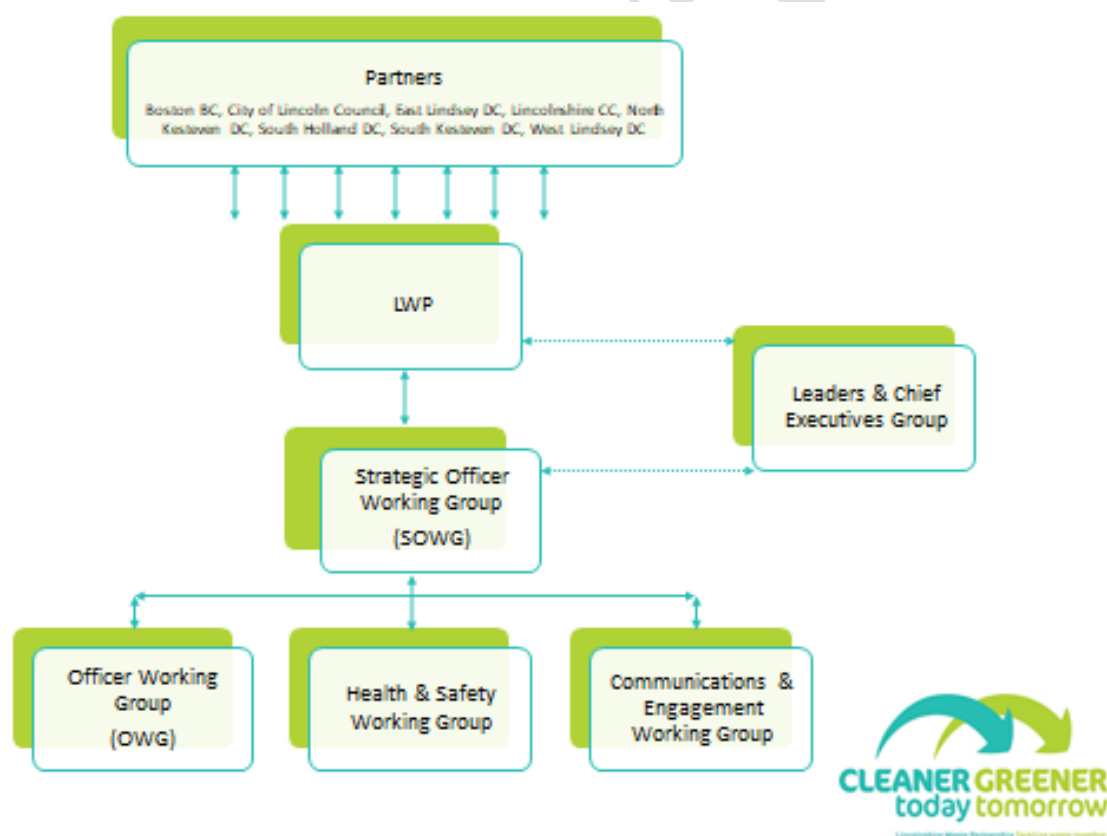
Councillor Eddy Poll  
Chair of the Lincolnshire Waste Partnership

## Background and History

The Lincolnshire Waste Partnership began life as the Lincolnshire Municipal Waste Management Strategy Joint Steering Panel in November 2000. In July 2003 it changed its name to the Lincolnshire Waste Partnership (LWP) and it holds its meetings in public. It is not constituted as a decision making body but rather agrees the strategic approach for Lincolnshire and recommends actions and interventions for the partners to consider to deliver the objectives of a shared Lincolnshire waste strategy.

In addition to the public meetings there are regular meetings of the senior officers from each partner responsible for waste and recycling services. This Strategic Officer Working Group (SOWG) is responsible for delivering the decisions of the partnership through actions and projects.

The structure of the LWP and SOWG, including the relationship with other related groups is shown below:



Further information on the partnership can be found online:

- General information – <https://www.lincolnshire.gov.uk/recycling-waste/lincolnshire-waste-partnership>
- Details of the public meetings including agendas and minutes – <https://lincolnshire.moderngov.co.uk/ieListMeetings.aspx?CId=164&Year=0>

## Current issues affecting the strategy

The most significant changes facing the partnership are the new draft policies published by the Government in its Resources and Waste Strategy. These are aimed at improving the national recycling rate, but will change the range of materials that have to be sorted out by residents for separate collection. Once they have been collected separately they have to be treated separately and this will require that we have access to a new treatment infrastructure. The Government has indicated that many of the changes will happen in 2023, and they continue to consult on how best to achieve this. We expect the legislation to appear in 2021 which will give us two years to make the changes in Lincolnshire. This may seem a long way off but building treatment facilities and ordering vehicles when every other council is required to do similar will be a challenge.

The range of dry recyclable materials we collect will be affected by the proposed deposit return scheme (DRS). This is likely to target plastic, metal and glass drinks containers, although the final scheme design has yet to be confirmed. These materials are currently captured by the kerbside collections and some bring banks, and these will be affected by DRS – Initial LWP modelling suggests a possible fall of 12% in kerbside recycling tonnages. Scotland has legislated to bring in their DRS next year 2021 which gives us the opportunity to see how their scheme impacts on kerbside collections and bring banks.

World recycling markets have been in turmoil for a number of years as the quality of material has come under scrutiny. The practice by some of shipping general waste abroad but describing it as recycling has caused a push back from the destination countries and a closing of outlets which has created a backlog of material to move. This illegal practice has caused problems for genuine businesses. This is why we spend so much time on communications and engagement to explain to the public why keeping their recycling clean, dry and loose is so important for us to ensure it can be genuinely recycled.

On the same timescale the Government want to bring in weekly separated food waste collections for households and businesses in 2023. Whereas DRS will require residents to take the empty drinks containers to a deposit point, food waste will be collected from the house or business premise. We await confirmation from the Government on their preferred collection method for the separated food waste as there are alternative models. We will need to take account that, with food waste forming about one quarter of the waste that is processed through the Energy from Waste plant (EfW), its removal will change the feedstock and may require technological changes inside the EfW to enable it to continue to work efficiently.

With these changes to collections and how to treat the materials they produce, we will need to review the assets we use to support how we deal with waste and recycling. Extra vehicles need crews and space to park. The extra collections will need to process the separated materials through different infrastructure e.g. food waste is best processed through anaerobic digestion which makes the most efficient use of the biogas produced from the food and can process other biodegradable wastes. This may require new tipping locations as well as the treatment facilities. Any future planning should seek to be as efficient as possible and utilise the collocation of buildings and other infrastructure assets to share resources and services to achieve best value.



## What happens to our Waste?

The Partnership are committed to ensuring we collect, treat and dispose of all our waste in the most effective way. We are legally required to do this in line with what's known as the 'Waste Hierarchy'. As shown below, this sets out in order of preference, five waste management options.



The ideal is prevention, reducing the amount of waste which is produced in the first place. This is followed by re-use, recycling (including composting) and recovery (e.g. Energy from Waste), with disposal (generally landfill) being the least preferred option.

The Waste Hierarchy helps to encourage a change in thinking so that waste is considered as a resource to be made use of, with disposal being the last resort. In line with this, we only sent a small quantity of waste to landfill this year.



Our residual (general) waste is mainly treated and disposed of at the Energy from Waste (EfW) facility at North Hykeham reducing the dependence on landfill. The EfW became fully operational in March 2014 and can treat up to 190,000 tonnes of residual waste each year, diverting it from landfill and exporting 105,000 MWh of electricity in the process each year. In September 2019, the facility dealt with its one millionth tonne of rubbish in Lincolnshire.



Our residual waste is collected by the Waste Collection Authorities and taken either directly to our EfW or via one of the 5 waste transfer stations across the county. The waste is then burned in a controlled process, with the resulting steam powering a turbine, which generates electricity. The resulting solid waste which includes metals and ash from the incinerator is collected and recycled with much of it being used as aggregate in the construction industry. The air pollution control residue (byproduct of cleaning the exhaust gases) goes to a waste treatment facility for further treatment. The steam powers the turbine and is then cooled before being fed back into the boiler.



Kerbside collection of mixed dry recycling is collected by the Waste Collection Authorities and taken to one of the 5 waste transfer stations across the county. From there it is sent in bulk to the re-processing contractor at their Materials Recovery Facility (MRF) who receives, separates and prepares the waste into different fractions, mainly paper and cardboard, plastics, glass and metals with any non-recyclable materials being sent to various energy from waste destinations.



Each of the WCAs also offer a paid service where customers can have their green/garden waste collected and disposed of. The waste is collected from the kerbside and transported to specialist contractors who will reprocess the waste into soil conditioner for use in agriculture.

## JMWMS Vision and Objectives

In developing the Joint Municipal Waste Management Strategy (JMWMS), the Partnership started out by defining a vision, and then a set of strategic objectives aimed at fulfilling that vision.

These are intended to align with the national Resources and Waste Strategy (RAWS) for England as follows.

<b>Vision</b>	<b>To seek the best environmental option to provide innovative, customer-friendly waste management solutions that give value for money to Lincolnshire.</b>
Work undertaken to deliver the strategic objectives needs to bear in mind this overall vision for what we want to achieve.	
<b>Objective 1</b>	<b>To improve the quality and therefore commercial value of our recycling stream.</b>
This ties in with the UK government commitments to continue to align with EU environmental policy and move away from a "make, use, dispose" model towards a more circular economy.	
<b>Objective 2</b>	<b>To move towards a common set of recycling materials.</b>
This aligns with the UK government's view, as set out in their new Resources and Waste Strategy (RAWS) that the large number of different systems causes public confusion, and thus hampers people's ability to put the right things into recycling collections.	
<b>Objective 3</b>	<b>To consider the introduction of separate food waste collections where technically, environmentally and economically practicable.</b>
The RAWS, and subsequent output from Defra, indicates the government's desire to make separate food waste collections mandatory from 2023.	
<b>Objective 4</b>	<b>To explore new opportunities of promoting waste minimisation and of using all waste as a resource in accordance with the waste hierarchy.</b>
The waste hierarchy remains a key driver. This "promoting" will include both communicating with the public and lobbying of government and manufacturers for changes to the wider picture. Waste minimisation will be measured through a Key Performance Indicator (KPI) of the total kg of household waste produced per household.	
<b>Objective 5</b>	<b>To contribute to the UK recycling targets of 50% by 2020 and 55% by 2025.</b>
Whilst it could be argued that the recycling rate is not a true reflection of environmental performance, it remains the headline national measure. This has been included as a KPI for measuring the Partnership's progress in implementing the JMWMS.	
<b>Objective 6</b>	<b>To find the most appropriate ways to measure our environmental performance, and set appropriate targets.</b>
This will allow us to set targets which address progress towards our objectives rather than just chasing targets for their own sake. Further details are given later in this Annual Report.	
<b>Objective 7</b>	<b>To seek to reduce our carbon footprint.</b>
This is a key way to measure the overall environmental impact of the services which we provide. We have begun to calculate our footprint and will report on it in future Annual Reports.	
<b>Objective 8</b>	<b>To make an objective assessment of what further waste processing/disposal capacity is required and, as necessary, secure appropriate capacity.</b>
Forecasts are that we will continue to see considerable waste growth, and we need to ensure we have sufficient capacity to handle it in the best way possible. This will include providing specialist facilities for handling new collections such as food waste.	

<b>Objective 9</b>	<b>To regularly review the LWP governance model in order to provide the best opportunity to bring closer integration and the implementation of the objectives set by the strategy.</b>
Whilst the LWP consists of a number of separate authorities, it is essential that we continue to seek ways to work together to achieve the best outcomes for the people of Lincolnshire as a whole.	
<b>Objective 10</b>	<b>To consider appropriate innovative solutions in the delivery of our waste management services.</b>
It is important not to be held back by sticking with existing practices where something new could improve things.	

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## Progress against the Vision and Objectives through the delivery of the Joint Municipal Waste Management Strategy (JMWMS) Action Plan

This section summarises how the work undertaken by the Partnership reflects the vision and objectives set out in our Waste Strategy for Lincolnshire.

To achieve the objectives of the Strategy, an initial action plan listing 5 main project streams was created. This section details the progress against those actions plus additional activities undertaken by the partnership over the past year. It also describes how our Key Performance Indicators (KPIs) will be used to measure our progress towards achieving those defined goals.

### **Action 1 - Strategic Review of Kerbside Mixed Dry Recycling Collection and Disposal (contributing to achieving JMWMS objectives 1, 2, 5, 7, 8 and 10)**

The Mixed Dry Recycling (MDR) mix across all of the Waste Collection Authorities (WCAs) was reviewed and analysed. Taking into account both the existing MDR contract and the upcoming tender for a new contract, the mix was revised and harmonised in line with market forces and with the a view to each of the WCAs collecting the same materials. This list of materials was agreed by the partnership in August 2019, with each WCA determining how best to collect them in their area.

Following that agreement, insight and engagement work has shown that households are unsure of what can go into MDR collections, and messages from the manufacturers shown on products and from the media are confusing and are adding to the level of contamination in the current collections across Lincolnshire. In order to address this issue, the WDA and the WCAs have all produced consistent messaging to promote the communication of this to the public. Ongoing works continue to engage and educate residents as to what should go in which bin/bag in order to reduce contamination. This focuses around 4 main categories of material: plastics, glass, metal and paper and cardboard. Examples of the communications messages are shown below:



Various methods of engagement and communication continue to be tested across specific areas of the county with monitoring to assess their effectiveness and impact, and a wider communications campaign is being coordinated to implement throughout 2020.

In line with this, a new MDR contract specification has been created and came into force in July 2020.

Recycling rates are being captured and reported on (see the “Measuring Performance” section of this report) and the impact of education, engagement and communications will be measured and reported on across the forthcoming year.

**Action 2 – Food Waste Trial (contributing to achieving JMWMS objectives 1, 2, 3, 4, 5, 7, 8 and 10)**

In June 2018, the partnership commenced a trial of collecting food waste separately to the remainder of the household waste. The government's Resources and Waste Strategy shows that there is a drive towards mandating this as a means of waste collection in the future. In order to address a number of issues including falling recycling rates, capacity of the Energy from Waste (EfW) facility and contamination of dry recyclables, South Kesteven District Council and the County Council have been undertaking this project on behalf of the Partnership.

Including assessing the amount of food waste collected, the impact on the different waste streams, recycling rates and customer participation, 4260 households were selected to participate in the trial. These households demonstrate a representative sample of urban, rural and semi-rural properties within the district.

Food waste has been collected weekly from the identified households in addition to the continued alternate-weekly co-mingled dry recyclables and residual waste collections. Different collection methodologies have been tested to understand their effectiveness, the efficiency of different vehicle types and resource requirements, and the outputs of these experiments are being analysed. The collected food waste is being tipped at Grantham Waste Transfer Station and then transported to an anaerobic digestion plant where it is converted into energy and soil conditioner product.

A series of communications and engagement activities have been undertaken to increase public awareness, to assess take up and participation rates, and to gather feedback and insight from the participants in the trial.

Initial results show that:

- The majority of customers who responded to a survey (1,147 or 95.9%) agreed with the trial
- The scheme consistently collects over 6 tonnes of food waste per week
- Participation remains high
- Food waste represents approximately 12% of the waste produced
- The overall amount of waste continues to rise
- Food waste collections increase the total amounts of waste recycled by approximately 10%
- Food waste collections will add a significant additional finance burden on collection authorities

The Partnership will be reviewing the outcomes of the trial and making a decision as to how best to take forward the learning. This decision will also take into account the potential impacts of the national Resources and Waste Strategy.

**Action 3 – Strategic Review of options for Continuous Improvement for Waste Collection and Disposal Arrangements in Lincolnshire (contributing to achieving JMWMS objectives 1, 2, 3, 4, 5, 6, 7, 8 and 10)**

A review of the current strategy and operations of Waste Collection and Disposal in the County was undertaken by the Strategic Officer Working Group using methodology developed by the Design Council. The outputs helped to prioritise the actions of the Partnership and concurred that the action plan to deliver the Strategy and the objectives outlined therein will enable the delivery of our strategic objectives.

Specifically in terms of continuous improvement, all members of the Strategic Officer Working Group agreed to support reduction in contamination through a stringent communications and enforcement programme which remains ongoing.

**Action 4 – Location of additional processing/disposal sites (contributing to achieving JMWMS objectives 1, 2, 3, 4, 5, 7, 8 and 10 )**

Work has been undertaken to review the links between waste management facilities and other infrastructure across the county. This work has included consideration of the Greater Lincolnshire Local Enterprise Partnership's work around utility infrastructure.

By utilising the relationships developed via the Greater Lincolnshire One Public Estate programme (GL OPE) and the Waste network already in existence within Lincolnshire, the LWP, the 'Lincolnshire Waste and Recycling Infrastructure Assets Workshop' took place. This allowed for a community of Lincolnshire public sector bodies to come together to take a collective strategic approach to asset management, ensuring that the public estate maximises the values and benefits of creating economic growth (homes and jobs), delivery of more integrated customer-focused services and generating efficiencies through capital receipts and reduced running costs. With contacts from both Greater Lincolnshire OPE and the LWP being invited to attend this workshop, the presence of such a varied multi-disciplinary audience lent itself to maximising opportunities and fully embracing the One Public Estate ethos across the sector.

Clear themes emerging from the workshop included:

- Environmental Benefits – e.g. better handling of waste; reduced transport
- Financial Benefits – e.g. sharing premises; sharing staff and vehicles
- Operational/Other Benefits – e.g. working together more strategically

Potential projects and issues have then been prioritised into

- Urgent Considerations (next 0-12 months)
- Upcoming Considerations (next 12-24 months)
- Other Considerations (beyond 24 months)

Some projects have already commenced including possible combined sites in the Grantham, Louth and Hykeham areas. These will need to ensure that they take account of OPE considerations and involve all relevant stakeholders, including the wider public estate – e.g. NHS, military, other "blue light" services. Other identified projects will need to be progressed in line with the timelines

established for them and will form future items on the ongoing action plan going forward, and all partners are asked to consider OPE opportunities in developing future projects.

**Action 5 – Choosing performance indicators appropriate to measure environmental performance (contributing to achieving JMWMS objectives 4, 6 and 7)**

In order to ensure delivery of both our strategic objectives and our ongoing waste services, the strategy requires that we measure performance by means of a suite of key performance indicators that demonstrate the effectiveness of the strategy and its actions in delivering Waste Services in Lincolnshire.

Full progress to date is reported in the Measuring Performance section of this report.

**Since the publication of the JMWMS in January 2019, further actions have been added to the action plan as follows:**

**Action 6 - Two Stream Paper and Card Trial (contributing to achieving JMWMS objectives 1, 2, 4, 5, 8 and 10)**

Following the delivery of a report by WRAP into future potential solutions for waste services in Lincolnshire, and in response to the direction set by the National Waste Strategy consultations and the review and revision of the kerbside mixed dry recycling (MDR) mix (see action 1 above), it was agreed to conduct a trial to consider the benefits of collecting paper and cardboard separately from the remainder of the MDR.

Three of the partner WCAs - (Boston Borough Council, North Kesteven District Council and South Holland District Council) volunteered to run pilots within their districts to trial different methodologies for collection and give an understanding of the feasibility of implementing this two stream collection option countywide in order to achieve the following outcomes:

- Improve the quality of MDR and Paper collected
- Educate the public
- Investigate different potential methods of collection
- Positively impact on residual weights and composition

The trial commenced in September 2019 with the WCAs undertaking the collection of paper and card in a separate dedicated receptacle (bin or bag). Approximately 7,500 households were selected to be a part of the trial consisting of a mix of urban, semi-urban and rural properties. The paper and cardboard being collected is being sent directly to a paper processor without it having been sent to a MRF first for sorting.

In all 3 WCAs, the existing collection methodologies are being tested and adapted in order to understand scalability and flexibility of any future implementations of the scheme.

Supporting the operational roll out has been a comprehensive set of education, engagement and communication activities and the initial results of the trial after 6 months are as follows:

- 251.44 tonnes collected (equivalent to 1.35kg per household per week)
- Presentation (participation rate) - 96.3%



- Of those bins/bags presented - 95% have been collected (i.e. contained the right things)
- Quality levels of 98.5% quality paper and card (newspaper/cardboard/mixed papers)
- Moisture levels of less than 8% - a requirement of the paper mill we send it to

The trial continues and will be developed further to support the reduction of contamination in the overall waste stream as detailed in Action 7 below.

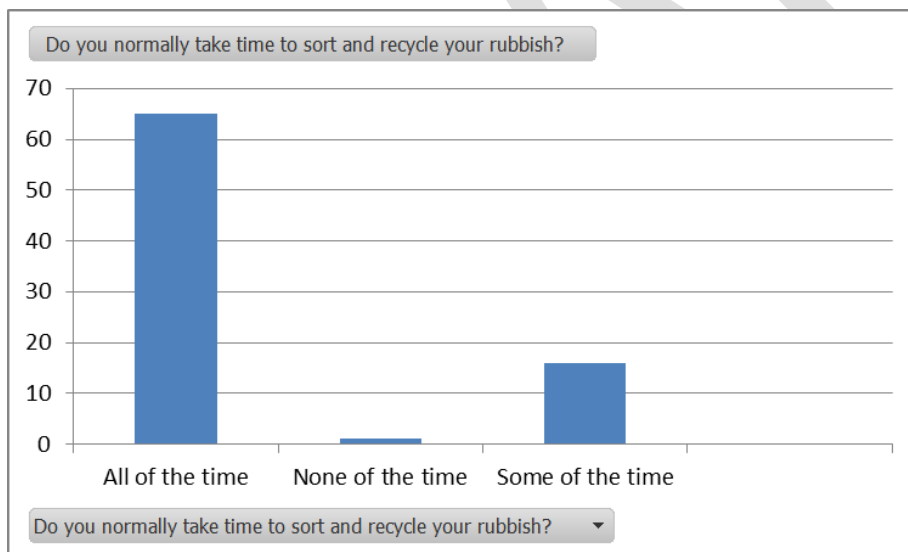
Output data from the trial has been fed into a cost-benefit analysis which will form part of a business case for consideration with regard to the possible countywide rollout of these collections.

**Action 7 - Reducing Contamination in the overall waste stream (contributing to achieving JMWMS objectives 1, 2, 3, 4, 5, 8 and 10 )**

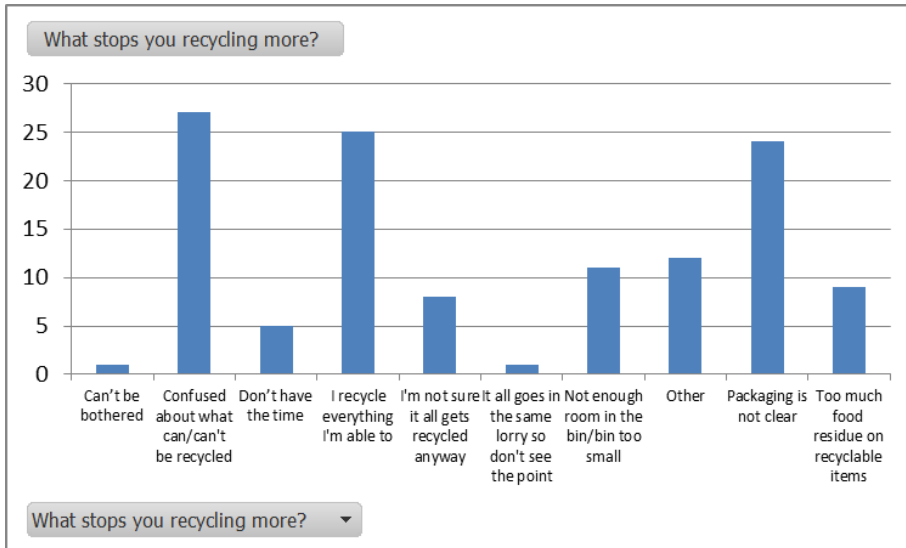
The partners have all acknowledged a collective responsibility to reduce contamination in the MDR mix. Each partner has produced communications material (see action 1 above for examples) and the Partnership has created a plan for communication to all residents in their areas including activities such as direct communication, social media activity and press releases provided this can be done within available budgets and resources.

This activity has been supported by valuable insight gained by interacting with the public which indicated the following:

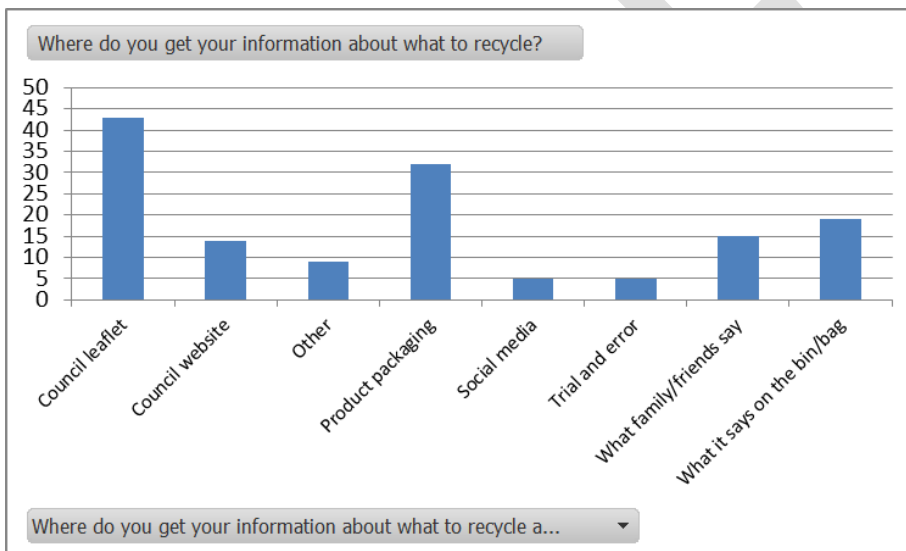
98% of householders take time to sort and recycle their rubbish at least some of the time:



However, a high proportion of those respondents are confused about what can and cannot be recycled and state that the packaging of items is not clear and this contributes to the levels of contamination in the current MDR collected.



Supported by the WRAP data collected nationally, the local insight shows that householders rely upon support from the local authority via leaflets and their website to give them the information that they require.



With this in mind, and supported by dedicated sampling to show which materials are most often put into the wrong collection, communications and engagement activities are planned, and the impact will be monitored and reported based upon levels of contamination before and after engagement to measure impact and effectiveness.

**Action 8 - Commercial Waste (contributing to achieving JMWMS objectives 1,2,4 and 5)**

Some of the WCAs collect commercial waste from businesses within their districts. The Partnership has created a consistent and effective method for the collection, treatment and disposal of commercial waste which gives equity to all partners who have chosen to undertake this activity.

### **Action 9 – Flytipping (contributing to achieving JMWMS objectives )**

At the July 2019 meeting of the Partnership, a presentation was received from the Chairman of the Hertfordshire Fly-Tipping Group which covered a number of topics, including a summary of the Hertfordshire Waste Partnership's S.C.R.A.P fly-tipping campaign. This was well received by the Partnership and West Lindsey DC volunteered to lead on a similar project within Lincolnshire. Representatives from all of the partners signed a pledge to seek ways to work together in order to tackle the rising trend of fly-tipping. Some of the activities which had taken place so far which included:

- A leaflet highlighting the campaign had been sent to over 42,000 households
- Two RCV's had been wrapped with campaign posters
- 'Days of Action' had taken place on four separate days to stop and search vehicles – 85% of the drivers asked to produce a licence were able to.

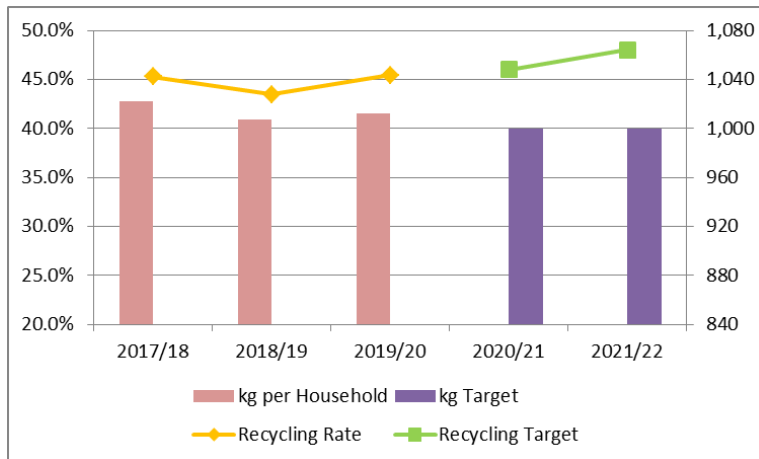
Following the success of this initiative this initiative will be rolled out across other districts over the forthcoming year.

## Measuring Performance

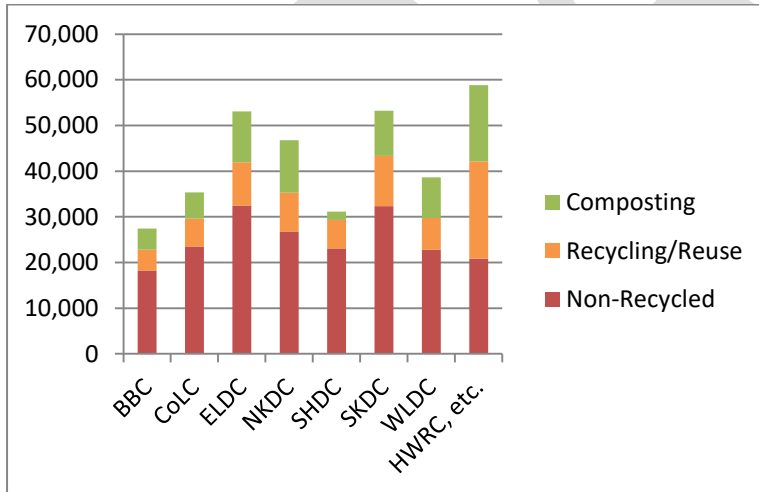
**Performance Summary** (See the below text for further details).

### Performance against agreed Key Performance Indicators (KPI)

	Previous Performance		Current Year				Future Targets	
	2017/18	2018/19	2019/20	Target	On Target?	Direction of Travel	2020/21	2021/22
Recycling Rate	45.3%	43.5%	45.4%	n/a (new measure)	n/a (new measure)	Better	46.0%	48.0%
kg per Household	1,023	1,008	1,012	n/a (new measure)	n/a (new measure)	Steady (+0.4%)	1,000	1,000



### Source and destination of each tonne of Household Waste in 2018/19



### Development of Key Performance Indicators (KPIs)

Historically performance indicators (PIs) for waste were largely weight-based – e.g. percentage recycled. Whilst these PIs were simple to understand and calculate, they did not reflect that the environmental impact of recycling a tonne of waste differs depending on what it is – e.g. recycling a tonne of metal has a much greater environmental benefit than recycling a tonne of glass. They also failed to reflect other environmental impacts such as the emissions from building infrastructure and from vehicles collecting waste and subsequently transporting it to be processed.

The Partnership have identified, as Strategic Objective 6, the need to find a better way to measure environmental performance, and this is also a key strand in the government's Resources and Waste Strategy (RAWS).

In line with the Strategy Vision and Objectives, the Partnership have agreed to develop a suite of Key Performance Indicators (KPIs) which measure our performance in the following themes:

<b>Theme 1: Waste Hierarchy</b>	The Waste Hierarchy sets out, in order of preference, the best ways to deal with waste. The best option is waste minimisation, and the worst is disposal (e.g. landfill).
This will measure our performance with regard to: <ul style="list-style-type: none"> <li>• Vision – "seek the best environmental option"</li> <li>• Objective 4 – "promoting waste minimisation"</li> <li>• Objective 5 – "contribute to the UK recycling targets"</li> </ul>	
<b>Next steps:</b> The LWP have agreed two KPIs, <i>set out in more detail in the relevant section below</i> , which will specifically show our performance against Objectives 4 and 5.	

<b>Theme 2: Carbon</b>	This gives a truer measure of the overall relative environmental impacts of different service options, including the impacts of making any changes (e.g. providing new buildings and vehicles).
This will measure our performance with regard to: <ul style="list-style-type: none"> <li>• Vision – "seek the best environmental option"</li> <li>• Objective 7 – "seek to reduce our carbon footprint"</li> </ul> Setting this measure will specifically fulfil: <ul style="list-style-type: none"> <li>• Objective 6 – "find the most appropriate ways to measure our environmental performance"</li> </ul>	
<b>Next steps:</b> An initial assessment has been undertaken, and this will now be refined to produce a baseline figure against which to compare our future performance. <i>Further details are set out in the relevant section below.</i>	

<b>Theme 3: Contamination</b>	Our recycling efforts are currently hampered by the presence of a considerable quantity of non-recyclables mixed in with our kerbside-collected recyclables.
This will measure our performance with regard to: <ul style="list-style-type: none"> <li>• Objective 1 – "improve the quality... of our recycling stream"</li> </ul> Our efforts to improve performance will be supported by: <ul style="list-style-type: none"> <li>• Objective 2 – "a common set of recycling materials"</li> <li>• Objective 3 – "separate food waste collections"</li> </ul>	
<b>Next steps:</b> The Partnership will need to define this to ensure that it is being measured consistently across the county.	

<b>Theme 4: Customer-friendly</b>	This is important in and of itself, but will also make it easier for people to understand how to use our services in the best way.
This will measure our performance with regard to: <ul style="list-style-type: none"> <li>• Vision – "customer-friendly waste management solutions"</li> </ul> Our efforts to improve performance will be supported by: <ul style="list-style-type: none"> <li>• Objective 2 – "a common set of recycling materials"</li> </ul>	
<b>Next steps:</b> The Partnership are discussing the best way to measure this consistently both across the county and over time to ensure that we really know how we're doing.	

## Theme 1 – Waste Hierarchy

The Partnership are working to develop a full suite of KPIs to measure our performance against our JMWMS Vision and Objectives through the above categories. So far, we have agreed to report on two KPIs, both of which relate to our "Waste Hierarchy" theme.

Recycling rate of "waste from households"	
<b>Related JMWMS Objective:</b>	Objective 5 – To contribute to the UK recycling targets of 50% by 2020 and 55% by 2025.
<b>Details:</b>	Uses the same definition as that used for the national recycling rate, and includes recycling, reuse and composting from all sources, not just kerbside collections.
<b>Method:</b>	Calculated from quarterly figures submitted to the government's statutory Wastedataflow website.

Household Waste Collection (kilograms per household)	
<b>Related JMWMS Objective:</b>	Objective 4 – To explore new opportunities of promoting waste minimisation and of using all waste as a resource in accordance with the waste hierarchy.
<b>Details:</b>	Includes all sources, not just kerbside collections.
<b>Method:</b>	Calculated from quarterly figures submitted to the government's statutory Wastedataflow website.

A summary of performance and targets, including charts, is shown at the start of this chapter. In further detail:

Recycling rate of "waste from households"	
<b>Performance:</b>	Unfortunately, whilst the quantity of material gathered in recycling collections has remained steady, the proportion of non-recyclable material in those collections has risen, leading to a fall in our recycling rate in recent years. However, in 2019/20 we managed to reverse both those trends, and we'll seek to continue that.
<b>Our plans:</b>	We are seeking to increase our recycling rate through: <ul style="list-style-type: none"> <li>• <b>Simplifying the message</b> on what can and can't be recycled through our kerbside collections.</li> <li>• Considering <b>separate collections of food waste</b> for recycling. Our initial trial near Grantham is showing positive results.</li> <li>• Considering <b>separate collections of paper and card</b>. Whilst our trial is in its early stages, we hope it will help to produce cleaner material which is easier to recycle.</li> </ul>
<b>Targets:</b>	2022/23 = 50% 2025/26 = 55%

Household Waste Collection (kilograms per household)	
<b>Performance:</b>	The quantity of waste each household produces has remained steady for a number of years at just over 1,000kg per year.

<b>Our plans:</b>	We are seeking to maintain, or even lower this rate through: <ul style="list-style-type: none"> <li>• Including messages about <b>waste minimisation</b> alongside our other waste-related publicity.</li> </ul>
<b>Targets:</b>	Maintain at 1,000kg per household per year.

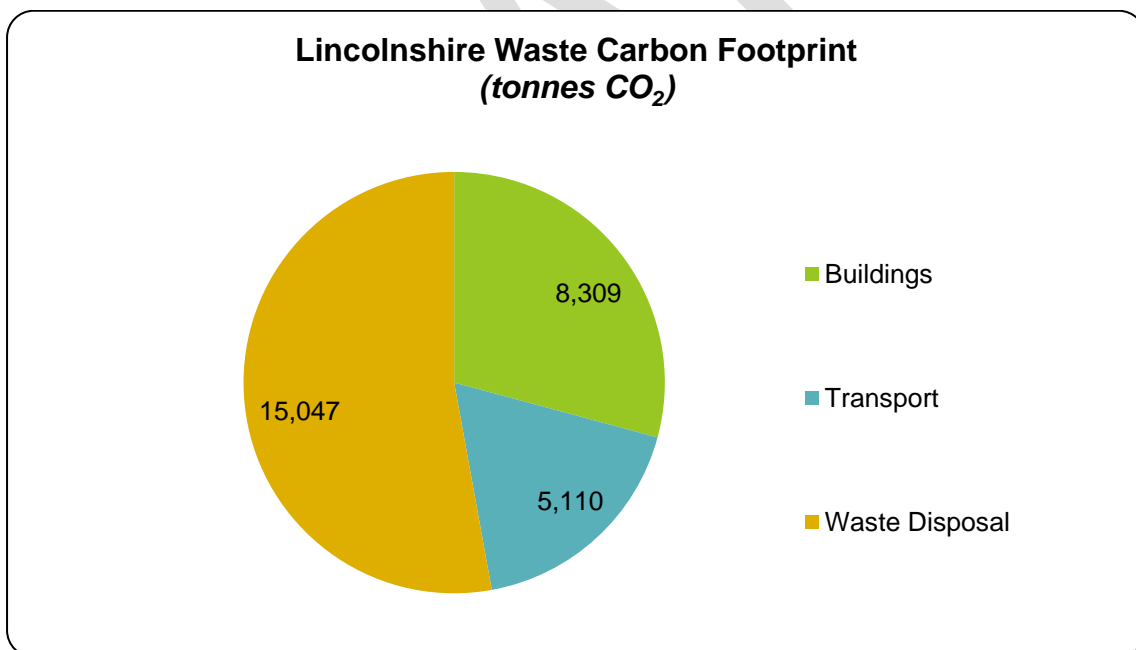
**Theme 2 – Carbon**

**How the carbon footprint is calculated**

This 2017/18 footprint is created by assessing the carbon emissions from:

- Energy consumption from Lincolnshire County Council's (LCC) buildings, including Household waste recycling centres (HWRC), waste transfer stations (WTS) and the energy from waste plant (EfW).
- Transport mileage by bulk freight movements from WTS's to the EfW.
- Waste tonnages collected including recyclables, composting, landfill and waste to the EfW.
- Waste collection authorities (WCA's) fleet mileage from waste and recycling collections.

The overall carbon emissions from waste services in Lincolnshire were 28,466 tonnes of CO<sub>2</sub>. The graph below shows how the total emissions are split between buildings, transport and waste disposal:



**Key findings**

- Waste disposal is the highest contributor to the carbon footprint making up nearly 53% of all carbon emissions.
- Waste to landfill makes up over 58% of those emissions from waste disposal highlighting it as a significant impact on the carbon footprint.
- The overall amount of waste sent to landfill as expressed in tonnes only makes up 4% of all disposed of waste, revealing landfill as hugely carbon intensive.



## **What we're doing with the information**

In practice the Partnership have limited ability to reduce the emissions from the EfW even though our EfW contractor (FCC) are investigating opportunities to reduce emissions. There are two key areas where significant reductions in emissions can be made. They are transport, and the emissions from waste sent to landfill.

The County Council are investigating ways in which it can prevent much of the waste going to landfill by finding other options for waste disposal when the EfW is shut for maintenance for 2 weeks a year. If we could reduce landfill to only 2% of the waste going to landfill the carbon emissions could drop by around 16%.

The transportation of waste by WCAs presents another opportunity to deliver carbon reduction. We have already made considerable strides in delivering carbon savings in this area, and we will continue to seek new opportunities going forwards. This work has already included, and will include going forwards:

- Replacement programmes and vehicle procurement (opportunities are already being considered in this area)
- Collection round optimisation
- Engine/fuel technology

A number of local authorities have undertaken research studies and trials to assess the use of alternative fuels – e.g. Leeds City Council suggest that replacing diesel-fuelled RCVs with biogas could reduce emissions from waste transport by up to 78%. The LWP will continue to review opportunities to reduce emissions from transport, with each authority undertaking a full end to end analysis on the impacts and costs to select the best option for their individual circumstances – e.g. urban and rural solutions may differ.

## **The future**

The carbon footprint of the Partnership is likely to be variable going forward as national policies such as Extended Producer Responsibility and Deposit Return Schemes are implemented. Government have also announced their intention for mandatory food waste collections. This could increase the carbon footprint of the Partnership by 15 -20%. Finally overall waste reduction, and increases in recycling rates will contribute to reducing the overall carbon footprint from waste services.

## What Happens Next?

Having worked together to develop a shared strategy, we will not rest on our laurels. The eight councils of the Lincolnshire Waste Partnership are committed to work together by:

- Implementing the objectives set out in our Strategy — This Annual Report sets out how we aim to do that through improved services, clear communications, providing infrastructure, and behind the scenes support.
- Measuring and reporting on how we're doing — Through the Annual Report and at public meetings of the Lincolnshire Waste Partnership.
- Helping to shape national policy — We responded to the first round of consultations on policy outcomes from the 2018 Resources and Waste Strategy for England, and we will continue to let government know what we think through further consultations due later in 2020 and through other means.
- Responding to any changes in national policy — As the UK government firms up its resources and waste policies, we will continue to adapt to provide the best possible services for Lincolnshire which align with the national picture.
- Reviewing and, if necessary, updating our Waste Strategy for Lincolnshire — Each Annual Report allows us to take stock both of how well we're enacting our current strategy and will help us to identify when a new strategy is needed.
- Tying in our waste-related work with other environmental issues — Protecting and enhancing the environment is an important issue in Lincolnshire, nationally and globally. What we do about waste will make an important contribution to the impact we have.
- Responding to any other emerging issues — Some events arrive out of the blue. For example, our response to COVID-19, the impact of which was only just beginning to be felt at the end of the period covered by this Annual Report (March 2020) will be covered in next year's report.

## Glossary of Terms and Abbreviations

Term	Abbrev.	Description
Alternate Weekly Collections	AWC	Typically, the collection of household residual wastes every other week, whilst during the intervening weeks recyclables and/or green wastes are collected.
Anaerobic Digestion	AD	A process by which microorganisms break down biodegradable material in the absence of oxygen.
Department for Environment, Food and Rural Affairs	Defra	UK government department responsible for waste management (amongst other things).
Deposit Return Scheme	DRS	A recycling system in which consumers pay a small deposit for packaging (usually drinks containers), which can be refunded upon return to a shop. This is a key element of the Resources and Waste Strategy (RAWS) for England.
Energy from Waste	EfW	Any renewable energy technology that recovers energy from waste.
Extended Producer Responsibility	EPR	A system whereby the original producers of packaging materials meet the costs of their eventual recycling or disposal. This is a key element of the Resources and Waste Strategy (RAWS) for England.
Household Waste	HW	Waste from domestic properties including waste from residual refuse collections, material collected for recycling and composting, including bring sites, plus waste from educational establishments, nursing and residential homes and street cleansing waste.
Household Waste Recycling Centre	HWRC	A place at which the public may deposit their household waste
Joint Municipal Waste Management Strategy	JMWMS	Also referred to in this document simply as "the Lincolnshire Waste Strategy". It is a statutory duty for local authorities in two-tier areas to have a JMWMS. The current Strategy was adopted by the LWP in January 2019.
Lincolnshire Waste Partnership	LWP	Also referred to in this document simply as "the Partnership". Brings together the public bodies within Lincolnshire responsible for collection and disposal of waste.
Mixed Dry Recyclables	MDR	Recyclable materials (e.g. paper, glass, plastics & metals) collected mixed together.
One Public Estate	OPE	A project looking at possible synergies between the premises needs of bodies from across the public sector.
Resources and Waste Strategy for England	RAWS	The government's national strategy, published in December 2018.

Term	Abbrev.	Description
Waste Collection Authority	WCA	<p>A local authority with the duty to collect specified wastes (including household waste).</p> <p>There are seven WCA's covering the LWP area: Boston Borough Council, City of Lincoln Council, East Lindsey District Council, North Kesteven District Council, South Holland District Council, South Kesteven District Council and West Lindsey District Council</p>
Waste Disposal Authority	WDA	<p>A local authority with the duty to operate HWRC's and to dispose of waste collected by WCA's in its area.</p> <p>There is one WDA covering the LWP area: Lincolnshire County Council.</p>
Waste and Resources Action Programme	WRAP	<p>A government-sponsored organisation promoting recycling and other waste issues.</p>

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