

Joint Municipal Waste Management Strategy for Lincolnshire

The Lincolnshire Waste Partnership

Table of contents

1 Vision

2 Introduction

3 What are the key legislative drivers?

4 How has the strategy been developed?

5 Where are we today?

6 What are we aiming for?

7 How will we get there?

8 The next steps: Monitoring, implementing and reviewing the strategy

1 Vision

This Joint Municipal Waste Management Strategy (JMWMS) for Lincolnshire provides a method by which the eight local authorities of Lincolnshire and the Environment Agency can work in Partnership to deliver sustainable waste management services to the community, as well as to commercial and industrial customers, and establish best value waste management practices.

The Lincolnshire Waste Partnership vision for this Strategy is:

“To seek the best environmental option to provide innovative, customer-friendly waste management solutions that give value for money to Lincolnshire.”

DRAFT

2 Introduction

2.1 Background

The Lincolnshire Waste Partnership (LWP) brings together the public bodies within Lincolnshire responsible for collection and disposal of waste, including:

- Seven Waste Collection Authorities (WCA's) – 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;
- One Waste Disposal Authority (WDA) – Lincolnshire County Council; and
- One Waste Regulatory Authority – The Environment Agency.

This Joint Municipal Waste Management Strategy (JMWMS) provides a strategic framework through which the partners of the LWP can express their shared vision and strategic objectives for the handling of municipal waste. Furthermore, it meets the requirements of the Waste and Emissions Trading Act (2003) to have such a joint strategy.

The LWP's previous JMWMS was adopted in 2008, necessitating this review and publishing of a new JMWMS. This new Waste Strategy has been developed as a joint venture between the WDA and the WCA's, with significant commitment from all members of the LWP in order to arrive at a genuinely shared vision and future strategy.

In addition to this main Strategy document, the JMWMS process has produced:

- A Strategic Environmental Assessment (SEA), as required under the Environmental Assessment of Plans and Programmes Regulations 2004. In accordance with Government guidance, the SEA process, including the preparation of an Environmental Report, has been conducted at the same time as developing the JMWMS. The role of the SEA is to complete a thorough environmental assessment of a number of scenarios, considering a number of waste treatment technologies which can deliver the objectives set by the strategy; and
- An Action Plan of work to be undertaken to move towards the objectives identified in the Strategy. The intention is to produce an updated Action Plan annually for the lifetime of this JMWMS.

2.2 Scope and context

In developing this Strategy, a balance has been sought between reducing costs and "doing the right thing" environmentally. "Doing the right thing" involves reference to a number of key documents.

2.2.1 The Waste Hierarchy

Article 4 of the revised EU Waste Framework Directive lays down a five-step hierarchy of waste management options which must be applied by Member States in this priority order. In order of preference, these options are:

- Prevention
- Preparing for re-use
- Recycling
- Other recovery – e.g. Energy from Waste
- Disposal – e.g. Landfill

Regulation 12 of the Waste (England and Wales) Regulations 2012 asserts the need for us to consider the Waste Hierarchy in choosing how to handle all our waste streams, so this directs the principles under which our JMWMS must be written.

2.2.2 Waste Management Plan for England (2013)

The Government's Waste Management Plan for England set out a number of strategic priorities which need to be taken into account in this Strategy for Lincolnshire. These include:

- Implementing the Waste Hierarchy.
- Measures to promote high quality recycling.
 - The Waste (England and Wales) Regulations 2011, transposing the revised EU Waste Framework Directive, require the separate collection of waste paper, metal, plastic and glass from 2015 onwards wherever separate collection is necessary to get high quality recycling, and is practicable.
 - The Waste and Resources Action Programme (WRAP), will advise local authorities and others, including on best practice in collections.
 - The introduction of Regulations relating to Material Recovery Facilities (MRFs), including mandatory sampling weights and frequencies for inputs and outputs.
- Separate collection of biowaste.
 - The Government has identified anaerobic digestion as the best technology currently available for treating food waste.

2.2.3 Lincolnshire's Previous JMWMS (2008)

Lincolnshire's previous JMWMS identified 10 objectives shown in Figure 2-1.

Figure 2-1 Objectives from 2008 Lincolnshire JMWMS

<p>Objective 1. To prevent the growth in municipal waste by promoting waste reduction and reuse initiatives to ensure no more than 225kg of residual household waste per person per year is produced by 2020.</p> <p>Objective 2. To promote waste awareness through co-ordinated public education and awareness campaigns, and effective community engagement.</p> <p>Objective 3. Across Lincolnshire to achieve 55% recycling and composting by 2015.</p> <p>Objective 4. Across Lincolnshire to achieve a uniform dry recyclables waste stream by 2013.</p> <p>Objective 5. To increase progressively the recovery and diversion of biodegradable waste from landfill, to meet and exceed the Landfill Directive diversion targets.</p>
--

- Objective 6.** To ensure that residual waste treatment supports energy recovery and other practices higher up the waste hierarchy.
- Objective 7.** To deliver best value for money waste management services, addressed on a countywide basis.
- Objective 8.** To engage with local businesses to encourage the reduction and recycling of commercial waste.
- Objective 9.** To engage actively, lobby and work with local, national, governmental and other organisations on sustainable waste management issues.
- Objective 10.** As Local Authorities to set an example by preventing, reusing, recycling and composting our own waste and using our buying power to encourage positively sustainable resource use.

Whilst these previous objectives were considered in developing this new JMWMS, it is important to note that:

- Some of those objectives have already met – e.g. Objective 5 through diversion from landfill to our new Energy from Waste facility.
- The new Strategy needs to reflect the changing political landscape – e.g. Financial austerity and "Brexit".
- Changing our focus may help to renew the impetus and impact which have been lost as the previous Strategy has aged.

2.3 What does the waste strategy cover?

This Strategy is intended to fulfil the duty, under the Waste and Emissions Trading Act (2003) that:

"The waste authorities for a two-tier area must... have for the area a joint strategy for the management of... waste from households, and... other waste that, because of its nature or composition, is similar to waste from households"

In preparing the JMWMS, in order to ensure a holistic approach and to identify possible synergies, the process also needs to take into account links between:

- The JMWMS as a whole and Lincolnshire County Council's strategic approach to other related matters, including (but not limited to):
 - Other environmental matters (e.g. Natural Environment Strategy)
 - Public health
 - Economic growth.
- Our JMWMS and those of neighbouring local authorities, and
- Each individual Objective and all other Objectives within the JMWMS.

3 What are the key legislative drivers?

This chapter outlines the main legal requirements for waste management that the Partnership has either already met or will need to meet as new legislation and requirements are introduced. It then considers the legislation regarding planning for any new waste management facility that may be required to enable the Partnership to meet its future targets.

3.1 European waste policy and legislation

The European Union is currently the major source of environmental legislation and guidance in relation to the management of waste. Whilst, in the longer term, Brexit could see the UK diverge from EU waste policy and legislation, the UK Government have indicated a desire to continue to comply for the foreseeable future.

A number of European Directives have been introduced which aim to increase levels of recycling and recovery, and thus reduce the amount of waste which is landfilled. A fuller list can be found in Appendix 1, but the main EU drivers for the LWP's strategic thinking are:

- Revised Waste Framework Directive (2008/98/EC)
- Landfill Directive (1999/31/EC)
- Circular Economy Package (upcoming)

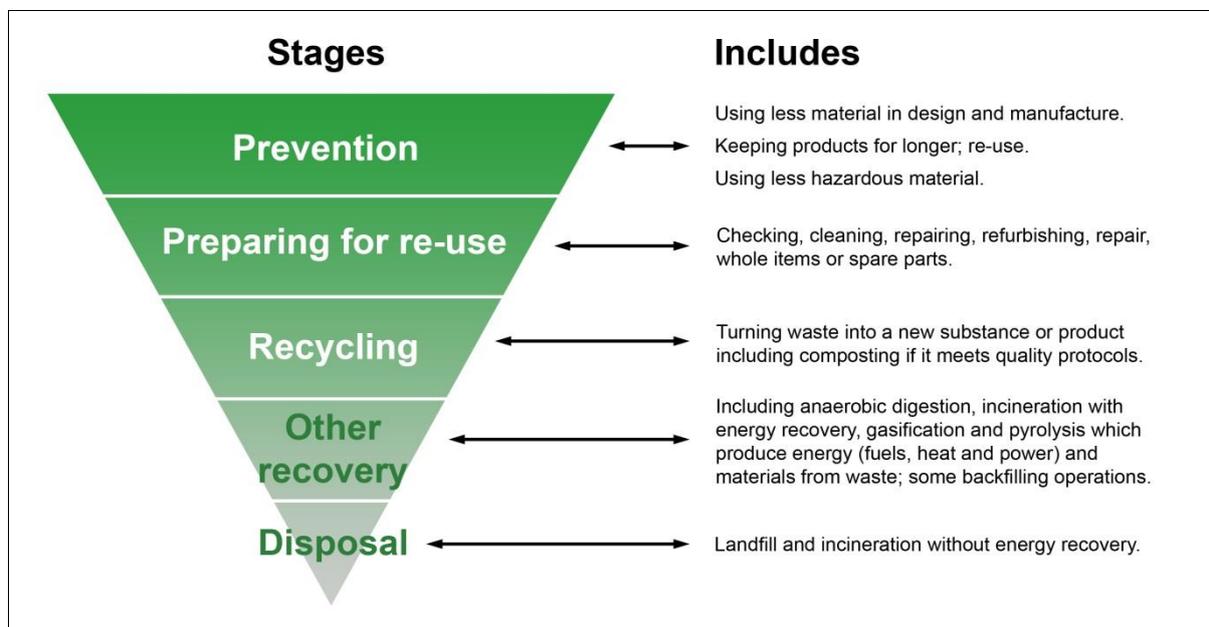
3.1.1 Waste Framework Directive

The main area of European legislation that this waste strategy has to consider is the revised Waste Framework Directive. This Directive establishes the fundamental principles for waste management in Europe, which must be reflected in National, Regional and Local Strategies. The key principles include:

- **50% recycling by 2020** – The UK government is committed to meeting this target for the recycling of "waste from households". However, it should be noted that the definition of this differs from that of the former headline National Indicator 192. Indeed, different EU member states measure this in a variety of ways, and the LWP has joined others in lobbying the UK government to consider including the recycling of Incinerator Bottom Ash (IBA) which would considerably boost the LWP's reported recycling rate.
- **Separate collections of recyclables** – Authorities are required to have separate collections of paper, metal, plastic and glass:
 - "Where necessary... to ensure that waste undergoes recovery operations... and to facilitate or improve recovery"; and
 - "if technically, environmentally and economically practicable".
- **The Waste Hierarchy** – This provides a framework of how sustainability in waste management can be increased progressively. The aim is to move up the waste hierarchy by

significantly reducing reliance on landfill to increased recycling, reuse, composting and recovery and ultimately waste reduction.

Figure 3-1 The Waste Hierarchy



3.1.2 Landfill Directive

The Landfill Directive aims to prevent, or minimise, the negative effects on both the environment and human health caused by landfilling of wastes. It set targets for reductions in the tonnage of Biodegradable Municipal Waste sent to landfill.

The UK Government responded both by setting equivalent targets (under the Landfill Allowance Trading Scheme, LATS) for each local authority, and by increasing the cost of landfill through an escalating rate of Landfill Tax. Whilst the LWP's development, under its previous JMWMS, of an energy from waste facility brought us well within our LATS targets, the reduction of our Landfill Tax bill through minimised landfilling remains a key driver.

3.1.3 Circular Economy Package

Whilst the CEP has yet to be passed into EU law, and Brexit makes it uncertain whether it will be enforced in the UK, it sets a number of challenging targets possibly including 70% recycling of waste from households by 2030. In developing our future strategy it is important to consider the implications should the UK government decide to adopt such a target.

Information on the other relevant EU legislation that the JMWMS has to consider can be found in Appendix 1.

3.2 National waste policy and legislation

Much of the UK's waste legislation transposes the above EU legislation. It is currently unclear how Brexit will affect UK legislation in the future, but the UK Government have expressed a desire initially to retain EU-related waste legislation.

Another element of uncertainty surrounds the UK Government's long-anticipated 25 Year Environment Plan. This has been in the pipeline for several years, and was originally due to be published in 2016, but currently appears to be on hold awaiting further clarity on the consequences of Brexit.

3.2.1 Waste Strategy for England

The Government's Waste Strategy was published in May 2007.

The aim of this Waste Strategy, which sets the Government's vision for sustainable waste management, is to reduce waste by making products with fewer natural resources, and thus breaking the link between economic growth and waste growth. Products should be re-used, their materials recycled, and energy recovered, so that landfilling of residual waste should occur only where necessary.

The key points in the National Waste Strategy 2007 that are relevant to this strategy are:

- Waste minimisation – Reduce total residual household waste by 45%, equivalent to a target of 225kg/head of non-recycled waste by 2020.
- Recovery of municipal waste – Increase to 75% by 2020.
- Recycling of household waste – Increase to 50% by 2020.

3.2.2 Waste Management Plan for England

The Waste Strategy was followed by the 2013 Waste Management Plan for England which set out a number of strategic priorities which need to be taken into account in this Strategy for Lincolnshire. These include:

- Implementing the Waste Hierarchy.
- Measures to promote high quality recycling.
 - The Waste (England and Wales) Regulations 2011, transposing the revised EU Waste Framework Directive, require the separate collection of waste paper, metal, plastic and glass from 2015 onwards wherever separate collection is necessary to get high quality recycling, and is practicable.
 - The Waste and Resources Action Programme (WRAP), will advise local authorities and others, including on best practice in collections.
 - The introduction of Regulations relating to Material Recovery Facilities (MRFs), including mandatory sampling weights and frequencies for inputs and outputs.

- Separate collection of biowaste.
 - The Government has identified anaerobic digestion as the best technology currently available for treating food waste.

3.2.3 National Planning Policy

The National Planning Policy Framework (NPPF), introduced in March 2012, sets out the Government's overarching planning policies for England. This is supported by online Planning Practice Guidance. The overarching aim of the NPPF is to achieve sustainable development by ensuring economic, social and environmental gains are sought jointly and simultaneously through the planning system. At the centre of this is a presumption in favour of sustainable development. The NPPF must be taken into account in the preparation of development plan documents, and is a material consideration in planning decisions. However, whilst the NPPF includes both general policies and specific policies, the specific policies do not extend to waste. Instead, these are set out in the National Planning Policy for Waste (NPPW) (October 2014).

The NPPW sits alongside the National Waste Management Plan (December 2013) and sets out the national framework for planning for waste management. It outlines the planning system's key roles in delivering the new facilities that are essential for implementing sustainable waste management and protecting the environment and human health. The emphasis is on delivering sustainable development, driving waste up the hierarchy, seeing waste as a resource and disposal as the last option.

3.3 The Lincolnshire Minerals and Waste Local Plan

The County Council has produced the Lincolnshire Minerals and Waste Local Plan under its statutory duties as the Mineral and Waste Planning Authority for the County. Planning law requires that all applications for planning permission for waste development must be determined in accordance with this plan unless material considerations indicate otherwise. This plan is comprised of two parts, each forming a development plan document:

- the Core Strategy and Development Management Policies (CSDMP) document (adopted on 1 June 2016) – which sets out the key principles to guide the future winning and working of minerals and the form of waste management development in the County up to 2031, together with the development management policies against which applications for those types of development will be assessed; and
- the site Locations document (adopted on 15 December 2017), which includes specific proposals and policies for the provision of land for mineral and waste development.

The Strategic Objectives of the plan include:

- protecting the environment and local communities from the negative impacts of waste development, reducing residual impacts and delivering improvements where possible, and

ensuring new facilities include high standards of design and layout, sustainable construction methods, good working practices and environmental protection measures;

- through prioritising the movement of waste up the waste hierarchy, minimising greenhouse gas emissions by reducing reliance on landfill, maximising opportunities for the re-use and recycling of waste, facilitating new technologies to maximise the renewable energy potential of waste as a resource, and promoting the use of carbon capture technology; and
- delivering adequate capacity for managing waste more sustainably when it is needed; and ensuring waste is managed as near as possible to where it is produced.

In relation to waste, the plan is based on directing new waste facilities, including extensions, to areas in and around the County's main settlements (Lincoln, Boston, Grantham, Spalding, Bourne, Gainsborough, Louth, Skegness, Sleaford and Stamford) where the highest levels of waste are expected to be generated. The strategy does, however, recognise that some developments are likely to be developed outside these areas, including biological treatment of waste including digestion and open-air windrow composting.

The plan identifies, through the site Locations document, locations for a range of new or extended waste management facilities to meet the predicted capacity gaps for waste arisings in the County for the period up to and including 2031. This will involve the building of waste management facilities for recycling and an energy from waste facility mainly for the management of commercial, industrial, construction and demolition waste. The plan identifies that facilities for the management of the County's Local Authority Collected Waste are already in place, with any future needs relating to replacement facilities. There is no requirement for further landfill facilities. The need for specialised thermal treatment and hazardous landfill would continue to be met by national facilities outside the County. The plan also safeguards waste management facilities from redevelopment to non-waste uses or from the encroachment of incompatible development.

The plan makes provision to meet the requirement for waste facilities through one site specifically allocated and safeguarded for waste development, and 16 areas (industrial areas) where waste uses are considered acceptable alongside other industrial and employment uses (providing flexibility and choice)

3.4 Relationship with other plans and strategies

This strategy is influenced in various ways by other plans and strategies that have been considered during the development of the SEA and are listed in Appendix 1. These include:

- Local plans
- Waste management in neighbouring local authorities

Whilst these documents cover various different timescales, the Partnership needs to assess the impact they may have on its Waste Strategy over the longer term.

4 How has the strategy been developed?

4.1 Background

The previous Joint Municipal Waste Management Strategy for Lincolnshire was published in June 2008.

That Strategy was compiled by following Government guidance on waste management strategies and assessed in accordance with the ODPM guidance 'A Practical Guide to the Strategic Environmental Assessment Directive' (2005).

The Lincolnshire Waste Partnership has identified that a new joint waste strategy and a SEA are required.

4.2 Development of a new waste strategy

The development of this new strategy has also made use of the 2005 ODPM guidance. Although this is no longer available online, it is still generally considered to be the most recent government guidance on the subject.

The ODPM guidance sets out three questions which should be answered in developing a JMWMS. We have addressed each of these questions as described below.

4.2.1 "Where are we today?"

Chapter 5 summarises the services currently provided by each of the LWP authorities. It also includes an analysis of the quantities of each waste stream and material being handled, and a forecast of future waste quantities.

4.2.2 "Where do we want to get to and when?"

The ODPM guidance describes this as "*the objectives for how waste will be managed more sustainably in the future*". Chapter 6 sets out the LWP's shared objectives, developed and agreed through a series of workshops and meetings early in the JMWMS process. Chapter 6 also addresses the main challenges facing the LWP during the period covered by this JMWMS.

4.2.3 "What do we need to do to get there?"

Chapter 7 gives an overview of the actions identified by the Partnership as being needed to achieve the objectives of this JMWMS. It essentially sets out a 'route map' showing how those objectives will be achieved.

The necessary actions have been set out in more detail in an Action Plan for the first year of the life of this JMWMS. This includes details of:

- who will need to do what? and
- by when?

In order to ensure that the Action Plan continues to deliver in the longer term, a revised version will be produced annually. This will respond to any changes in the ongoing quantity and composition of waste, as well as to any other necessary factors.

4.3 Strategic Environmental Assessment

Defra's JMWMS "Guidance on Municipal Waste Management Strategies" states that "*as a minimum the Strategy should undergo a Strategic Environmental Assessment (SEA).*"

In general, SEA permits analysis of all draft Strategy provisions against a series of environmental objectives. The aim is to ensure the effects of the Strategy are positive with regard to the County's special natural and cultural heritage features. Any adverse effects identified must be avoided, remedied or mitigated.

In view of this an SEA has been undertaken in parallel with the JMWMS process, with both documents feeding into each other as appropriate. The SEA was completed in line with:

- Environmental Assessment of Plans and Programmes Regulations' (SI 2004/1633) 'SEA Regulations'
- Government Guidance on SEA and SA: <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>

This has included several stages of consultation, initially with statutory consultees (Natural England, Historic England and the Environment Agency) and then alongside the JMWMS public consultation.

4.4 Stakeholder Engagement

In addition to the statutory consultation for the SEA, the Defra guidance on Waste Strategies makes it clear that engaging with various stakeholders is vital to the development of an effective JMWMS. Our Strategy process has involved this in a number of ways including the following.

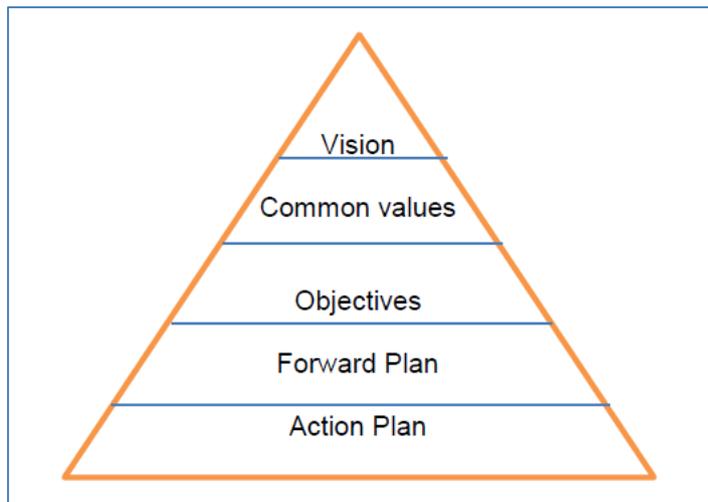
4.4.1 LWP Authorities

The overall objectives and initial proposals for a way to work towards them were developed jointly by the eight authorities of the LWP. This was achieved by holding two workshop sessions in July 2018. Those sessions were facilitated by an independent chair in order to ensure that the views of all partners were captured and given an equal footing.

Full details of the workshops and their outputs can be seen in Appendix 2.

Amongst other things, the workshops established an overall framework for how the format of the strategy would lead from the overarching "Vision" to specific practical actions in an "Action Plan".

Figure 4-1 Overall structure of the JMWMS



4.4.2 Public Consultation

A public consultation was carried out in February and March 2018. This allowed the public to comment upon the draft versions of the JMWMS and its accompanying SEA and Action Plan. The final version of each of those documents reflected the feedback received from that consultation.

Further details of the public consultation can be found in Appendix 3.

5 Where are we today?

Before deciding what we want to achieve in the future, and of how we are going to do so, it is essential that we have a proper understanding of our current services and of what waste we are likely to need to deal with during the period covered by this Strategy.

This chapter provides a summary of the necessary baseline information including:

- An analysis of the nature and performance of existing services;
- The impact of any service changes already firmly planned (if any);
- Projections of future waste quantities; and
- The impact of changes in waste quantities on overall performance if no changes, other than those already firmly planned, are introduced.

5.1 Demographics

Within the East Midlands Region, Lincolnshire is the largest County covering 592,075 hectares, and the fourth largest in England covering 5% of England.

The following information on the population of Lincolnshire all comes from the Lincolnshire Research Observatory website¹.

As at the 2011 Census:

- Lincolnshire is a large and sparsely populated county. In England 18% of the population live in rural areas, that is in towns of less than 10,000 people, in villages, hamlets or isolated dwellings. In Lincolnshire the figure is 48%.
- Lincolnshire is home to 306,971 households. The average household is made up of 2.32 persons, similar to the figure of 2.27 for England as a whole.
- Lincolnshire has an ageing population with nearly 21% of its population being over 65 years of age compared to the England figure of just over 16%, with East Lindsey having the highest proportion at 26%.

The population of Lincolnshire grew by over 10% between 2001 and 2011, which is faster than the figure for England of just under 8%. As can be seen in Table 5-1, however, estimates indicate that Lincolnshire's population only grew by a further 3.2% between 2011 and 2015, just below the national rate for England. Most of our Waste Collection Authorities saw growth between 3.3% and 4.0% during that same period, but it should be noted that growth in South Holland was significantly lower.

¹ <http://www.research-lincs.org.uk/Population.aspx>

Table 5-1 Population estimates

Area	2011 Census	2015 Mid Year Estimate	Growth
Boston BC	64,637	66,900	3.5%
City of Lincoln	93,541	97,100	3.8%
East Lindsey DC	136,401	137,900	1.1%
North Kesteven DC	107,766	111,900	3.8%
South Holland DC	88,270	91,200	3.3%
South Kesteven DC	133,788	138,900	3.8%
West Lindsey DC	89,250	92,800	4.0%
Lincolnshire	713,653	736,700	3.2%
England	53,012,456	54,786,300	3.3%

Forecasts are that population growth going forwards will continue to be a little lower than the average for England.

5.2 Waste arisings

5.2.1 UK arisings summary

Defra's report "UK Statistics on Waste"² (published December 2016) included the following key points regarding the national situation:

- UK generation of commercial and industrial (C&I) waste was 27.7 million tonnes. This has fallen from 32.8 million tonnes in 2012.
- The UK generated 202.8 million tonnes of total waste in 2014. Over half of this (59.4 per cent) was generated by construction, demolition and excavation, with households responsible for a further 13.7 per cent.

5.2.2 Current Local Authority Collected Waste (LACW)

As a predominantly rural county, the largest waste stream in Lincolnshire comes from agricultural services which, according to the Waste Needs Assessment of the Lincolnshire Minerals and Waste Local Plan³, represents some half of the total waste stream. In comparison, LACW represents around 10% of the total waste arisings in the County.

It should be noted that whilst the County Council is required to consider all waste streams in the development of its Minerals and Waste Local Plan, agricultural waste is largely dealt with at source rather than requiring the County Council's attention in its role as Waste Planning Authority. Furthermore, the Waste and Emissions Trading Act 2003⁴ states in Section 32(1), in defining the duty

² <https://www.gov.uk/government/statistics/uk-waste-data>

³ http://uk.sitestat.com/lincolnshire/lincolnshire/s?Home.residents.environment-and-planning.planning-and-development.minerals-and-waste.site-locations-examination.131110.articleDownload.106584&ns_type=pdf&ns_url=https://www.lincolnshire.gov.uk//Download/106584

⁴ <http://www.legislation.gov.uk/ukpga/2003/33/contents>

to have a Joint Municipal Waste Management Strategy, that this Strategy should only cover the management of:

- (a) waste from households, and
- (b) other waste that, because of its nature or composition, is similar to waste from households.

Thus, in being prepared by the Local Authorities of the Lincolnshire Waste Partnership this Strategy, by definition, focuses on Local Authority Collected Waste, which can include waste from the following sources:

- Waste from households – This makes up the vast majority of LACW;
- Other "household waste" – e.g. From schools and hospitals;
- **Some** waste from commercial premises (such as shops, offices and restaurants); and
- **Some** waste from construction and demolition (C&D) activities.

Table 5-2 shows the breakdown of LACW across Lincolnshire, with 355,849 tonnes arising in 2016/17 of which around 97% is household waste.

Table 5-2 Summary of Local Authority Collected Waste (LACW) in Lincolnshire 2016/17

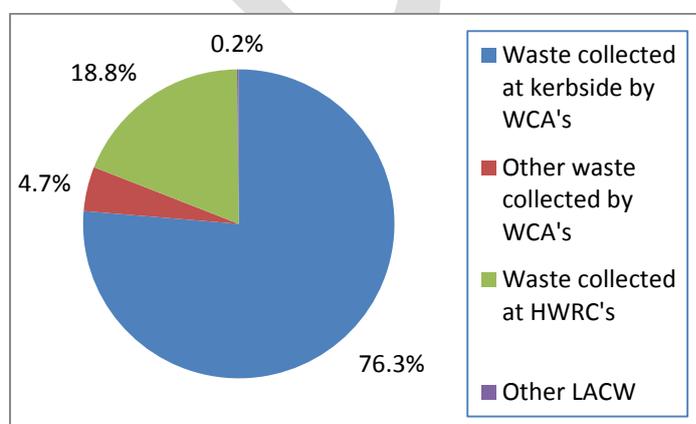
Sources: Collection (purple) = County Council Waste Data Management System; Disposal (orange) = Wastedataflow⁵

Waste Stream	2016/17 (Tonnes)	% of Total Waste Stream
Local Authority Collected Waste	368,777	
Waste collected at kerbside by WCA's	281,469	76.3% of LACW
Other waste collected by WCA's	17,158	4.7% of LACW
Waste collected at HWRC's	69,498	18.8% of LACW
Other LACW ⁱ	652	0.2% of LACW
Total Household Waste collected ⁱⁱ	355,191	96.3% of LACW
Total Household Waste disposed of ⁱⁱ	355,403	
Household Waste reused, recycled or composted	165,228	46.5% of Household Waste Disposal
Household Waste sent for energy recovery	175,350	49.3% of Household Waste Disposal
Household Waste landfilled	14,825	4.2% of Household Waste Disposal

i – Largely consists of waste from charities for which the WDA provides disposal.

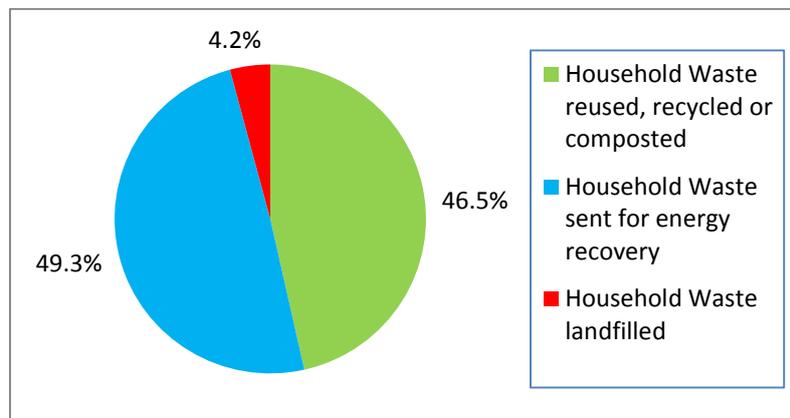
ii – Totals collected and disposed of differ due to changes in stock levels at Waste Transfer Stations.

Figure 5-1 Sources of LACW in 2016/17



⁵ <http://www.wastedataflow.org/>

Figure 5-2 Destinations of Household Waste in 2016/17



5.2.3 Waste growth

As was reported in the LWP's previous JMWMS, between 2000/01 and 2006/07 the total tonnage of Local Authority Collected Waste (LACW) in Lincolnshire rose from 322,715 to 365,537, an increase of over 13%. Table 5-3 below, however, shows that between 2007/08 and 2015/16 there was little overall change in either total LACW or in Household Waste, although there appears to have been a significant rise in 2016/17. It should also be noted that there can be significant variation between successive years.

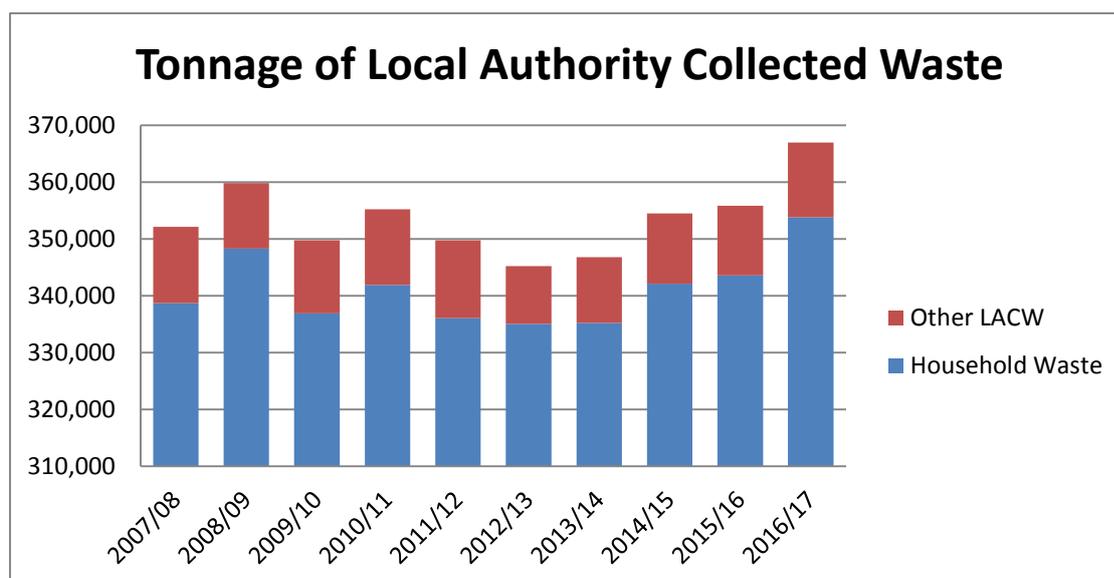
Table 5-3 Waste growth trends in Lincolnshire between 2007 and 2017

Source: Wastedataflow⁶

Year	LACW (Tonnes)	% Change	Household Waste	% Change
2007/08	352,123		338,676	
2008/09	359,798	2.18%	348,280	2.84%
2009/10	349,784	-2.78%	336,893	-3.27%
2010/11	355,209	1.55%	341,886	1.48%
2011/12	349,736	-1.54%	336,073	-1.70%
2012/13	345,232	-1.29%	335,028	-0.31%
2013/14	346,795	0.45%	335,216	0.06%
2014/15	354,503	2.22%	342,132	2.06%
2015/16	355,849	0.38%	343,574	0.42%
2016/17	366,947	3.12%	353,819	2.98%
Overall Change (since 07/08)		4.21%		5.28%

⁶ <http://www.wastedataflow.org/>

Figure 5-3 Annual Tonnage of LACW in Lincolnshire



Whilst, as has already been said, the total tonnage has been very erratic from year to year, there are some conclusions which can be drawn:

- Total tonnage fell for several years to 2012/13, possibly due to the economic downturn making the public less likely to throw things away.
- There has been an upturn in recent years, possibly as the economy picks up again.

In view of the most recent upward trend, and ongoing population growth, it is considered prudent to forecast that LACW arisings will continue to grow. This is in line with the forecasts in the Waste Needs Assessment that accompanies the Lincolnshire Minerals and Waste Local Plan⁷ which suggests the three growth scenarios shown in Table 5-4.

Table 5-4 LACW growth scenarios from Lincolnshire Minerals and Waste Local Plan

Growth scenario	Growth modifier values
No growth	<ul style="list-style-type: none"> • LACW: waste generation in kilos per head (465.93 kg) remains the same over the whole plan period (population increases by 0.66% per year)
Growth	<ul style="list-style-type: none"> • LACW; growth projections of 0.5% (2016 to 2020), 0.25% (2021 to 2031) and population increase 0.66% per annum (reflecting waste growth per head of population and further population growth over that period).
Minimised growth	<ul style="list-style-type: none"> • LACW: increase of 0.66% due to population growth and median growth 0.25% (2016 to 2020) and 0.15% (2021 to 2031), reflecting waste growth per head.

⁷ http://uk.sitestat.com/lincolnshire/lincolnshire/s?Home.residents.environment-and-planning.planning-and-development.minerals-and-waste.site-locations-examination.131110.articleDownload.106584&ns_type=pdf&ns_url=https://www.lincolnshire.gov.uk//Download/106584

5.3 Waste composition

In order to assess the effectiveness of our current waste management services, it is crucial to identify the total quantities collected of each type of waste. Whilst this is relatively simple for separately-collected waste types (e.g. paper in bring banks), the full picture can only be seen by assessing the composition of streams of mixed waste including all of those listed below in Table 5-5.

Ideally, the composition of each of these streams should be identified through detailed analysis of representative samples of real waste which has been collected. However, to do this for all streams would be impractical, so their composition has been measured as follows.

Table 5-5 Method of assessing composition of each mixed waste stream

Waste stream	Composition assessed by
Kerbside-collected mixed dry recyclables	Regular sampling and analysis in line with Materials Recycling Facility (MRF) Code of Practice
Kerbside-collected residual/general waste	One-off sampling and analysis undertaken in September 2017
HWRC-collected residual/general waste	Use of Defra-compiled national average figures for HWRC residual waste (most recent available is for 2010/11)
Other streams of mixed waste (e.g. flytipping)	Use of Defra-compiled national average figures for the most appropriate category listed (most recent available is for 2010/11)
Separately-collected (e.g. paper in bring banks)	Composition is known as there is usually only one type of waste in each collection

5.3.1 Kerbside-collected mixed dry recyclables (MDR)

The composition of this waste stream is well known as the Materials Recycling Facility (MRF) Code of Practice requires our MRF contractor to undertake regular sampling and analysis of the material both going into and coming out of their sorting processes.

Figure 5-4 Composition of MDR in 2016/17

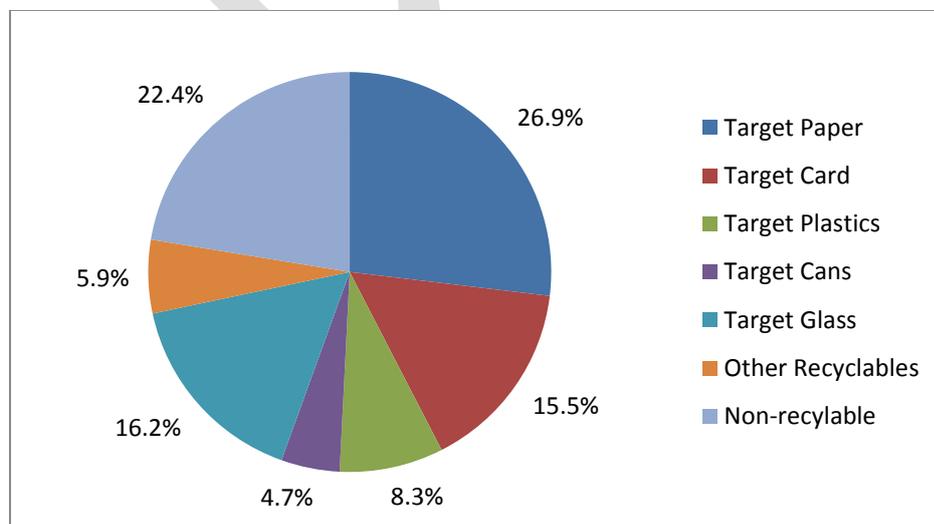


Figure 5-4 summarises the sampling data for 2016/17 and shows that of the total tonnage collected:

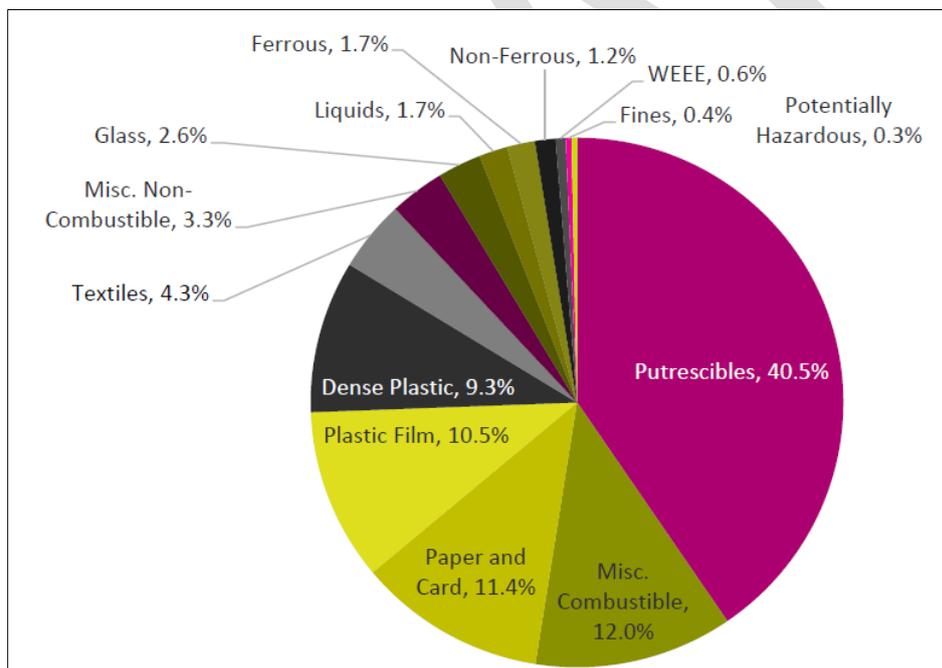
- Around 72% was "target" recyclables – This is what the LWP has asked the public to put into the kerbside recycling collections.
- Around 6% was other recyclables – Whilst not on the specified list, our current MRF contractor is able to recycle these as well.
- Over 22% was not recyclable – This should not be in these collections, and needs addressing through this Strategy.

5.3.2 Kerbside-collected residual/general waste

Since this one waste stream makes up around 40% of the total waste collected by the LWP, a sampling exercise was undertaken in September 2017 to establish what materials are contained in it. This involved using socio-economic data to identify an individual round in each WCA area which represented, as closely as possible, that Council's area as a whole. A random sample of waste from each of those seven rounds was then analysed.

Figure 5-5 shows the data for the County as a whole. The percentages were calculated by multiplying the figures for each WCA by the total tonnage they collected in 2016/17 since those collecting a higher tonnage collect a higher proportion of the overall waste stream.

Figure 5-5 Composition of MDR in 2016/17



More detailed headlines from the sampling exercise were that the overall composition includes:

- Around 15% home-compostable food – e.g. Vegetable peelings;
- Around 13% other food – e.g. cooked food, meat and dairy products; and
- Nearly 20% materials which the LWP already collect at kerbside either for recycling or composting.

5.3.3 Overall composition

Combining data from all these individual waste streams, Table 5-6 summarises the calculated overall composition of the waste collected by each of the main methods during 2016/17. Table 5-6 also shows the overall composition of all LACW in 2016/17, calculated by adding all the mixed-stream totals to the quantities of each waste type collected separately (e.g. from bring banks). For consistency, the waste type groups listed are those used in the 2017 kerbside residual waste sampling exercise.

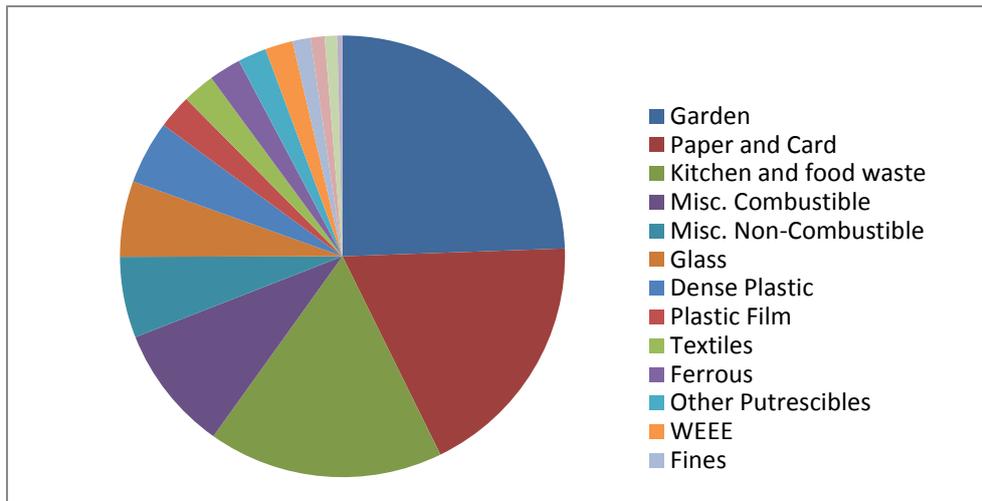
Table 5-6 Tonnage of each waste type collected by each method in 2016/17

NB – These figures used 2009 sampling data and have yet to be amended to reflect the newly-arrived 2017 results. This should be completed by the end of November 2017 but it is anticipated that the overall message won't change significantly.

	Kerbside Collections (residual, recyclables and garden)	Household Waste Recycling Centres	Other Local Authority Collected Waste	TOTAL Local Authority Collected Waste	% of Local Authority Collected Waste
Paper and Card	62,961	3,130	1,478	67,569	18.3%
Plastic Film	8,209	642	335	9,186	2.5%
Dense Plastic	13,248	3,339	478	17,065	4.6%
Textiles	6,249	1,774	619	8,642	2.3%
Misc. Combustible	15,255	17,847	785	33,888	9.2%
Glass	16,413	803	3,232	20,448	5.5%
Kitchen and food waste	61,581	506	1,040	63,127	17.1%
Garden	70,375	17,812	1,959	90,146	24.4%
Other Putrescibles	7,209	319	155	7,683	2.1%
Ferrous	5,819	2,603	177	8,599	2.3%
Non-ferrous	2,552	1,074	140	3,766	1.0%
WEEE	2,247	5,084	115	7,446	2.0%
Potentially Hazardous	1,709	1,520	118	3,347	0.9%
Misc. Non-Combustible	4,009	12,850	5,021	21,880	5.9%
Fines	2,588	195	2,017	4,800	1.3%
Liquids	666	0	731	1,397	0.4%
TOTALS	281,089	69,498	18,401	368,988	

Figure 5-6 shows the overall composition of LACW from 2016/17 with the waste types ordered from highest to lowest percentage.

Figure 5-6 Overall composition of LACW in 2016/17



Points to note regarding all the above data include that:

- Between them, kerbside collections and HWRC's account for around 95% of our LACW, so the composition of other streams hasn't been examined in detail.
- The largest waste type which is not currently collected for recycling or composting is kitchen and food waste. Details of what proportion of each waste type (including what is collected mixed in with general waste) is currently recycled or composted is shown in section 5.5.

5.4 Current Waste Management

The current waste management infrastructure needs to be reviewed to provide a baseline on which to develop the Waste Strategy. This review focuses on:

- Waste collection services
- Waste transfer and logistics
- Recycling and composting arrangements
- Treatment and disposal of residual waste
- Existing contracts for all of the above
- Service performance measures
- Current waste management costs

5.4.1 Waste Collection Services

Within Lincolnshire it is the district, borough and city councils (as WCAs) that have the responsibility to collect waste from households, and the County Council (the WDA) that has the responsibility to dispose of it, as well as to operate HWRCs.

Kerbside collections – collections by/for WCAs

Table 5-7 below provides a summary of the current kerbside collection services offered by each WCA.

All authorities that are using wheelie bins for their residual waste collection have a “no side waste policy” in place. This means that, apart from specific exceptions (e.g. just after Christmas), residents are not allowed to place other wastes (e.g. sacks) alongside their wheelie bins. South Holland operates a sack collection system and will collect side waste.

It should be noted that, as part of Defra's consistency agenda, WRAP are seeking to establish whether a national standard set of bin colours would help to make things clearer for the public and thus increase recycling rates⁸. In view of this, any consideration of a more standardised approach for Lincolnshire should take account of the feedback from that work.

⁸ <https://www.letsrecycle.com/news/latest-news/wrap-consults-on-national-colour-scheme-for-bins/>

Table 5-7 Kerbside collection services offered by each Waste Collection Authority (WCA)

The following indicates the service provided to the majority of households by each WCA. Colour shading shows the colour of bin provided for each service.

Unless otherwise stated, collections are provided using a wheelie bin and fortnightly/alternate weekly collections (AWC).

Waste Collection Authority	Residual Waste	Mixed Dry Recyclables	Green Waste
Boston Borough Council	AWC in 240 litre bins	AWC in 240 litre bins	AWC in 240 litre bins Charged service No service in Winter
City of Lincoln Council ⁱ	AWC in 240 litre bins	AWC in 240 litre bins	AWC in 240 litre bins Charged service
East Lindsey District Council	AWC in 180 litre bins	AWC in 240 litre bins	AWC in 240 litre bins Charged service Reduced service in Winter
North Kesteven District Council ⁱⁱ	AWC in 240 litre bins	AWC in 240 litre bins ⁱⁱⁱ	AWC in 240 litre bins Charged service
South Holland District Council	Weekly collection in sacks	Weekly collection in sacks	AWC in 240 litre bins Charged service Two year pilot for 2016/17 & 17/18
South Kesteven District Council	AWC in 240 litre bins	AWC in 240 litre bins	AWC in 240 litre bins Charged service
West Lindsey District Council	AWC in 180 litre bins (240 litre for larger families)	AWC in 240 litre bins	AWC in 240 litre bins No charge No service in Winter

i – City of Lincoln have alternative arrangements for higher-density inner city areas, using 140 litre bins, communal bins or sacks as appropriate, some of which (mainly residual waste) are collected weekly.

ii – North Kesteven – Since 2009 new builds receive 180 litre bin as standard both for residual waste and mixed dry recyclables.

iii – Black wheelie bin with green lid

Table 5-8 Current Collection Contract Arrangements

WCA	How collections are provided
Boston BC	Service provided in-house
City of Lincoln	Contract with Biffa
East Lindsey DC	Service provided in-house
North Kesteven DC	Service provided in-house
South Holland DC	Service provided in-house
South Kesteven DC	Service provided in-house
West Lindsey DC	Service provided in-house

Every household in every WCA area receives a residual waste collection. Table 5-9 summarises the number of households in each WCA area that are currently provided with kerbside recycling and green waste collections.

Table 5-9 Households provided with recycling/green waste kerbside collection in 2015/16

	Boston	East Lindsey	Lincoln	North Kesteven	South Holland	South Kesteven	West Lindsey
Total number of HH	28,760	67,150	44,430	49,030	39,170	62,453	41,910
Number of HH – dry recyclables	28,760	67,150	44,430	49,030	39,170	62,453	41,910
Number of HH green waste	11,758	33,658 (16/17) 27,100 to date (17/18)	16,682	30,761	Pilot max 3,500	28,000	39,910

Bring banks for recyclables – collections by/for WCAs

Many of our WCAs currently operate a network of bring banks placed in various locations to receive recyclable material. The County Council pays Recycling Credits to each WCA for the recyclable material so collected.

Bulky household waste – collections by/for WCAs

Bulky waste falls outside the scope of the regular WCA kerbside collection service as these items are generally too large or too difficult to be handled by the normal means. The WCAs across the Partnership offer bulky waste collection on demand for item such as cookers, mattresses and other large household appliances. Each district has its own policy on charging for these collections.

Commercial waste – collections by/for WCAs

Currently Boston Borough Council and West Lindsey District Council operate collections of commercial waste from business premises, and other WCAs are considering doing so. The JMWMS needs to consider whether it would be appropriate to have a common policy.

Street cleansing – collections by/for WCAs

Each WCA provides a regular service across their area. Busy places, such as shopping precincts and high streets usually have permanent cleaning staff or daily cleansing regimes. General waste such as litter is handled in the same way as other residual waste, but road grit from street sweepers is kept separate as the County Council has separate arrangements in place for the recycling of it.

Abandoned and end of life vehicles – collections by/for WCAs

Abandoned vehicles that are on public land are removed in accordance with the relevant legislation and are dealt by each district within its area.

Fly tipped waste – collections by/for WCAs

Fly tipping is a serious national problem. As well as being unsightly, it can lead to serious pollution of the environment and harm to human health, and is costly to remove and dispose of correctly.

Clinical waste – collections by/for WDA

The Controlled Waste Regulations 2012 define this type of waste:

“clinical waste” means waste from a healthcare activity (including veterinary healthcare) that—

(a) contains viable micro-organisms or their toxins which are known or reliably believed to cause disease in humans or other living organisms,

(b) contains or is contaminated with a medicine that contains a biologically active pharmaceutical agent, or

(c) is a sharp, or a body fluid or other biological material (including human and animal tissue) containing or contaminated with a dangerous substance within the meaning of Council Directive 67/548/EEC on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances(b),

and waste of a similar nature from a non-healthcare activity.

The County Council arranges for both the collection and disposal of this waste.

Household Waste Recycling Centres – collections by/for WDA

The County Council operates 11 HWRCs across the county to which residents can bring their household waste. Tables 5-10 and 5-11 below summarises respectively:

- Table 5-10 – The location of and contractual arrangements for each HWRC; and
- Table 5-11 – The facilities provided at each HWRC.

Table 5-10 HWRC Contractual and Operational Arrangements

Unless stated otherwise, opening hours are standardised as 09:00hrs to 16:00hrs Friday, Saturday, Sunday and Monday (closed Tuesday, Wednesday and Thursday).

Location	Site Ownership	Operated by	Opening hours
Lincoln HWRC Great Northern Terrace LN5 8LG	County Council	Carl Drury Ltd.	09:00hrs to 16:00hrs 7 days a week
Spalding HWRC West Marsh Rd PE11 2BB	County Council	Carl Drury Ltd.	Summer (1st April to 31st October) 08:00hrs to 16:00hrs 7 days a week. Winter (1st November to 31st March) 08:00hrs to 16:00hrs Friday, Saturday, Sunday and Monday.
Gainsborough HWRC Long Wood Road, Corringham Road Ind Est, Gainsborough, DN21 1QB	County Council	Carl Drury Ltd.	Standard (09:00hrs to 16:00hrs Friday, Saturday, Sunday and Monday)
The Rasens HWRC Gallamore Lane Industrial Estate, Gallamore Lane, Middle Rasen, LN8 3HA	County Council	Carl Drury Ltd.	Standard
Bourne HWRC South Fen Road PE10 0DN	County Council	Recycle It Wright Ltd.	Standard
Grantham HWRC Mowbeck Way NG31 7AS	County Council	Recycle It Wright Ltd.	Standard
Sleaford HWRC Pride Parkway NG34 8GL	County Council	Recycle It Wright Ltd.	Standard
Louth HWRC Bolingbroke Road LN11 0WA	County Council	Sid Dennis & Sons Ltd.	Standard
Skegness HWRC Warth Lane PE25 2JS	County Council	Sid Dennis & Sons Ltd.	Standard
Boston HWRC Slippery Gowt Lane PE21 7AA	FCC Environment	FCC Environment	Standard
Kirkby on Bain HWRC Tattershall Road LN10 6YN	FCC Environment	FCC Environment	Standard

Table 5-11 – Materials accepted at Household Waste Recycling Centres as of April 2017

HWRC Site	Residual waste	Green	Wood	Rigid plastics	Plastic Bottles	Paper	Cardboard	Mattresses	WEEE	Books & CDs	Textiles	Household Chemicals	Glass bottles/jars	Cooking Oil	Mineral Oil	Lead Acid Batteries	Household batteries	Plasterboard	Soil	Rubble	Pressurised Cylinders	Scrap Metal	Re-use
Bourne	x	x	x	x	<i>i</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Boston	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Gainsborough	x	x	x	x	<i>i</i>	x	x	x	x	x	x	x	x	x	x	<i>ii</i>	x	x	x	x	x	x	x
Grantham	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Kirkby on Bain	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Lincoln	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Louth	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Rasens	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Skegness	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Sleaford	x	x	x	x	<i>i</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Spalding	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

An "x" indicates that the stated waste stream is collected separately at the stated HWRC. Where there is no "x", the below applies:

- i) Plastic Bottles are still accepted at the HWRC, but must be placed in the residual waste bin.
- ii) Lead acid batteries are no longer accepted at Gainsborough due to repeated security issues. Residents are recommended to contact a scrap dealer.

5.4.2 Waste Transfer and Logistics

Some waste streams are delivered directly to an appropriate treatment or disposal site. For the majority of waste streams, LCC provides a number of Waste Transfer Stations (WTSs) to receive waste both from WCA collections and from HWRCs, enabling the waste to be bulked up for transportation to centralised destinations.

Some WCAs use more than one WTS depending on where waste is collected and/or what type of waste it is. Likewise, many of these WTSs receive waste from more than one WCA or HWRC.

WTSs operated by Lincolnshire County Council

LCC directly operates a network of five WTSs around the County. Table 5-12 shows the location of these WTSs, as well as the 2016/17 tonnage of each type of waste received at each site.

LCC lets contracts for the transportation of waste from each WTS to the appropriate destinations.

Table 5-12 Location and 2016/17 tonnage throughput for LCC WTSs

Location	Residual Waste (Tonnes)	Mixed Dry Recyclables (Tonnes)	Road Grit (Tonnes)	Other (Tonnes)	TOTAL (Tonnes)
Boston WTS Slippery Gowt Lane PE21 7AA	42,219	7,630	1,279		51,129
Gainsborough WTS Marshall Lane DN21 1GD	15,537	8,060	1,926		25,524
Grantham WTS Occupation Road NG32 2BP	28,029	13,052	1,147		42,229
Louth WTS Bolingbroke Road LN11 0WA	31,828	11,708	2,048	Glass = 628Te Mattresses = 1Te	46,213
Sleaford WTS Pride Parkway NG34 8GL	14,406	5,851	910	Mattresses = 40Te	21,208

Other WTSs used by the Lincolnshire Waste Partnership

Arrangements are in place for the use of several other WTSs owned and operated by third parties. Details are shown in Table 5-13.

Table 5-13 Location and 2016/17 tonnage throughput for third party WTSs

Location	Operator	Arranged by	Mixed Dry Recyclables (Tonnes)	Green Waste (Tonnes)
Hykeham	Mid UK	Lincs CC	14,000	
Market Deeping	MidUK	Lincs CC	13,000	
Boston	Mick George	Boston BC		5,000

5.4.3 Recycling and composting arrangements

Green waste

There is generally no need for the use of WTSs for green waste as, both from kerbside collections and from HWRCs, it is sent directly to a network of composting facilities across the county under contracts operated by the County Council. In 2016/17 77,768 tonnes of green waste was sent to these facilities, which are identified in Table 5-14.

Table 5-14 Current Composting Facilities

Composting operator	Location
MEC Recycling	Lincoln
Material Change	Crowland
Mid UK Recycling	Caythorpe
Mid UK Recycling	Honey Pot Lane
Land Network (Sturgate)	Gainsborough
Land Network (South Elkington)	Louth
Land Network (Strubby)	Strubby

Mixed dry recycling

All the WCAs operate a kerbside collection of mixed dry recyclables (MDR) which includes a wide range of materials. Historically each WCA has accepted a different mix of materials but, in the 2009 JMWMS, the Partnership identified that it would like to move towards a more standardised recyclable stream where possible. In November 2017 the LWP agreed to publicise a consistent mix, and Figure 5-7 shows that mix.

Figure 5-7 Publicity for consistent mix agreed in November 2017



The County Council has a contract for the processing of this MDR at MidUK Recycling's Materials Recycling Facilities (MRF's) located in the County. Once collected, each WCA delivers their MDR either to one or more of the WTS's provided by the County Council, or directly to MidUK.

Other dry recycling

Separately-collected recyclables from WCA bring banks and from HWRC's go to a number of different destinations under a variety of different arrangements.

5.4.4 Treatment and disposal of residual waste

The LWP's 2008 JMWMS included two Objectives which focussed on residual waste:

5. To increase progressively the recovery and diversion of biodegradable waste from landfill, to meet and exceed the Landfill Directive diversion targets.
6. To ensure that residual waste treatment supports energy recovery and other practices higher up the waste hierarchy.

In line with these objectives we have, during the lifetime of that Strategy, moved almost entirely from sending residual waste to landfill to using the new Energy from Waste facility at Hykeham. Indeed, we have done this so successfully that the majority of landfill sites in Lincolnshire either have already closed or are likely to close in the near future. That is, in itself, an issue which needs consideration as the capacity of the Hykeham EfW does not have the capacity to process forecasted quantities of residual waste.

Table 5-15 Residual Waste Contracts 2017

Site Type	Site	Operator	2016/17 Input by LWP (Tonnes)	Contract Details
Energy from Waste	Hykeham	FCC Environment	158,999 ⁱ	Ends 2035
Landfill	Colsterworth	FCC Environment	6,452	Closing mid 2018?
Landfill	Kirkby on Bain	FCC Environment	6,990 ⁱⁱ	Closing mid/late 2017?
Landfill	Leadenham	FCC Environment	0	Site mothballed
Landfill	Whisby	FCC Environment	0	Site mothballed but under review

i – Includes 1,000 tonnes which would normally have gone to Hykeham EfW but was diverted to Greatmoor EfW.

ii – Includes around 1,500 tonnes of rubble from HWRCs.

5.5 Service performance measures

Whilst the statutory reporting of National Indicators was removed in 2011, the percentage of household waste sent for reuse, recycling or composting (former NI 192) remains a generally accepted headline measure of the performance of Local Authority waste and recycling services.

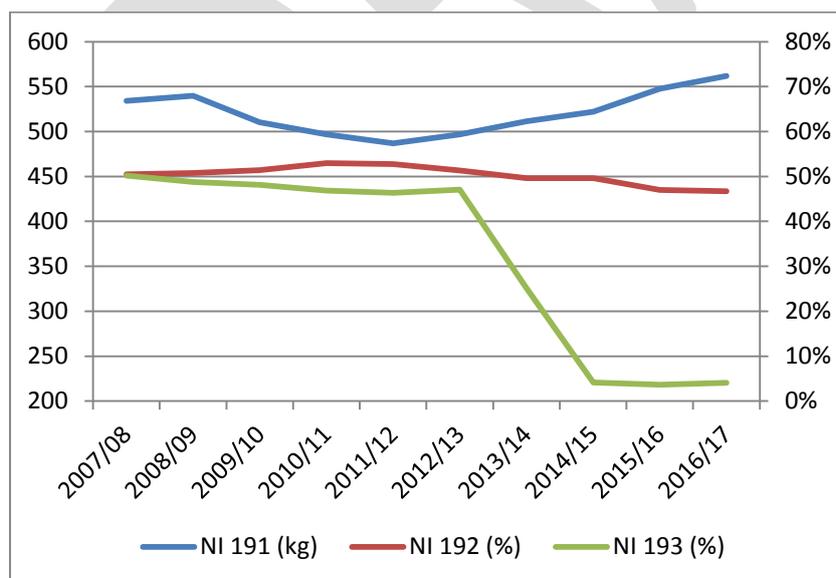
Table 5-16, and the accompanying Figure 5-8, show the County Council's (and thus the LWP's) overall performance against all three of the waste-related former National Indicators:

- NI 191 = Residual Household Waste per Household
- NI 192 = Percentage Household Waste sent for Reuse, Recycling or Composting
- NI 193 = Percentage of Municipal Waste Sent To Landfill

Table 5-16 National Indicator (NI) performance since 2007/08

	2007/08		2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
NI191: Residual Household Waste kg per Household	534.13		496.83	486.70	496.70	511.43	522.04	547.64	561.87
NI192: Percentage HH waste sent for Reuse, Recycling or Composting	50.5%		52.9%	52.8%	51.3%	49.6%	49.6%	47.0%	46.7%
NI193: Percentage of Municipal Waste Sent To Landfill	50.2%		46.8%	46.4%	47.1%	25.2%	4.1%	3.6%	4.0%

Figure 5-8 National Indicator (NI) performance since 2007/08



5.5.1 Quantity of residual waste (NI191)

Following the introduction of our 2008 Strategy, the weight of residual (non-recycled) waste produced by each household fell significantly. Indeed, the 486.7kg per household which we achieved in 2011/12 was equivalent to 225.8kg per head, which was well on target for achieving our 2008 JMWMS Objective of 225kg per head by 2020.

Unfortunately this downward trend ended at that point and we have seen a steady increase to a level even higher than in 2008. Although the fall and subsequent rise may partly be a result of the global economic downturn (people buy less and thus throw away less when times are financially difficult) and the subsequent recovery, this is clearly a trend we need to take action to reverse.

Table 5-17 Residual and total waste vs recycling rate in 2016/17

	Residual household waste per household (NI191)	Total household waste collected per person (BV84)	Household waste reused, recycled or composted (NI192)
Boston BC	597kg	415kg	37.6%
City of Lincoln	525kg	379kg	36.2%
East Lindsey DC	462kg	415kg	45.4%
North Kesteven DC	511kg	421kg	46.1%
South Holland DC	561kg	341kg	28.3%
South Kesteven DC	495kg	392kg	43.2%
West Lindsey DC	497kg	443kg	48.9%
LWP Total (WCA's + HWRC's) ⁱ	562kg	478kg	46.7%

i – The LWP total weight is higher than that for the individual WCA's as each WCA figure doesn't include waste collected from their residents at County Council HWRC's.

It is interesting to note that the two WCA's with the lowest overall recycling rate also have the lowest total waste per person.

5.5.2 Recycling performance (NI192)

It is clear from the above data that the LWP's headline recycling rate has been in slow decline since a peak of 52.9% in 2010/11. This fall in recycling has been accompanied by an increase in the quantity of residual waste to be disposed of.

Table 5-18 shows the recycling and composting performance of each Waste Collection Authority and across the HWRC network during 2016/17.

Table 5-18 Recycling and composting performance in 2016/17

	Household waste reused, recycled or composted (NI192)	Household waste recycled (BV82a)	Household waste composted (BV82b)
Boston BC	37.6%	19.7%	17.9%
City of Lincoln	36.2%	19.3%	16.8%
East Lindsey DC	45.4%	21.2%	24.2%
North Kesteven DC	46.1%	20.6%	25.5%
South Holland DC	28.3%	24.4%	4.0%
South Kesteven DC	43.2%	24.2%	19.1%
West Lindsey DC	48.9%	20.1%	28.8%
LWP Total (WCA's + HWRC's) ¹	46.7%	24.4%	22.3%

i – The overall LWP recycling performance is higher than that for most of the individual WCA's as each WCA figure doesn't include waste recycled by their residents at County Council HWRC's.

Whilst national government no longer sets targets for individual authorities, it should be noted that the UK is currently committed to meeting the EU target of 50% recycling by 2020. However, there are uncertainties over this as:

- The impact of Brexit is as yet unclear, although it would currently appear that the UK will retain this overall target in some form; and
- Four different calculation methods are available to EU members, and none of these matches exactly with the UK's former NI 192. At least one of the alternatives could significantly improve the headline recycling rate for the LWP.

5.5.3 Landfilling performance (NI193)

The main success story during the period of the previous JMWMS has been in the way in which we dispose of residual waste, with the percentage of Municipal Waste sent to landfill (NI 193) falling from over 50% in 2007/08 to well under 5% in 2016/17. This has been driven by:

- The LWP's commitment to move waste further up the EU Waste Hierarchy; and
- The need to reduce the County Council's annual spend on Landfill Tax.

This success has been achieved through two major initiatives:

- 1) The opening of our new Energy from Waste facility in Hykeham. This now diverts over 150,000 tonnes per annum from landfill, and thus moves it up the Waste Hierarchy from "disposal" to "recovery".
- 2) The introduction of a contract for the recycling of road grit. This diverts around 4,000 tonnes per annum from "disposal" to "recycling".

5.5.4 Recycling capture rate for each waste type

One way to identify areas in which recycling performance can be improved is to consider the proportion of the total quantity collected of each material (as listed in section 3.3, Table 5-6) which is captured for recycling. This is shown below in table 5-19.

Table 5-19 Recycling capture rate for each waste stream

NB – These figures used 2009 sampling data and have yet to be amended to reflect the newly-arrived 2017 results. This should be completed by the end of November 2017 but it is anticipated that the overall message won't change significantly.

	TOTAL Local Authority Collected Waste	Tonnage Reused, Recycled or Composted	Percentage Reused, Recycled or Composted
Paper and Card	67,569	34,614.28	51.2%
Plastic Film	9,186	612.14	6.7%
Dense Plastic	17,065	7,841.49	46.0%
Textiles	8,642	1,073.12	12.4%
Misc. Combustible	33,888	11,820.72	34.9%
Glass	20,448	14,784.98	72.3%
Kitchen and food waste	63,127	3.92	0.0%
Garden	90,146	77,768.05	86.3%
Other Putrescibles	7,683		0.0%
Ferrous	8,599	5,004.23	58.2%
Non-ferrous	3,766	2,382.03	63.3%
WEEE	7,446	4,836.43	65.0%
Potentially Hazardous	3,347	1,080.38	32.3%
Misc. Non-Combustible	21,880	15,872.37	72.5%
Fines	4,800		0.0%
Liquids	1,397		0.0%
TOTALS	368,988	177,694.15	

The capture rate for glass, garden waste, and "misc. non-combustible" (which includes soil and rubble from HWRC's) exceeds 70%. A further two streams (non-ferrous metals and WEEE) exceed 60%.

At the other end of the spectrum, for those streams marked in red, the capture rate is less than 20%. Whilst some of these streams are, by definition, unlikely to be recyclable (e.g. fines are particles of waste which are too small to be identified), other streams show room for considerable improvement – e.g. food waste, textiles and plastic film.

5.5.5 Other ways to measure environmental performance

It is important to note that, in developing this JMWMS, a key task has been to reassess whether the former National Indicators represent the best way to measure the performance of the LWP. This review is covered elsewhere in this JMWMS document, and reflects the need to measure our success in meeting the objectives chosen by the Partnership.

5.6 Current waste management costs

In addition to measuring environmental performance, it is essential to measure how well we are meeting the challenges of diminishing budgets.

To enable comparison with historical costs, the costs of waste management in 2015/16 outlined in Table 5-20 and Table 5-21 are those formerly reported as part of the Best Value Performance Indicator regime – BV86 for WCAs and BV87 for WDAs. The tables also show the equivalent 2006/07 cost per household which was included in the 2008 JMWMS.

Table 5-20 Cost of waste collection for 2015/16

	2015/16 (Most recent year of available data)			2006/07
	Number of Households	Overall cost of collection	£/ HH	£/ HH
Boston BC	28,760	£1,133,324	39.40	33.54
City of Lincoln	44,430	£2,178,000	49.02	52.63
East Lindsey DC	67,150	£2,610,000 (16/17)	38.86 (16/17)	64.28
North Kesteven DC	49,030	£2,379,443	48.53	49.73
South Holland DC	39,170	£2,205,526	56.31	44.39
South Kesteven DC	62,453	£2,030,000	32.51	48.65
West Lindsey DC	41,910	£2,250,000 (incl Central Establishment Charges)	53.68	59.98

Table 5-21 Cost of waste disposal 2015/16

NB – This figure includes Landfill Tax, which rose from £21.00 per tonne in 2006/07 to £82.60 per tonne in 2015/16.

	2015/16 (Most recent year of available data)			2006/07
	Municipal Waste (Tonnes)	Overall cost of disposal	£/ tonne	£/ tonne
Lincolnshire County Council	355,849	£19,286,000	54.20	47.25

6 What are we aiming for?

The Partnership has made significant strides forwards during the lifetime of the previous Strategy, particularly in the development of an energy from waste facility to divert non-recycled waste away from landfill.

This chapter identifies the challenges faced by the Partnership, currently and over the next few years, and the proposed approach to meeting these challenges.

6.1 Strategic objectives

As identified at the beginning of this document, the Partnership has the vision:

“To seek the best environmental option to provide innovative, customer-friendly waste management solutions that give value for money to Lincolnshire.”

In order to work towards this vision, the Partnership has also developed and agreed a set of high-level objectives, which are key drivers for the delivery of this strategy. In line with the vision, each of these objectives is to be considered in the light of the Partnership’s shared values that:

All Objectives should ensure that services provided under the JMWMS represent the best possible environmental option which gives value for money for Lincolnshire residents.

The ten objectives are as follows:

Objective 1.	To improve the quality and therefore commercial value of our recycling stream.
Objective 2.	To consider moving towards a common set of recycling materials.
Objective 3.	To consider the introduction of separate food waste collections.
Objective 4.	To explore new opportunities of using all waste as a resource in accordance with the waste hierarchy.
Objective 5.	To contribute to the UK recycling target of 50% by 2020.
Objective 6.	To find the most appropriate ways to measure our environmental performance, and set appropriate targets.
Objective 7.	To seek to reduce our carbon footprint.
Objective 8.	To make an objective assessment of whether further residual waste recovery/disposal capacity is required and, if necessary, seek to secure appropriate capacity.
Objective 9.	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.
Objective 10.	To consider appropriate innovative solutions in the delivery of our waste management services.

6.2 The challenges we face

Whilst the move from landfill to energy from waste as the main route for disposal of non-recycled waste has largely overcome the largest challenge identified in our previous Strategy, a number of key issues remain.

The landscape is uncertain as it is unclear what direction UK Government waste strategy and policy will take as the UK leaves the European Union, but it seems clear that we will need to address falling recycling rates and increasing waste arisings.

6.2.1 Falling recycling rates in Lincolnshire

As indicated in Chapter 5, the Lincolnshire County Council recycling rate (which covers the LWP as a whole) has fallen in recent years from a peak of 52.9% in 2010/11 to 46.7% in 2016/17.

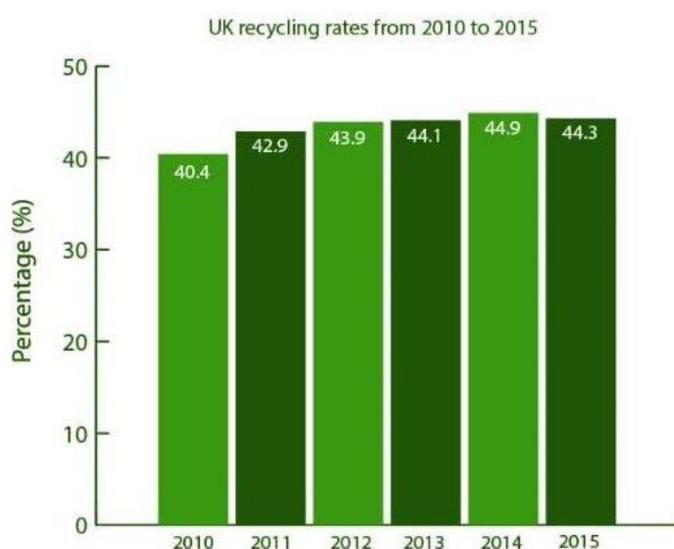
Whilst the overall tonnage collected from kerbside recycling bins has remained relatively stable, we have seen a rise in the percentage of that material which is **not** recyclable. In 2016/17 over 25% couldn't be recycled, including some recyclables which had been damaged by those non-recyclable wastes – e.g. Paper made wet and dirty by food waste.

6.2.2 The national and international picture

In December 2016, Defra announced⁹ that recycling of waste from UK households had fallen. The combined recycling and composting rate for waste from households stood at 44.3% in 2015 – falling down from the 44.9% rate recorded in 2014.

As shown in Figure 6-1, this fall followed a number of years of growth.

Figure 6-1 Defra data on recycling from UK households



⁹ <https://www.letsrecycle.com/news/latest-news/defra-reports-falling-uk-recycling-rate/>

This issue is made more complex by uncertainty over what recycling rate we should be seeking to achieve. Our current national target is the EU target of 50% recycling of waste from households by 2020. Beyond that, the EU recycling target for 2030 will be set in their Circular Economy Package, but the debate is still ongoing as to whether this will be 65% or 70%.

Following the UK decision to exit the EU, the UK Government seem inclined to retain existing EU-related legislation, but it is unclear whether the 2030 target, at whatever percentage, will apply to the UK. Furthermore, a UK-wide target is not currently binding on individual local authorities.

6.2.3 Growth in waste arisings

As described in Chapter 5, each year usually sees a growth in the tonnage of waste for which the LWP is responsible. There are two reasons for this increase:

- Population growth – Lincolnshire’s population grew by more than 3% between 2011 and 2015. See section 5.1 for further details.
- Weight of waste per person – Whilst this stabilised somewhat during the economic downturn, there is concern that this will now resume its historical upwards trend.

7 How will we get there?

In order to deliver the aims and objectives to which the Partnership aspires (see earlier chapters), it is essential that work undertaken by each partner organisation is focussed on actions which will further the objectives as set out in this Strategy.

This work will be summarised in an Action Plan which has been under development alongside the preparation of this main Strategy document. This Strategy summarises the Partnership's shared vision, meaning that the initial Action Plan can be finalised. Once adopted, the Action Plan will then need to be reviewed on a regular basis (see Chapter 8) to ensure that it remains up to date for the lifetime of the JMWMS.

In the meantime, this chapter summarises the key themes which will shape our work together over the next few years. In order to ensure that we are focussing our efforts in the right direction, this chapter concludes with a table showing the links identified between each theme and each of our strategic objectives.

7.1 Seeing the wider picture

It is crucial that each LWP partner authority is proactive in seeking to consider their actions in as broad a context as possible. This will feature a number of diverse elements including those shown below.

7.1.1 Developing links with other local authorities

Any local authority is stronger when it learns from and, where appropriate, seeks to work with other Councils. We will do this by:

- Strengthening relationships within the LWP
- Working with and learning from authorities outside the LWP

7.1.2 Engaging with the commercial sector

Clearly we, as local authorities, are the experts in handling household waste. However, particularly in a time of reducing council budgets, it is important that we talk to businesses working in the waste sector in order to:

- Seek new opportunities which we could use to improve our services or save money
- Seek ways in which we could benefit by being more commercially-minded
- Be more aware of the potential value of the waste which we collect
- Help to fill any processing capacity gaps

7.1.3 Addressing any waste processing capacity gaps

We have already identified some waste streams where we believe that there is insufficient capacity at local facilities. In order to mitigate against this, particularly in the light of expected growth in Lincolnshire's population, we need to ensure that we:

- Make good forecasts of how much of each waste type we are likely to have
- Promote the development of infrastructure for new and existing waste streams – e.g. separately-collected food waste

7.2 Balancing economic and environmental benefits

Aware of the need for prudence with the public purse, and particularly in the current climate of ongoing annual reductions to Council budgets, it is essential that every attempt is made to provide services which give value for money to the people of Lincolnshire. However, it is also important where possible to maximise the positive environmental impacts of how we handle our waste.

The importance of both of these aspects is reflected in their inclusion in the Vision which the Partnership has agreed for this Strategy:

“To seek the best environmental option to provide innovative, customer-friendly waste management solutions that give value for money to Lincolnshire.”

7.2.1 Ensuring value for money

As agreed in the Vision, we need to seek to provide the best overall value for money for the council-taxpayers of Lincolnshire as a whole. This will mean finding innovative ways to fairly distribute any costs and savings incurred by individual authorities as part of any service change.

7.2.2 Caring for the environment

This will be undertaken in a number of ways, including:

- Following the Waste Hierarchy – This is enshrined in UK Law
- Improving the environmental impact of existing services – e.g. use of heat from the Energy from Waste facility
- Reducing our carbon footprint
- Adopting and promoting “circular economy” thinking
- Considering the use of new and innovative technology

7.3 Reviewing what we collect and how

A key element of the implementation of this Strategy will be how we respond to the WRAP-sponsored work to assess the various options for how each of the LWP's Waste Collection Authorities

operate their collection services. The decision-making process will need to feature a variety of elements such as:

- Evaluating the business case – Do the finances stack up?
- Focusing on streams with the most economic and/or environmental value
- Identifying barriers and how to overcome them – e.g. startup costs of service changes
- Considering the introduction of new collections – e.g. food waste

7.4 Getting our messages across

It is essential that we communicate well so that we, as Councils, are not acting in isolation. This means developing plans for how we will get our message across:

- To the Lincolnshire public – e.g. What to put in which bin
- To the national government – We need to try to influence national strategy & policy to tie in with our own
- To other stakeholders – Parish Councils, Environment Agency, etc

Table 7-1 Linking themes with strategic objectives

Theme/Project	Obj.1	Obj.2	Obj.3	Obj.4	Obj.5	Obj.6	Obj.7	Obj.8	Obj.9	Obj.10
Seeing the wider picture										
Developing links with other local authorities – Strengthening relationships within the LWP		Y							Y	
Developing links with other local authorities – Working with and learning from authorities outside the LWP						Y		Y	Y	Y
Engaging with the commercial sector – Seek ways in which we could benefit by being more commercially-minded	Y			Y						Y
Engaging with the commercial sector – Be more aware of the potential value of the waste which we collect	Y	Y		Y						
Engaging with the commercial sector – Help to fill any processing capacity gaps			Y	Y				Y		
Addressing any waste processing capacity gaps – Make good forecasts of how much of each waste type we are likely to have	Y		Y					Y		
Addressing any waste processing capacity gaps – Promote the development of infrastructure for new waste streams	Y		Y	Y			Y	Y		
Balancing economic and environmental benefits										
Ensuring value for money	Y		Y	Y						Y
Caring for the environment – Following the Waste Hierarchy				Y			Y			
Caring for the environment – Improving the environmental impact of existing services	Y			Y	Y	Y	Y			
Caring for the environment – Reducing our carbon footprint							Y			
Caring for the environment – Adopting and promoting “circular economy” thinking	Y			Y						Y
Reviewing what we collect and how										
Evaluating the business case			Y	Y						
Focusing on streams with the most economic and/or environmental value	Y	Y		Y						
Identifying barriers and how to overcome them	Y	Y	Y		Y					Y
Considering the introduction of new collections				Y	Y		Y			
Getting our messages across										
To the Lincolnshire public					Y					
To the national government					Y	Y				
To other stakeholders – Parish Councils, Environment Agency, etc										

Page 67

8 The next steps: Monitoring, implementing and reviewing the strategy

To help identify the best option for managing our waste in the future, we have begun to:

- Assess options for our waste collections; and
- Consider the disposal implications of those collection options.

However there are further considerations required to ensure the strategy can be implemented successfully to meet our shared strategic objectives.

8.1 Monitoring the strategy

In order to know how well we are meeting our strategic objectives, it is important to establish and report on appropriate measures.

The key measures which are currently reported to the Partnership include:

- Percentage of household waste sent for reuse, recycling or composting (formerly a National Indicator, NI 192) – This is particularly important as it reflects our contribution to the national recycling target.
- Total tonnage of residual (non-recycled) waste – This is important as it reflects how well we are doing in implementing the waste hierarchy, both by recycling and through waste minimisation.

As a result of our new strategic objectives, new measures will need to be considered in order to monitor things such as our combined carbon footprint. The development of a new suite of measures will be included in the Action Plan to accompany this Strategy.

8.2 Implementing the strategy

8.2.1 Funding and support

As mentioned previously, overall Council budgets are reducing year on year, and combined with the need to adopt more sustainable waste management practices further pressure will be placed on service budgets. While the Partnership has begun to identify ways in which our combined services might be improved, these will need to be considered pragmatically in the light of the available budget. The Partnership will also need to actively seek any funding opportunities, whether from Government or otherwise, which can help us to afford to undertake work in support of the Objectives identified in this Strategy.

8.2.2 Partnership working

To ensure the Partnership authorities of Lincolnshire continue to improve services and develop efficiencies it is essential that they work together to deliver the strategy. Working together enables the collection and disposal requirements to be coordinated to ensure that future collection service provision is provided with adequate treatment and disposal infrastructure.

In accordance with Objective 9, we are committed:

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.

8.2.3 Implementing the strategy

The Partnership has made a commitment to implement this strategy and has recognised that significant changes are required over the next 10 years. To deliver these changes an action plan is being prepared by the Partnership which will break down the actions and tasks required to meet Lincolnshire's objectives as set out in the Strategy.

The delivery of tasks within the action plan will need to be monitored and reviewed annually to ensure the Partnership will deliver the targets it sets itself through this Strategy. Where significant changes occur, the action plan will be updated accordingly.

The action plan will establish how the Strategy will be delivered, considering what will be required by the Partnership in terms of:

- Action required to deliver waste minimisation and further increase recycling and composting;
- Future changes or improvements to collection services (residual waste, dry recycling, garden waste and potential food waste); and
- Investments required to deliver future residual waste treatment facility and additional recycling infrastructures.

8.3 Reviewing the strategy

This Strategy will need to be regularly reviewed in order to ensure that our shared objectives remain appropriate, and to change them if necessary.

This will be particularly important in the light of any changes to the landscape in which we find ourselves, including:

- The UK's departure from the European Union, and any changes in UK waste legislation and policy which arise from that; and
- The level of funding provided to each Authority by the UK Government.

This page is intentionally left blank