



Department for
Communities and
Local Government

Guidance on weekly rubbish collections

Delivering a frequent, comprehensive service

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Foreword

This is the first ever guidance issued by the Government on how councils can and should deliver weekly rubbish collections. This document shows how councils can deliver a comprehensive and frequent rubbish and recycling collection service, and deliver practical savings from common sense steps that do not harm the quality of the service that local taxpayers receive.

In June 2011, the Coalition Government stated in its Review of Waste Policy that it wanted to work with local authorities to: “increase the frequency and quality of rubbish collections and make it easier to recycle”.

The Weekly Collection Support Scheme built on this ambition by making £250 million available to English local authorities that want to retain or reinstate weekly collections. It is safeguarding weekly collections for six million households and will see an extra 400,000 tonnes of material recycled. The scheme is also helping deliver the Coalition Agreement’s pledge to “encourage councils to pay people to recycle” with 40 local authorities delivering recycling reward schemes for their residents.

This guidance builds on the scheme and demonstrates that councils can not only maintain weekly collections of residual waste, but innovate and identify ways of saving money at the same time. It provides a helpful insight into how all local authorities can continue to challenge how they organise their waste services in such a way that delivers more cost effective efficient waste collections for their households.

A recent YouGov poll showed residents perceive waste collection to be the most important service that local authorities provide. They deserve a first class service in return for their council tax and I hope the innovative ideas showcased in this guidance provide practical help for both council officers and councillors.

Rt Hon Eric Pickles MP
Secretary of State for Communities and Local Government

Common misconceptions

Recycling and the Environment

Myth 1. “There is no alternative. A move to a fortnightly collection is the only way to improve recycling rates. “

This is a common enough statement made by local authorities where fortnightly collections are about to be introduced. Yet such a move is not a golden ticket to high recycling levels. It is a clear myth that councils can't get decent recycling rates without moving to a fortnightly collection of residual waste. A number of local authorities with weekly residual collections including: Blaby District Council, Bournemouth Borough Council, City of Bradford Metropolitan District Council, Milton Keynes Council, and Oadby and Wigston Borough Council all send 50 per cent or more of their household waste for reuse, recycling or compostingⁱ.

Many successful bids to the Weekly Collection Support Schemeⁱⁱ will be making sizeable improvements to recycling rates whilst maintaining weekly collections of residual waste. The scheme is demonstrating that you don't have to have a fortnightly collection to deliver high quality recycling services. Sandwell Metropolitan Borough Council has kept a weekly residual waste collection service and at the same time taken huge steps to boost recycling. Recycling rates in Sandwell have jumped from nine per cent in 2006 to 40 per cent in 2011-12. By 2015-16 Sandwell expects to recycle or compost at least 56 per cent of its household rubbish.

Myth 2. “Fortnightly collection schemes reduce the overall amount of waste produced.”

In a 2007 report, Waste Resources Action Programme (WRAP) found that “well run” fortnightly collection schemes can reduce the overall amount of waste produced as residents seek to avoid generating rubbishⁱⁱⁱ. Yet policies which impose unreasonable restrictions on residents undermine the fundamental point of a local service for local taxpayers – namely collecting rubbish and recycling in return for their council tax.

Defra statistics show a list of the ‘top ten’ lowest waste generators per head^{iv}. These include Crawley Borough Council, the London Borough of Ealing, and Lewes District Council. All of these have retained weekly collections of residual waste. Through innovative developments funded by the Weekly Collection Support Scheme, Lewes District Council anticipates continuing to significantly reduce the amount of waste collected whilst doubling its recycling rate over the project period.

Myth 3. “In areas with low recycling rates, introducing a fortnightly collection is the only way to change residents’ attitudes to recycling.”

If you want people to do something, then it's always much more effective to give them support and encouragement – a nudge in the right direction – than to tell them what to do and then punish them if they don't obey. Recycling is a case in point. We all recognise that we have got to cut down the amount that gets dumped in landfill. But this should not be done in the most heavy-handed way possible - such as cutting back the service, imposing new bin taxes, using unfair bin fines or snooping through people's dustbins. In all likelihood, this would have just fuelled fly-tipping, backyard burning and more trips to the dump as people tried to avoid paying the tax.

The Coalition Government on the other hand is keen to support recycling reward schemes which give incentives for residents to recycle their waste. Recyclebank's™ UK 'Rewards for Recycling' programme has been a significant factor in improving recycling performance in the Royal Borough of Windsor and Maidenhead. Recycling rates have increased year on year - from 34 per cent in 2009-10 to 48 per cent in 2012-13, in large part due to the rewards programme. Residents who engage with Recyclebank™ earn points for their recycling and use their 'currency' to order rewards such as discounts from local shops.

Around 40 of the successful bids to the Weekly Collection Support Scheme will be introducing new or enhanced recycling reward schemes, many of them district-wide. The London Borough of Havering's new recycling rewards scheme for example will utilise tonnage data already available from the weekly collection rounds and reward both registered households and communities that reduce their waste and/or increase recycling on a collection round basis. Through the scheme, households that have activated their accounts will be able to receive discounts from local retailers or donate any rewards earned to local charity projects. This will create an engaged local community with a common aim to contribute towards the environmental benefits being sought.

The Coalition Government is genuinely excited by this increase in the number of incentive schemes. It sees them as the future of recycling and refuse collection in this country. We are of course not saying all councils should only use Recyclebank™ as you've got to have local innovation and local creativity when designing the most appropriate service, and competition will help improve the service on off from incentives schemes. But if the 40 recycling reward schemes are introduced effectively, we have no doubt they will prove what is just common sense: treating people with respect and providing incentives will be an effective means of raising recycling rates.

Myth 4. “The £250 million Weekly Collection Support Scheme would have disastrous impact on recycling.”

Environmental groups made this claim around the time that the Weekly Collection Support Scheme was announced^v. First and foremost, the Department for Communities and Local Government would encourage local authorities to consider many other factors alongside pure recycling rates when designing services for residents. These include: the quality and frequency of the local residual waste collection; the quality of the local recycling services provided to residents; and the amounts of household waste generated per head.

Nonetheless, it gives great delight to say that not only will successful bids to the scheme ensure around 6 million households retain a weekly collection of residual waste but that local authorities will recycle an extra 400,000 tonnes of waste through their bids. At the same time, the bids will save one million tonnes of greenhouse gas emissions. The scheme is doing anything but damaging the environment. In fact, in nearly all cases, successful bids propose delivering enhanced recycling services, making it easier for residents to recycle. All successful bids will deliver environmental benefits. Each bid had to meet minimum environment criteria to be allocated funding - either a reduction in CO2 equivalent emissions^{vi}, or a reduction in disposal to landfill, or an increase in recycling based against current performance.

Practicalities

Myth 5. “People don’t want their bins emptied every week.”

Some groups made this claim around the time we announced the successful bidders to the Weekly Collection Support Scheme^{vii}. As part of its recent move to a fortnightly collection, Warrington Borough Council even suggested the move was done in order to “*improve the waste collection service*” they provide, and to make collections “easier” for residents^{viii}. This is surprising. Research has found that two-thirds of people think frequent and regular rubbish collections are the most important feature of the waste service^{ix}. Another survey found that two-thirds of the public thought government should mandate weekly collections of residual waste and that weekly collections were better^x.

A number of successful bidders to the Weekly Collection Support Scheme passed on the views of their residents. Examples of the messages we received when successful bidders were announced included:

- From Cornwall Council, the portfolio holder for Community Safety, Public Protection and Waste Management told us their bid “emphasises our commitment to the weekly black bag collection service that our residents said they wanted to keep”;

- The Chairman of the Community and Environment Committee at East Cambridgeshire District Council, said: "Winning the funding to improve our recycling service is fantastic news. In a recent public consultation we had overwhelming support for our plans (including retention of a weekly residual waste collection)..."
- Middlesbrough Council's executive member for Streetscene Services said: "This (successful bid) is fantastic news which will be welcomed by people across Middlesbrough who have told us how much they value weekly bin collections."
- The (then) North Tyneside elected Mayor said: "Our weekly bin collections are one of the council services most valued by the residents of North Tyneside."

In a local referendum in Dartford, 95.3 per cent of respondents agreed with the borough council's decision to keep weekly collections of residual waste. Local councils provide waste collection services for most people's homes. It is reasonable for householders to expect their waste to be collected every week. Councils must not forget that their job is to serve the public.

While on this point, it must be added how disappointing it is to hear about local authorities justifying a move to fortnightly collections through inadequate public consultation. At best these consultations involve responses from a tiny minority of an authority's population and at worst they don't seem to really be consulting about an important service change at all.

Myth 6. "Other than inconveniencing residents, there are no other problems caused by a move to fortnightly collections of residual waste."

When councils move to fortnightly collections of residual waste they sometimes provide Question and Answer guides for residents on their websites. These often include a question along the lines of: 'will fortnightly collections lead to health/odour/vermin problems?' The answer tends to be: 'evidence suggests problems are not caused when such service changes are properly introduced'.

While this 'evidence' is not officially doubted here, a fortnightly collection is clearly a reduction in service from a weekly collection and must surely increase the risk. There's no getting away from this fact. One recent survey has found that problems with flies and smells were much worse with fortnightly collections^{xi}. Only this summer, reports from across the country have told how residents are unhappy with their fortnightly collection. The story is practically identical in each case – householders suffering because of highly unpleasant odours coming from their rubbish, and maggots infesting their wheelie bins. In fact, the World Health Organisation recommends that rubbish should be collected weekly in temperate climates like the UK's^{xii}. The National Pest Technicians Association has also warned that fortnightly services were one cause of a rise in rat infestations^{xiii}.

Furthermore, householders in areas that have moved away from weekly collections report that if the council happens to miss one of their fortnightly collections, they (the council tax payer) can face a month without their bins being emptied. This is hardly putting the resident at the centre of service provision.

Related to this point, government is of the view that local authorities with weekly residual collections are more resilient to winter weather than those with fortnightly collections as it's a lot easier for the council to quickly restore the collection service after the disruption.

Myth 7. “Local authorities can’t commit to weekly collections of residual waste in uncertain times.”

A number of councils chose not to apply for funding through the Weekly Collection Support Scheme as they felt they couldn't commit to maintaining weekly collections for the next five years. This was a key condition of the grant. However, the 82 councils that were successful with their bids to the scheme have committed to maintaining weekly collections for those currently in receipt of this service. Not only this, but they have all advertised the commitment to their residents – for example on the front pages of websites and through social media such as Twitter and Facebook.

Costs

Myth 8. “Central government is urging all parts of the public sector to cut costs. Where waste management is concerned, the only option for a local authority is to move to a fortnightly collection of residual waste.”

Local authorities looking to save some money on their waste management often seem to look no further than moving to a fortnightly collection^{xiv}. They will then tell their residents through the local newspaper how much money this is going to save them. Hull City Council for example said it would save £1 million a year^{xv}. The stories paint a picture of an unavoidable situation.

This guidance and the case studies illustrates that councils can not only maintain weekly collections of residual waste but innovate and identify ways of saving money at the same time. It provides a helpful insight into how all local authorities can continue to challenge how they organise their waste services in such a way that delivers more cost effective and more efficient waste collections from their households. It is clear there are plenty of opportunities for councils to make significant waste-related savings aside from the lazy option of moving to a fortnightly collection.

As an example, Ribble Valley Borough Council has chosen to integrate the collection of waste from commercial customers with collections from domestic households in order to ensure collection rounds are closely matched to vehicle

payload capacity. Not only has Ribble Valley retained weekly collections of residual waste, it has one of the highest recycling rates in Lancashire. With such a high quality service, one might assume waste collection and disposal in Ribble Valley is expensive. Not a bit of it. The cost of its waste service is substantially lower than that of its comparator groups.

A number of our case study authorities have been able to include the collection of additional waste streams by adapting and enhancing existing collection systems at no or very little marginal cost. This is helping to improve productivity through better crew and vehicle utilisation and is reducing the unit cost of collection. Both Lewes District Council and North Tyneside Metropolitan Borough Council are achieving this as a result of re-configuring their collection services. Milton Keynes Council is working with its collection and disposal partners to use the food waste it collects to turn into a new low cost fuel for its new fleet of collection vehicles.

Waste collection services are perceived by residents to be the most important service they receive from a local authority^{xvi}. Cutting the frequency of collections is an idle and unnecessary move. It is clearly possible to have a comprehensive weekly service and save money through innovative approaches to waste management. A weekly waste collection should therefore be one of the first things a local council decides to protect.

Myth 9. “The introduction of a fortnightly collection will bring significant savings to the council and in turn therefore to the council taxpayer”.^{xvii}

The evidence is unequivocal on the importance that residents attached to their waste collection. Back in 2007 a Communities and Local Government Select Committee noted that many people see waste collection as the single most important universal service that most households get and pay for through their council tax^{xviii}. Environmental Services Association research has shown that two out of three people believe that waste collection is the most important service provided through local authorities^{xix}. A recent YouGov poll showed residents perceive waste collection to be the most important service that local authorities provide.

In the public mind, it seems generally assumed that household refuse collection accounts for a substantial part of council tax bills. Most residents regard the collection of waste and recycling to be the principal service they receive and are therefore surprised to learn that the annual cost of the refuse collection service per household is estimated to be only £74.00 (about £1.50 per week)^{xx}. The average for weekly residual waste collectors may be a little higher but still only a small fraction of the average £120 a month council tax bill.

As well as council tax money, local authorities continue to receive billions in central government funding. It's not unreasonable that they provide a decent bin service in return. Councils with notoriously low council tax charges provide weekly

collections of residual waste and a number of those that have frozen their council tax in recent years – London Borough of Camden, Solihull Borough Council and Watford Borough Council to name but a few – continue to provide weekly collections of residual waste.

It should also not be forgotten that under the previous Administration the numbers of weekly services across the country halved while council tax doubled. Residents should not think that a move to a fortnightly collection will necessarily lead to a reduction in their council tax bills. Indeed, in most cases it seems that a move to a fortnightly collection is a move towards less service for the same amount of council tax money.

European Union regulations

Myth 10. “Traditional weekly rubbish collections must be scrapped to meet European recycling regulations.”

Contrary to newspaper reports in August, it is simply not the case that weekly rubbish collections will need to be scrapped to meet European Union regulations. Nor is it the case that the government has dropped its support for weekly rubbish collections.

In March 2013, the government won a High Court case, confirming that councils can continue to provide ‘comingled collections’. Councils are not required by any diktat to make householders separate rubbish into five separate bins.

Our £250 million Weekly Collection Support Scheme has safeguarded weekly collections for six million households, and we are supporting innovation in weekly schemes, from better recycling technology to rewards for going green. Those authorities successful with bids to the Weekly Collection Support Scheme made a public commitment to maintain weekly collections of residual waste until (at least) November 2017. This is still very much our expectation, and the expectations of residents in those areas. The Coalition Government will continue to encourage weekly collections of residual waste and give its strong support for all local authorities that seek to retain or reinstate them.

What the Government has done

Every week across England millions of households receive a service that is truly universal – the collection of refuse and recycling. Until recently, it was the norm for household waste to be carried out on a weekly basis. However, from 2000 to 2010 and encouraged by the then Administration, there was a steady increase in the number of councils operating a fortnightly ‘residual’ waste collection service.

Moving to a fortnightly collection of residual waste may appear an easy or lazy choice for a council wishing to save some money but this decision can often be made without thinking creatively about how to make cost effective changes to the service whilst retaining the five star, weekly refuse collection frequency.

This guidance aims to highlight to councils across the country how cost effective approaches can be introduced that help save weekly collections of residual waste *and* increase recycling. Government urges councils to not automatically think of switching to fortnightly collections and the associated reduction in service standards.

The Coalition Government has already scrapped bin taxes plans via the Localism Act; reversed Audit Commission rules which marked down councils for not adopting fortnightly rubbish collections; and abolished Whitehall targets which created perverse incentives to downgrade waste collection services.

Through this document, it is further fulfilling its promise from the launch of the Weekly Collection Support Scheme to “spread best practice on weekly collections”. The examples are from successful bidders to the scheme but many other local authorities continue to deliver excellent services, retaining weekly collections without the additional funding.

As but one example, Adur and Worthing Councils are providing weekly collections to their residents as they did when they became the first councils in the UK to form a partnership to share services, back in 2006. A successful joint refuse collection and recycling service led the two councils to explore further options for service sharing, leading to substantial savings over the years.

The Weekly Collection Support Scheme

Beginning in November 2012, 82 local authorities have been implementing their successful bids to the Department for Communities and Local Government’s £250 million Weekly Collection Support Scheme. This will see huge investment over the period 2012 – 2015 to support the delivery of cost effective and high performing

weekly collection services. The scheme will safeguard weekly collections for around six million households until 2017 whilst an extra 400,000 tonnes of material will be recycled and a million less tonnes of waste-related carbon dioxide emitted.

As a result of the Weekly Collection Support Scheme, local residents are now seeing:

- extended weekly collection arrangements in some areas to include new materials such as glass, paper and food waste
- partnership working between local authorities and waste contractors that will help keep the cost of collection as low as possible
- new waste facilities being built to process waste and recyclables in a more cost effective and environmentally friendly way
- new recycling rewards schemes introduced to promote and reward those behaviours that will help see the amount of waste generated and the amount sent to landfill reduced significantly

With the scheme now driving new ways of working across local government, it is important that the key lessons being learnt by those actively involved in the programme of transformation can be shared with all local authorities irrespective of whether they bid for Weekly Collection Support Scheme funding or not. This is because every local authority must continue to explore ways of reducing the financial burden of providing highly valued waste collection services to local people.

This document brings together a number of short case studies from local authorities. Each example demonstrates how lower costs can be achieved in a number of different ways that do not sacrifice service quality and collection frequency. They provide insight into how all authorities can continue to challenge how they organise their waste services in ways that demonstrate more cost effective and more efficient collections. The case studies cover a range of authorities, in both urban and rural areas; and operating in-house and outsourced collection services.

The savings are classified in two ways - past savings that have already been realised, and forecast savings that are expected to be realised. Both past and future savings can be categorised as 'efficiencies' or 'avoided costs'. 'Efficiencies' refer to cases where local authorities are delivering broadly the same outcomes as previously, but at a lower cost (using collection round reconfiguration as an example - by redesigning service collection rounds to reduce the number required and hence save money). 'Avoided costs' refer to where they have avoided expenditure that might otherwise have been considered necessary (using a similar example, absorbing expected collection requirements from future household growth by reconfiguring the existing service collection rounds rather than paying to add a new one, and thus avoiding a cost increase). Both efficiencies and avoided

costs can take the form of revenue or capital savings. A number of case study authorities have adopted a principle of 'invest to save' by using Weekly Collection Support Scheme funding to deliver efficiencies from the cost of treatment and disposal as well as the cost of collecting waste and recycling.

For each of the case study authorities, the service improvements can be seen as a continuation of a pro-active approach to regularly reviewing services, performance, and costs to ensure that their weekly collections continue to represent the best 'value for money' possible. All data used in this document has been provided and validated by the relevant case study authority.

Despite the diverse range of solutions discussed in the following pages, it is possible to see a number of high level themes emerging: **optimising resources**; **creating capacity**; **working in partnership**; and **seeking innovation**.

Theme 1: Optimising Resources

Within this theme, case study authorities have been able to show either: how tools such as round optimisation have led to cost reductions; or how additional materials have been collected from the kerbside, with marginal or no cost increases. Furthermore by taking a 'whole system approach' an investment in either collection or treatment capacity is allowing the authority to achieve a lower overall cost of managing waste. Examples include:

- Ribble Valley Borough Council which has chosen to integrate the collection of waste from commercial customers with collections from domestic households in order to ensure collection rounds are closely matched to vehicle payload capacity
- where authorities have implemented changes to the core collection hours for services such as garden waste, vehicle downtime has been reduced with a subsequent improvement in asset utilisation
- Bournemouth Borough Council and Southampton City Council now operate their collection service using a multi-skilled and multi-disciplinary workforce. This is helping to reduce costs by reducing levels of overtime worked or the number of agency staff employed to cover planned and unplanned staff absences
- Eastbourne Borough Council and Cornwall Council are changing their collection methodology to allow the authority to generate additional income or lower collection costs from collecting the same material in a different way.
- case study authorities demonstrating that re-using collection infrastructure, for example, re-using wheeled bins and kerbside collection boxes can make a financial difference

Theme 2: Creating Capacity

Small changes to existing services can often provide the breakthrough needed to make collection services more cost efficient and more productive. 'Creating capacity' is highlighted in two prime ways: through utilising existing collection infrastructure to collect new waste streams at the kerbside at low marginal cost; and by creating new commercial opportunities to collect and/or treat waste from other authorities or commercial customers because of service efficiencies.

- a number of our case study authorities have been able to include the collection of additional waste streams by adapting and enhancing existing collection systems at no or very little marginal cost. This is helping to improve productivity through better crew and vehicle utilisation and is reducing the unit cost of collection. Both Lewes District Council and North Tyneside Metropolitan Borough Council are achieving this as a result of re-configuring their collection services
- similarly, new waste streams are being added to existing collection arrangements to ensure that materials normally considered hard to collect can be recycled more effectively. Sandwell Metropolitan Borough Council is making minor changes to their collection vehicles in order to collect batteries from the kerbside
- case study authorities are re-designing their collection services with the long-term aim of being able to recycle more and to divert more waste from landfill. Milton Keynes Council is working with its disposal partners to share the financial benefits of creating additional treatment and disposal capacity that can then be made available to other authorities and commercial customers

Theme 3: Working in Partnership

We highlight a number of different forms of 'partnership' with case study authorities working with partners to deliver economies of scale through collaboration on collection contracts, commissioning new treatment capacity, or involving communities in driving recycling improvements. Some examples illustrate councils working in partnership with neighbouring authorities:

- Eastbourne Borough Council, by joining with three neighbouring collection authorities, has been able to procure a new collection contract at a significant lower cost because all collection authorities are benefiting from economies of scale generated from aligning collection methods
- Bournemouth Borough Council has identified future opportunities to work with Dorset Waste Partnership to share depot facilities and collection vehicles. The intended end result is that both councils will have reduced overhead costs by sharing operational assets

Other authorities are working with partner organisations to roll-out new ways of incentivising and rewarding those who continue to recycle their waste. Following the award of £566,000 from the Weekly Collection Support Scheme over three

years Royal Borough of Windsor and Maidenhead will launch the UK's first incentivised food waste collection service in partnership with Recyclebank™. This builds on the good relationship the two parties have developed since Windsor and Maidenhead opted to introduce a rewards programme for its recycling collection service in 2010.

Sandwell Borough Council has launched the *Go Green Reward Scheme*. This scheme supports local community projects by providing new funding, where neighbourhood recycling rates improve, community groups can apply for funding to support projects in their area.

Theme 4: Seeking Innovation

Case study authorities are testing new ideas and supporting new ways of working with the aim of reducing costs and improving performance. These range from engaging residents and customers in designing future service delivery, the adoption of new technology to drive improved participation in recycling, and seeking to introduce a degree of 'closed loop recycling'. Particular examples include:

- Bournemouth Borough Council has engaged local residents and its workforce to design and develop a new kitchen caddy insert to allow it to collect food waste efficiently without needing to re-schedule all of its collection rounds
- Birmingham City Council is piloting two different forms of recycling service in order to test their respective efficiency before considering how best to roll-out service improvements across the City
- Milton Keynes Council is working with its collection and disposal partners to use the food waste it collects and turn into a new low cost fuel for its new fleet of collection vehicles
- Southampton City Council is developing new forms of engagement using social media technology to target its student population and encourage it to increase recycling

The document aims to highlight the diversity of approaches adopted by the case study authorities to improve service outcomes and cost efficiencies. It does not seek to offer a 'one size fits all' approach but instead presents a range of issues that individual authorities may not have yet considered when seeking to deliver their next tranche of improvements.

Case studies

Birmingham City Council

Authority Type	Unitary Authority
Authority Characteristics	Urban
Number of Households	425,000
Collection Partner	In-House (but subject to future market testing)
Waste Streams Collected	Weekly: Residual, comingled dry recyclables (from 2014 onwards) Fortnightly: Garden waste
Types of Efficiencies	<ul style="list-style-type: none">• Operational efficiency• Round optimisation• Whole system costs• Asset investment• Third party income

Overview

Birmingham City Council is the largest local authority in England with over 1.1 million residents generating 400,000 tonnes of waste per year. Each day over 40 collection vehicles are deployed to collect residual waste. It is expecting to grow by over 10,000 households each year for the next five years, creating a significant additional challenge. The diverse nature of the city requires a suite of refuse and recycling services that reflects the different needs of different parts of Birmingham.

Birmingham City Council currently spends around £100 million a year providing waste collection, waste disposal, street cleansing and fleet maintenance services but wants to reduce this to £79 million by 2013-14 with £9 million of the savings coming from waste collections in 2012-13. It plans significant changes in waste management.

This transformation programme requires investment of £63.6 million. The Weekly Collection Support Scheme is funding £29.8 million of this, helping Birmingham to retain weekly collections of residual waste. The money will be invested in the following:

- new wheeled bins for around 400,000 households
- more frequent recycling collections for around 110,000 households with recycling collected weekly instead of fortnightly
- 28 new vehicles operating across residual, recycling and garden waste collections

The introduction of a new method of collecting waste is expected to lead to a significant increase in recycling performance from 32 per cent in 2011-12 to 50 per

cent by 2020 and to improve customer satisfaction rates. The Council is now assessing the cost and practicalities of different models of separate collections.

A change in the method of collecting residual waste and mixed recyclables will allow Birmingham to organise its collection operations more efficiently because routes can be better planned knowing more accurately the amount of waste presented by each household. This will result in the cost per head of population falling from £73.55 / head in 2011-12 to a projected cost of £39.78 / head by 2017/18^{xxi}.

Delivering Service Improvements

Beginning in 2011 Birmingham has implemented a number of **operational efficiencies** in relation to the management of waste collection, recycling services, waste disposal, street cleansing and vehicle maintenance services. These include:

- the introduction of paper and cardboard recycling for trade waste customers with improved marketing of the service, which is expected to generate an extra £2.3 million income annually by 2013-14
- the introduction of new terms and conditions for frontline operatives, which has enabled the council to review collection rounds and crew sizes. This has led to annual operational savings of £1.8 million, equivalent to 18 per cent of the current £10.4 million employee costs
- the council currently operates a compressed system of working for refuse collection, whereby all operatives work a full week over 4 days. This enables it to operate all vehicles for 45 hours a week, reducing the number required by around 30 and producing an annual efficiency of £1.3 million
- changes to how the bulky waste collection service is delivered has contributed savings, by moving the service from a weekend overtime based service to a mid week service delivered in normal working hours. Further changes are planned to deliver the service in partnership with a social enterprise and increase re-use and recycling
- implementing a new management structure to reduce costs by £1.2 million, equivalent to a 40 per cent saving against the previous cost of £3.0 million, so the current cost for street cleaning and waste disposal management is now only £1.8 million

Ensuring Effective Weekly Collections

The city-wide roll-out of wheeled bins for residual waste and mixed recyclables is being directly supported by the Weekly Collection Support Scheme fund with 80 per cent of receptacles and 25 per cent of the 145 new collection vehicles accounting for £20.8 million and £6.7 million respectively. As a result of the funding over 110,000 households will now receive a weekly recycling collection to replace the current fortnightly service as the funding is being used to increase the number of recycling collection rounds operating across the city.

As part of its approach to reducing costs in the long term Birmingham is piloting two different collection methodologies in two separate neighbours, covering 40,000 households, to test the most suitable service configuration to deliver improved recycling performance. Key features of the pilot schemes include:

- **round optimisation** based on Waste and Resources Action Programme (WRAP) models to test optimal round sizes e.g. the number of households, crew productivity as measured by pass rates and tonnes collected per crew per day
- the separate collection of paper and cardboard should generate an extra £2.4 million per year by 2016-17 by taking a '**whole system**' view of collection resulting in a higher income per tonne from the higher quality materials
- evaluation of the option to integrate the collection of trade waste with domestic waste collected from communal facilities from estates and flatted properties to improve the productivity of 26 collection rounds

Alongside the roll-out of new wheeled bins Birmingham is also procuring over 145 vehicles to support the new collection arrangements. The **asset investment** of £6.7 million should also generate further operational efficiencies of around £2.5 million per year by 2014-15 because new collection vehicles should spend less time in the workshops under repair and in turn reduce the requirement for hire vehicles.

The expected improvement in recycling should create an additional 40,000 tonnes of treatment capacity, equivalent to 10 per cent of total capacity at the City's Energy from Waste plant. The 'spare capacity' will be made available to neighbouring authorities and local waste contractors and will allow Birmingham to generate new **third party income** from 2019 when ownership of the plant reverts back to Council ownership. Currently Birmingham will receive a 50 per cent share of any income received from gate fees to the plant.

Bournemouth Borough Council

Authority Type	District Authority
Authority Characteristics	Urban / Coastal
Number of Households	86,170
Collection Partner	In-house
Waste Streams Collected	Weekly: Residual and Food Waste (From March 2014) Fortnightly: Dry recyclables including paper, cardboard, plastics, cans, glass and tetrapak cartons
Types of Efficiencies	<ul style="list-style-type: none">• Round optimisation• Operational efficiencies• Whole system costs• Third party Income• Partnership working

Overview

Since 2006 Bournemouth Borough Council has been one of the best recycling authorities in England achieving a combined recycling and composting rate of 52 per cent in 2011-12. This has been implemented through its 'Big Bin Little Bin' initiative that has provided householders with increased capacity to recycle (240 litre wheeled bin) compared to that for residual waste (a smaller 140 litre wheeled bin). The council currently spends around £9.3 million a year on managing its waste collection service from 86,000 households and disposing of the 88,000 tonnes of household waste generated each year.

The Weekly Collection Support Scheme awarded Bournemouth £7.1 million from 2012 to 2014 year to boost its recycling performance, including by:

- introducing a new borough-wide 'opt-in' food waste collection service
- improving the value of collected glass by separating it from other forms of dry recyclables
- launching a local recycling rewards scheme

These measures are forecast to improve Bournemouth's recycling and composting rate to 55 per cent by 2014-15.

Delivering Service Improvements

Bournemouth Borough Council continues to seek ways to drive down its waste management costs. Examples of how it is achieving this include:

- using **round optimisation** to integrate collections from trade waste customers with collections from domestic properties, this led to a one-off capital saving in

2009 of £300,000 (compared with a vehicle asset valuation of £3.9 million) and annual saving on employee costs of £150,000 per year, equivalent to an annual saving of 4 per cent since 2009

- extending the working day for the garden waste collection services to 8pm daily for approximately 30,000 households during the period April to October each year. This reduced the daily round requirement by three rounds and the council has been able to avoid £450,000 of additional capital expenditure. Vehicle maintenance costs increased slightly by around £5,000 per year, because of the improved vehicle utilisation, but this equates to less than 1 per cent of the total vehicle repairs budget
- harmonisation of terms and conditions since 2007 across all environmental staff. Operatives now work across a number of disciplines, which reduced the overall headcount by thirty full time equivalent posts, or 10 per cent of the total staff headcount, resulting in savings of £900,000 per annum

Although not formally part of the Dorset Waste Partnership, Bournemouth is working closely with neighbouring authorities, such as Christchurch Borough Council, to implement service improvements. It is aiming to reduce its waste management budget, by sharing assets, facilities and resources to help maintain a cost effective weekly collection of residual waste.

Bournemouth is working closely with the Dorset Waste Partnership to implement a range of further **operational efficiencies, from January 2014**, including:

- sharing depots with Christchurch Borough Council which will enable Christchurch to generate a future capital receipt by selling its waste depot
- reducing vehicle maintenance costs through a shared vehicle maintenance workshop – this should enable both partners to operate with lower maintenance costs as the combined requirement to hold spare vehicles and vehicle parts is less than the total required when the two councils operate separately

The business case for the joint working arrangements is currently being finalised by Bournemouth Council and Dorset Waste Partnership.

Ensuring Effective Weekly Collections

Bournemouth is using its Weekly Collection Support Scheme funding to improve its recycling performance and deliver lower **whole system costs** by rolling out a borough-wide food waste collection service, using an innovative collection methodology as follows:

- each household will be provided with two new caddy units, for the segregated collection of food waste and mixed glass, to be used as an insert inside their wheeled bins

- food waste collections will therefore be introduced without any need to increase the number of collection rounds
- the purchase of 16 new refuse collection vehicles and 8 new recycling collection vehicles, with separate pods for segregated food and glass waste collections respectively will enable a 'single pass' collection each week for both the residual waste and dry recyclable collection crews
- additional loaders are required for four of the eight recycling collection rounds to empty the additional insert container leading to a marginal increase in the cost of £12,000 per round for those four collection rounds. The other four recycling rounds will be able to absorb the additional collections without needing to increase the number of operatives because capacity already exists on each of those rounds

The innovative service configuration is expected to realise a cost reduction of £1.6 million a year by 2014-15, equivalent to a 17 per cent annual saving against the £9.3 million 2011-12 cost of managing waste collections and disposal.

Bournemouth is also developing a local recycling rewards programme that will allow local residents to accrue reward points. These points can be used to join a local rebate scheme using a prepaid shopping card or fund local community initiatives. The reward scheme business model, developed by a leading incentive scheme provider, includes a **new third party income stream** worth around £70,000 to £90,000 per year to the council when the scheme is rolled out across the borough. This assumes 20,000 households actively participate in the food waste collection service and 10 per cent of those households regularly use the prepaid shopping card.

The separate collection of mixed glass from Bournemouth's households creates a **new partnership opportunity** for the council and Dorset Waste Partnership to benefit from processing recyclable material locally. The pooling of recyclates to feed a new Weekly Collection Support Scheme-funded Materials Recovery Facility to be constructed in Bournemouth is expected to generate additional disposal savings of around £600,000 a year from 2015 as a result of lower gate fees, commodity sales and lower transport costs. This equates to around a 6.5 per cent saving compared to the current £9.3m waste collection and disposal budget.

Cornwall Council

Authority Type	Unitary Authority
Authority Characteristics	Rural
Number of Households	255,000
Collection Partner	Cory
Waste Streams Collected	Weekly: Residual Fortnightly: Dry recyclables and garden waste
Types of Efficiencies	<ul style="list-style-type: none">• Operational efficiency• Round optimisation• Asset investment• Third party income• Behavioural change

Overview

Cornwall Council has been through significant transformation since April 2012 following the award of a new £15 million per year waste collection and street cleansing contract. Working with its new waste contractor the council has been able to generate contract savings of £3 million over the eight year contract period (until 2020), equivalent to a 2.5 per cent annual saving, by harmonising the different collection systems across the county. This has been challenging because of the unique nature and characteristics of Cornwall.

As a result of the new contract the cost of collecting waste and recycling continues to deliver better value with the cost per household projected to fall to £44.51 in 2014-15 from £63.96 in 2011-12, an equivalent reduction of 30 per cent.

The award of £1.6 million from the Weekly Collection Support Scheme fund over three years is being used by Cornwall to expand the range of materials collected at the kerbside and at household waste recycling centres, and to fund investment in new local recycling facilities.

The implementation of the Weekly Collection Support Scheme project should see the council deliver the following improvements:

- increase recycling performance from 36.7 per cent in 2011-12 to 40 per cent by 2016-17
- reduce waste disposal and processing costs by £1.1 million by 2016-17, equivalent to an annual saving of 4 per cent

Delivering Service Improvement

The new county wide collection service is retaining a weekly collection of residual waste and extending the range of materials recycled at the kerbside to include

paper, cardboard, plastic bottles, glass bottles and jars, cans and mixed textiles for all households.

The contract has already delivered a number of **operational efficiencies** in this large rural area. Good practices now include:

- usage of a group ‘task and finish’ approach for crews operating in the same locality - collection crews that have completed their allocated work support collection crews that still have properties awaiting a collection
- investment in in-cab technology for all collection vehicles has allowed the waste contractor to undertake significant **round optimisation** and produce digital route maps to deliver the most efficient collection rounds
- collections from trade waste customers have been integrated with collections for domestic household waste. By merging collections, the waste contractor has been able to reduce the total cost of collection and improve the robustness of the trade waste business
- the integration of refuse and recycling collections with street cleansing services has led to a reduction in the overall number of staff required to service the contract by around 10 per cent - new multi-disciplinary and multi-skilled operatives are able to support more effective collections and cleansing activities during the peak summer period in holiday destinations

Ensuring Effective Weekly Collections

Cornwall is now seeking to use Weekly Collection Support Scheme funding to generate £1.1 million savings in the costs of disposing and processing waste. The funding will be used to introduce the following improvements that will contribute to the annual savings:

- new kerbside collection of mixed plastics – £160,000 pa
- separation of bulky plastics at Household Waste Recycling Centres – £440,000 pa
- biomass treatment of wood waste – £500,000 pa

Weekly Collection Support Scheme funding is being used by the council to re-configure its Materials Recovery Facility to handle the additional content that will now be collected at the kerbside. The kerbside collection will be expanded, with mixed plastics and plastic bottles now collected every fortnight. Existing spare capacity within the current configuration of the vehicles’ compartments will allow the additional material to be collected without needing to increase the number of recycling collection rounds.

Cornwall Council is also using Weekly Collection Support Scheme funding to deliver long-term **behavioural change** by encouraging home composting. Alongside the promotion of the new mixed plastics collection service, each

household that recycles regularly will be entered into a draw to receive one of 15 free food waste digesters given away each month by the council. There is potential to divert around 350 tonnes of food waste annually from landfill, which should generate savings of £55,000 a year.

Asset investment of £900,000 in a new small scale biomass plant will also allow Cornwall's disposal contractor to treat all forms of waste wood. The ability to capture and process up to 95 per cent of all available waste wood across Cornwall should generate sufficient savings to deliver a two year payback on the capital investment. Furthermore, the council is working with the disposal contractor to allow neighbouring authorities and other waste contractors to utilise any spare capacity at the plant, which should allow it to generate new **third party income**.

Eastbourne Borough Council

Authority Type	District Council
Authority Characteristics	Coastal
Number of Households	48,000
Collection Partner	Kier
Waste Streams Collected	Weekly: Residual Fortnightly: Dry recyclables
Types of Efficiencies	<ul style="list-style-type: none">• Partnership working• Operational efficiency• Asset investment• Whole system costs• Re-use of redundant assets

Overview

Eastbourne Borough Council has entered into an **innovative partnership** with three neighbouring Councils: Hastings Borough Council, Rother District Council, and Wealden District Council, resulting in the award of a joint 10 year contract for waste collection and street cleansing services to a new contractor, worth £12 million a year across the four contracting authorities.

The new contract will see Eastbourne make an annual saving of £1.2 million a year equivalent to a 25 per cent saving when compared to the previous costs of delivering waste collection and street cleansing across the borough. These savings are enabling the Council to continue to provide a weekly collection of residual waste and a free garden waste collection service to all households.

As a result of a successful bid for £2.7 million from the Weekly Collection Support Scheme fund over 3 years, the Council is introducing a new co-mingled recycling collection service to all households with mixed recyclables collected in a new wheeled bin to replace the previous box collections, as well as a new separate glass collection using the previous kerbside box.

The change in collection methodology in Eastbourne, funded with support from the Weekly Collection Support Scheme, should see the Council increase its contribution to the partnership target of 50 per cent recycling, by improving its current recycling performance of 33 per cent in 2012-13.

Delivering Service Improvements

The contractor is implementing a number of changes across the four partner councils to improve **operational efficiencies**. In Eastbourne's case, these include:

- depot rationalisation and investment by the contractor into a strategically sited new waste depot, to support cost savings through more efficient cross boundary working.
- pooling spare vehicles across the partnership area
- a unified bulky waste collection service across the four councils from April 2014.

Asset investment in new in-cab IT technology across the new fleet for the four councils is costing £480,000. Each collection crew will be issued with new work during the course of the working day, to enable them to respond quickly to missed collections, and fly-tipped waste. This should improve service reliability.

Eastbourne is benefitting from an annual contract saving of around £200,000 based on a **whole system cost** approach which includes the following features:

- the contractor is retaining all income from recyclates (estimated to be worth £483,000 a year across the partnership) to off-set the annual collection costs, and so protect the council from material price volatility.
- the introduction of larger collection vehicles on recycling rounds, coupled with a change in collection methodology should significantly improve crew productivity
- cardboard has been removed from the free garden waste collection service, so garden waste can now be treated in a way that makes it compliant with the new higher environmental standards prescribed by PAS100 which should increase income for Eastbourne. This will be achieved at no extra cost of disposal.

The overall effectiveness of the new contract will be measured through regular annual customer satisfaction surveys carried out by an independent third party. Financial penalties will apply to the contractor where satisfaction falls by more than five percentage points compared to the previous survey results beginning with a baseline survey in 2013.

Delivering Effective Weekly Collections

Since July 2013, the Weekly Collection Support Scheme has provided Eastbourne's residents with a wheeled bin for the co-mingled collection of dry recyclables including plastics, paper, cardboard, cans, tetrapaks, textiles, small electrical items and batteries, and a separate box collection for glass bottles and jars.

Eastbourne has sought to reduce the cost of rolling out the new recycling service by **using redundant assets**. Kerbside boxes, previously used to present all mixed

recyclate, are being retained and used to collect the separate mixed glass from other recyclable materials.

Alongside the new contract arrangements and the roll-out of new Weekly Collection Support Scheme funded services, Eastbourne Borough Council launched a new Customer First team on 1st April 2013, to deal with customers' enquires and requests. A new smart phone app has also been developed for staff and local residents, to enable them to report problems (such as fly-tipping) direct to the contractor, so they can be resolved more quickly.

Lewes District Council

Authority Type	District Council
Authority Characteristics	Rural
Number of Households	43,500
Collection Partner	In-House
Waste Streams Collected	Weekly: Residual & Food Waste Fortnightly: Dry recyclables (cans and plastic bottles), separate collections of mixed paper, cardboard, textiles, batteries and glass
Types of Efficiencies	<ul style="list-style-type: none">• Round optimisation• Operational efficiency• Partnership working• Whole system costs• Asset investment

Overview

Lewes District Council regularly reviews the effectiveness of its in-house waste collection operations to enable it to develop its services for residents. It maintains a cost effective weekly residual collection service alongside a fortnightly collection of recyclables.

With funding from the Weekly Collection Support Scheme, worth £2 million over the period 2012-2015, the Council is introducing a weekly collection of food waste to all low rise households and promoting a range of recycling incentive initiatives including:

- use of social media to engage young people
- supporting local recycling champions to work with community projects
- launching recycling competitions to encourage recycling across a whole community

As a result, by 2015-16 Lewes is expected to recycle and compost 47 per cent of its household waste compared with 23 per cent in 2011-12. The new service should divert an additional 3,600 tonnes of food waste from landfill annually by 2016-17.

Lewes' cost of waste collection per household per year, following the introduction of food waste collections will be £45.33 compared to an average of £47 per household for 2011-12 across all East Sussex waste collection authorities (so 3.5 per cent lower than the East Sussex average). It demonstrates that Lewes is able to deliver more services for its residents, whilst keeping the costs below the average for comparable collection authorities.

Delivering Service Improvements

To control costs, the council undertook an initial review of residual waste collection rounds in 2011 using route optimisation software to identify the scope for potential cost savings. It implemented two changes:

- a switch to larger refuse collection vehicles (Lewes now operate 26 tonne narrow access refuse collection vehicles as standard across the collection fleet) results in fewer trips to the disposal point, because of the larger capacity of the vehicles, which saves fuel and staff costs
- it changed the collection point from the backdoor to the curtilage of the property for 30 per cent of households, reducing the number of collection rounds from 10 to 8 (this has been possible because of a reduction in non-productive time for crews, now collecting from the curtilage of properties)

The council also realised that the operational life of their collection vehicles exceeded the depreciation period. It therefore adjusted its approach to depreciation, depreciating its collection vehicles over ten years, compared with the industry standard of seven years. Across the whole collection fleet this has generated an additional annual saving of £70,000 per year on depreciation costs against the £1 million collection budget. The Council also held maintenance costs constant, offsetting increases from extending the vehicle's life to 10 years, by a reduction in the maintenance costs associated with tipping at landfill sites, which causes higher wear and tear on vehicles.

These three service changes have led to an annual saving of £200,000 against a baseline budget cost of £1 million for collecting residual waste in 2011-12 – a 20 per cent reduction in costs.

Lewes is also introducing a new dedicated garden waste collection service in 2014 after the launch of the food waste collection, for subscribing households. The service has been designed to be low cost by utilising three collection vehicles from the fleet that otherwise would be redundant following the introduction of a food waste collection.

By using collection vehicles that still have a reasonable operational life, the council is avoiding a potential increase in running costs of £40,000 per year from the commencement of the service in 2014.

Lewes has successfully negotiated arrangements with a neighbouring contractor for the continuing provision of bulking facilities for glass and paper (as the service previously offered by Wealden District Council is ending). The £25,000 annual charge by the contractor is considerably less than the £45,000 cost of providing

the service in-house. It is an example of a Council working in partnership with a contractor and sharing services directly with neighbouring authorities.

Ensuring Effective Weekly Collections

Funding from the Weekly Collection Support Scheme is supporting the capital purchase of nine new collection vehicles for residual waste to cover the eight collection rounds and provide one spare vehicle. These vehicles have a separate pod for the collection of food waste allowing Lewes to offer a weekly food waste collection to households. Food waste collection is therefore being achieved without increasing the number of daily rounds required to service the borough's 43,500 households, with a single pass (food waste collected at the same time as residual waste), which keeps collections simple for local residents.

Overall, collection costs should increase by £200,000 a year in 2013-14 against a baseline budget of £1 million in 2011-12, because an additional loader will be required on each of the eight collection rounds to empty the new food waste caddy. However, the extra 3,600 tonnes of food waste collected should generate disposal savings of £60,000 a year for East Sussex Waste Disposal Authority (assuming a positive cost differential of £17 per tonne for the treatment of food waste compared with the cost of landfill disposal).

The £1.1 million investment in a new fleet will also allow the council to continue to provide a weekly collection of residual waste due to the improvement in service reliability and the lower maintenance costs associated with newer vehicles that are being used to collect residual waste.

Lewes is considering extending food waste collections to trade waste customers. This would further enhance operational productivity of domestic food waste collection, as existing crews will collect the additional tonnages each day with no additional collection costs. A separate business case will be prepared, setting out the relative costs and benefits before the Council makes a final decision.

As part of the procurement of the nine new collection vehicles to support food waste collections, Lewes specified the inclusion of GPS tracking, in-cab communications and the latest engine management software. The newly equipped vehicles should help to deliver a more reliable service, with any missed collections, or assisted collections recorded 'in-cab' in real-time, enabling the Council to quickly resolve any problems. The ability to digitise collection rounds should also reduce the amount of time required to familiarise drivers with new routes when there is staff turnover.

Milton Keynes Council

Authority Type	Unitary Authority
Authority Characteristics	Urban
Number of Households	105,000
Collection Partner	Serco
Waste Streams Collected	Weekly: Residual, dry recyclables, mixed glass, mixed food and garden waste
Types of Efficiencies	<ul style="list-style-type: none">• Environmental innovation• Operational efficiency• Partnership working• Third party income• Asset investment

Overview

Milton Keynes council is using Weekly Collection Support Scheme funding of £1.8 million from 2013 to 2015 to convert 13 collection vehicles to run on a lower cost alternative fuel - Compressed Bio Methane. This approach is demonstrating **environmental innovation** because Compressed Bio Methane is a by-product of an Anaerobic Digestion process that requires organic waste as its feedstock.

Milton Keynes is seeking to make significant savings, estimated to be in the region of £150,000 per annum from lower fuel costs against a previously forecast cost of £380,000 by 2017/18 and annually thereafter (if vehicles continue to run on diesel) so generating a saving of around a 40 per cent. These savings are helping the council to retain a weekly collection of residual waste.

Delivering Service Improvements

Milton Keynes Council has worked with its waste contractor since 2009 to implement service improvements and reduce costs to enable it to continue offering all households a weekly collection of residual waste, dry recyclables, and mixed food and garden waste.

The contractor previously invested £150,000 in in-cab technology across 69 collection vehicles to improve service reliability and deliver a number of **operational efficiencies**, including:

- providing real time information on the percentage completed of daily work schedules that will allow the Council to provide better information to residents about when their collection will take place
- the introduction of zoned-based collections to ensure all scheduled work is completed, with crews that finish their collection round supporting crews who have yet to complete their rounds

- ensuring those households that require an assisted collection are accurately flagged on the daily collection schedule

The Council is anticipating further operational efficiencies, following the opening of a new residual waste treatment transfer facility in 2016. This facility will be co-located with the Materials Recovery Facility and a new depot that is currently under construction (to be operational in 2014). This will enable collection crews to tip waste at the new state of the art treatment plant which in the long term is expected to generate significant financial savings of up to £100 million over 25 years. This is also expected to significantly reduce carbon emissions as well as reducing the average daily mileage by up to 10 per cent, potentially reducing fuel costs. In addition, the cost of vehicle maintenance is also expected to fall by between 8 per cent and 15 per cent because of the reduced wear and tear.

The council is also seeking to reduce costs by **working in partnership** with its Materials Recovery Facility contractor to generate a new income stream (third party income), through the contractor selling unused capacity at the Material Recovery Facility to neighbouring authorities or other waste contractors.

To boost its recycling performance, the Council is also working in partnership with Coca-Cola Enterprises to launch a 'Recycle for your Community' scheme that would see local groups and organisations being offered financial incentives of up to £1,500 to collect 'recycling pledges'. Six different community groups in two separate areas are now asking local residents to pledge to start recycling or recycle more, with a financial reward for every pledge collected. Where recycling performance in an area improves, the community group will receive a bonus.

Ensuring Effective Weekly Collections

Milton Keynes Council recently procured a new local Anaerobic Digester plant to process its organic waste. The council is converting thirteen collection vehicles to run on Compressed Bio Methane, a renewable source of fuel, produced locally as a by-product of the Anaerobic Digester. This asset investment is being directly funded by the Weekly Collection Support Scheme.

By 2014, 13 collection vehicles, loaded with mixed food and garden waste, will tip at the Anaerobic Digester facility and then re-fuel with Compressed Bio Methane at a dedicated fuelling point (with Compressed Bio Methane that has been produced at the same plant). Milton Keynes will be implementing 'closed loop' recycling, the food waste collection vehicles using fuel made directly from the mixed food and garden waste they collect. The move to Compressed Bio Methane is delivering the following benefits:

- a potential savings in fuel costs of up to £150,000 by 2017 (when thirteen vehicles have been fully operational for a 12 month period using compressed bio methane fuel as this is cheaper than diesel), equivalent to a 40 per cent

saving against the projected fuel costs without a switch to Compressed Bio Methane

- environmental benefits with the Council generating 1.9 million fewer kilograms of CO₂ over the period 2012 to 2017, from the use of cleaner fuel, and lower vehicle movements (because the vehicles will in future tip at a local facility)
- Milton Keynes has negotiated a deal with its waste contractor so that the full financial benefit of the lower fuel costs will be passed to the council rather than being retained by the operator of the vehicles.

North Tyneside Council

Authority Type	Unitary Authority
Authority Characteristics	Urban
Number of Households	95,000
Collection Partner	In-House
Waste Streams Collected	Weekly: Residual Fortnightly: Dry recyclables and garden waste
Types of Efficiencies	<ul style="list-style-type: none">• Round optimisation• Operational efficiency• Partnership working• Asset investment• Behavioural change

Overview

North Tyneside Metropolitan Borough Council currently spends £4.4 million annually on delivering a weekly collection of residual waste alongside the fortnightly collection of mixed dry recyclates. In the last three years the Council has continued to review how it delivers its service in-house and the cost per head of population is 16 per cent lower when compared to similar authorities^{xxii}

With £3.4 million funding from the Weekly Collection Support Scheme over 3 years the council will:

- harmonise waste collections across the borough with investment in three new collection vehicles
- extend the popular 'on the go' recycling scheme by replacing litter bins with new recycling containers across 200 sites that will see the installation of 680 new recycling bins across the borough
- implement a new 'Watch your Waste' awareness campaign that will see the amount of waste going to landfill fall from 25 per cent in 2012-13 to less than 4 per cent by 2016-17

The Weekly Collection Support Scheme should see North Tyneside's recycling performance improve from 38 per cent in 2011-12 to a forecast performance of 46.5 per cent by 2016-17, a 22 per cent improvement. The expected improvement in recycling should see disposal costs reduce by £1.2 million a year by 2016-17, an equivalent saving of 20 per cent of the current £5.8 million cost of disposal.

Delivering Service Improvements

In 2010 North Tyneside embarked on a major review of the waste collection service, following its participation in a joint project with Waste Resources Action

Programme (WRAP) and Newcastle University to identify efficiencies across the collection service.

Following a **round optimisation** exercise, North Tyneside implemented a new four-day working week operating Tuesday to Friday. The change has seen the following operational improvements implemented:

- no disruption to collections in those weeks affected by a Bank Holiday
- improved service reliability with zone-based collections allowing crews that had completed their scheduled work to support crews with collections still outstanding
- generated fuel savings of £50,000 per annum, equivalent to a 5 per cent saving because improved route planning meant a shorter direct route for each collection round
- improved vehicle utilisation by allocating vehicles that collect residual waste and dry recyclables during the core working week (Tuesday to Friday) to garden waste collections on Monday and Saturday
- supported the integrated collection of trade waste with domestic household waste, ensuring that tonnages collected per round were maximised and balanced across each of the 14 rounds

This optimisation work resulted in North Tyneside identifying total **operational efficiencies** of around £250,000 per annum as a result of the reduction of two collection rounds and the associated changes, equivalent to a 7 per cent saving against the collection budget of £4.4 million.

Due to the service improvements the council has seen a significant improvement in customer satisfaction with an approval rating of 90 per cent in 2011, following the implementation of the changes, compared to just 70 per cent in 2008.

In order to ensure service improvement is maintained the council now regularly monitors the productivity of crews and intervenes as necessary, to ensure service quality remains high.

North Tyneside council **worked in partnership** in 2011 with neighbouring authorities Newcastle City, South Tyneside, Sunderland City and Gateshead to jointly procure a comprehensive contract for the collection of materials from communal recycling facilities. The joint contract allowed for the standardisation of collection infrastructure and extended the range of materials collected across councils. For North Tyneside the contract generated a new income worth £20,000 per annum, whereas the previous arrangements had a net annual cost of £10,000 over the period of the contract.

Ensuring Effective Weekly Collections

North Tyneside is using some of the £3.4 million Weekly Collection Support Scheme funding to make it easier to recycle across the borough **with asset investment in new recycling facilities** and improvements in the collection of dry recyclables from over 5,000 existing households.

The aim of these changes is to allow the council to absorb the cost of a growing population that is forecast to generate an extra 7,000 tonnes of waste on top of the current 96,000 tonnes per year.

North Tyneside is also investing in standard wheeled bins for around 5,000 homes in order that all 95,000 households will have the same bins. It currently provides these 5,000 homes with a bespoke residual waste bin which is collected using a bespoke collection vehicle. Due to the higher servicing and repair costs associated with the bespoke bins and collection vehicle and the decline in service reliability caused by the aging fleet the council is now integrating these 5,000 households into other existing collections. This means North Tyneside is expected to avoid costs of £120,000 by 2015-16. If required this amount can be used to absorb the costs relating to the projected growth in households of around 4,000 across the borough by 2017.

‘Recycling on the go’ is a popular service and North Tyneside will now expand the number of sites across the borough where recycling bins are provided alongside litterbins from 220 in three town centres to around 900 in total, taking in new locations such as bus shelters, public parks, and outside public buildings. The funding from the Weekly Collection Support Scheme is supporting a new collection vehicle that will service the collection of the recyclables from the new bins on a day-to-day basis, as well as being available to provide temporary additional capacity to support the kerbside collection of recyclables.

The Council is also using the scheme’s funding to support a new Watch Your Waste awareness campaign to support **behavioural change**. This new scheme will see residents who pledge to recycle on line or who sign up at a local roadshow event, entered into a daily draw that will see one household receive a £20 voucher each collection day.

Ribble Valley Council

Authority Type	Non Metropolitan District Council
Authority Characteristics	Largely Rural
Number of Households	25,000
Collection Partner	In-House
Waste Streams Collected	Weekly: Residual Alternate Fortnightly: Mixed food and garden waste, dry recyclables (glass, cans and plastic bottles) and mixed paper and cardboard
Types of Efficiencies	<ul style="list-style-type: none">• Operational efficiency• Round optimisation• Partnership working• Re-use of redundant assets• Asset investment

Overview

Ribble Valley is the largest rural District Council in Lancashire covering 226 square miles of countryside. The Council operates a weekly collection of residual waste alongside the alternate weekly collection of co-mingled recyclates and garden waste using split body refuse collection vehicles

The Weekly Collection Support Scheme awarded £750,000 to support the introduction of an alternate weekly collection of co-mingled food and garden waste to help meet a new recycling and composting target of 40.7 per cent by 2014-15. The funding will be used to procure:

- 15,000 240 litre wheeled bins to contain the additional organic waste presented every week by each household
- 2 new 'split body' refuse collection vehicles to replace vehicles that have reached the end of their economic life

As a direct result of scheme's funding the Council will be able to divert an estimated extra 770 tonnes of food waste per annum from landfill by 2014-15 and will contribute to the reduction of 1.9 million kgs of CO₂.

The Council continues to operate low cost, high quality collection services^{xxiii} and this is evidenced in the improvement in customer satisfaction with over 90 per cent of residents in 2012-13 rating their waste services as good or excellent.

Delivering Service Improvements

Ribble Valley currently spends around £1.1 million per year on waste and recycling collections. It has worked consistently to deliver cost effective waste services and

as a result of implementing incremental **operational efficiencies** it has been able to avoid additional costs of around £350,000 per year, equivalent to a 25 per cent efficiency gain. Examples of service improvements include:

- the introduction of new communal collection points for those properties where collections had traditionally taken place from back alleys and narrow lanes, with 75 per cent fewer missed collections in 2011-12 compared to 2007/8. The service is now more reliable and helped reduce running costs as a result of fewer repeat visits
- new zoned-based collection rounds allow for more effective management of collections and ensure that collection crews that have completed their allocated daily collections can be re-directed to support the collection rounds with outstanding work
- the collection of trade waste has been integrated with the collection of domestic waste across each of the seven collection rounds. Using **round optimisation** software the Council has been able to avoid costs of around £100,000 required to operate a separate trade waste collection vehicles. This prevented trade customers facing a potential 40 per cent increase in charges
- household growth of around 5 per cent by 2017 is being absorbed across the current seven collection rounds by reviewing crew performance regularly and adjusting crew rounds routinely to ensure that workloads remain balanced. This is expected to contribute around £100,000 a year in avoided costs

The council has also embraced **partnership working** that enables it to collect over 2,200 tonnes of mixed paper and card at no direct cost to the Authority. An arrangement where the waste contractor retains all recycle income including recycling credit payments, in lieu of any charge for collection, is helping protect the Council against volatility in the market by guaranteeing the unit price over a longer period.

Ensuring Effective Weekly Collections

Ribble Valley is using its Weekly Collection Support Scheme funding to develop an innovative approach to around 25,000 households that includes:

- each householder presenting food and garden waste together in a single, larger wheeled bin funded from investment in new containers
- collections will be made using the existing '70:30 split body' collection vehicles without any need to increase the number of collection rounds, this is possible because existing payload capacity exists within the vehicles servicing the garden waste collection service
- during the summer, when the volume of garden waste is typically higher the service will in effect switch collection compartments, so using the larger collection compartment in order to collect the increased volume of organic waste

- the cost of the roll-out of the new service has been contained through **the re-use of redundant assets**. Properties who will receive a collection of food waste only and have never required a collection of garden waste will receive a smaller wheeled bin that has been recovered from those different properties that now require a larger wheeled bin to accommodate food and garden waste. This has helped the Council avoid around £60,000 in capital costs based on re-allocating wheeled bins to over 5,000 households across the district

The implementation of the new food and garden waste collection service will see the amount of waste recycled by Ribble Valley increase from 37 per cent in 2012-13 to 40.7 per cent by 2014-15. Furthermore the Council should also benefit financially by around £50,000 per year, equivalent to an additional 5 per cent efficiency gain on top of the existing 25 per cent improvement from the service changes because:

- the 7,500 tonnes of food waste and dry recyclables that will no longer be sent to landfill will generate around £40,000 per annum from lower disposal costs to the County Council and additional recycle income
- **asset investment** in two fuel efficient collection vehicles with new engine management systems and electronic bin lifting equipment should generate an annual saving of £10,000 on fuel costs against a typical annual spend of £130,000, equivalent to an annual 8 per cent saving

Royal Borough of Windsor and Maidenhead

Authority Type	Unitary Authority
Authority Characteristics	Urban Rural mix
Number of Households	62,000
Collection Partner	Veolia
Waste Streams Collected	Weekly: Residual, dry recyclables and food waste – all properties
Types of Efficiencies	<ul style="list-style-type: none">• Whole system costs• Behavioural change• Asset investment• Operational efficiency• Partnership working

Overview

The Royal Borough of Windsor and Maidenhead has continued to explore ways to ensure its weekly collection of residual waste and dry recyclables is retained. In 2012 the council renegotiated an extension to its waste collection contract that resulted in annual savings of around £1 million against a total annual cost of about £5 million, equivalent to 16 per cent, alongside a number of new service improvements. As a result of the changes, customer satisfaction with waste collection services is 89 per cent.

Following the award of £566,000 from the Weekly Collection Support Scheme over three years the council will launch the UK's first incentivised food waste collection service in partnership with Recyclebank™. This builds on the good relationship the two parties have developed since Windsor and Maidenhead opted to introduce a rewards programme for its recycling collection service in 2010.

The borough's recycling and composting performance is forecast to improve from 47 per cent in 2012-13 up to a projected 55 per cent - 60 per cent by 2015 through the combined effect of incentivisation of food waste collections and an extension of the rewards programme.

The introduction and expansion of incentivised recycling has led to net savings of around £300,000 in the cost of the council's waste services in the last 2 years due to landfill diversion savings. The financial impact of collecting food separately is anticipated to see it save an additional £220,000 per annum by 2014-15.

Delivering Service Improvements

In April 2012 Windsor and Maidenhead negotiated an extension to its waste collection contract and saw annual costs reduce from £6 million to £5 million and saw a number of service improvements including:

- an enhanced collection service that saw plastics collected at the kerbside for the first time
- the upgrade and refurbishment of communal recycling facilities across the borough
- a 'profit share' agreement on the future sale of recyclates

As part of the negotiations the council was able to include a number of innovative contract conditions to help the cost of managing waste across the borough. These include:

- a contract condition that enables the council to define the required levels of productivity by prescribing the number of households collected from per crew per day
- a price capping mechanism for demand-led collection activities, including the collection of special or hazardous waste, and the repair and replacement of damaged and lost wheeled bins. The fixed prices are calculated on the basis of an agreed volume of activity, safeguarding the council from unexpected price fluctuations and have been benchmarked against industry standards to ensure the new contract charge represents value for money
- co-operation between the waste collections and street care frontline operatives that delivers a high degree of operational flexibility, for example, by allowing a timely response to fly-tipping and other waste related problems in the two main town centres of Windsor and Maidenhead

The new contract has therefore brought greater financial certainty in how the council's waste management budget of £5 million is spent and costs can only annually increase in line with CPI index minus 1 per cent. No further increase can occur without agreement. Through this approach it is choosing to manage financial risk by fixing the upper cost limit on those parts of the service where activity levels cannot be accurately predicted in advance. Windsor and Maidenhead believes this helps their budget planning and budget management processes because the contractor cannot pass on unexpected costs during the course of the year.

Following the introduction of the Recyclebank™ incentivisation scheme in 2010, Windsor and Maidenhead has witnessed a significant **change in behaviour** in respect of household recycling. Its recycling performance increased from 34 per cent in 2009/10 to 47 per cent in 2012-13, in large part due to the rewards introduced as part of the Recyclebank™ programme.

Over 32,000 individual households have a Recyclebank™ account and are able to receive reward points based on the amount of recycled material presented and weighed at the point of collection. Where properties have access to shared recycling facilities, the self-reporting scheme has encouraged over one in five households to join the Recyclebank™ scheme.

The scheme has also generated wider economic benefits to the local economy with over 100 national and local reward partners, comprising large high street brands and local retailers, benefiting from an estimated co-spend of £3.5 million from residents using their reward points.

Ensuring Effective Weekly Collections

Weekly Collection Support Scheme funding has allowed Windsor and Maidenhead to extend the weekly food waste collection to an additional 15,000 flatted properties across the borough through **asset investment** of over £370,000 in new communal bins and communal composting facilities.

The weekly food waste collections have been introduced in a cost effective way that means the service is delivering **operational efficiencies** estimated to be worth about £1 million in avoided capital costs. On a contract worth £5 million this represents an efficiency saving of around 18 per cent. This has been made possible because the eight 'split body' collection vehicles procured in April 2012, as part of the new collections contract are capable of co-collecting food waste alongside residual waste. This 'future proofing' approach avoided any capital cost implications of having to re-fleet to accommodate the new waste stream. The new fleet of collection vehicles will be able to begin collecting food waste with no need to re-plan collection rounds. This is because the contractor was required to route plan knowing it needed to use 'split-body' collection vehicles prior to the introduction of food waste collections.

Over 61,000 households including flatted properties, who pledge to recycle their food waste each month, will now be eligible to receive additional recycling rewards as part of the extension of the Recyclebank™ reward points scheme. As it's not possible to individually weigh the amount of food waste recycled each week by all households (including flatted properties) the extended Recyclebank™ points scheme will reward residents every month they pledge to use the scheme. Each participating resident will also receive a quarterly points bonus based on the total amount of food waste recycled by the community.

The Council is **working in partnership** with housing associations and private landlords to ensure that on those estates, where collection from the individual household is not practicable, new community home composting facilities can be introduced. A network of trained community champions, recruited from local volunteers, are promoting the scheme and providing advice to users.

Sandwell Metropolitan Borough Council

Authority Type	Unitary Authority
Authority Characteristics	Urban
Number of Households	128,000
Collection Partner	Serco
Waste Streams Collected	Weekly: Residual waste, dry recyclables and food waste Fortnightly: Garden waste
Types of efficiencies	<ul style="list-style-type: none">• Operational efficiency• Asset investment• Partnership working• Third party income• Behavioural change

Overview

Sandwell Metropolitan Borough Council has been working in partnership with its waste contractor since November 2010 to drive improvements across the whole range of waste management services whilst retaining a commitment to the weekly collection of residual waste.

In recent years, Sandwell has worked hard to improve the effectiveness of its waste services by increasing recycling and reducing the amount of waste being sent to landfill for disposal from around 100,000 tonnes in 2005/06 to around 14,000 tonnes in 2012-13. This approach has helped Sandwell to drive out inefficiencies. In current prices, the annual cost of waste collection and disposal decreased from £14.5million in 2007-08 (the last year before a change programme was embarked on) to £12.3 million in 2012-13, a saving of 14.5 per cent. A further saving of at least £0.5 million per annum is expected from 2013-14 as a result of a 25 year Inter Authority Agreement with Staffordshire and Warwickshire County Councils and Walsall Metropolitan Borough Council, to use a new incinerator facility for disposing of at least 42,500 tonnes of waste per annum. By 2013-14 Sandwell will therefore have decreased its annual waste costs by 18.6 per cent compared with 2007-08, whilst significantly improving the services it offers and its recycling and resident satisfaction rates.

Householders now have a three stream wheeled bin recycling collection service covering weekly collections of dry recycling and food waste alongside a fortnightly collection of garden waste. The move to the new system has helped improve recycling performance from 30 per cent in 2009/10 to 40 per cent in 2011-12, with recycling forecast to reach 50 per cent by the end of 2013-14.

A successful bid for £1 million from the Waste Collection Scheme should see household batteries and small electrical items, such as kettles, toasters, and games consoles also collected at the kerbside.

Delivering Service Improvement

The introduction of a new borough-wide wheeled bin residual waste collection service which commenced in September 2011 has provided a foundation for the Council to work with its contractor to identify a range of **operational efficiencies** that have enhanced reliability and delivered a more consistent service to all householders. These include:

- improvements in street cleansing standards through a reduction in the amount of refuse spillage – 94 per cent of streets now achieve the highest standard of cleanliness compared with 88 per cent before
- improved sharing of information enables the council to record customer service requests (e.g. a request for a missed collection to be collected) directly into the contractor's own waste management system
- a £200,000 **asset investment**, from autumn 2013, in new mobile in-cab technology should allow real time communications between the collection crews on the 40 collection vehicles, supervisory staff and the council's customer relationship staff. Crews will provide real time information directly to customers, updating them on progress, e.g. delays in collection resulting from heavy traffic or vehicle breakdown

These improvements in service reliability mean 92 per cent of Sandwell's residents rated the refuse collection and recycling service as highly effective in 2012-13, stating that they are satisfied or very satisfied with their waste services, up from 77 per cent in 2008/9.

Given the long-term nature of the 25 year contractual partnership, the council established new governance arrangements, with a Joint Partnership Board with members drawn from both partners. The Board has an overarching responsibility for ensuring delivery of high quality, cost effective collection services, aligned to the Council's Municipal Waste Management Strategy. Examples of the Board **working in partnership** include:

- gateway reviews throughout the procurement process to challenge and test the proposed annual Business Plan and key discussions in relation to service delivery
- approval of investment in in-cab technology
- agreement to the scope and format of the planned Weekly Collection Support Scheme funded community rewards scheme

The 25 year contract has required the waste contractor to build a new oversized waste transfer facility to store and bulk household waste and recycling prior to

treatment or disposal. Anticipating 0.5 per cent-1 per cent waste growth over 25 years, the facility is oversized for the current municipal waste volumes. In the short-term, the council and its contractor plan to use the facility's additional capacity to collect commercial waste from local businesses. It has agreed a **revenue-sharing mechanism** with the relevant parties to handle up to an additional 80,000 tonnes of waste per year, compared with its current municipal waste throughput of around 130,000 tonnes.

Ensuring Effective Weekly Collections

Since May 2013, the successful Weekly Collection Support Scheme bid has enabled all householders to recycle – as part of their weekly collection of dry recyclables – household batteries and small electrical items including kettles, toasters, and small games consoles.

Sandwell has added a small collection tray to each of its existing recycling collection vehicles. This approach means it has not had to increase the number of recycling collection rounds. Residents are asked to place their batteries in single-use recycling bags on top of the wheeled bin used for their dry recyclables collection.

To dispose of small electrical items, residents are required to book a collection via the council's contact centre. On the designated day of collection residents are asked to place the items in a larger single-use recycling bag and to place this at the edge of their property ready for collection.

Sandwell has also launched a new **behavioural change** programme – the *Go Green Reward*. This will provide new funding for local community projects over a two year period. Where neighbourhood recycling rates improve, community groups can apply for funding to support projects such as:

- new facilities and equipment for local schools
- after-school activities for children and young people
- activities for older people
- landscaping and planting of local community areas

The combination of these measures, funded by the Weekly Collection Support Scheme, is expected to help increase Sandwell's recycling rate from 40 per cent in 2011-12 to 56 per cent in 2015-16.

Southampton City Council

Authority Type	Unitary Authority
Authority Characteristics	Urban
Number of Households	101,000
Collection Partner	In-House
Waste Streams Collected	Weekly: Residual Fortnightly: Dry recyclables and garden waste
Types of Efficiencies	<ul style="list-style-type: none">• Operational efficiency• Partnership working• Round optimisation• Whole system costs• Behavioural change

Overview

Southampton City Council recently embarked on an ambitious programme of service transformation for its waste collection services that will reduce costs by £1.3 million a year, extend partnership working with neighbouring Hampshire authorities and improve 'back-office functions such as customer care. These reforms and Weekly Collection Support Scheme funding are enabling Southampton to retain a weekly collection of residual waste during a period when the City is expected to increase the number of households it collects from by over 4,000 households, a 4 per cent increase by 2017.

Southampton is also seeking to improve in its recycling performance as a result of its successful bid for £8.3 million funding from the Weekly Collection Support Scheme.

Delivering Service Improvements

The waste services transformation programme should deliver an estimated target £1.3 million annual savings against a baseline budget for collection and disposal of £13 million per year by 2015 and covers the following **operational efficiencies**:

- work on absence management has reduced the amount of overtime worked and the number of agency staff employed to cover absent staff, this has led to a reduction in staffing costs of approximately £170,000 a year
- the integration of waste collection, fleet and vehicle maintenance and parks services, into a new City Services Division in November 2012 means that frontline staff are working more flexibly, which is enabling the council to operate at a lower overall level of staffing
- the reduction of a front line vehicle due to multi-skilling and more efficient working will save in the region of £130,000 by 2015, this is equivalent to a 2.5

per cent improvement against the 2011-12 annual fleet and staff budget for waste collection of £5.2 million

The purchase of new vehicles will have fleet management software that tracks the daily mileage and the driving characteristics of each collection crew. This will enable a 5 per cent saving in fuel costs, equivalent to £45,000 per year.

The Council has reduced disposal costs by £200,000 a year from its 2013-14 disposal budget of £7.4 million through **working in partnership** with Portsmouth City Council and Hampshire County Council to:

- reduce processing costs and increase income levels within the current waste disposal contract
- further initiatives within the county-wide contract for the management of 26 Household Waste Recycling Centres
- re-organise bulky waste collections to separate out metals, which has generated a new income stream for the waste disposal contractor

Ensuring Effective Weekly Collections

Southampton received £8.3 million of Weekly Collection Support Scheme funding to help it to maintain a weekly collection with the money being used to purchase 10 new collection vehicles to support the new dedicated segregated glass collection service and to replace existing vehicles that had reached the end of their economic life.

From October 2013, communal glass recycling points will be made available for households living in flatted properties. This will be followed with the provision of new 38 litre boxes for houses in order to separate mixed glass from other dry recyclables. Mixed glass will be collected at the same time as other dry recyclables using seven new 'split body' refuse collection vehicles funded by the Weekly Collection Support Scheme.

The separate collection of mixed glass should provide a new income to the council of approximately £50,000 a year based on current market prices for glass sent for remelt and demonstrates that it is taking a **whole system** view of how best to reduce the cost of managing its waste.

Southampton also plans to provide a mixed glass collection service for its trade waste customers. This will optimise the capacity of collection rounds currently only taking glass from domestic properties.

Southampton is implementing its new glass collection service using **round optimisation** software. This has been used to design the new service using key metrics such as put out rates, average weights, and the time to complete collections. This has seen the council avoid costs of £130,000 (against forecast

expenditure of £400,000) because there is now a need for only two additional collection rounds instead of the expected three.

To promote waste minimisation the Council is distributing home composting bins and food digesters to households across the borough. This combined with the introduction of glass collections will, once fully established, result in estimated waste disposal savings of £700,000 over the period 2012-2017.

Weekly Collection Support Scheme funding is also supporting modern communication methods, supporting delivery of long-term **behaviour change** through working with information technology providers to implement new forms of communication including:

- Development of a dedicated phone app to:
 - enable residents to set up reminders via their mobile phone to put out their waste collections bins (residual, recycling and garden waste)
 - provide information about the location of the nearest communal recycling facility
 - read QR codes on recycling bins that will direct people to a dedicated website that contains wider recycling messages

Glossary of terms

Bulking facilities – this is where glass, paper and cans that is either collected in street recycling banks or sorted at the kerbside by collections workers is taken so it can then be bulked and loaded onto a larger vehicle for transporting to a reprocessor.

Comingled dry recyclables – materials put out for recycling that are collected in a mixed form (for example, a recycling bin in which householders put glass, cans, plastics, paper and batteries) that are destined for separation and recycling after further sorting.

Core collection hours – are the specified hours between which waste collections will normally be completed each day.

Dry recyclables – material collected for recycling which does not include compostable material. Includes paper, cans, glass, cardboard, plastic etc.

Gate rates – the charge levied upon a given quality of waste received at a waste processing facility. In the case of landfill it is generally levied at a unit rate that takes into account the cost of opening, maintaining and eventually closing the site.

In-cab technology – the use of mobile communication technology to connect collection crews with 'back-office' functions in real or near-real time to ensure that problem reporting, job tracking and completion of rounds is integrated with relevant management information systems.

Material recovery facility – a specialised plant that receives, separates and prepares recyclable materials for marketing to end-user manufacturers.

Pass rates – number of properties passed by a collection vehicle over a given period, normally a working day.

Put out rates – proportion of households that put out recycling or composting on one collection opportunity. Knowledge of put out or set out rate can enable waste collection authorities and the authority to plan collection rounds and identify areas in need of targeting to increase participation.

Residual waste – the portion of a householder's waste stream collected by local authorities which is not re-used, recycled or composted.

Round optimisation – the process of planning a set of schedules for waste collection that ensures that workloads are balanced, minimises the vehicles/assets in use and ensure daily schedules can be completed.

QR codes – Quick Response Code is the trademark for a type of matrix barcode (or two-dimensional barcode) first designed for the automotive industry. A barcode is an optically machine-readable label that is attached to an item and that records information related to that item.

Single pass – process of collecting all waste and recyclable material presented by a household on the same day in a single vehicle.

Split body collection vehicles – waste collection vehicles which enable simultaneous collections of different waste streams, these are typically configured 70/30.

Unit price/costs of collection – the cost per tonne of residual waste, food waste or dry recyclable materials collected by local authorities. Also, often stated as the cost per head of population of residual waste, food waste or dry recyclables collected materials by local authorities.

Vehicle downtime – any period of time when a vehicle is not assigned to collection work normally associated with the time assigned to a vehicle workshop to complete routine maintenance, servicing and repairs.

Vehicle payload capacity – the capacity in terms of weight that a vehicle is able to carry but does not include the weight of the vehicle itself. Most of the vehicle certifications include information on payload which is determined by the cargo the vehicle can carry and the passenger weight. It is determined by how much weight a vehicle can carry without causing damage to itself or the road.

Whole system costs – ensuring that the full cost of managing waste i.e. the direct and indirect cost of collection, treatment and final disposal, are taken into account when determining whether different collection systems offer better value for money.

ⁱhttps://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255594/2012-13_ANNUAL_publication_LA_level_WITHOUTLINKS.xls ⁱⁱ See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/15038/Weekly_Collection_Support_Scheme_-_successful_bids.xls for high-level details of bids.

ⁱⁱⁱ *Alternate weekly collections guidance*, WRAP, 13 July 2007

^{iv}https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255594/2012-13_ANNUAL_publication_LA_level_WITHOUTLINKS.xls

^v Friends of the Earth comment, taken from BusinessGreen.com, 30 September 2011

^{vi} The CO2 equivalent scores were determined using a carbon calculator. This takes information on changes to the amount of waste collected and the destination of that waste. For example, whether waste has been diverted from landfill or whether a higher proportion of the waste is being recycled. The calculation also takes account of the material in question, for example, the recycling of glass would have a different CO2 equivalent score per tonne than paper or metal.

^{vii} As reported in *The Daily Telegraph* on 22 November 2012.

^{viii}http://www.warrington.gov.uk/info/200881/fortnightly_waste_collections/1162/fortnightly_waste_collection_service/2

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- ^{ix} Ipsos-MORI attitude survey, July 2008
- ^x Sauce-Icaro attitude survey, December 2011
- ^{xi} Sauce-Icaro attitude survey, December 2011
- ^{xii} E.g. http://www.who.int/water_sanitation_health/resources/vector302to323.pdf
- ^{xiii} From e.g. *The Daily Telegraph*: 'Fortnightly bin collections 'lead to surge in rat population'', 24 Feb 2012
- ^{xiv} This can be seen from innumerable council comments in local press articles, where fortnightly collections have been, or are about to be, introduced.
- ^{xv} <http://www.thisishullandeastriding.co.uk/Fortnightly-black-bin-collections-save-Hull-1m/story-17018619-detail/story.html#axzz2MIggtpnG>
- ^{xvi} 2013 YouGov poll http://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/esgtgmb57u/YG-Archive-local-council-results-070513.pdf
- ^{xvii} This and very similar lines can be taken from innumerable council websites, and council comments in local press articles, where fortnightly collections have been, or are about to be, introduced. As an example, West Somerset Council claimed to be "saving council tax payers over £75 for every tonne of waste diverted from landfill" (see West Somerset's *Your Guide to council services and council tax 2012-13*).
- ^{xviii} Select Committee on Communities and Local Government Committee [Fifth Report](http://www.publications.parliament.uk/pa/cm200607/cmselect/cmcomloc/536/53604.htm)
<http://www.publications.parliament.uk/pa/cm200607/cmselect/cmcomloc/536/53604.htm>
- ^{xix} For example: http://www.esauk.org/reports_press_releases/esa_reports/ESA_WasteBrochure.pdf
- ^{xx} Association for Public Service Excellence (APSE) 2010/2011 figures - see http://www.apse.org.uk/briefings/12/12-01_per_cent20refuse_per_cent20collection_per_cent20trend_per_cent20analysis.pdf
- ^{xxi} The average cost per head of population in 2011-12 for English Metropolitan authorities was £51.35
- ^{xxii} 2011-12 cost per population was £19.77 compared to the national average of £26.74. Source APSE Performance Networks
- ^{xxiii} Ribble Valley achieved an equivalent cost per household of £36.73 (2011-12) compared to average cost per household of £45.56 for all Lancashire authorities.