

'On The Go' Recycling

May 2009



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Terms of reference

- What lessons can be learnt from existing practices of “on the go” plastic recycling in London and elsewhere?
- What action can be taken by the Mayor and stakeholders to increase “on the go” plastic recycling in London?

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Foreword



Public attitudes and perceptions towards recycling have changed and people's experience of domestic recycling has improved greatly over recent years.

However, consistent recycling facilities when we are out and about, or 'on the go', have not matched the services from the kerbside. In addition, recycling rates in London are the lowest in the UK.

Recycling our waste must be encouraged, both for the environmental benefits and

cost savings that diverting waste from landfill and the reduction of using virgin material will bring.

How can the Mayor increase recycling in London? This report investigates the introduction of 'on the go' recycling consistently throughout London. After kerbside collection, the next logical step is to increase ways for people to recycle when they are out and about. This method of recycling in public places including streets, parks, shopping centres and entertainment venues is already established in other major global cities, including New York. The majority of waste disposed of when people are out and about is recyclable, therefore it is essential that this does not end up in landfill.

This investigation uses mixed plastics as a case study. Mixed plastics are made up of various plastic types and colours and we see them in our food packaging, including punnets, sandwich containers and trays. There are currently no plants to recycle mixed plastic in London, despite facilities existing elsewhere in the UK and Europe. It is important that London manages its own waste and does not rely on exporting it, either overseas or to other parts of the UK, or dumping it in landfill. The Mayor needs to take action to ensure that London is at the forefront of the recycling industry, not just across the UK, but internationally.

This report highlights a number of opportunities for the Mayor to increase recycling 'on the go'. These include working with private sector companies such as Coca-Cola, who are keen to increase the number of 'on the go' zones throughout the UK. Improving recycling provision on the transport network is needed, as currently only newspaper is recycled. Finally, the Mayor needs to provide strategic direction to a London-wide 'on the go' waste management scheme, by

making it easier and more convenient to recycle. This will include ensuring there are enough bins on the streets, keeping all signage and symbols consistent for ease of use, alongside a London-wide information campaign showing that recycling does not stop at home.

There is public will to recycle, government policies and targets in place to encourage this plus positive action already taken by retailers, manufacturers and stakeholders, all of which is driving forward momentum. This investigation will evaluate the situation in London and make recommendations to the Mayor to ensure this momentum is continued, sustained and coordinated, in place for the Olympic and Paralympic Games in 2012.

I would like to thank the panel of experts who attended the Committee meeting and to all those who contributed to this report with written information. This included a wide range of sources, from public and private organisations, sporting venues, food retailers, industry experts and Londoners themselves, through a survey, and this input has been valuable in producing this report.

A handwritten signature in black ink, appearing to read 'Darren Johnson'.

Darren Johnson AM

Deputy Chair, London Assembly Environment Committee

Introduction

London has the lowest recycling rates in the UK: over 60 per cent of the rubbish thrown away can be recycled yet Londoners on average recycle just 20 per cent of their waste (see graph 1).¹ However, there are differences in recycling rates by borough, ranging from the lowest at 13 per cent to the highest at over 40 per cent.² The London Plan targets for recycling or composting municipal waste are to exceed 35 per cent by next year and 45 per cent by 2015.³

Graph 1 Percentage of Municipal Waste recycled and composted in London



Source: Department for Environment, Food & Rural Affairs⁴

Note: London Plan targets may be revised in the forthcoming London Plan draft document, due in Autumn 2009.⁵

¹ Mayor of London press release, “Cutting edge technology to boost recycling and change behaviour”, February 2009

² Please see Appendix 3 with the latest recycling rates by borough

³ London Plan <http://www.london.gov.uk/mayor/strategies/sds/further-alts/docs/alts-all.pdf> See policy 4A.21 of the revised version (page 221)

⁴ <http://www.defra.gov.uk/environment/statistics/wastats/index.htm>

⁵ A new plan for London states “waste issues have been thoroughly examined in the London Plan Examinations in Public in 2006 and 2007 and the Mayor sees no benefit in reopening recent debates, particularly around apportionment methodology. However, data on projected waste arisings – the key input to waste to be managed, apportionment, and self-sufficiency – will be updated. Based on what this exercise reveals, it may be necessary to revise targets in the Plan.” <http://www.london.gov.uk/mayor/publications/2009/docs/london-plan-initial-proposals.pdf>



This report investigates a way of increasing recycling, to encourage recycling behaviour and reach these targets. Household collection is reasonably well established in London, so the next logical step is to target other places to collect people's recycling. 'On the go' recycling is a method of collecting waste material when people are out and about. It is a relatively new area of recycling in the UK with particular relevance to London's 'on the go' society, with the number of commuters, office workers plus tourists and visitors moving around the capital. Almost one million people commute into central London on an average working day by public transport.⁶ In any week, hundreds of thousands of people attend business, entertainment and sporting events, all with waste to dispose of. Research by London Remade indicates that over 260 tonnes of lunchtime waste is produced every day, enough to fill Trafalgar Square every week.⁷ 'On the go' recycling will help to promote and reinforce recycling behaviour, thereby increasing the amount recycled and reducing waste to landfill.

The aims of this report are to examine what lessons can be learnt from existing practices of 'on the go' recycling in London and elsewhere and what action can be taken by the Mayor and stakeholders to increase 'on the go' recycling, with a particular focus on mixed plastic recycling.⁸ It presents the results of an investigation held between September 2008 and January 2009 and will form part of the Committee's response to the Mayor's forthcoming Municipal Waste Strategy.

The Committee invited a panel of experts to its meeting and also received written information from a wide range of sources. These included corporate multinationals, Coca-Cola Enterprises and McDonald's, representatives from transport including TfL and Network Rail, event managers Earls Court Olympia, sporting venues such as Arsenal football club and Lord's Cricket Ground, the British Plastics Federation and Food and Drink Federation, food retailers Sainsbury's, Marks & Spencer and Tesco, London boroughs, plus industry experts from WRAP, London Remade and WasteWatch. The Committee also received a selection of viewpoints from Londoners who responded to our survey on the subject of 'on the go'.

⁶ <http://www.london.gov.uk/gla/publications/factsandfigures/fol2008/fol2008-12transport.pdf>

⁷ <http://www.londonremade.com/closed-loop-recycling>

⁸ See explanation in glossary for more details

1 - Overview of 'on the go'

'On the go' is a way for the millions of office workers, tourists and visitors to recycle as they move around the city. Written submissions from boroughs and feedback from Londoners during this review show they are keen to recycle 'on the go' as they do at home. Waste Watch⁹ provided this investigation with anecdotal evidence for widespread public support for recycling 'on the go' from focus groups they ran on behalf of London boroughs including Newham, Barking and Dagenham, Redbridge and Southwark. They found that the public are increasingly aware of recycling 'on the go' through recycling facilities at museums, events and festivals and in cities in Europe where recycling outside the home is often commonplace.

Some organisations have already realised the benefit of recycling 'on the go' and their experience is noted below. Earls Court Olympia stated that when they embarked on their policy of offering recycling facilities at their venues, the primary driver was to save money. Since this time, they have realised the benefits to the environment, visitors and staff as well as their bottom line.¹⁰

Added to this, some companies are putting policies in place to take responsibility for the waste they produce. Some food outlets already offer in-store recycling, such as Pret A Manger. In addition, the Committee heard that McDonald's have plans to conduct a plastic bottle recycling trial in up to 100 restaurants this summer.¹¹ These policies follow the producer pays principle, whereby responsibility and costs for waste management is put onto the producer of that waste.

Coca-Cola Enterprises' (CCE) support of 'on the go' includes the introduction of five recycling zones in the UK, increasing to 80 zones by 2011. Recycle Zones are located in high profile, busy locations, such as tourist areas and transport hubs. Recycle Zone was launched in May 2008 at Thorpe Park and is now operational at other venues including Legoland Windsor and Warwick University. It is focused on soft drinks packaging, but could include other materials (paper and mobile phones). The scheme will be supported by WRAP for three years. This initiative follows CCE's target of using 25 per cent recycled material in their packaging by 2010.¹²

⁹ A UK environmental charity working to change the way people use the world's natural resources <http://www.wastewatch.org.uk/About-Us/Introduction>

¹⁰ Evidence from Earls Court Olympia, November 2008

¹¹ Written evidence from McDonald's

¹² <http://www.cokecorporateresponsibility.co.uk/environment/waste-packaging-recycling/using-recycled-materials.html>

In addition, retailers and brand owners in the UK have been very active in driving demand for recycled materials in their packaging. The issue has been actually meeting that demand locally. Some retailers have in the past used imported recycled plastics in their packaging, as there was not enough supply in this country. An increase in collection 'on the go' would help to secure that supply and prevent the need to buy materials from overseas.

Retail Power

M&S is making strides to reduce the amount of waste from shops and use more sustainable sources for packaging. Part of this involves sending some Food to Go packaging waste to the Closed Loop plant and using even more recycled plastic in M&S packaging. Other retailers are also working on measures to increase recycling. Tesco collects materials 'on the go' using reverse-vending machines. Customers place recyclable materials into the units which shred plastic bottles and compact cans to one tenth of their original size. They handle around 900 items before they need to be emptied, which saves transportation costs and CO₂.¹³ Sainsbury's plans to send no waste to landfill by the end of 2009.¹⁴



Moreover, the economic viability of 'waste' is being realised, through money and resources saved by not using virgin material, for example, plastic production uses eight per cent of the world's oil production.¹⁵ In addition, the rising cost of raw materials makes recycling even more economically viable. Jobs generated through the recycling industry, both highly skilled in new innovations (such as automated sorting technology), and lower skilled jobs in reprocessing facilities and collection, would also benefit the economy.

The Committee was keen to hear from London boroughs during its investigation. Boroughs stated their drivers for increasing 'on the go' include pressure from the public to set up facilities, increasing recycling rates and improving street tidiness. There is also an increasing demand from central government for local authorities to collect more recycling, and in particular more plastics. In addition, Defra's landfill tax will lead to heavy fines for boroughs if targets are

¹³ Written evidence from Tesco

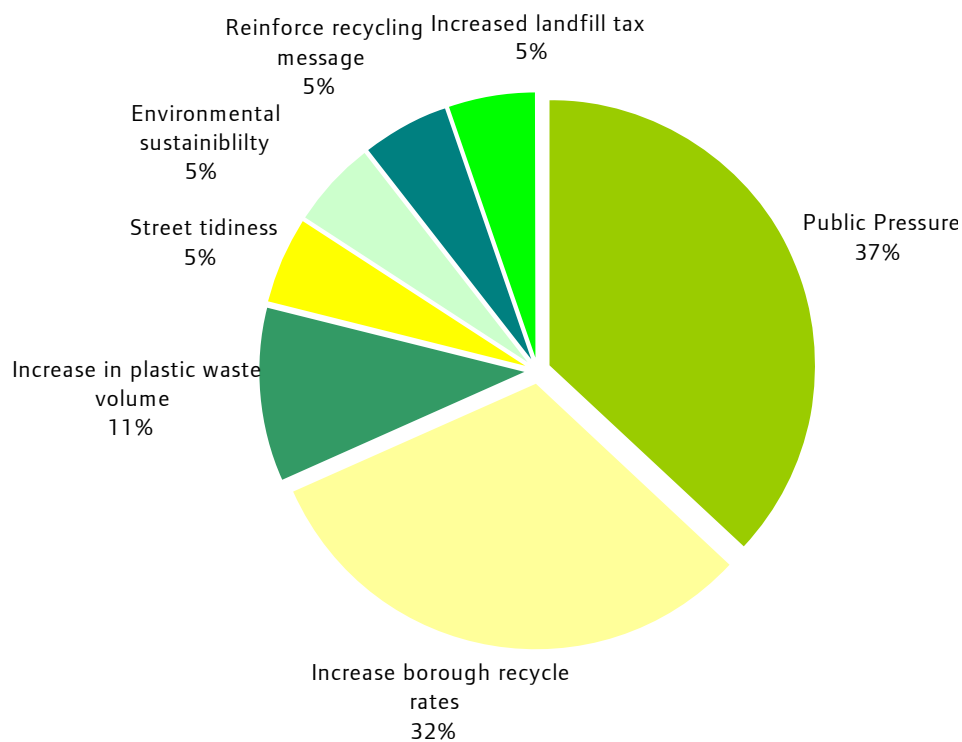
¹⁴ Written evidence from Sainsbury's

¹⁵

http://www.recycleforlondon.com/recycle_more/what_can_i_recycle/recycle_plastics.cfm?action=results

missed. The year on year increase in gate fees on landfilling makes recycling even more viable. The standard rate is £40 per tonne from 1 April 2009 plus £21 gate fee and increasing by £8 per tonne each year until at least 2010-11.¹⁶

Figure 2 Borough drivers of 'on the go' recycling¹⁷



Source: Committee survey of 20 London Boroughs, January 2009

¹⁶ <http://www.businesslink.gov.uk/bdotg/action/detail?type=RESOURCES&itemId=1074404201>

¹⁷ See Appendix for more details

The Case for 'on the go'

To ensure the same level of service is provided on the streets as at home

Londoners must be able to recycle the same materials whilst they are out and about as they do at home. This will not only reinforce the recycling message, but also reduce material sent to landfill.

To add to the economic and environmental savings

The savings in both CO₂ and landfill charges from increasing recycling are sizeable. Using plastics as an example, although the majority collected in London is from homes, a significant amount is consumed 'on the go'. A survey from WRAP shows that almost 25,000 tonnes of plastic bottles were collected by boroughs in London in 2007, 80 per cent from households.¹⁸

According to figures from the London Waste and Recycling Board, there are over 1.1 million tonnes of used plastic in London.¹⁹ Two-thirds of this is currently either landfilled or incinerated. If this plastic was recycled, it would save around 1.2 million tonnes of CO₂ per year and over £44 million in costs.²⁰

To manage London's waste in London

A solution must be found to London's growing problem of managing its own waste. The Mayor's draft London Plan states that "London should manage as much of London's waste within London as practicable" and will adopt an aspiration of zero waste to landfill outside London.²¹ Ensuring that a consistent and easy to use 'on the go' scheme operates throughout London, would help to achieve these goals.

¹⁸ Local Authorities Plastic collection survey 2008, WRAP / Recoup plastic

¹⁹ of which 30 per cent of all used plastic is recycled, LWaRB

²⁰ Total cost of incineration and landfill excludes transport cost and energy income, LWaRB

²¹ A new plan for London

<http://www.london.gov.uk/mayor/publications/2009/docs/london-plan-initial-proposals.pdf>

2 - Barriers to 'on the go' recycling

What is preventing recycling away from our homes from taking place? These barriers are detailed below, looking at what is preventing Londoners from recycling 'on the go' and public and private organisations from introducing schemes. Market and infrastructure barriers will also be examined to show what is precluding actual recycling from taking place in London.

Lack of consistently located recycling bins

Feedback from Londoners to our survey stated that the lack of recycling bins was the major barrier to recycling whilst 'on the go'. Responses to our survey showed that a small proportion do take waste home in the absence of recycling facilities, but most dispose of it in a landfill bin as it is not practical to carry it with them.

No standard 'on the go' collection system across London

In addition, the Committee heard that there are currently different methods of collecting materials for recycling across London, which is not ideal. For example, written evidence from the British Plastics Federation states that plastic recycling needs quantity, quality and consistency of supply to be successful and believes a standardised system of collection would help to achieve these aims. Indeed, this investigation received support for a standard way of collecting 'on the go' recyclable materials from retailers, some boroughs and industry experts. **Earls Court Olympia stated that regardless of domestic collection systems, 'on the go' collection needs to be standardised.**²² However, this would be difficult to introduce in practice, as there are already various schemes, both public and private in operation. **In the absence of a standardised collection across London (and indeed England and Wales), there is a consensus that standard signage on recycling bins, including symbols and colours, is vital.**

Waste Watch state that steps to encourage simplicity and consistency will be crucial to the success or otherwise of the scheme.²³ In addition, Defra has introduced a voluntary code of practice to encourage a standard approach to 'on the go' schemes.²⁴

Our survey showed that people want better facilities to recycle. "There desperately needs to be separate, visible recycling bins throughout the capital, rather than the current sporadic smattering."

"I'm unlikely to go out of my way just to find a recycling bin", "Having more standard bins than recycling? – it should be the other way around."

²² Evidence from Earls Court Olympia, Environment Committee meeting, November 2008

²³ Written evidence from Waste Watch

²⁴ <http://www.defra.gov.uk/ENVIRONMENT/waste/recycleonthego/pdf/recycleonthego-code.pdf>

On-the-go by borough

Our review of 'on the go' recycling by borough shows that some have already introduced their own schemes. Islington for example has a well-established scheme, with 256 public recycling points around the borough, largely consisting of 1100 and 1280 litre recycling containers. Some are in the process of launching a scheme: the City of London is just setting up its scheme of over 100 bins after 18 months of preparation and some, such as Ealing, have plans in place to begin a trial.

Storage and contamination is problematic

The Committee's investigation found that some organisations and companies find it difficult to store materials. There is an issue of both space and security, on London's streets, at stations and public spaces.

The exhibition centre Earls Court Olympia stated that they do not recycle all of their waste, as a lack of storage and quick turn around times between events mean some is sent to landfill. However, the Committee heard that they are working hard to remedy this, through launching BS 8901, the British Standard for sustainable event management and advising other venues on how to be greener, by offering advice on how to make events more sustainable.²⁵



An example of 'on the go' recycling at Bedford station.

With over 1.1 million people commuting into central London on an average working day, 88 per cent by public transport,²⁶ there is significant potential to recycle on the transport network. TfL estimates a 30 per cent increase in passenger numbers in the next 15 years,²⁷ which means recycling facilities need to be installed now to accommodate this future growth. TfL collects newspapers, which make up the majority of waste, but not other materials, citing limited space at stations for storage and collection and safety and security issues. In addition, Network Rail has decided not to provide permanent litter or recycling collection facilities at their managed stations, fearing these could still pose a threat to security.²⁸

Creative solutions identified during the investigation include **increasing the number of bins outside stations** by working with

²⁵ <http://www.eco.co.uk/about-us/media/venue/news/2008/jul/eco-launches-csr-brochure-08/>

²⁶ <http://www.london.gov.uk/gla/publications/factsandfigures/foi2008/foi2008-12transport.pdf>

²⁷ Evidence from TfL, November Environment Committee 2008

²⁸ Written evidence from Network Rail

London boroughs, **installing simple compactors** which would enable more material to be stored on site before collection and **making use of empty train carriages** at off peak and quiet times, to transport waste. Some mainline train operating companies including Virgin Trains and National Express are trialling collection of waste for recycling on the train, before it reaches the station.²⁹ **TfL stated it was keen to work with boroughs to increase collection bins outside stations and welcomed support from the Mayor in achieving this.** TfL state this is already happening outside Westminster station.³⁰

International examples of 'on the go'

Cities that have introduced recycling bins in stations include Paris, Toronto, New York and Berlin. A report by London Remade³² shows that transparent bags are secured to walls inside Paris metro stations with a clear sign on the lid showing which materials can be recycled.³³ Less than three months after the containers' installation, four tonnes of recyclable waste was already being collected every month, 70 per cent of which had been correctly sorted.³⁴ Due to recyclable bottles and cans being banned from its landfill sites, Toronto installed recycling bins in its 69 subway stations and at seven bus stations.³⁵ Similar schemes have been introduced in London, but not consistently throughout the capital. The policy to reduce the number of litter bins to encourage use of recycling bins in Toronto is a simple solution that would work well in London.

Barriers to boroughs

Cost was cited as a barrier to boroughs introducing an 'on the go' collection scheme. This is especially pertinent to collecting plastic, owing to its high volume to low weight ratio, which means it requires more frequent collections. Bins are likely to fill up rapidly without frequent collection or a compacting or shredding mechanism on site. However, taking into account the projected long-term price increase in oil and other fossil fuels as reserves dwindle, plus the increasing cost

There are 140 million passengers per year using London's airports, half of which travel through Heathrow.³¹ 'On the go' recycling is already taking place in Heathrow's Terminal Five building.

Comments from Londoners included the need for regular collections. "There is a lack of facilities and the few that I see are overflowing."

²⁹ Evidence from Coca Cola Enterprises and London Remade, November 2008

³⁰ Evidence from TfL, November 2008

³¹ Transport chapter of Focus on London, 2008, GLA

³² Provided by TfL

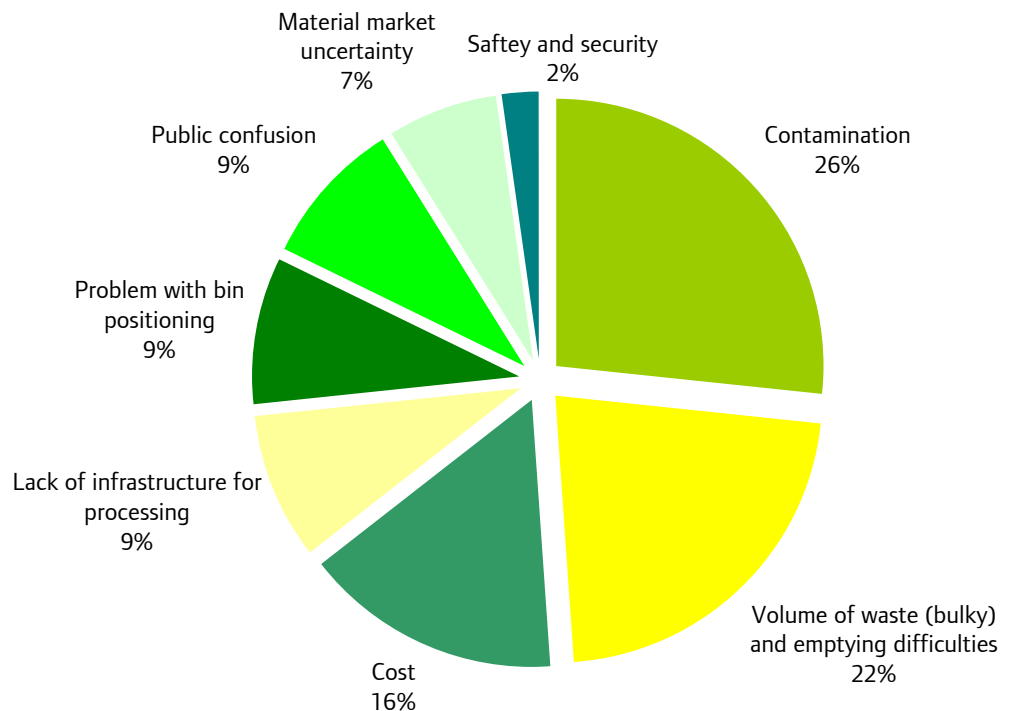
³³ Taken from report by London Remade Solutions to London Overground Rail Operations Ltd

³⁴ http://www.ratp.fr/corpo/references/pdf/anglais/RATP_RA_2007_GB.pdf

³⁵ Taken from report by London Remade Solutions to London Overground Rail Operations Ltd

of landfill tax, investing in recycling infrastructure is a more economical and sustainable option.

Figure 3 Borough barriers to 'on the go' recycling³⁶



Source: Committee survey of 20 London Boroughs, January 2009

Contamination, especially from food and drink containers is common and it can limit the amount of material suitable for recycling. Information campaigns, raising awareness of the issue and giving people a better idea of what should be placed in each bin, can reduce contamination to some extent, but it will always be an issue, as people cannot clean waste before disposing of it when they are 'on the go'. One solution from Earls Court Olympia is to use an anaerobic digester, whereby both packaging and left-over food is collected and taken to a plant offsite. The packaging is removed and recycled where possible and the food waste is composted.³⁷

³⁶ See Appendix for more details

³⁷ Note: the Committee will be exploring this topic in more detail in it's Waste to Energy Committee meeting, July 2009

Feedback from Londoners showed there is a lack of knowledge of what can be recycled and how local collection schemes work. "Often the problem is knowing which bits of plastic can be recycled and putting them in the right place."

Market barriers

Price volatility of materials was also cited as a barrier. Prices of recyclable materials, fell in late 2008. For example, the market for recycled plastic had experienced 18 months of extremely high pricing, so this drop was “a very abrupt market correction”.³⁸ The price of collected plastics is linked to both the value of crude oil and demand from overseas markets (mainly China, as this was the main market for UK recycled plastics), both of which dropped last year. However, WRAP reports that prices have recovered to around £130 per tonne.³⁹ This shows a stronger recovery than for other materials, owing to growing demand from the UK reprocessors and higher value end product (food grade plastic).

Lack of recycling infrastructure in London

Not all of the waste generated in London can be recycled in the capital. This is especially true for mixed plastics. WRAP reports that “mixed plastics packaging is one of the most visible remaining components of the waste bin”.⁴⁰ Trials show recycling mixed plastics, such as yoghurt pots, plastic cups and punnets, is economically and environmentally viable.⁴¹

Recycling mixed plastic is not as straightforward as for other waste. Mixed plastic can be made up of a high number of different types making separation for recycling difficult. Added to this there is public confusion about what can and can't be recycled and frustration that there are not consistent facilities to recycle ‘on the go’.⁴² There is no standard way of collecting mixed plastics across London, (only two boroughs currently collect mixed plastic)⁴³ and there is no mixed plastic recycling plant in London to process the material.



Plastic recycling, observed at the Committee's visit to the Closed Loop Recycling Plant in Dagenham.

³⁸ WRAP evidence. Environment Committee November 2009

³⁹ WRAP evidence. March 2009

⁴⁰ WRAP's Domestic Mixed Plastics Packaging Waste Management Options report, http://www.wrap.org.uk/downloads/Mixed_Plastic_Final_Report.6485d133.5496.pdf

⁴¹ WRAP's Domestic Mixed Plastics Packaging Waste Management Options report, http://www.wrap.org.uk/downloads/Mixed_Plastic_Final_Report.6485d133.5496.pdf

⁴² Responses from Londoners to the Committee's survey

⁴³ Southwark and Ealing - Source: LWaRB 2009/10 Business plan

Restrictions to recycling are a huge disincentive and this is especially pertinent to plastics. “My local council doesn’t recycle more than half of the plastics that I’m stuck with after buying food and drink.”



Committee Members at site visit at the Closed Loop Recycling Plant in Dagenham

Mixed plastic recycling in the UK

Crucially mixed plastics recycling is already happening elsewhere in the UK – in the Jayplas plastic recycling facility in East Midlands⁴⁴ which processes 80–90,000 tonnes per year.⁴⁵ WRAP Scotland has already identified the potential of mixed plastic recycling and is launching a new capital grant programme on behalf of the Scottish Government to provide financial assistance towards a facility to sort, recycle and reprocess a range of plastic waste.⁴⁶ The Committee understands WRAP has plans to replicate this initiative in England.

Composition and packaging design

The Committee heard that if the **composition of plastic was simplified, the collection and recycling process would be more straightforward**. Closed Loop Recycling in Dagenham is engaging with packaging designers and manufacturers to design products which are easier to recycle. This includes working with GlaxoSmithKline to remove PVC (Polyvinyl chloride) labels from its bottles, as it reduces the value of the final product. In addition, Sainsbury’s has almost phased out using PVC, as it is usually not collected for recycling.⁴⁷ Marks & Spencer use just three polymers in its plastic packaging; PET (Polyethylene terephthalate), PE (polyethylene) and PP (polypropylene) and have also taken PVC out of their food packaging.⁴⁸ WRAP is undertaking work on reducing the number of polymers in plastic packaging to see if they can achieve the same functionality but in a much better, more recyclable format.⁴⁹

Therefore, **a closed loop model for recycling, where material is both collected and reprocessed in London is essential**. This needs to happen for all materials, including plastics. Figure 4 in the following chapter details how this could work. This closed loop is already in operation in Dagenham Dock, with the recent opening of Closed Loop Recycling, a reprocessing plant which has the capacity to recycle 35,000 tonnes of plastic bottles each year⁵⁰ back to food grade plastic.⁵¹

⁴⁴ http://jayplas.com/html/loughborough_site_1.html

⁴⁵ WRAP evidence

⁴⁶ http://www.nao.org.uk/publications/0809/managing_the_waste_pfi_program.aspx

⁴⁷ Written evidence from Sainsbury’s

⁴⁸ M&S evidence, Environment Committee November 2008

⁴⁹ WRAP, November 2008, Environment Committee

⁵⁰ Written evidence from Closed Loop Recycling

⁵¹ Plastic of a high enough quality to be used in food packaging

3 – Vision for 2012

The Olympic and Paralympic Games in 2012 will give London the chance to showcase best practice in environmental and sustainable event management. There is an opportunity to use the closed loop recycling model to support the work of the London Organising Committee of the Olympic Games (LOCOG) in delivering a zero-waste Olympic and Paralympic Games, with the waste from the hundreds of thousands of spectators and the tens of thousands of athletes and support staff being processed in London and not exported overseas or to other areas of England.⁵²

Lessons learnt from the Sydney Olympics show the success a coordinated recycling scheme can have, involving packaging designed specifically to be recycled and clearly signed collection points.⁵³ A similar closed loop infrastructure needs to be in place before 2012, to ensure a successful ‘on the go’ recycling scheme takes place during the London Games.

London Remade Solutions and Sauce Consultancy recently worked with the ExCel Centre, funded by the Newham 2012 Unit to look at how to reach recycling targets for all Olympic venues. Using WRAP branding for the bins, collecting paper, cans and plastic bottles, they achieved a 65 per cent recycling rate. The next trial will focus on food and drink outlets, by having more control over what type of packaging is used, which will help to increase recycling rates even further.⁵⁴

London 2012 has been designed to send zero waste to landfill. Waste management is one of the areas reviewed by the Commission for a Sustainable London 2012 in a recent report. It states that “LOCOG plans to publish its Waste and Resource Management Strategy in 2009. It is not clear that sponsors and organisers of the Cultural Olympiad have been made fully aware of the ‘zero waste to landfill’ target and the importance to the 2012 brand to adopt similar standards.”⁵⁵ The Mayor needs to work with Olympic organisers to ensure sponsors fund and help deliver best practice recycling ‘on the go’ at the Olympic and Paralympic Games both in and around sporting venues.



⁵² Note; this is the proximity principle whereby it is good practice to deal with waste as close as possible to its source

⁵³ Evidence from Closed Loop Recycling

⁵⁴ Evidence from London Remade, Environment Committee meeting, November 2008

⁵⁵ Review of the London 2012 Sustainability Plan Update and Key Themes, Commission for a Sustainable London 2012

<http://www.csllondon.org/documents/CSL%202008%20Annual%20Review%20-%20Key%20Themes.pdf>

“Closed Loop in Dagenham is a real success. I think we could make this an exemplar especially pre-2012. I think London could really show the world how to do it.”

Helen Wright,
Coca-Cola Enterprises

In addition, ‘on the go’ recycling facilities need to be put in place on the transport system, when people are travelling to and from Olympic sites. Innovative ideas such as using trains as a waste carrier, that is being trialled elsewhere, should be adopted. London 2012 must be the gold standard that LOCOG, sponsors and vendors must work to, to ensure that all waste is recyclable and recycled both during the Games and in future years, to ensure a lasting legacy.

Figure 4 An example of a Closed Loop recycling model⁵⁶



⁵⁶ <http://www.planetearthrecycling.com/closed-loop-recycling.html>

4 - Proposals to the Mayor and the London Waste and Recycling Board

There are strong environmental and economic arguments to ensure a consistent 'on the go' recycling scheme is introduced throughout London. A long-term public sector strategy plus private sector finance is needed to ensure the sustainability of 'on the go' recycling. The Committee would like to propose that the London Waste and Recycling Board considers drawing up an action plan for increasing 'on the go' recycling. Elements of this plan would include intervention at five key points in the recycling loop. These interventions include:

1. More bins to make it more convenient to recycle

There should be more recycling bins in busy public places including sporting and entertainment venues, museums, parks and squares and transport hubs. The main aim is to divert this recyclable waste from landfill. TfL, the boroughs and other public organisations should be supported in this aim. Safety and security issues must be taken into account where necessary and bins could be replaced by collection and sorting by cleaning staff where appropriate.

2. Consistency of signage to avoid confusion

Signage, including colour coding and symbols from Recycle Now⁵⁷ should be used for all future 'on the go' schemes and GLA functional bodies and the boroughs need to be supported in this aim. In relation to plastic recycling, ensuring a simple message as to exactly what types of plastic packaging can be recycled will be vital.

3. London wide 'on the go' campaign – recycling does not stop at home

The investigation found that a pan-London advertising campaign is needed, to develop consumer awareness as to what can be collected 'on the go' and how contamination can be reduced. Closed Loop Recycling in Dagenham states that by providing regular and consistently signposted bins, this should ultimately lead to the public expecting to be able to recycle wherever they are. Any campaign should offer the most efficient value for money and should be appropriately timed to ensure that sufficient infrastructure is in place. The Mayor's strategic direction will be pivotal in ensuring this is consistent throughout London. WRAP has published guidance on communication strategies including a cost guide.⁵⁸

⁵⁷ http://www.wrap.org.uk/downloads/brand_guides_07_071.32eaa4d8.1977.pdf

⁵⁸ http://www.wrap.org.uk/local_authorities/research_guidance/communications/index.html

4. London to take steps to manage its own waste in London: to open a mixed plastic recycling facility

The London Waste and Recycling Board and the LDA should investigate the viability of establishing a mixed plastic recycling facility in London. The same is currently being undertaken by WRAP Scotland.⁵⁹ Recommendations 1 to 3 will help to ensure there is a consistent supply of plastic material, which would be vital. Support for a closed loop recycling model could lead to the creation of new low carbon jobs in collecting, processing and managing the recycling of London's waste.

5. Ensure plastic material can easily be recycled

To ensure a sustainable recycling loop, it is important to support retailers to use packaging that can be recycled. Using plastic as an example, the choice of material is very important. Closed Loop Recycling states that recycling is made easier if the types of plastic in the waste stream can be easily recycled in London. This will be especially relevant to companies who will provide food and drink at the Olympic and Paralympic Games.

6. Ensure infrastructure in place for 2012

The Mayor needs to work with Olympic organisers to ensure sponsors fund and help deliver best practice recycling 'on the go' at the Olympic and Paralympic Games in and around sporting venues, both for the duration of the Games and beyond, to ensure a lasting legacy. The Mayor also needs to ensure this happens on the transport system, to collect recyclables whilst travelling to and from the sites. Recommendations 1 to 5 need to have been met in advance to ensure the success of this policy goal.

⁵⁹ http://www.wrap.org.uk/wrap_corporate/funding/capital_grants/spp001_mixed.html

Figure 5 Closed loop recycling model for mixed plastics

All these policies need to be in place by 2012 at the latest, to ensure a successful recycling scheme takes place in London during the Olympic and Paralympic Games.



Appendix 1 Case study of plastic recycling

Case study: plastic recycling

Overview

Plastics form a large part of municipal waste in London, but published data indicates that over half of waste plastic is sent to landfill⁶⁰ despite commercial demand for recycled plastic outstripping supply.

“Plastic bottles have no business being in our landfill sites”

Paul Davidson, WRAP manager

The main types of plastic currently recycled are plastic bottles:

- HDPE (High-density polyethylene) used mainly for milk bottles, also juice and detergent bottles
- PET (Polyethylene terephthalate) used for clear drinks bottles such as water and soft drinks

How plastic is recycled⁶¹

Once the plastic has been collected it is often compressed and baled before being transported to a reprocessor for recycling. Once at the reprocessors the plastic is sorted, either by a machine, or by trained staff, into different types and colour. The plastic recycling process can be complicated and there are a number of ways to reprocess it. In general it will go through various stages of heating, shaping and cooling. Heating softens or melts the plastic, where it can then be re-shaped and then it is cooled to retain its new form. It may also be shredded or melted down to produce granules which will be used to make other products.

There is provision for recycling plastic bottles in London, with the recent opening of Closed Loop Recycling, a reprocessing plant in Dagenham, East London, which has the capacity to recycle 35,000 tonnes of plastic bottles each year⁶² back to food grade plastic.⁶³



⁶⁰ LWaRB 2009/10 Business Plan

⁶¹ Taken from Recycle for London

http://www.recycleforlondon.com/recycle_more/what_can_i_recycle/recycle_plastics.cfm?action=results

⁶² Written evidence from Closed Loop Recycling

⁶³ Plastic of a high enough quality to be used in food packaging

Appendix 2 Borough response to 'on the go' survey

London Borough	Plastic	Paper	Cans/tins	Glass	Ratio of recycling bins to waste bins
City of London Corporation		✓			Currently 9 bins, full 'on the go' not yet in operation
London Borough of Brent	✓	✓	✓		1:20
London Borough of Bromley	✓	✓	✓		6 trial sites
London Borough of Ealing	✓	✓	✓	✓	Outside 18 stations
London Borough of Enfield	✓	✓	✓		3 bins at 7 stations
London Borough of Hackney		✓			Outside stations
London Borough of Hammersmith & Fulham	✓	✓	✓	✓	50 bins on the street
London Borough of Haringey		✓	✓		1:37
London Borough of Hillingdon	✓	✓	✓	✓	1:20
London Borough of Hounslow		✓			less than 1:100
London Borough of Islington	✓	✓	✓	✓	approx 1:1 (862:900)
London Borough of Lambeth	✓	✓	✓	✓	
London Borough of Newham	✓	✓	✓		Currently installing
London Borough of Redbridge	✓	✓	✓	✓	6:35
London Borough of Richmond upon Thames		✓			12 outside stations
London Borough of Tower Hamlets	✓	✓	✓	✓	Outside some stations and in parks
London Borough of Wandsworth		✓			1:93

Please note that 20 boroughs responded to our survey, but three do not have 'on the go' schemes (Barnet, Sutton and Waltham Forest). In addition, some boroughs that did not reply do have 'on the go' in place.

Appendix 3 Recycling rates by borough, 2007/08

London borough	Household recycling and composting (%)
Bexley	41.6
Harrow	39.6
Richmond upon Thames	36.1
Bromley	34.5
Hillingdon	33.8
City of London	33.4
Sutton	32.5
Barnet	30.7
Greenwich	30.5
Waltham Forest	29.7
Ealing	28.9
Enfield	28.2
Kensington and Chelsea	27.9
Camden	27.1
Merton	27.1
Hammersmith and Fulham	26.9
Islington	26.3
Haringey	25.7
Kingston upon Thames	25.6
Lambeth	25.1
Wandsworth	24.7
Havering	24.0
Westminster	22.7
Croydon	22.7
Redbridge	22.4
Hackney	22.4
Lewisham	22.0
Hounslow	21.8
Brent	21.0
Barking and Dagenham	20.4
Southwark	20.0
Newham	14.4
Tower Hamlets	13.0
London total	25.5

Source: Department for Environment, Food and Rural Affairs
<http://www.defra.gov.uk/environment/statistics/wastats/index.htm>

Appendix 4 Summary of Recommendations

1. More bins to make it more convenient to recycle

There should be more recycling bins in busy public places including sporting and entertainment venues, museums, parks and squares and transport hubs. The main aim is to divert this recyclable waste from landfill.

2. Consistency of signage to avoid confusion

Signage, including colour coding and symbols from Recycle Now⁶⁴ should be used for all future 'on the go' schemes and GLA functional bodies and the boroughs need to be supported in this aim.

3. London wide 'on the go' campaign – recycling does not stop at home

A pan-London advertising campaign is needed, to develop consumer awareness as to what can be collected 'on the go' and how contamination can be reduced. Any campaign should offer the most efficient value for money and should be appropriately timed to ensure that sufficient infrastructure is in place. The Mayor's strategic direction will be pivotal in ensuring this is consistent throughout London.

4. London to take steps to manage its own waste in London: to open a mixed plastic recycling facility

The London Waste and Recycling Board and the LDA should investigate the viability of establishing a mixed plastic recycling facility in London. Support for a closed loop recycling model could lead to the creation of new low carbon jobs in collecting, processing and managing the recycling of London's waste.

5. Ensure plastic material can easily be recycled

To ensure a sustainable recycling loop, it is important to support retailers to use packaging that can be recycled. This will be especially relevant to companies who will provide food and drink at the Olympic and Paralympic Games.

6. Ensure infrastructure in place for 2012

The Mayor needs to work with Olympic organisers to ensure sponsors fund and help deliver best practice recycling 'on the go' at the Olympic and Paralympic Games in and around sporting venues, both for the duration of the Games and beyond, to ensure a lasting legacy.

⁶⁴ http://www.wrap.org.uk/downloads/brand_guides_07_071.32eaa4d8.1977.pdf

Appendix 5 Views and Information

Oral information at Committee meeting

- Coca Cola Enterprises
- Earls Court Olympia
- London Remade
- Marks and Spencer
- Transport for London
- WRAP

Written information from boroughs

- City of London Corporation
- London Borough of Barnet
- London Borough of Brent
- London Borough of Bromley
- London Borough of Ealing
- London Borough of Enfield
- London Borough of Hackney
- London Borough of Hammersmith and Fulham
- London Borough of Haringey
- London Borough of Hillingdon
- London Borough of Hounslow
- London Borough of Islington
- London Borough of Lambeth
- London Borough of Newham
- London Borough of Redbridge
- London Borough of Richmond Upon Thames
- London Borough of Sutton
- London Borough of Tower Hamlets
- London Borough of Waltham Forest
- London Borough of Wandsworth

Written information from organisations

- Ambassador Theatre Group Ltd
- Arsenal FC
- City of Berlin
- Closed Loop Recycling
- Coca Cola Enterprises
- Food and Drink Federation
- London Assembly Labour Group
- Lord's Cricket Ground
- McDonald's Restaurants Ltd
- Network Rail
- North London Waste Authority
- Sainsbury's
- Tesco
- The British Plastics Federation
- The Royal Parks
- Waste Watch

Appendix 6 Glossary of Terms

Closed-loop Recycling materials into their original form, such as using plastic bottles to make new bottles rather than using 100 per cent virgin plastic.

Dagenham Dock Closed Loop Recycling plant in East London, recycles plastic bottles back to food grade plastic.

HDPE (High-density polyethylene) plastic used mainly for milk bottles, also juice and detergent bottles.

Household waste This includes rubbish thrown in bins at home and collected by the local council. Also, litter collection and street sweepings, garden rubbish, rubbish from civic amenity sites and rubbish collected for recycling or composting from domestic properties.

Kerbside collection Any regular collection of rubbish for recycling from the kerbside of a property (also called recyclables). This may be from businesses or households.

Landfill tax is a tax on the disposal of waste in landfill, aiming to encourage waste producers to produce less waste and recover more value, through recycling and composting and to use more sustainable ways of waste disposal.

LWaRB (London Waste and Recycling Board) chaired by the Mayor, the objective of the Board is to promote and encourage the production of less waste, and increase the proportion of waste that is re-used or recycled and the use of methods of collection, treatment and disposal of waste which are more beneficial to the environment.

Mixed plastic made up of various plastic types and colours used for packaging, including punnets, sandwich containers and trays.

MRF - Materials Recycling Facility A recycling operation that sorts materials by type then cleans and compresses the recyclables before transferring them to reprocessors.

PET (Polyethylene terephthalate) plastic used for clear drinks bottles such as water and soft drinks

Producer responsibility ensures those who produce items e.g. manufacturers are responsible for the disposal/recycling of the item when it is no longer of use.

Recyclable Materials that still have useful physical or chemical properties after serving their original purpose and that can, therefore, be reused or remanufactured into additional products.

Recycle To divert useful materials from the disposal stream for processing, sale to an end user, and reintroduction into the economy as a remanufactured or new product.

Sustainable Waste Management Using material resources efficiently to cut down on the amount of waste produced. And, where waste is generated, dealing with it in a way that actively contributes to the economic, social and environmental goals of sustainable development.

TfL Transport for London A functional body of the GLA, accountable to the Mayor, with responsibility for delivering an integrated and sustainable transport strategy for London.

Waste disposal authority The part of a local authority that provides household waste recycling centres and places to dispose of rubbish.

WRAP Waste Resources Action Programme helps individuals, businesses and local authorities to reduce waste and recycle more, making better use of resources and helping to tackle climate change.

Virgin Materials Any basic materials for industrial processing that have not been previously used, such as petroleum for plastics manufacture, iron ore for steel manufacture, wood pulp for paper manufacture, or bauxite ore for aluminium manufacture.

Appendix 7 Defra's Voluntary Code of Practice⁶⁵

Recycle Bins in Public Places 'Recycle on the Go'

About this Voluntary Code of Practice

This Voluntary Code of Practice sets out key principles for managers of public places who would like to offer facilities for recycling alongside those for litter in public areas. It can apply to locations that are managed by public and private bodies, and sites that are indoors and outdoors, to which the public has access. The focus is on litter and offering people opportunities to recycle items, wherever they may be, by making recycling a natural part of everyday life and ultimately reduce the amount of waste that otherwise goes straight to landfill. Adherence to this voluntary code of practice can help raise the profile of public place recycling and allow organisations to enjoy positive public relations, and the benefits of recycling. This Voluntary Code of Practice is accompanied by a Good Practice Guide which contains advice on setting up public place recycling schemes, information about setting up schemes that suit particular circumstances, and guidelines on using the Recycle Now iconography on recycle bins in public places.

The Principles of the Voluntary Code of Practice

A good public place recycling scheme should follow the principles that form the basis of this Voluntary Code of Practice:

1. Provide recycling opportunities along with provisions for the correct disposal of non-recyclable waste;
 2. Adopt standard signage on all recycling receptacles;
 3. Maintain and upkeep the infrastructure; and
 4. Re-use, recycle and/or compost the materials collected.
- In practice this means agreeing to:
- Promote recycling alongside the correct disposal of non-recyclable waste
 - Adopt the standard Recycle Now signage on all recycling receptacles
 - Maintain and upkeep the infrastructure
 - Set in place a good management framework
 - Appropriately promote the scheme to the public and staff
- More detailed advice is given in the Good Practice Guide that accompanies this Voluntary Code of Practice

Committing to Good Practice

This is a voluntary code of practice, supplemented by the Good Practice Guide on 'Recycle on the Go', and is intended to shape good practice. You can make a commitment to the code by registering at: www.recyclenowpartners.org.uk

⁶⁵ <http://www.defra.gov.uk/ENVIRONMENT/waste/recycleonthego/pdf/recycleonthego-code.pdf>

Appendix 8 Orders and translations

How to order

For further information on this report or to order a copy, please contact David Bellman, on 020 7983 4791 or email: david.bellman@london.gov.uk

See it for free on our website

You can also view a copy of the report on the GLA website: <http://www.london.gov.uk/assembly/reports>

Large print, braille or translations

If you, or someone you know, needs a copy of this report in large print or braille, or a copy of the summary and main findings in another language, then please call us on: 020 7983 4100 or email: assembly.translations@london.gov.uk.

Chinese

如您需要这份文件的简介的翻译本，
请电话联系我们或按上面所提供的邮寄地址或
Email 与我们联系。

Vietnamese

Nếu ông (bà) muốn nội dung văn bản này được dịch sang tiếng Việt, xin vui lòng liên hệ với chúng tôi bằng điện thoại, thư hoặc thư điện tử theo địa chỉ ở trên.

Greek

Εάν επιθυμείτε περίληψη αυτού του κειμένου στην γλώσσα σας, παρακαλώ καλέστε τον αριθμό ή επικοινωνήστε μαζί μας στην ανωτέρω ταχυδρομική ή την ηλεκτρονική διεύθυνση.

Turkish

Bu belgenin kendi dilinize çevrilmiş bir özetini okumak isterseniz, lütfen yukarıdaki telefon numarasını arayın, veya posta ya da e-posta adresi aracılığıyla bizimle temasa geçin.

Punjabi

ਜੇ ਤੁਸੀਂ ਇਸ ਦਸਤਾਵੇਜ਼ ਦਾ ਸੰਖੇਪ ਅਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਲੈਣਾ ਚਾਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਇਸ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਉਪਰ ਦਿੱਤੇ ਡਾਕ ਜਾਂ ਈਮੇਲ ਪਤੇ 'ਤੇ ਸਾਨੂੰ ਸੰਪਰਕ ਕਰੋ।

Hindi

यदि आपको इस दस्तावेज़ का सारांश अपनी भाषा में चाहिए तो उपर दिये हुए नंबर पर फोन करें या उपर दिये गये डाक पते या ई मेल पते पर हम से संपर्क करें।

Bengali

আপনি যদি এই দলিলের একটি সারাংশ নিজের ভাষায় পেতে চান, তাহলে দয়া করে যোগাযোগ করবেন অথবা উল্লিখিত ডাক ঠিকানায় বা ই-মেইল ঠিকানায় আমাদের সাথে যোগাযোগ করবেন।

Urdu

اگر آپ کو اس دستاویز کا خلاصہ اپنی زبان میں درکار ہو تو، براہ کرم نمبر پر فون کریں یا مذکورہ بالا ڈاک کے پتے یا ای میل پتے پر ہم سے رابطہ کریں۔

Arabic

الحصول على ملخص لهذا المستند بلغة،
فرجاء الاتصال برقم الهاتف أو الاتصال على
العنوان البريدي أو العادي أو عنوان البريد
الإلكتروني أعلاه.

Gujarati

જો તમારે આ દસ્તાવેજનો સાર તમારી ભાષામાં જોડતો હોય તો ઉપર આપેલ નંબર પર ફોન કરો અથવા ઉપર આપેલ ટપાલ અથવા ઈ-મેઇલ સરનામા પર અમારો સંપર્ક કરો.

Appendix 9 Principles of scrutiny

An aim for action

An Assembly scrutiny is not an end in itself. It aims for action to achieve improvement.

Independence

An Assembly scrutiny is conducted with objectivity; nothing should be done that could impair the independence of the process.

Holding the Mayor to account

The Assembly rigorously examines all aspects of the Mayor's strategies.

Inclusiveness

An Assembly scrutiny consults widely, having regard to issues of timeliness and cost.

Constructiveness

The Assembly conducts its scrutinies and investigations in a positive manner, recognising the need to work with stakeholders and the Mayor to achieve improvement.

Value for money

When conducting a scrutiny the Assembly is conscious of the need to spend public money effectively.

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