



# **Municipal Waste Prevention Strategy for West London**

## **2011 - 2015**



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## Section 1: Definition of terms

The terms defined here are for the purpose of this strategy and may differ from nationally recognised definitions of the same terms.

**Household Reuse and Recycling Centre** – Sites provided by the boroughs for residents to take their unwanted items to for reuse, recycling or disposal.

**Reuse** - For the purpose of this strategy reuse includes straightforward reuse of items in their current form (such as taking clothes to charity shops) as well as preparation for reuse as defined in rWFD. Preparation for reuse is the checking, cleaning or repairing of products or components of products that have become waste to allow them to be reused without any other pre-processing e.g. replacing the hinges on a wardrobe door.

**Residual waste** – items thrown away for disposal to landfill or Energy from Waste not items put in separate containers for recycling or composting, also referred to as rubbish.

**Municipal Waste** – wastes collected by or behalf of the waste collection authorities and counted as part of Waste Data Flow returns.

**Waste** – any items thrown away, whether this is in a bin or a recycling container

**Waste Prevention** - There is no standard UK definition of waste prevention. The Organisation for Economic Co-operation and Development (OECD) defines waste prevention as avoidance, reduction and reuse. The transposition of the revised Waste Framework Directive (rWFD) has introduced a definition which includes reduction and reuse but not preparation for reuse. This strategy considers prevention to include avoidance, reduction, reuse and preparation for reuse.

**Waste Minimisation** - The OECD definition for minimisation includes recycling as this is a method of reducing waste sent for disposal. Waste minimisation activities in this strategy will deal with increasing recycling or capture of recyclable materials therefore diverting wastes away from final disposal toward a resource route.

## Section 2: Introduction

Over the last five years the management of wastes in West London has evolved, all boroughs have services to be proud of that address the needs of residents and enable everyone to recycle a wide range of materials. Whilst there is always scope for improvement, the steps that have already been taken mean that West London has a recycling rate of 38% and this is still increasing.

This positive approach to managing our waste has already led to financial savings because sending waste to landfill is more expensive than recycling. These savings have been used to improve services further and but there is more we can all do.

There are many items which are thrown away that still have a value, this could be a financial or represent a resource that could be used to do something else. We recognise that the best way to realise this value is to work toward realising that value by stopping these items becoming waste. By preventing waste it is possible to deliver even more financial savings and realise economic, environmental and social benefits.

This is why in this waste prevention strategy we have set ourselves very challenging targets. We are challenging all organisations, individuals and ourselves to look at what is being thrown away and take action to make a change to the way the items we throw away are perceived.

Our strategy sets out our targets, our priorities and importantly how we are going to monitor progress toward our goals. Each year we will set out what we're going to do and at the end of each year we will report back outlining what we did, how successful we were and what we have learned to help us continue to move forward.

At all stages we welcome your input, support and action. You can see what we're doing and how you can get involved on our website

[www.westlondonwaste.gov.uk](http://www.westlondonwaste.gov.uk).



Councillor Bassam Mahfouz

Chair of West London Waste Authority 2010



## Section 3: Overarching Aim and Objectives

### Aim

For the six West London boroughs and the West London Waste Authority to prioritise and work together to encourage waste prevention and reuse initiatives within the wider community.

This is in accordance with policy 2 and objective 11 of the West London joint municipal waste management strategy.

### Objectives

- Develop material specific implementation plans for each year of the waste prevention plan which are agreed by all partners before the beginning of each financial year.
- **4,600** tonnes less waste collected on behalf of the waste collection authorities in 2011
- **9,300** tonnes less waste collected on behalf of the waste collection authorities in 2012
- **14,200** tonnes less waste collected on behalf of the waste collection authorities in 2013
- **18,100** tonnes less waste collected on behalf of the waste collection authorities in 2014
- **21,600** tonnes less waste collected on behalf of the waste collection authorities in 2015

(all figures use the 2010/11 figures as a baseline to measure reduction)

## Section 4: Drivers for waste prevention activities

In West London the focus of waste management activities has been recycling. All of the boroughs within the area have good recycling rates and collect a wider range of material for recycling. Whilst this has been a successful strategy with the amount of waste being sent to landfill reducing year on year there are a number of drivers looking to point the direction of waste management in West London further up the waste hierarchy and supporting the development of this plan. These drivers are summarised in table 1.

Table 1: Summary of key drivers

Type	Headline	Detail
Legislation	Revised Waste Framework Directive	<ul style="list-style-type: none"> <li>Places a legal duty on local authorities to consider waste in the order of the hierarchy so waste prevention must be considered.</li> <li>A new waste hierarchy to be followed with prevention not being considered waste but preparing for reuse is considered waste.</li> <li>There will be a requirement for waste prevention programmes to be introduced by December 2013.</li> </ul>
Policy	National Waste Policy Review	<ul style="list-style-type: none"> <li>The review is already showing a desire for moving toward a zero waste economy. With a focus on products and materials including waste prevention for all sources of waste.</li> <li>Local action will be a driver for change.</li> <li>With a focus on ensuring that items are not wasted there will be incentives to ensure the best is made of every item.</li> </ul>
Legislation	Landfill Allowance Trading Scheme	The amount of waste that West London can send to landfill is decreasing, although waste generation is dropping and the amount of residual waste is decreasing it isn't reducing as quickly as the level of allocated allowances. This has financial implications as allowances will have to be bought and the price of these fluctuate with supply and demand so the price can only be estimated.
Policy	Mayor of London's municipal and business waste strategies	<ul style="list-style-type: none"> <li>Wants to promote waste prevention and informing consumers about the value of what they are throwing away.</li> <li>A carbon measure will be put in place, the best method of saving carbon is by preventing waste.</li> </ul>
Policy	West London Joint	Several objectives and a policy were agreed in the strategy

	Municipal Waste Management Strategy	<p>to support waste minimisation activities:</p> <ul style="list-style-type: none"> <li>▪ Objective 1: Manage waste in accordance with the waste hierarchy</li> <li>▪ Objective 11: Work together to encourage waste reduction and reuse initiatives within the wider community</li> <li>▪ Policy 2: WLWA and its constituent boroughs will prioritise waste reduction and reuse</li> <li>▪ To divert an additional 40,000 tonnes of waste from the household stream by 2020 through a variety of activities</li> <li>▪ Get 280,000 households home composting by 2020</li> </ul>
Economic	Public spending review	<ul style="list-style-type: none"> <li>▪ The 2010 comprehensive spending review had prompted all public sector organisations to consider the services they provide.</li> <li>▪ If waste is avoided or reduced it does not need to be collected from residents, it does not need to be bulked and disposed of. This could represent a cost saving for all councils.</li> <li>▪ If items are reused they are less likely to need collecting by the local authority from residents' homes and then taken for sorting or repairing. Items that are reused also do not need to be treated and sent for disposal. Again this could represent a cost saving for all councils.</li> </ul>
Social	Demographics	<p>There are differences between the six boroughs. Some have greater levels of deprivation than others. Even within borough boundaries there are areas with different profiles. The differences between them will influence how implementation plans for the target materials will be put in place. The demographic data available differs between the 6 West London boroughs. For each action these will need to be looked at in order to ensure messages are relevant to the proposed target audiences.</p>
Environmental	Waste arisings	<p>Whilst the amount of waste sent to landfill has been decreasing there is no identified explanation for this change. With disposal costs increasing there is an incentive to reduce waste and increase diversion to other locations.</p>
Environmental / Economic	Waste composition	<p>Over 60% of the residual waste being sent for disposal could be recycled or composted. Full details about the composition of the waste and residual waste in West London are in section 6.</p>

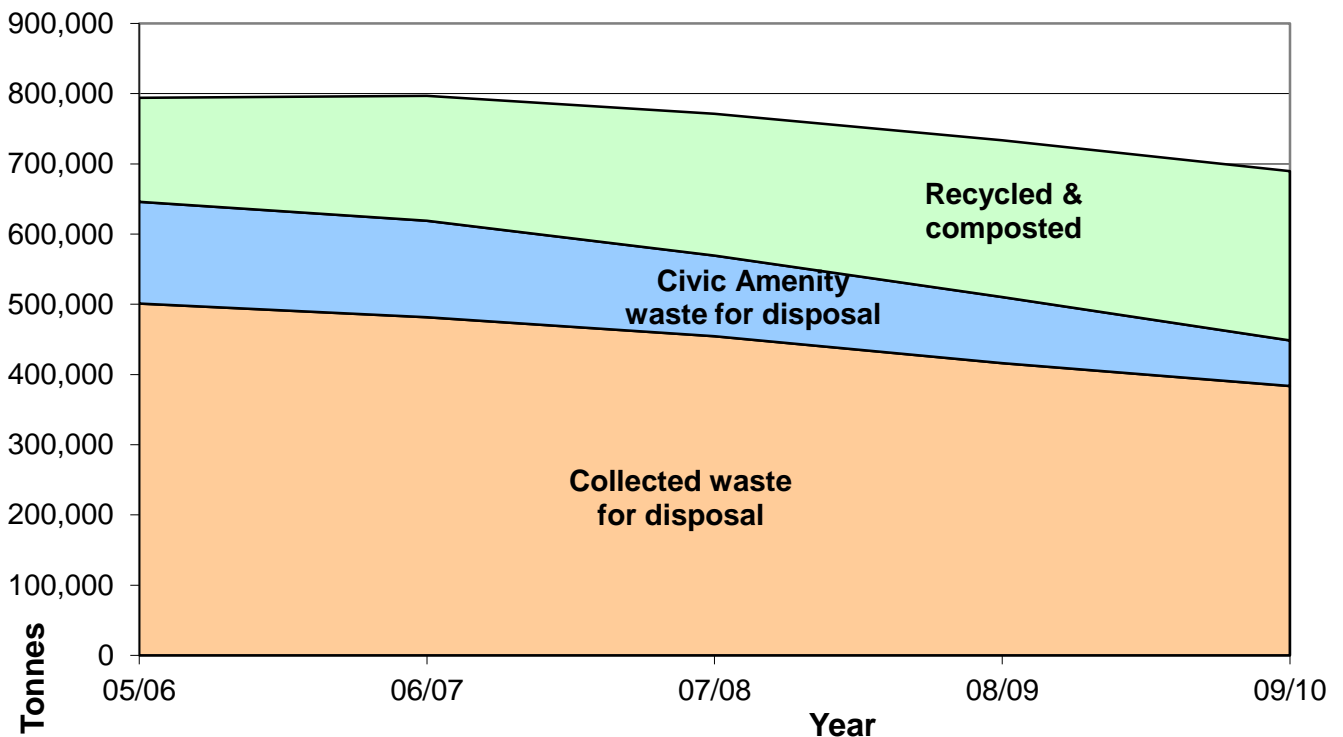
## Section 5: Waste Arisings

The amount of waste collected in West London has been falling since before 2005. Graph 1 illustrates there has been a decreasing amount of collected household residual waste, decreases at the household waste and recycling centres and a significant increase in the amount recycled and composted.

Collected residual waste fell from just over 501,000 tonnes in 2005 to 354,000 in 2010 (a reduction of 23%) and recycling/composting increased from 148,000 tonnes to 241,000 tonnes. Overall waste arisings (excluding trade) fell by 10% between 2005 and 2010. Whilst trade waste has decreased in this time it is not possible to identify the reasons behind the fall in residual waste collected from homes. It is also not possible to predict whether the future trend will be for waste to increase again in future.

During the same time period the cost of landfill has significantly increased leading to increasing costs. Although waste has decreased the rate at which landfill allowances are decreasing is faster than the waste falling so it is predicted that allowances will be exceeded in 2013 so more work is needed to ensure waste continues to reduce.

Graph 1





## Section 6: Waste Composition

A composition analysis for West London carried out in October 2010 identified the materials in the waste thrown away by West London residents. The following tables show the mostly common materials by weight percentage.

This is only a one season analysis so might not be totally representative of the materials thrown away on a yearly basis as it does not take into account generation of different waste types during the summer such as garden waste. However, the results give a good indication by waste stream for the majority of other waste types.

### Collected household waste

Table 2 shows in the overall waste which includes items put in the residual waste bin (either a wheeled bin or black sacks) as well as items put in recycling containers for collection by the council.

<b>Table 2: Total waste composition by %</b>	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond	WLWA
Newspapers & magazines	7.45	9.87	10.29	8.96	7.50	10.21	8.48
Other paper	7.61	6.50	8.05	6.16	7.28	6.63	6.18
Cardboard	6.38	8.80	4.79	5.34	6.70	8.24	6.52
Plastic film	3.56	4.05	2.66	3.93	5.33	3.24	3.52
Plastic bottles	2.53	2.10	2.01	2.09	3.43	2.32	2.29
Other plastic packaging	1.82	2.42	2.28	2.16	2.75	3.19	2.14
Other dense plastic	0.47	1.44	0.45	1.10	1.65	0.87	0.90
Textiles & footwear	1.80	1.97	1.64	2.71	1.63	1.93	1.94
Wood (incl furniture)	1.89	0.14	0.35	0.62	0.28	0.18	1.04
Disposable nappies	5.51	3.19	2.56	1.85	5.37	2.73	3.59
Other combustibles	2.15	1.04	0.73	2.51	5.15	1.01	1.84
Glass bottles and jars	8.58	8.99	4.21	5.85	7.81	13.63	7.36
Other glass	0.39	0.17	0.26	0.78	0.65	2.61	0.56
Rubble (C&D waste)	3.32	4.12	0.36	1.47	0.17	0.47	1.80
Other non-combustibles	0.84	0.20	0.15	0.06	0.09	1.18	0.36
Metal cans	1.70	1.52	0.99	1.96	2.22	2.40	1.66
Other metal	0.93	0.88	0.61	2.03	1.02	1.01	1.02
Food/kitchen waste	20.24	21.74	17.98	23.50	23.19	23.69	21.79
Garden waste	20.62	18.23	36.41	23.42	14.00	11.52	23.99
Other organics	0.43	1.10	0.98	1.12	1.90	0.82	1.11
HHW	0.03	0.12	0.63	0.04	0.10	0.05	0.14
WEEE	0.17	0.43	0.49	0.64	0.68	0.88	0.50
Fines	1.60	0.99	1.14	1.68	1.11	1.17	1.26

The most common materials by percentage of weight are (highlighted in green):

- Garden waste e.g. leaves, grass cuttings etc
- Food waste including peelings and uneaten food

- Newspaper and magazines
- Other paper
- Cardboard
- Glass bottles and jars

All of the six most common waste streams could be captured in the recycling schemes operating within the West London area. Five of the six boroughs collect all these materials in kerbside recycling schemes. This table doesn't identify how much of these items are being captured in the recycling schemes. However it does give an indication of the materials that could be targeted to reduce the amount of waste collected and treated or disposed of and the potential to increase recycling.

Table 3 identifies the most common items thrown away in the residual waste (bins or bags) as (highlighted in green):

- Other paper including telephone directories, junk mail, tissue and paper towels
- Cardboard including tetrapaks
- Plastic film
- Textiles and footwear
- Disposable nappies
- Food waste including peelings and uneaten food

<b>Table 3: % weight Residual waste composition</b>	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond	WLWA
Newspapers & magazines	5.53	4.00	2.31	4.47	3.94	4.93	5.82
Other paper	9.86	8.99	12.13	7.40	8.59	7.89	8.52
Cardboard	6.80	11.41	3.97	4.71	6.67	5.69	7.11
Plastic film	5.75	7.20	8.16	5.88	7.90	6.20	6.43
Plastic bottles	2.07	1.54	1.11	1.44	2.78	2.02	1.84
Other plastic packaging	2.79	2.90	3.85	2.98	3.20	4.98	3.19
Other dense plastic	0.64	2.86	1.15	1.73	2.46	1.67	1.55
Textiles & footwear	2.85	3.52	5.21	4.56	2.65	3.71	3.57
Wood (inch furniture)	3.08	0.26	0.96	1.05	0.39	0.34	1.99
Disposable nappies	9.07	6.32	8.13	3.11	8.53	5.25	6.98
Other combustibles	3.50	2.06	2.27	4.18	8.59	1.95	3.56
Glass bottles and jars	3.78	3.59	1.63	4.05	3.25	2.29	3.41
Other glass	0.60	0.33	0.74	1.13	0.83	4.76	0.89
Rubble (C&D waste)	5.48	8.17	1.19	2.30	0.22	0.90	3.47
Other non-combustibles	1.39	0.33	0.26	0.09	0.20	2.28	0.69
Metal cans	1.68	1.41	0.77	1.47	1.52	1.33	1.45
Other metal	1.38	1.64	1.56	3.12	1.60	1.46	1.75
Food/kitchen waste	29.67	26.28	35.13	39.33	29.46	31.45	30.70
Garden waste	0.92	1.96	1.38	1.20	0.58	5.30	1.67
Other organics	0.44	2.18	3.23	1.89	3.33	1.58	2.07
HHW	0.04	0.23	0.82	0.07	0.08	0.09	0.19
WEEE	0.29	0.85	0.33	1.06	0.95	1.69	0.82
Fines	2.40	1.94	3.72	2.77	2.24	2.24	2.35

Waste samples were also taken at the Household Reuse and Recycling Centres (HRRC). At these sites it was found that 19.38% of the items residents intended to throw away was taken to the site in unsorted black bags so could have been put out at home for collection. When analysed the black bags showed a similar breakdown to the materials in the household residual waste collection shown in table X.

Overall, the waste composition identifies that if a 100% capture rate of all materials that could be recycled was achieved an additional 60.95% of the residual waste could be recycled, or a total of 80% of all waste.

### Schools Waste

Sampling was also carried out at primary and secondary schools in each borough. The results for the content of the residual waste bins showed that the majority of the residual waste was:

- Food waste
- Other papers such as white paper and paper towels
- Cardboard

Table 4 gives details of the most commonly occurring items by weight in the schools' residual waste bins by borough

Table 4: School residual waste	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond	Total weekly tonnage
Residual waste generated tonnes/week	1.79	0.52	0.39	0.72	0.27	0.41	4.113
Food waste (t)	0.32*	0.15**	0.15	0.38	0.07	0.18	1.25
Green waste (t)	0.10	0.06	0.08	0.02	0.00	0.00***	0.26
Other paper (t)	0.31	0.12	0.05	0.10	0.07	0.06	0.70
Cardboard (t)	0.26	0.05	0.01	0.03	0.02	0.01	0.39
Total (t)	0.99	0.37	0.30	0.53	0.16	0.26	

\* Two of the 4 schools surveyed had a separate food waste collection capturing 550kg per week

\*\* One of the schools surveyed had a food waste collection, this represented 95kg per week

\*\*\* One of the schools had a garden waste collection during the time of the composition analysis

### Household Reuse and Recycling Centres (HRRC)

There are nine sites provided by the six boroughs in the West London area for the public to use. The composition of the residual waste taken to the HRRC differed significantly from the items collected from each home. Table 5 shows the most common items taken to these sites to be thrown away by weight.

Table 5: Residual waste at HWRC	Brent	Ealing	Harlow	Hillingdon	Hounslow	Richmond
Residual waste generated kg/per visitor	23.94	12.2	29.21	18.03	18.46	13.83
Other combustibles (incl carpets) (kg)	10.11	1.99	4.50	3.65	4.33	3.65
Other dense plastics (kg)	3.95	0.94	1.34	1.46	0.73	0.35
Textiles and footwear (kg)	4.70	0.81	1.08	1.34	1.58	0.20
Wood (kg)	0.85	1.01	2.51	1.80	4.21	0.55
If each household visited once a year the potential weight of the residual waste generated in tonnes	2040.94	582.27	865.00	900.77	1040.02	367.56
Number of Households	104,068	122,724	91,710	109,225	95,847	77,461

### Bulky Items

Details of items collected by bulky waste collection services by each of the boroughs were analysed. As the data for each borough covered a different period of time ranging from 3 to 9 weeks an average (mean) number of items per week were identified. Table 6 shows the number and category of the items collected. It also shows the possible tonnage of these items using an average weight of furniture taken from the Furniture Reuse Network nationally recognised figures.

Table 6: Bulky item composition

Item	Brent	Ealing	Harlow	Hillingdon	Hounslow	Richmond	Average week Total	Ave weight per item (kg)	Total weekly weight (kg)	Yearly total (40 weeks) in kg
Other items	26	14	1	56	17	57	171		0	0
Armchair and sofas	39	33	4	47	17	30	170	32	5440	217600
Unspecified furniture	53	20	0	62	15	27	177	10	1770	70800
Bed	36	21	3	29	7	17	113	53	5989	239560

Item	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond	Average week Total	Ave weight per item (kg)	Total weekly weight (kg)	Yearly total (40 weeks) in kg
Mattress	44	34	3	44	12	22	159	21	3339	133560
White goods	19	39	5	44	7	15	129	45	5805	232200
IT	10	6	1	29	6	12	64	5	320	12800
WEEE	14	5	0	17	4	9	49	5	245	9800
Carpets and underlay	7	2	0	10	3	5	27		0	0
Garden waste	0	0	0	0	0	0	0		0	0
Total	248	174	17	338	88	194	1059	Weight	22908 22.908	916320 916.32

## Trade Waste

Waste, both residual waste and recyclable material, is collected from businesses premises by four of the West London boroughs – Ealing, Harrow, Hillingdon and Richmond.

The composition showed a high level of food waste for most of the businesses, and is therefore similar to the results from schools and householders. The most common materials thrown away are shown in table 7 with both the percentage of the waste stream and weight in kilograms per week for each type of business.

Table 7: Business waste composition

Table 7:Business waste composition	Average food and drink outlet		Average Retail		Average Office		Average Other	
Material	% by weight	Weight per business per week (kg)	% by weight	Weight per business per week (kg)	% by weight	Weight per business per week (kg)	% by weight	Weight per business per week (kg)
Newspapers and magazines	1.46	0.36	18.76	3.77	2.48	0.37	4.53	1.11
Other paper	10.81	2.65	12.28	2.47	21.79	3.25	27.97	6.85
Cardboard	7.39	1.81	13.95	2.81	4.72	0.7	5.91	1.45
Plastic film	5.58	1.37	7.89	1.59	7.29	1.09	10.76	2.64
Glass bottles and jars	7.75	1.9	1.46	0.29	1.93	0.29	1.72	0.42
Food/kitchen waste	57.27	14.03	9.09	1.83	43.08	6.43	36.6	8.97

The only commonly thrown away item that cannot be recycled using the schemes provided to householders is plastic film. All other materials could be recycled using schemes already available to businesses from private contractors.

Preventing waste from businesses and encouraging separation and recycling of materials could be looked at further by each borough. From 2015 establishments receiving their collection from a local authority should have access to a service that enables them to recycle as appropriate to the needs of that business. Steps could be taken to also provide support to businesses so that they produce less waste and can reuse items to avoid generating waste for collection.

## Section 7: Key materials

Whilst it is possible to undertake actions that can encourage actions to reduce the volume of all the materials put in the residual waste, this strategy is only going to focus on materials that have a high negative impact on the natural environment, cannot also be recycled or have a higher value when either prevented or reused.

Using the data presented about the composition of the household and school residual waste, the items taken to the household waste and recycling centres and the bulky items the following material streams will be prioritised in this strategy:

- Food (preventing waste)
- Textiles and shoes (encouraging reuse)
- Disposable nappies (preventing waste)
- Electrical items (encouraging reuse)
- Furniture (encouraging reuse)

The waste composition report also identified the average weights of residual waste thrown away. Using this information it is possible to calculate the weight of these items being thrown away each year in each borough. The following tables show the potential for material diversion and the impact on disposal costs and potential carbon savings.

Table 8 shows the amount in tonnes of the most common materials in the household residual waste each year by borough. It also shows the total disposal cost for that weight of material assuming a rate of £100 (2010/11). This rate would rise by at least £8 a year to reflect landfill tax increases. The potential carbon savings in tonnes are also shown in this table. This is calculated using the kilograms of CO<sub>2</sub> equivalent per tonne of residual waste treated by material type cited in the Mayor of London's draft municipal waste management strategy.

The same calculation has also been made for the residual waste from schools. Table 9 contains the details of the most common residual waste materials from schools, the potential disposal costs and the carbon savings.

The data in tables 8 and 9 show the following impacts for the five priority material streams:

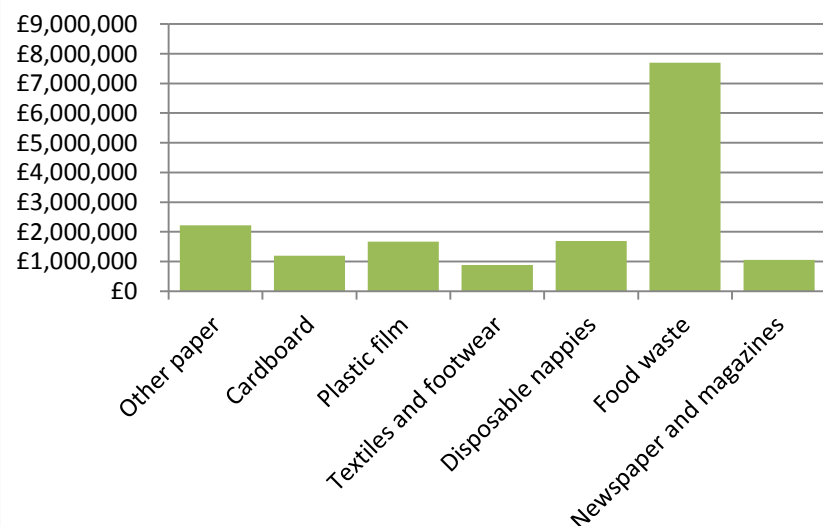
- Food waste – £8 million to dispose of this material and a potential carbon saving of - 196,627,012 for 80,982 tonnes
- Textiles – a carbon saving of up to 169,632,826 tonnes if all textiles currently put in the residual waste were reused and disposal cost savings of £979k (household collected and HRRC) for 9793 tonnes
- Electrical items and furniture – 861 items weighing 916 tonnes
- Disposable nappies – disposal costs of £1.7 million for 16,844 tonnes

Table 8: Tonnage, disposal cost and carbon savings for the most common household residual waste materials

Table 8: most common household residual waste materials	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond	Total yearly tonnage	Total yearly cost @ £100 disposal	Carbon savings if prevented	Carbon savings if recycled
Other paper	5,122.34	4,325.77	3,251.00	3,068.17	4,178.54	2,215.11	22,160.95	£2,216,095.09	-21,052,903	-6,626,124
Cardboard	3,532.65	549.02	1,064.01	1,952.85	3,244.57	1,597.47	11,940.58	£1,194,057.52	-11,343,546	-3,570,232
Plastic film	2,987.17	3,464.47	2,186.99	2,437.95	3,842.90	1,740.65	16,660.13	£1,666,012.50	-41,650,313	-16,660,125
Textiles and footwear	1,480.60	1,693.74	1,396.35	1,890.66	1,289.07	1,041.58	8,792.00	£879,199.89	-169,632,826	-38,438,619
Disposable nappies	4,711.93	3,041.03	2,178.95	1,289.46	4,149.36	1,473.94	16,844.67	£1,684,466.89	No data	No data
Food waste	15,413.79	12,645.31	9,415.31	16,306.93	14,330.60	8,829.58	76,941.51	£7,694,151.38	-186,813,995	-3,616,251
Newspaper and magazines	2,872.88	1,924.71	619.11	1,853.34	1,916.58	1,384.10	10,570.71	£1,057,071.49	-10,042,179	-3,160,644

Graph 2

Total yearly disposal cost @ £100 per tonne



Graph 3

Potential carbon savings per tonne of waste prevented or recycled

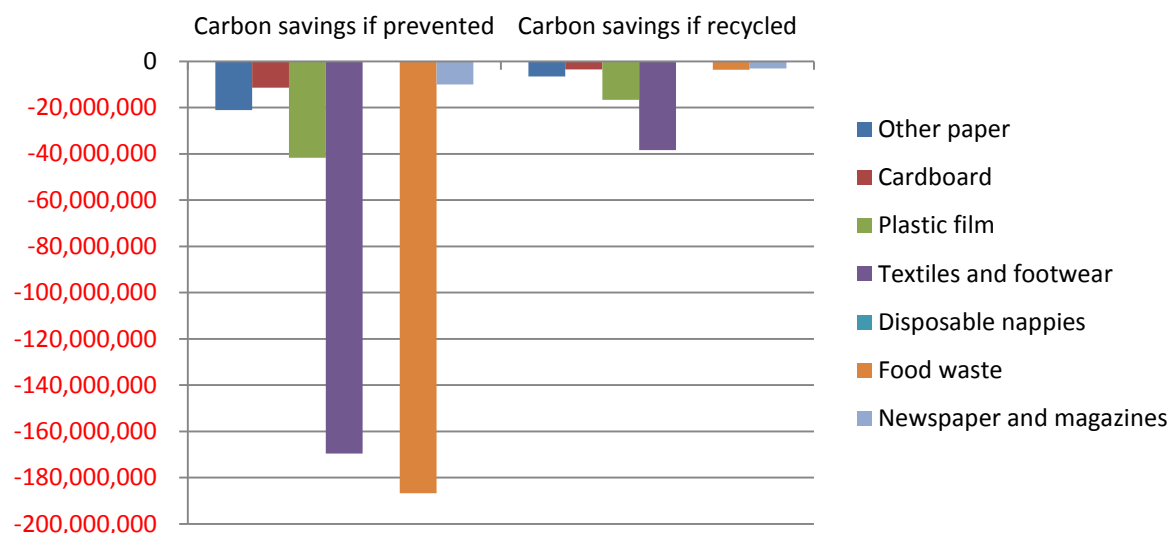




Table 9: Schools residual waste per borough per year by weight, disposal cost and carbon savings

Table 9: Schools residual waste per borough per year	Brent	Ealing	Harrow	Hillingdon	Hounslow	Richmond	Total yearly tonnage	Total yearly cost for all schools @£100	Carbon savings per year if prevented	Carbon savings per year if recycled
Number of schools	93	78	50	90	71	70				
Food waste	1203.72	455.66	305.79	1371.90	200.30	504.23	4041.60	£404,160.49	-9,813,017	-189,955
Green waste	384.34	172.30	159.01	63.62	7.63	0.00	786.90	£78,690.42	-70,034	-36,984
Other paper	1140.33	366.82	97.54	362.00	188.39	181.54	2336.61	£233,660.94	-2,219,779	-698,646
Cardboard	965.51	155.48	28.72	94.01	69.39	40.03	1353.14	£135,313.83	-1,285,481	-404,588
Total - potential diversion per year in tonnes	3693.89	1150.26	591.07	1891.53	465.71	725.80	8518.26		-13,388,312	-1,330,174
Cost of disposal @ £100	£369,389	£115,026	£59,107	£189,153	£46,571	£72,580	£851,826			

## Section 8: Existing Waste Prevention and Reuse Initiatives

There are some activities currently carried out within the area to encourage waste prevention actions. Each council has a different combination of activities and these are run differently according to the priorities and operations of each council. On this page are several examples of waste prevention work that has been undertaken in West London.

### Home composting in Brent

Since 2001 9,000 home composting bins have been distributed to Brent residents. Since then an estimated 4,877 tonnes of garden cuttings and food peelings has been used to make compost at home. If this material had been sent to landfill it would have cost £487,000 at current disposal rates.

As well as enabling residents to benefit from free environmentally friendly compost and saving money on avoid disposal costs the

scheme itself also represents good value for money. Brent has spent £99,000 on compost bins but the cost per tonne diverted to the council was £20 leaving an overall saving of £388,000.



### Home composting in Hillingdon

Almost 4,500 compost bins have been given to Hillingdon residents since 2005. Over the last 5 years these compost bins have been used to create compost from 2,223 tonnes of organic material. If this had been sent to landfill it would have cost £222,000.

Hillingdon paid £44,950 for these compost bins which lead to an overall saving of £187,000 with an investment of only £20 per tonne.

### Real Nappies



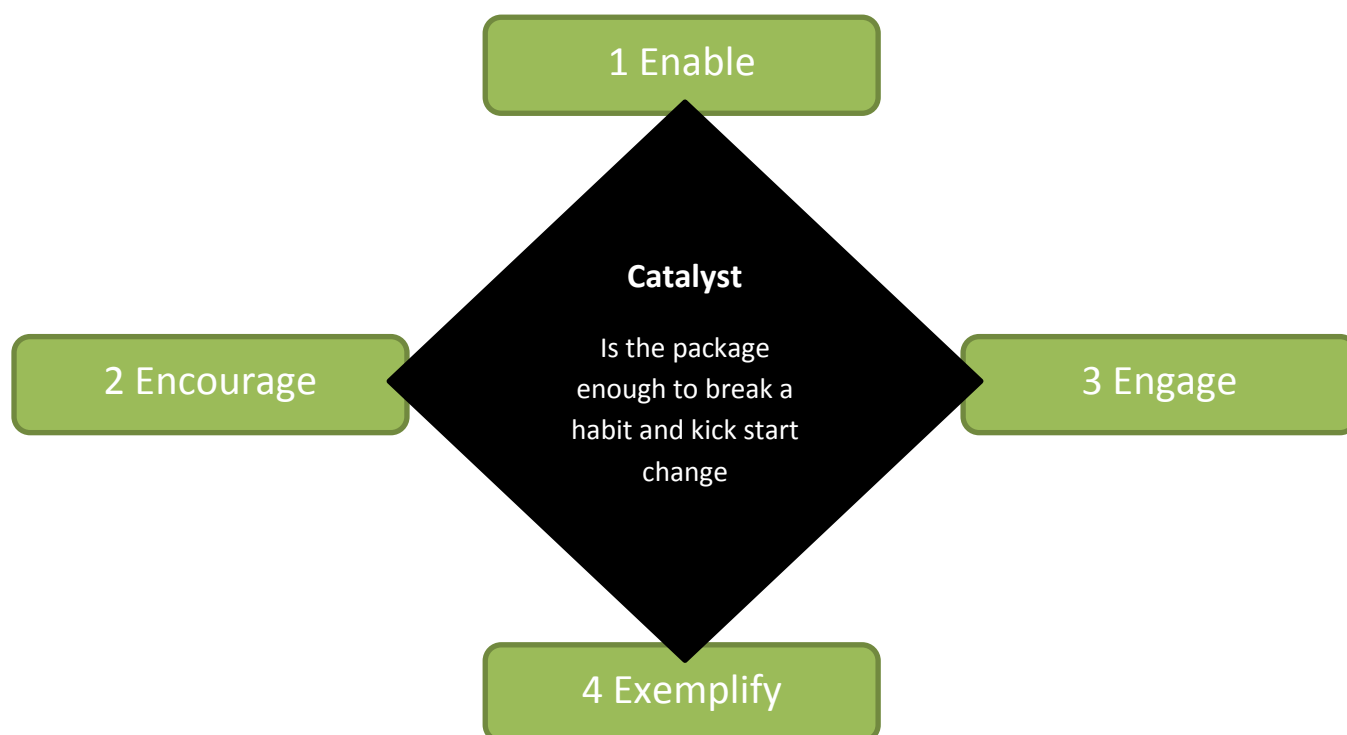
In 2004 Richmond and Hounslow Councils took the lead with real nappies in London by putting forward a proposal to Wrap for funding to set up a scheme to incentive increased usage of washable nappies. This scheme was used as a basis to create the existing Real Nappies for London programme which Hounslow has been a member of since it began in 2008. Since 2004 1,014 parents have bought real nappies leading to a potential avoided residual waste of 507 tonnes.

## Section 9: Recognising Choice and Taking Action

Recycling and composting has become a social norm, almost an expected action. Recycling services are readily available to the majority of the population and use of these schemes has increased over the last 10 years. It is increasingly easy to recycle even though there are a wide range of schemes available using different collection containers, differing frequencies of collection and accepting different combinations of material.

The behaviours to prevent waste or to reuse items are different to those needed for recycling. Attitudes and behaviours are complex, experiences and understanding shape behaviours over time and a deep-seated habit cannot be changed overnight.

The 4E's model is designed to ensure that all factors necessary to help an individual understand and accept that they have choices and act upon this information are present. The model was developed following research for the UK Sustainable Development Strategy published in 2005. This model is used in section 10 to evaluate the current waste prevention activities within West London.



	What it means in practice
<b>Enable:</b>	Make it easier. A choice cannot be made if someone doesn't know there is a choice, if they don't know what to do or if what they need to do is unavailable.
<b>Encourage:</b>	Give the right signals. Positive incentives or penalties could be used including price, peer pressure, tax, regulation, funding etc

### What it means in practice

Engage	Get people involved. Change cannot be delivered by others, an individual has to make a decision to act differently. Individuals need to take responsibility for their actions and this is more likely to happen when they are engaged with what is being done.
Exemplify	Show that you are doing what you want others to do. Take the lead in your community and set an example.

### What behaviours do we want to influence and behaviours we want to encourage?

There are actions people take which result in items becoming residual waste but by choosing alternative action there wouldn't have been anything to throw away. The activities outlined in sections 11 - 15 will focus the priority materials and aim to encourage residents to choose to act in a way that prevents waste. Table 10 outlines the future actions to be encouraged that could help prevent waste occurring.

Table 10 Item	Current behaviour	Future behaviour
Food	<ul style="list-style-type: none"> <li>Throwing away uneaten cooked food</li> <li>Throwing away food that has gone out of date</li> <li>Putting peelings in the residual waste bin</li> </ul>	<ul style="list-style-type: none"> <li>Sharing leftover recipes</li> <li>Planning portions</li> <li>Planning meals in advance</li> <li>Writing and following a shopping list</li> <li>Using the freezer to store a wider variety of foods</li> <li>Using a home composter or food digester</li> </ul>
Textiles and shoes	<ul style="list-style-type: none"> <li>Throwing away clothes that could still be worn</li> <li>Throwing away clothes that could be repaired</li> <li>Only buying brand new clothes</li> </ul>	<ul style="list-style-type: none"> <li>Donating to charity shops</li> <li>Repairing clothes e.g. sewing on a new button</li> <li>Getting clothes altered or customised</li> <li>Swapping clothes</li> <li>Buying clothes from charity shops and other people as well as high street shops</li> </ul>
Disposable nappies	<ul style="list-style-type: none"> <li>Only using disposable nappies whilst ignoring real nappies</li> </ul>	<ul style="list-style-type: none"> <li>Try using cloth nappies</li> <li>Sharing experiences of using cloth nappies with others</li> </ul>
Electrical items	<ul style="list-style-type: none"> <li>Throwing away items when a new one is bought</li> <li>Only buying new items</li> <li>Buying a new item when something stops working</li> </ul>	<ul style="list-style-type: none"> <li>Investigating repair of items</li> <li>Buying reconditioned electrical items</li> <li>Donating working items</li> <li>Researching choice of products</li> </ul>

	without investigating repair	on the market to ensure the product really meets their needs
Furniture	<ul style="list-style-type: none"> <li>Throwing away furniture that could be used by someone else</li> <li>Only buying new furniture</li> </ul>	<ul style="list-style-type: none"> <li>Investigating repair of items</li> <li>Buying reconditioned or second hand furniture</li> <li>Donating good quality items for reuse by others</li> <li>Researching choice of products on the market to ensure the furniture is really what they want</li> </ul>

## Communications planning

In order to enable, encourage, engage and exemplify there is a need to communicate with residents. For this communication to be effective and result in people choosing to act differently, planning is needed to ensure the right messages are being given to the people who will engage with them and those messages need to be delivered effectively to ensure value for the money spent on communicating.

For each material being targeted for waste prevention in this plan a communications plan will be developed to support the operational schemes.

## West London Waste website

[www.westlondonwaste.gov.uk](http://www.westlondonwaste.gov.uk) has been developed to act as a portal for all information about prevention and reuse in West London. It contains a lot of useful information and has the flexibility and scope for expansion. The use of the website will feature prominently in all communications plans.



The website was launched in November 2011 during European Week for Waste Reduction. It has steadily attracted around 1000 visitors each month. Most of the visitors are direct traffic found through search engines rather than following links from other websites.

## Section 10: Analysis of Current Activities

Section 8 identified the current activities undertaken in the six boroughs to encourage waste prevention. Using the 4E's model Table 11 evaluates these to identify which of these activities should continue, be discontinued or be adapted to achieve higher cost effectiveness. Unfortunately a lack of performance data makes it difficult to calculate the cost effectiveness of the measures taken so far.

**Table 11: Review of existing activities**

Material	Current activity	Encourage choice				Cost effectiveness (£/t diverted)	Activity: Continue Adapt Discontinued
		Engage?	Enable?	Encourage?	Exemplify?		
Food waste	Home compost bins available for residents	No – in some areas	Yes – in most boroughs	Yes – there are some subsidies	No	Medium / High	Adapt existing schemes to follow best practice
Other paper	Junk mail stickers	No	Yes – stickers are easy to obtain	No	No	Low	Discontinue – use existing stocks of stickers
Disposable nappies	Partners in Real Nappies for London Scheme	No – some work	No – further work needed to make cloth nappies easily available	Yes – there are some subsidies	No	Medium	Adapt to encourage best practice across the West London area

## Section 11: Waste Prevention Priorities - Food

### Scope

All foods (raw and cooked) regardless of whether they are grown at home or bought from shops are included in the material being targeted by activities. The scope includes food at home, at school, at work and at events.



### Aim

- To reduce the amount of food in the residual waste from homes, schools and businesses

### Objectives

#### Input objectives

- Provide at least 10 different tools to residents to help them get the most from the food they buy including recipe ideas, meal planners, storage tips and access to measuring accessories.
- Facilitate easy access to home composting bins or food waste digesters for all residents and schools by 2012
- Hold 10 events focusing on food waste in each borough each year until 2015.
- Hold one composting awareness event in all boroughs each year
- Post a new leftovers recipe or recipe using an unusual item on the West London Waste website every month between June 2011 and March 2015.
- Recruit 12 Love Food Hate Waste champions in 2011/12 and use these champions to recruit 6 new champions each year until 2015.
- Support the re-distribution of food near its sell-by date from shops with a partnership with FairShare and other location organisations from 2012.
- Recruit 1 exemplar school in each borough to reduce food waste by 50% of 2011 levels by 2015.
- Put food waste prevention measures in place for one borough canteen by December 2012.
- Support six businesses each year to reduce food waste by 10% year on year.
- Develop a communication plan each year until the end of this strategy to promote Love Food Hate Waste messages.

- Develop a guide for businesses to reduce food waste and make it available by March 2012 on the West London Waste website.

### **Outcome objectives**

- Achieve 50% recognition of the Love Food Hate Waste branding in West London in 2015
- 200,000 committed food waste reducers in West London by 2015
- Have a home composting lapse rate of 3%, the lapse rate is the number of people choosing to stop using their compost bin each year.



### **Impact objectives**

- Food waste in the residual waste stream reduces to less than 25% of composition by weight in 2015
- A reduction in food waste in the residual waste by 1,000 tonnes each year
- Sales of 10,000 compost bins or food waste digesters to residents every year until 2015

### **Monitoring food waste changes**

The following measuring will be used to monitor progress toward objectives and success of work undertaken. In the yearly plans appropriate measure will be allocated to each activity:

- The number of each tool given to residents
- Number of residents engaged with through initiatives
- Number of events held or attended
- Number of LFHW champions
- Number of completed food waste reducer questionnaire
- Number of committed food waste reducers
- Number of participants in LFHW projects
- Proportion of population recognising the LFHW branding
- Number of home composting bins and food waste digesters distributed
- Number of home composting bins still in use each year
- Number of schools recruited to reduce food waste
- Number of businesses engaged
- Number of partnering organisations



- Number and variety of recipes on the WLW website
- Number of website hits
- Downloads of information and guides
- Amount or percentage reduction of food waste in school, council and business operations
- Proportion of food waste in residual waste stream

## Activities

Each year a waste prevention plan will be developed outlining the activities to be undertaken in the following 12 months. These will be shaped by existing activities, success of previous activities and other factors and information that may become apparent during each yearly period.



## Section 12: Waste Prevention Priorities – Textiles and shoes

### Scope

Textiles include a wide range of everyday items. With all clothes, shoes and bags for men, women and children as well as bedding, blankets, curtains and other items made from fabric such as cushion covers. This includes items made from cotton, polyester, wool, silk and blends of these materials.

### Aim

- To make it easy to reuse, repair and recycle textiles



### Objectives

#### Input Objectives

- Textile communications plans developed each year
- Provision of information about repairing clothes on West London Waste website
- Hold 3 events in each borough per year to encourage reuse and repairing of clothing
- All textile reuse opportunities in West London identified and made available to residents on the West London Waste website
- Standardisation of accepted materials in textile reuse banks across the boroughs by 2013

#### Outcome Objectives

- Links made to the relevant courses at further and higher education organisations in West London
- 100 more textile reuse banks across West London by 2015

#### Impact Objectives

- Reduction in textiles in the residual waste by 50% of 2011 levels in 2015

## Monitoring textiles reuse

The following measuring will be used to monitor progress toward objectives and success of work undertaken. In the yearly plans appropriate measure will be allocated to each activity:

- Number of events held
- Number of people engaged about textiles
- Opportunities to see or hear textile messages in the media
- Hits and visitors to the website pages about textiles
- Downloads of information about repairs
- Number of textile banks across West London
- Tonnage diverted for reuse through textile banks
- Number of FHE courses linked with
- Number of clothing items swapped at events
- Attendance at courses about textiles and sewing



## Activities

Each year a waste prevention plan will be developed outlining the activities to be undertaken in the following 12 months.

These will be shaped by existing activities, success of previous activities and other factors and information that may become apparent during each yearly period.

## Section 13: Waste Prevention Priorities - Furniture

### Scope

Furniture would typically include items bought for use in the home such as beds, bookcases and sofas that you would take with you when moving home. The activities related to this material will include furniture from businesses and schools as well as at home. It will also include items such as mirrors, prints and other items needed for you to live at home such as crockery.

### Aim

- Increase the throughput of furniture in local reuse projects

### Objectives

#### Input Objectives

- Provision of consistent and accurate information about the furniture reuse options available during the lifetime of this strategy
- Business support provided to reuse organisations to assist development
- Yearly communication plan to encourage reuse and repair of furniture
- Hold one event per borough per year encouraging furniture swapping and repair
- Provision of an updated directory of reuse organisations accessible to the public
- Tell all residents requesting a bulky items collection about reuse alternatives from September 2011
- Investigate the opportunities for reuse organisations to provide borough bulky item service to encourage source separated good quality furniture
- Promote reuse using internet based services such as Freecycle, Freegle and Ecomodo
- Work with housing associations to encourage reuse and furniture swapping between tenants
- Work in partnership with other appropriate organisations including London Reuse Network

#### Outcome Objectives

- All housing associations aware of the furniture reuse projects
- All residents have the opportunity to see or hear about reuse projects
- Partnerships formed with FHE institutions to train people to repair furniture



### **Impact Objectives**

- Increased throughput of furniture to reuse projects by 10% each year
- An additional 10 referring agencies for furniture reuse projects each year
- Repair schemes operating at two furniture reuse projects in West London by 2015

### **Monitoring furniture reuse**

The following measuring will be used to monitor progress toward objectives and success of work undertaken. In the yearly plans appropriate measure will be allocated to each activity:

- Number of enquiries received by boroughs and the reuse projects
- Number of hits to WLW website
- Requests for business support and number of organisations helped each year and cumulatively
- Opportunities to see and hear furniture reuse messages
- Number of events held
- Number of people spoken to
- Number of organisations promoting reuse and repair
- Number of bulky item services promoting reuse
- Enquiries diverted from bulky item collections to reuse projects
- Number of items donated for reuse
- Number of items repaired
- Number of people assisted by reuse projects
- Local members of internet based services such as Freecycle and Freegle
- Partnerships formed with housing associations

### **Activities**

Each year a waste prevention plan will be developed outlining the activities to be undertaken in the following 12 months. These will be shaped by existing activities, success of previous activities and other factors and information that may become apparent during each yearly period.

## Section 14: Waste Prevention Priorities – Electrical Items

### Scope

Items of all sizes that need to be plugged in to an electrical socket to function will be considered electrical items. This will range from fridge's, washing machines and microwaves to lamps, hairdryers, games consoles and sound systems. It will also include items that have to be charged from a mains power socket before they will function such as electric toothbrushes, hand-held games consoles and mobile phones. It will not include items that can only be powered by batteries e.g. toys, wall clocks, watches and smoke alarms.



### Aim

- Enable reuse of electrical items in preference to recycling

### Objectives

#### Input Objectives

- Conduct an electrical reuse communications campaign each year
- Make a list of all organisations enabling reuse of electrical items available to residents
- Provide business support advice to reuse organisations in the London Reuse Network
- Increase the number of drop off points for small electrical items by 20% each year until the end of this strategy
- Produce and publish a guide to electrical reuse on the WLW website each year
- Hold two electrical item amnesty events in each borough each year

#### Outcome Objectives

- Electrical reuse containers at all Household Reuse and Recycling Centres before the end of 2012/13
- Easy drop-off points in partnership with third party organisations in each of the six boroughs

#### Impact Objectives

- 10% of electrical waste sent for reuse in 2011/12

- 20% of electrical waste sent for reuse in 2012/13
- An increase of 10% each year after 21012/13

## Monitoring electrical reuse

The following measuring will be used to monitor progress toward objectives and success of work undertaken. In the yearly plans appropriate measure will be allocated to each activity:

- Opportunities to see adverts or publicity material encouraging reuse
- Number of organisations collecting and enabling reuse of electrical items
- Requests for information and downloads of relevant reuse documentation and guides
- Number of events held in each borough and the whole area
- Tonnage of items sent for reuse
- Number of items sent for reuse

## Activities

Each year a waste prevention plan will be developed outlining the activities to be undertaken in the following 12 months. These will be shaped by existing activities, success of previous activities and other factors and information that may become apparent during each yearly period.





## Section 15: Waste Prevention Priorities - Nappies

### Scope

Nappies include all items put on babies and young children to collect bodily excretions. Nappies can be disposable, compostable or washable.

### Aim

- Provide a choice to parents with young children to find the nappy that's most suitable for them.



### Objectives

#### Input Objectives

- Provide detailed and accurate information about choices on the West London Waste website at all times
- Provide resources to enable an information stand to move around locations within the area
- Provide information at 5 events in each borough every year
- Identify and contact all organisations linked to babies and young children with a potential interest in this information
- Have information distributed to all parents when the babies are born in West London hospitals by 2015
- Conduct research into incentives to encourage parents to consider alternative options and use this to develop a plan of action in 2012/13
- Support Real Nappies for London
- Attend Real Nappy for London steering group meetings to influence the development of initiatives in London

#### Outcome Objectives

- 50% of new parents aware of the alternatives to disposable nappies
- Increase locations making alternatives available to residents by 10% each year
- An in-area nappy laundering service is available

#### Impact Objectives

- 10% of new parents choosing to try an alternative nappy type



## **Monitoring nappy changes**

The following measuring will be used to monitor progress toward objectives and success of work undertaken. In the yearly plans appropriate measure will be allocated to each activity:

- Number of enquiries received
- Number of hits on webpages
- Number of events attended and organised
- Number of parents trying alternative nappies
- Number of parents using alternatives as the main nappy
- Recognition of alternatives
- Number of organisations being worked with in partnership

## **Activities**

Each year a waste prevention plan will be developed outlining the activities to be undertaken in the following 12 months. These will be shaped by existing activities, success of previous activities and other factors and information that may become apparent during each yearly period.

## **Section 16: Reporting progress and success**

### **Yearly waste prevention plans**

Each year a plan will be developed to include all activities to be conducted and methods to measure progress against the goals set for that period. The measures may include those mentioned in sections 11 to 16 or include additional measures as deemed appropriate. During the year progress against the plan will be reported at regular Waste Prevention meetings with representatives from each of the partners.

At the end of each year a report will be submitted to the Authority members for review. The report will outline the progress made against the yearly plans and the progress toward the objectives in this strategy. The report will also consider best practice, lessons to be learned and factors that contributed toward the success of the activity or reasons for not meeting targets set.

### **Reporting in 2015**

Progress against the overall aim and objectives will be considered each year. At the end of 2015 success will be measured against the progress made during each year as well as the overall aim and objectives in this strategy.

The progress will be reported to the Authority and then made available to the public.

### **Changing drivers**

It is hoped that this strategy will remain in place until 2015, however if a change in policy or legislation means that the strategy is no longer adequate to meet the needs of residents, the boroughs or government it will be reviewed and amended as appropriate.