

# Waste & Recycling Options

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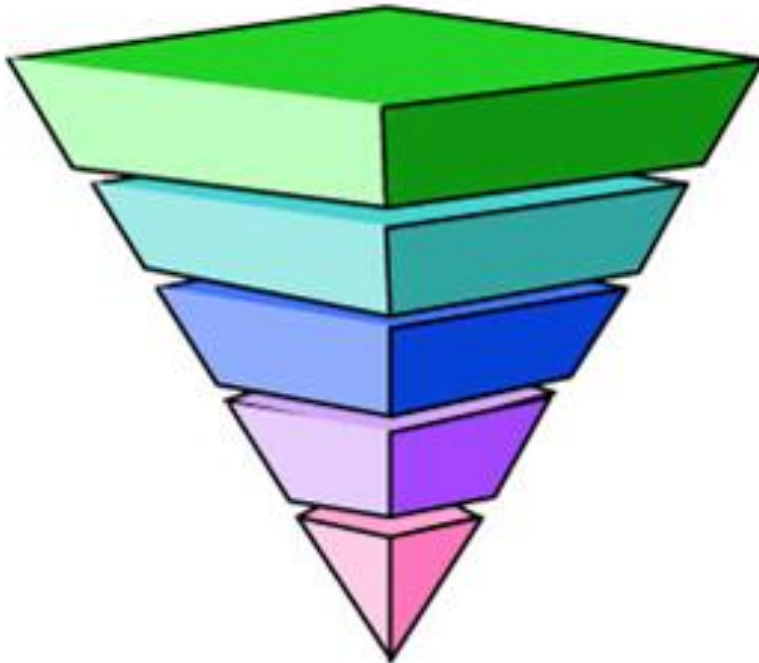
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# Waste Hierarchy



## Prevention

If you can't prevent, then....

## Prepare for reuse

If you can't prepare for reuse, then....

## Recycle

If you can't recycle, then....

## Recover other value (e.g. energy)

If you can't recover value, then....

## Disposal

Landfill if no alternative available.



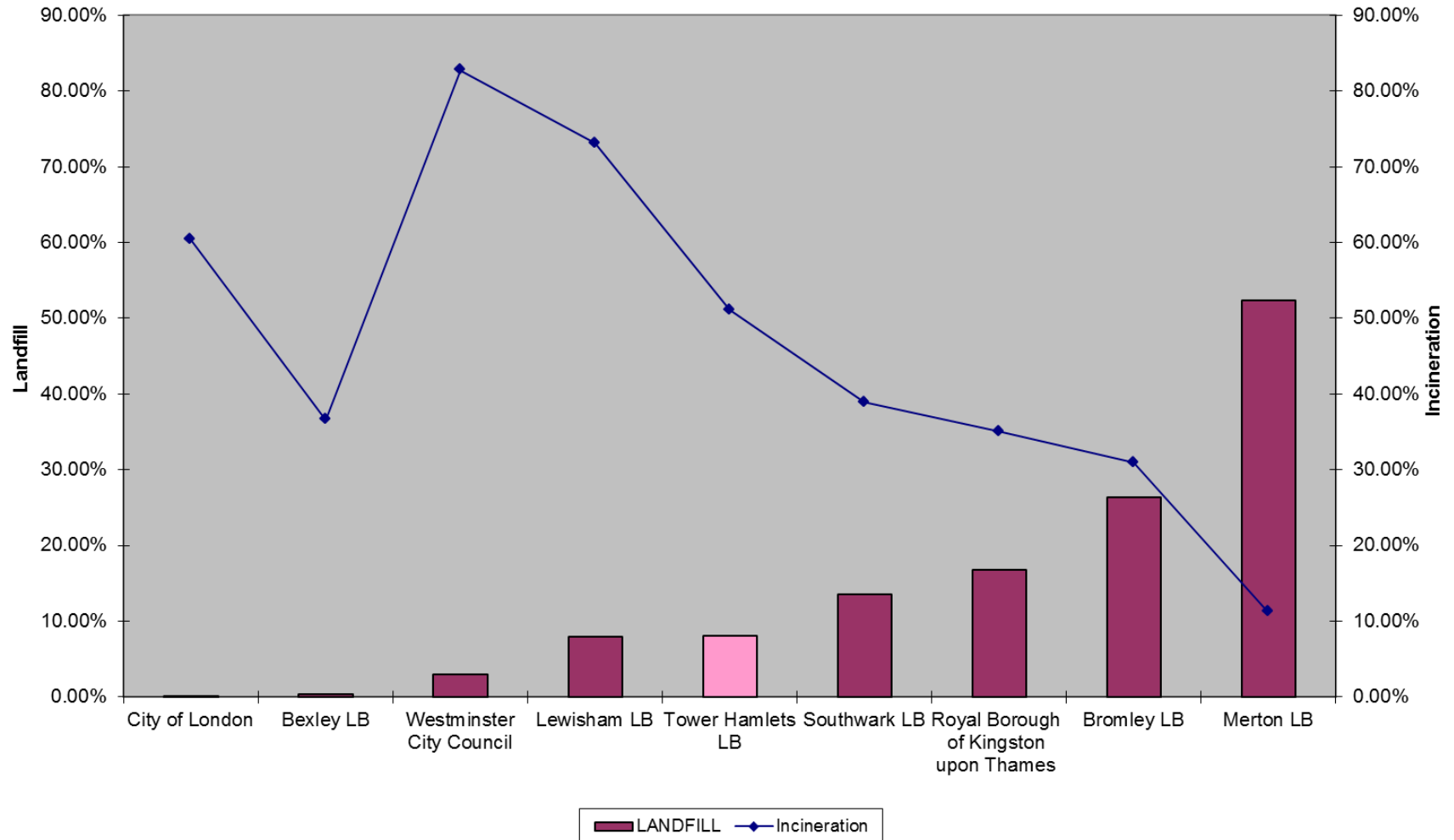
# Lewisham's Early Waste Strategy

- Lewisham forerunner at diverting waste from landfill
  - SELCHP 30 year contract (with Greenwich)
  - Stable waste disposal costs
  - Reduced reliance on landfill
  - Savings of millions each year
- Proximity Principle
  - Most of Lewisham's waste is disposed of as close to source as possible



# Incineration vs Landfill

Municipal waste - Landfill / Incineration comparisons 2013/14



# Current Waste & Recycling Services

## Collection (In house)

- Weekly Refuse (180l)
- Weekly Co-mingled dry recycling (240l)
- Request Garden Waste
  - £10 for 10 sacks
- Bulky / Lumber Waste
  - £15 for three items
  - ‘Free’ collection points on estates

## Disposal (contracts)

- SELCHP (contract 2024)
- Bywaters (contract Dec 2014)
- Via Bromley (In Vessel Composting)
- Hinkcrofts for sorting, including recycling, refuse derived fuel and landfill



# Current. Weekly refuse, weekly recycling, charged garden waste

**Refuse**



**Weekly**

**Recycling:  
Co-mingled**



**Weekly**

**Garden waste**  
£10 per roll



**On request**



# Tonnage & Performance

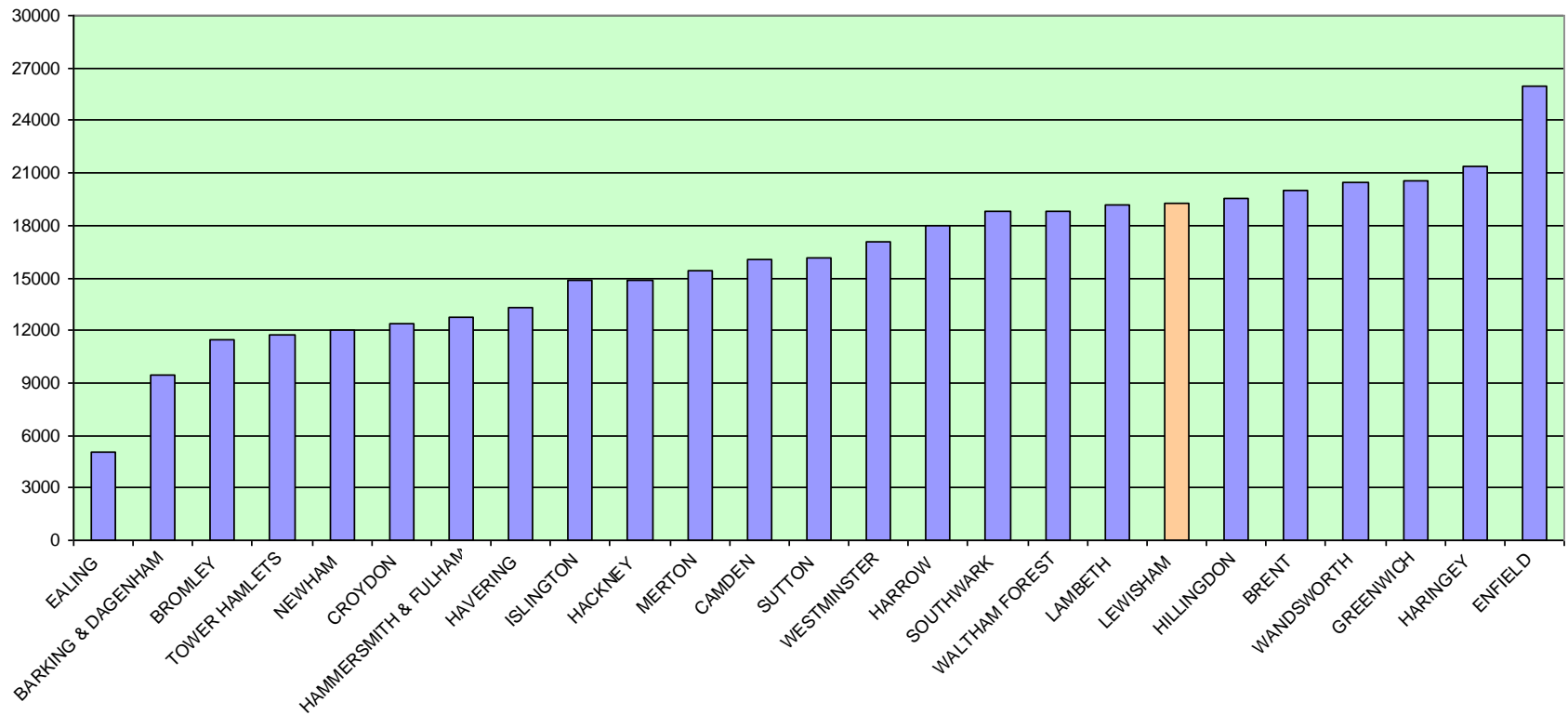
## 2013-14

• Total Local Authority Collected Waste	133,183 tonnes
• Total Household Waste	106,742 tonnes
– Recycled, Composted, Reuse	18,857 tonnes
– Energy from Waste (EfW) SELCHP	82,744 tonnes
– Landfill	5,142 tonnes
• Reuse & Recycling Centre	5,431 tonnes
• Household Recycled, Composted, Reused	17.67%
• Household Energy from Waste	77.52%
• Household Landfilled	4.82%
• Residual Waste per Household/Yr	725kg



# Dry Recycling MRF Tonnage

Co-mingled Kerbside Tonnages taken to MRF





# Drivers for Change

- Legislative
  - Waste Regulations 2012
    - Waste hierarchy
    - Separate Collection (Necessity & TEEP)
- Financial
  - Localism Act s30
  - Savings Options & Budget Pressure
- Future Waste Planning
  - SELCHP contract & future disposal costs
  - Popn / Household Growth
  - Shared procurement



# Neighbouring Authority Services

Authority	Refuse	Recycling	Food	Garden Waste
Greenwich	Weekly	Weekly (Co-mingled)	Weekly with garden	Weekly with food
Hackney	Weekly	Weekly (Co-mingled)	Weekly	Weekly (free)
Tower Hamlets	Weekly	Weekly (Co-mingled)	Weekly	Weekly (free)
Southwark	Fortnightly	Fortnightly (Co-mingled)	Weekly with garden	Weekly with food
Lambeth	Weekly	Weekly (Co-mingled)	Weekly	Weekly - £35/yr (+£5 per reusable bag)
Westminster	Twice week	Weekly (Co-mingled)	None	None
Newham	Weekly	Fortnightly (Co-mingled)	None	Free – bookable service
Croydon	Fortnightly	Fortnightly (Twin stream – Paper + rest)	Weekly	Fortnightly (free)
Wandsworth	Weekly	Weekly	None	None (although 5 bags a wk can be put out – EfW)
Ealing	Weekly	Weekly (twin stream – plastics + rest)	Weekly	Fortnightly - £30 early bird / £40 annual (25% discount)
K&C	Twice week	Weekly (Co-mingled)	None	Fortnightly – free (additional £2 reusable sack / £8.30 roll 25 bags)
H&F	Weekly	Weekly (Co-mingled)	None	None (although 5 bags a wk can be put out – EfW)



# Strategic Options

- Continue In House Collections vs Outsource Collections
- Shared Services
  - Shared depots
  - Shared fleets
  - Shared recycling facilities (WTS / HWRC)
- Partnership / framework contracts
- Service changes



# LWARB Efficiency Review

- LWARB Efficiencies Programme
  - Support to LA's in delivering significant savings
- Scope of Review
  - Kerbside Options Appraisal
  - RRC Assessment & Options Appraisal
  - Bulky Waste – estates collections monitoring & recommendations
  - SELCHP – review contract documentation & recommendations



# Kerbside Options Appraisal

- Kerbside (street level) properties only
- 8 scenarios modelled (plus one)
- A range of assumptions provided
  - All options include subscription based garden waste service @ £60 / year / hh
  - Vehicle type, number, crew & cost
  - Container type, lifespan & cost
  - Performance (yield, contamination, set out, participation, tonnage)
  - Disposal routes and costs / rebate



# Rejected Options

- **Option 1:** Refuse fortnightly; recycling co-mingled fortnightly; food & garden waste weekly
- **Option 2:** Refuse fortnightly; recycling twin-stream fortnightly; garden waste weekly
- **Option 4:** Refuse fortnightly; recycling kerbside sort weekly; food & garden waste weekly
- **Option 5:** Refuse fortnightly; recycling twin-stream weekly; food & garden waste weekly
- **Option 6:** Refuse weekly; recycling twin-stream weekly; garden waste fortnightly



# Shortlisted Options

- **Baseline plus garden waste:** Refuse weekly; recycling co-mingled weekly; garden waste fortnightly
- **Option 3:** Refuse fortnightly; recycling twin stream fortnightly; garden & food waste weekly
- **Option 7:** Refuse weekly; recycling twin-stream fortnightly; garden waste fortnightly
- **Option 8:** Refuse fortnightly; recycling twin stream fortnightly; garden waste fortnightly; food waste weekly
- Re-numbered to Option 1, 2, 3 & 4.



# 1. Refuse weekly, recycling weekly, garden waste fortnightly

**Refuse**



**Weekly**

**Recycling:  
Co-mingled**



**Weekly**

**Garden Waste**  
£60



**Fortnightly**





# Option 1

Refuse weekly; recycling co-mingled weekly; garden waste fortnightly

- *Requirements:*
  - 4 additional staff on baseline
  - 2 additional vehicles on baseline
  - Purchase of wheelie bins for garden waste service
- *Positives:*
  - Complies with DCLG weekly collection fund conditions
  - Relatively smooth continuation/implementation of services for households
  - Operationally easy to implement
- *Weaknesses:*
  - Potential non-compliance of Waste Regulations
  - Lowest increase in recycling rates
  - Higher risk of contamination of recycling
  - Require a certain amount of subscribers per vehicle to make the service efficient



## 2. Refuse fortnightly, recycling twin-stream fortnightly, food and garden waste weekly

**Refuse**



**Fortnightly**

**Recycling:  
Twin Stream**  
(paper +  
cans/glass/plastic)



**Fortnightly**

**Food  
Waste**



**Weekly**

**Garden  
Waste**  
£60



# Option 2

Refuse fortnightly; recycling twin stream fortnightly; garden & food waste weekly

- *Requirements:*

- Staff reduction on baseline of 11
- 20 vehicles in total, 5 specialist split back (reduction of 6 regular Refuse Collection Vehicles (RCV))
- Purchase 180l wheelie bins (GW)), kitchen bin & liners and caddies for food waste, 55l boxes for paper / card

- *Positives:*

- Likely compliance with Waste Regulations
- Increased compliance with Waste Hierarchy (food)
- Greatest improvement in recycling performance (with Option 4)
- Greatest reduction in residual waste collected as collect food and garden waste weekly
- Assist in reducing tonnage to SELCHP with the possibility of profit share on sale of spare capacity
- Fortnightly refuse collection should have a positive impact on food waste participation
- Improved quality of recyclate materials (separation of paper / card)
- Potential income from sale of paper / card

- *Weaknesses:*

- Major service changes for households
- Potential bulking and haulage issues (food)
- Non-compliance with DCLG funding (although food waste would be weekly)
- Potential bulking and haulage issues & costs (recycling)



### 3. Refuse weekly, recycling twin-stream fortnightly, garden waste fortnightly

Refuse



Weekly

Recycling:  
Twin Stream  
(paper +  
cans/glass/plastic)



Fortnightly

Garden Waste  
£60



Fortnightly



# Option 3

Refuse weekly; recycling twin-stream fortnightly; garden waste fortnightly

- *Requirements:*

- Reduction of 6 staff compared with baseline
- 20 vehicles in total, 5 specialist split back (reduction of 6 regular RCV's)
- Purchase 240l wheelie bins for garden waste, 55l boxes for paper / card

- *Positives:*

- Likely compliance with Waste Regulations
- Highest financial saving without major service change
- Complying with DCLG weekly collection conditions
- Fairly easy operationally
- Improved quality of recyclate materials (separation of paper / card)
- Potential income from sale of paper/card

- *Weaknesses:*

- Lower increase in recycling rates
- Moderate service change for households
- Potential bulking and haulage issues & costs (recycling)



# 4. Refuse fortnightly, recycling twin-stream fortnightly, food waste weekly, garden waste fortnightly

**Refuse**



**Fortnightly**

**Recycling:  
Twin Stream**  
(paper +  
cans/glass/plastic)



**Fortnightly**

**Food  
Waste**



**Weekly**

**Garden  
Waste**  
£60



**Fortnightly**



# Option 4

Refuse fortnightly; recycling twin stream fortnightly; garden waste fortnightly; food waste weekly

- *Requirements:*

- Staff reduction on baseline of 5
- 22 vehicles in total, 5 specialist split back, 7 specialist food waste and ten RCV's (reduction of 11 regular Refuse Collection Vehicles (RCV))
- Purchase 240l wheelie bins for garden waste, kitchen bin & liners and caddies for food waste, 55l boxes for paper / card

- *Positives:*

- Likely compliance with Waste Regulations
- Greatest improvement in recycling performance (with Option 2),
- Assist in reducing tonnage to SELCHP with the possibility of profit share on sale of spare capacity
- Flexibility with separated food and garden waste
- Fortnightly refuse positive impact on food waste participation and yields
- Improved quality of recycle materials (separation of paper / card)
- Potential income from sale of paper/card

- *Weaknesses:*

- Major service changes for households
- Potential bulking and haulage issues (food)
- Non-compliance with DCLG funding (although food waste is weekly)
- Potential bulking and haulage issues & costs (recycling)



# Variables

- Annual garden waste subscription fee amount
- Number of subscribers for garden waste
- Yield of various different waste streams in particular food and garden waste
- Participation rates and set out rates (i.e. how often set out) of various schemes
- Disposal costs including bulking, haulage and gate fees or rebate / income





# Sensitivity Test Shortlisted Options

- Sensitivity test three parameters:
  - Gate Fees
    - Organics – fairly stable market
    - Dry recycling - income / rebate based on global commodities market
    - Bulking & haulage
    - Use of current market conditions - actual costs only known on award of contract
  - Yields
    - Organics & dry recycling
    - Model against similar services in other boroughs
    - Kg / hh / yr
  - Garden Waste Subscriptions
    - 25% used in original modelling
    - Also look at 10% and 20%



# Costs

- Data obtained from a variety of sources
- Sensitivity analysis will alter these
- Due diligence

	Total operational cost	Depot, haulage and gate fees	Annualised capital cost (containers)	Garden waste subscriptions	Food waste liners (per annum)	Communications (at £1 per household)	Total net annual cost, all kerbside (including annualised capital costs for containers)	Comparison with Baseline	Comparison with Baseline PLUS
<b>Baseline</b>	<b>£3,629,822</b>	<b>£3,306,216</b>	<b>£0</b>			<b>£0</b>	<b>£6,936,039</b>	<b>£6,936,039</b>	<b>£7,137,266</b>
<b>Baseline PLUS</b>	<b>£3,664,409</b>	<b>£3,391,607</b>	<b>£0</b>			<b>£81,250</b>	<b>£7,137,266</b>		
Option 1	£3,629,822	£3,306,216	£58,944	-£786,900		£52,460	<b>£6,260,542</b>	-£675,497	-£876,724
Option 2	£3,360,652	£2,823,024	£109,536	-£786,900	£162,500	£81,250	<b>£5,750,061</b>	-£1,185,978	-£1,387,204
Option 3	£3,496,771	£2,994,883	£58,944	-£786,900		£81,250	<b>£5,844,948</b>	-£1,091,091	-£1,292,318
Option 4	£3,461,594	£2,717,282	£107,346	-£786,900	£162,500	£81,250	<b>£5,743,072</b>	-£1,192,967	-£1,394,194

# Next Steps

- Practical
  - Sensitivity analysis
  - Prepare full costings
  - Operational deliverability
  - Implementation timescales
- Strategic
  - Discussions with Greenwich
  - SELCHP contract



# Thank you

## Questions?

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