

CENTENARY HISTORY OF WASTE AND WASTE MANAGERS IN LONDON AND SOUTH EAST ENGLAND

BY LEWIS HERBERT



The Chartered Institution
of Wastes Management

Celebrating the 100th anniversary of
the creation, in 1907, of the London
and Southern Counties Centre of
the Chartered Institution of Wastes
Management (CIWM)



◀ Stephen
Didsbury
Centre
Chairman
2007 to 2009

Foreword

It is my pleasure to welcome you to this short history of the Centre, a fitting way to mark our centenary and conclude the programme for our centenary year.

It is a vivid account of the first hundred years of the Institution's London and the Southern Counties Centre, and a record of wider waste management progress and achievement across our region over the past century.

The Centre Council agreed to support this commemorative publication, which we also plan to translate to the Internet so it is available in resource saving format too.

It's a tall order to summarise 100 years and more into less than 50 pages, a compaction ratio of several millions to one, so this history cannot cover everything. It looks in particular at London and Hampshire's waste history because of the readily available historic material there. It also brings to life many of the major events and phases in our Centre's history. In the process, the history remembers many contributors to the Centre. It also recognises that others not specifically named here have contributed to the success of our Centre and progress in our industry.

Thanks to the combined efforts of many Centre Councillors and other members, we have enjoyed a special centenary year. We remember back to 1907 but we also look forward to the future challenges facing waste and recycling professionals.

On behalf of the Centre Council, I hope you thoroughly enjoy this history, and share it widely with others, including by ordering further copies and using the web version as a resource.

Stephen Didsbury
Centre Chairman 2007 to 2009

If you want to order further copies of the history, or want wider information about the London and Southern Counties Centre and its forthcoming events programme, email Mike Bland, Centre Secretary: mike.bland@ciwm.co.uk

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TWO TERMS USED IN THIS HISTORY

'Institution' is used as a consistent term throughout this history, to describe the CIWM and its predecessors, irrespective of the period and the organisation name at that time.

'London Centre' is used purely as a shorthand term for the London and the Southern Counties Centre.

OBSERVATIONS ON THE PAST GROWTH AND PRESENT STATE OF THE CITY of LONDON.

IN WHICH IS SHOWN,
A complete Table of the Churches and Houses within this City
from 1600 to 1700, both Years inclusive; together with a Table of the
Parishes which have formerly died of civilisation from 1600 to the present
Time; and also a Table of the Houses which have formerly died of civilisation
from 1600 to the present Time; from which it is particularly observed
that the City is now more than formerly deficient of Houses and
Parishes in this City; and concludes thereby that the Londoners are now
in a more healthy and happy State than formerly, in which are added
some Remarks on the State of the City of London.

By the Author of a Letter from a Dissenter.

London: Printed by J. DODD, in the Strand, 1764.



LONDON:
Printed in the Year MDCCLX.
(1760 or 61)

Typical Urban Scavenger from Late 18th
Century Onwards



London's First Recorded Waste Strategy - 1751

Waste Management in London and Southampton in the 18th Century

LONDON WASTE STRATEGY AS PROPOSED BY CORBYN MORRIS IN 1751

Corbyn Morris's strategy in 1751 proposed some pretty radical steps

- "One uniform publick Management", an integrated London-wide strategy
- Conveyance "to proper distances in the country", well away from the city
- Use of the Thames to landfill downstream (As still used in 2007 for barging from Inner London until that runs out)
- Use of the waste as a land improver.

MEANWHILE IN SOUTHAMPTON ...

The minutes of the Common Council of Southampton recorded that: in 1753 Messrs Warwick and Minshaw of Southampton undertook to collect the waste and dung for the Council, paying a yearly rate of ten guineas plus a couple of capons.

This income was paid to the Mayor towards the expenses of his office.

On 30 September 1769, that town scavengers had been appointed

“to keep the streets clean and to send proper servants and carriages for so doing two days in every week on Fryday and Saturday”.

In spite of this, there were often complaints about dung heaps in the city. In August 1770, that the Southampton Commissioners appointed William Bissington scavenger for the city. He rented the town waste at £5 per annum, and every householder paid scavenge money.

It was an offence to

“throw, cast or lay any ashes, dust, dirt, dung, soil, filth or rubbish, or the refuse of any garden stuff, or any blood, offal, or carrion or any other noisome or offensive matter or thing whatsoever”

with a fine of five shillings for a first offence

(Minute Book of the Pavement Commissioners of Southampton, 1770-89).

The streets were swept twice a week, and the deposits left in heaps in the Marsh to be removed when dry, used as fertiliser, or placed on the Hoy at Water Gate from where it would be “shot immediately into the vessel” and shipped away.

Source: www.integra.org.uk:80/facts/history.html



Hand picking of rubbish at
Cooksons Dustyard, Tinworth
Street, Vauxhall 1904
© Greater London Photo
Library



19th Century London Dust-yards

LONDON DUST-YARDS IN THE LATE 18TH AND EARLY 19TH CENTURIES WERE AN EARLY EXAMPLE OF LARGE SCALE 'ZERO WASTE' OPERATIONS

It is little appreciated that by 1800 London had both an informal recycling collection system, and an organised 'residual' waste management system. This was driven by the resource value of household waste rather than any legislation or public health concerns. Since medieval times, an active network of waste-buyers and 'street finders' had removed saleable items from the capital's waste mounds.

The industrial revolution and migration to the cities meant that residual waste comprised largely coal ash from domestic fires. This residue was in demand for both

- brick making, badly needed by a rapidly expanding London, and
- soil conditioner in the neighbouring South East, including for the crops needed to feed the growing urban masses.

Typical Dust-yard outputs

Key – “SRF” - secondary recovered fuel, and “CLO” - compost-like output

Component	Soil	Breeze	Cinders	Softcore	Hardcore	Rags	Iron	Bones	Glass	Other
Description	Fine ash fraction	Small partly burned or charred pieces of coal	Large pieces of coal	All vegetable and animal matter	Broken pottery, pans, earthenware, oyster-shells etc	Woollen rags White linen rags	Remains of tin and iron vessels (reusable items were removed before reaching the dust-yards)	Pre-processing: first, fat and marrow was boiled out, and then the bones were crushed	Broken bottles etc	Mainly removed
End-use	Manure, especially for clover (“CLO”). Mixed with clay for brick-making (Secondary raw)	For burning bricks (“SRF”)	Laundresses, braziers (“SRF”)	Manure for ploughed land, wheat, barley (“CLO”). Poultry and pig feed	In-fill for road making (aggregate). Use for foundations (e.g. old bricks). Oyster-shells ground for fertilizer	Hop-manure Paper-making	Sold to trunk makers for “clamping the corners of their trunks” etc, or used in making ferrous sulphate	Fat and marrow sold to soap-boilers or glue-makers. Crushed bones sold as manure (“CLO”)	Sold to Swedish emery paper manufacturer	Boots and shoes sold to Prussian-blue manufacturers or for colouring fine steel. Valuable items sold on
Example % wt.	53	29	29	14	3	0.4	0.3	0.2	0.2	0.1

In response, London parish vestries began to let contracts in the 1790s. These granted exclusive annual franchises to private contractors, both to collect ‘dust’ and to sweep the streets. The contractors also established ‘dust-yards,’ resource separation facilities, from where separated materials were sold to various end-uses.

Research shows that the dust market peaked around the 1820s, when most parishes were paid for allocating the right to have their waste collected, and was already in decline by 1850, when the sanitation movement was beginning to make an impact.

This largely forgotten waste management system of London in the early

19th century effectively recycled everything collected, so can be seen as the first example worldwide of a large scale ‘zero-waste’ system.

As an example of public-private sector participation, it predates current UK practice by more than 100 years. The dust-yards were also the precursors of modern mechanical-biological treatment (MBT) plants, separating material flows and producing what are now called ‘secondary recovered fuels’ (SRFs) and ‘compost-like outputs’ (CLOs). Many dust-yards became semi-mechanised by the 1870s.

(These four pages were prepared by Professor David C Wilson and Costas Velis, assisted by their 2007 presentations in Sardinia and to the centenary London Centre event)



London's 'Waste Managers' in the 1850s

Henry Mayhew catalogued London's mid-19th century informal waste managers in wonderful detail in 'London Labour and the London Poor', well before the change to councils operating waste collection. In his remarkable account, Mayhew distinguished at least five categories of workers within the then largely informal waste management and recycling collections in London:

STREET BUYERS

Street buyers of various categories bought any repairable items, old clothes, furniture, waste paper, bottles and glass, metals, rags, hare and rabbit skins, dripping, grease, bones and tea leaves. Survived as 'rag-and-bone men' until well after the second world war.

STREET FINDERS

The bone grubbers and rag gatherers were very much at the 'bottom of the heap,' eking out a miserable income from the dregs overlooked by others. More prosperous then were the more specialised finders, who focused on 'pure' (dog-dung, in demand for leather tanning), cigar-ends and old wood.



SEWER AND RIVER FINDERS

Included dredger-men, mud-larks and sewer-hunters. The mud-larks were generally children, who scavenged along the Thames beaches at low tide, before the embankments were built.

PAID LABOURERS

Dust-men were employed by dust contractors, and scavengers (street sweepers) by their sub-contractors (as street cleaning was included in the dust contracts). 'Night-men' also removed night-soil (human sewage) that had a ready market as a fertiliser.

RECYCLING SHOPS

A huge variety of shops bought and sold reusable goods and recyclable materials. The most comprehensive were the 'rag-and-bottle' and 'marine-store' shops, which bought direct from the public, from the street buyers and from the various 'finders.' The Rowlett's rag-store in Lambeth (shown here) had been relatively prosperous, until they lost their entire stock of rags and waste paper in a tidal flood around 1870, and had to sell tons for manure.

SOURCE: Henry Mayhew (1862) 'London Labour and the London Poor', Volume 2 Griffin, Bohn and Company. Drawings on these two pages are also from this book (left to right): Boy Crossing Sweepers, Bone Grubber, Thames Mud-Lark, Dustman, Night Soil Collectors and Rubbish Carter.)



◀ Sir Edwin Chadwick
© Science Museum

Side loading
Corporation of
London horse-
drawn cart ▶



Victorian Legislation That Led to New Council Waste Departments

INCREASING FOCUS ON PUBLIC HEALTH

Through the nineteenth century there were a continuing series of public health epidemics, made worse by bad sanitation. Over 250,000 people died from cholera between 1848 and 1854, and smallpox, typhoid, enteric fever and typhus were also major killers.

Medical science argued to and fro as to the causes of various diseases, sometimes in futile debates. Successive Governments also resisted the call for change, despite the threat that cholera proposed to the whole population, not just the labouring poor in the worst parts of cities like London.

Sir Edwin Chadwick (1800-1890) was the major 19th century figure to make the case for new waste management methods in major cities and towns. His 'magnum opus' came in co-ordinating the influential 1842 'General Report on the Sanitary Condition of the Labouring Population of Great Britain'.

The debate ran on for over 50 years but eventually led via new analysis and many stages of legislation to a new waste management system for London and South East towns. By the beginning of the 20th century, councils and other public bodies had major responsibilities for ensuring effective sanitation and safeguarding public health, the main driver behind a new council-led system of waste management.

IMPORTANT VICTORIAN LEGISLATION

1846 to 1860 Nuisance Removal and Disease Prevention Acts - began the process of modern waste regulation

1848 Public Health Act - gave local areas optional rather than compulsory public health powers

1853 to 1856 Smoke Abatement Acts - introduced some controls for metropolitan areas

1855 London Metropolitan Board of Works - established by legislation to build the London sewerage system

1872 Public Health Act - Medical Officers of Health compulsory and established urban/rural sanitary authorities and Sanitary Inspectors

1875 Public Health Act - local authorities responsible for regular removal and disposal of refuse, and required households to put waste into 'moveable receptacles'

1894 Local Government Act - created hundreds of new Urban and Rural District Councils across the South East, with responsibility for local services including waste collection, disposal, and sewerage

1899 London Government Act - transferred Waste powers from hundreds of parish vestries to 28 new Inner London metropolitan boroughs and the City of London council
This reduced hundreds of London waste authorities to a mere 90.

THE FIRST CLEANSING SUPERINTENDENTS

As an early Institution Journal recorded, they were a new and very different breed of council manager.

'The Superintendent must be a man of peculiar talents. He must be a born controller of labour, he must be well educated, have a thorough knowledge of accounts, know much about, horses, rolling stock, sanitation, building, stores of various descriptions, exercise skill and practical economy, have a cast iron constitution and be prepared to work in the office or out of doors for twenty four hours if necessity demands.

His office is no sinecure, and his work is always under the eye of the public and open to criticism to such an extent as no other work of a Municipal official.

Superintendents had to deal with the waste 'rapidly, scientifically, hygienically, and very often so as to create a commercial commodity'.

(Source: Institution Journal Editorial, August 1910)



▲ Tipping the cart

◀ 1909 picture of the national General Council, including early London Centre figures, showing the sartorial elegance of waste managers at the time

Creation of the London Centre, and Early Years of the CIWM

The Chartered Institution of Wastes Management (CIWM) was first established as 'The Association of Cleansing Superintendents of Great Britain' in Sheffield on 7th May 1898, with waste managers from northern and Scottish cities as the main driving force.

LONDON CENTRE ESTABLISHED IN 1907

The London Centre, then called the 'Metropolitan District', followed and was the second Centre established, after the creation of a Scottish Centre in 1901.

FIRST MEETING OF THE LONDON CENTRE - 15 JUNE 1907

The first Centre meeting took place at Battersea Town Hall on Saturday 15th June 1907 at 6pm with 40 people present. Then national President, John McKechnie from Liverpool, attended and spoke, saying that the Centre would 'in time prove to be a tower of strength'. Mr McKechnie was a national figure having earned the soubriquet 'the

snow king' because of his capacities and methods for managing winter emergencies, an example of the many roles then undertaken, including sewerage.

In the same year, the national Association of Cleansing Superintendents became an 'Institution', gaining both status and a much increased membership following incorporation. For several years the Institution also passed half of its local membership income back to the two new Centres. Centre social events like whist drives and both vocal and instrumental evenings were common in those days. Many Institute members were accomplished singers and entertainers, not a skill much tested nowadays.

SECOND MEETING AND FIRST AGM

The second meeting and first AGM, again reflected the London focus, and was held at Finsbury Town Hall. It was also on a Saturday, 7th December 1907. Along with the six day working week, then the norm for most people, meetings took place in people's own time and definitely not work time. David Kennedy of Kensington (see next page) was elected as the first Centre Chair. Arthur May of Finsbury became Secretary William J Heavey of the City of London (also on next page) was elected Treasurer, and seven other volunteers were added to form a Centre Executive Committee.

A paper was also presented at the AGM by Arthur May of Finsbury who had been the first London member while working for St Luke's Vestry. His contribution included saying that *'London would be far cleaner if the Borough Councils worked together ... Such division in the public cleansing of a city should not be tolerated'*
... an issue that some may still agree on today

24 COUNCILS HAD MEMBERS BEFORE WORLD WAR ONE

The Cleansing Superintendents of six councils - Battersea, Enfield, Fulham, Kensington, Portsmouth and Southampton had joined the then national Association by 1903.

A further eighteen councils - Beckenham, Camberwell, City of London, Esher, Finsbury, Folkestone, Hampstead, Hitchin, Hounslow, Lambeth, New Cross, Plumstead, Richmond, Southend-on-Sea, Surbiton, Tottenham,

Twickenham, Westminster, Willesden, Woolwich joined by 1914.

EARLY YEARS OF THE CENTRE

The London Centre was busy both before and during the first war. However, activity stalled in the early 1920s, partly because the main Centre figures were too busy running the national Institute.

The Centre was then reformed on 7 February 1935, specifically included for the first time, the Southern Counties, and has met regularly ever since. The first annual Centre dinner was held in November 1937 and this social event has continued annually. 70 years on, the 2007 dinner had become a Christmas lunch having been that way for the past 50 years. Like many before it, it was also fully subscribed.



Two Founders of the London Centre

◀ David Lawrence

William J Heavey MBE ▶



DAVID LAWRENCE

First Centre Chairman 1907

- Cleansing Superintendent for South Shields from 1887 to 1902
- Effective advocate for the expansion of the new national Association when he came to London, which then had few London members
- Kensington Cleansing Superintendent from 1902 to 1929
- First London member in 1903 of national Executive Council, along with Allen Vickers of Battersea
- Examinations Secretary 1910 and long-term member of the Board of Examiners
- Institution 'Propaganda Officer' in World War One
- Institution President 1916.

WILLIAM J HEAVEY MBE

Founder and Centre Treasurer 1907

- In his early career, built sewage works and coal-fired pumping houses for Wakefield, Walton le Dale and Featherstone in Yorkshire
- City of London Cleansing Superintendent 1905 to 1935
- Institution President 1908 and organizer of a very successful 1908 three day national conference, including a fourth day visit to facilities in Paris
- Member of team that established the Institution's examinations in 1913
- Hardworking National Secretary 1920 to 1931
- Organised the Institution's 1931 International Conference in London
- Developed international links with JC Dawes through 1930s, linking to parallel organisations in Europe and the USA.

Changing Dustbin Waste Composition



Key Messages From Changing Dustbin Waste Composition 1892-2004

The major change compared to a century ago occurred when coal-related waste fell steadily in the early 20th century as gas and electric appliances came into use.

Appliances replaced open fires for cooking, heating and water heating. Less paper and other waste was also burnt on fires as appliances became steadily more affordable.

The number of households with gardens in London and the South East increased between the wars with new house building including new garden suburbs, and this accelerated after World War Two, increasing organic waste.

The biggest change also kicked in then, rapidly rising affluence for most households which over the last 60 years has seen increased consumption, changed cooking habits.

The weekly supermarket shop of mainly packaged food has replaced more frequent earlier shopping from the previous wider range of local shops.

While packaging has become steadily lighter in weight, including the switch to plastics from the 1960s, the quantity of packaged items consumed has continued to increase, making packaging a major element in residual waste, as well as an important component in recycling collections.

Dustbins are no longer the only household-related waste, and other streams are also now fully analysed including recycling collections composition and Household Waste Recycling Centre throughputs, which started with the growth of Civic Amenity sites in the 1960s.

Overall, generation of waste by households may be fairly similar in average weight to a century ago, at roughly one tonne per household per year. But the composition of that waste, as the graph shows, is now radically different.

For waste analysis data sources see full details on page 50.



◀ Loading the Southwark Destructor – a messy job

Unloading, at a modernised Destructor – still heavy labour ▶

Destructor chimney 1886 ▶



Destructors - The Disposal Route of Choice 100 Years Ago

‘Destructor’ was the term used for incineration 100 years ago. It was first adopted by the aptly named Albert Fryer who patented his furnace design when one of his incinerators was built in Nottingham in 1874. Manlove Alliott, the first large-scale manufacturers of destructors, then copyrighted the term for a while before destructors came into much wider use and production.

Before World War One, destructors became the disposal option of choice for most large South East towns and most of London. Several destructors also generated electricity for sale, and many were linked to sewage pumping.

Electricity generation also led a significant number of councils to adopt electric refuse vehicles, at least for their flatter collection rounds near to the plant, so they could manage the essential heavy weights of batteries onboard.

Destructor production also became a significant UK industry with Manlove, Babcock and others sending their engineering to all corners of the empire and beyond.

Rotary screens were added to take out fines, and metal recovery targeted cans. But the rest went on to the burning grates, often loaded one floor above the area where the grates were later emptied. Rows of destructor ‘cells’ were each batch fed, allowing plant to be built to the size needed locally. The resulting inert clinker was often used in roading or other reclamation, the process having consumed nearly all the calorific value and organic content.



57 SOUTH EAST COUNCILS WHERE DESTRUCTORS WERE THE PRIMARY DISPOSAL ROUTE 100 YEARS AGO

16 Inner London boroughs (1904 survey)

Battersea, Bermondsey, City of London, Finsbury, Fulham, Hackney, Hampstead, Kensington, Lambeth, Poplar, St Pancras, Shoreditch, Stepney, Wandsworth, Westminster and Woolwich

20 Outer London councils (1914 survey)

Acton, Barnes, Beckenham, Brentford, Bromley, Chiswick, Croydon, Ealing, East Ham, Heston, Kingston, Leyton, Ruislip, Southgate, Surbiton, Teddington, Tottenham, Twickenham, Walthamstow and Wimbledon

21 South East towns (1914)

Aldershot, Bedford, Brighton, Canterbury, Dartford, Dorking, Eastbourne, Epsom, Folkstone, Gosport, Guildford, Hastings, Littlehampton, Margate, Portsmouth, Ramsgate, Sheerness, Slough, Southampton, Watford and Worthing.

Relatively uncontrolled tipping on land was then the norm for most councils without destructors, including rural areas. The exception was the small number of coastal councils who were tipping into the sea a mile or so out. Limited recycling was undertaken by councils at that time other than metals.

CASE STUDY - WINCHESTER DESTRUCTOR, HAMPSHIRE

Work started in 1875 on the building of a refuse-fired sewage pumping station in Garnier Road, Winchester and the plant was later extended in 1904 and 1930. The burning of household refuse generated steam that was used to pump Winchester's sewage three quarters of a mile to St Catherine's Hill for processing.

Dustcarts delivered refuse throughout the day, and boilers were stoked every two hours, day and night. Each week, roughly 160 tonnes of material was burned. Incineration continued on site but was later superseded by electric and diesel power for the sewage pumping. Southampton University made a film about the plant in the 1960s and there is a video copy in the Hampshire Record Office.

In 1885, a Fryers Destructor was also built at Corporation Wharf, Chapel, Southampton, and also burnt the refuse to produce steam to pump sewage, and integrating the two processes (more on Southampton later in the booklet).

Sources:

Inner London data - W Goodrich (1904) Refuse Disposal and Power Production, Archibald Constable

Other data - 'Return as to Scavenging in Urban Districts' (1914), Local Government Board, HMSO

History of Hampshire waste: www.integra.org.uk/facts/history.html



1



2

Vehicle Parade (1) - Continuing Design Innovations from 1900 to the 1930s

Until the 1930s, most waste collection and public cleansing was carried out using horses. In 1928 the percentages were:

Horses	63.3%
Electric vehicles	16.4%, much higher in towns and urban areas with destructors
Petrol	15.7%, higher in towns under 250,000 population
Horse & Petrol vehicle combination	4%, the 'Container System' used by Kingston and others
and finally Steam traction	0.6%, whose previous great popularity had passed.

(Source: 1928 Municipal Yearbook survey of 93 towns and cities.)



3



4

There had been a partnership between London Centre cleansing managers and vehicle builders from the very start. This was cemented in the 1920s, by the continuing steady switch from horses to mechanisation. It was further cemented after 1928 when Centre membership was extended to equipment suppliers, a large percentage of whom were based in the London Centre.

The Institute changed its name to become the Institute of Public Cleansing.

The vehicle parade shows the continuous innovation underway from the 1890s to the 1930s.



5

1) 1899 Westminster City Council Thorneycroft steam engine, with full horse-drawn cartloads in background.

It had already travelled 69000 miles in this photo, equal to at least 13800 hours of collections while reaching its maximum 5mph, so a 'reliable runner' for an extremely heavy engine.

2) 1900 Westminster Wharfage company operated this dapper early petrol engined tipper, taking material back to Vauxhall Wharf for sorting, and likely also to lead to the barging of any 'soil improver'. Again, very solid tyres.

3) 1920s picture of a Chatham Corporation Garrett steam wagon, another heavy one.



6

4) 1920s Clayton Overtip steam engine operated by Walthamstow Urban District Council (UDC). Some of the crew look more like they come from the Wild West than the East End. Another engine with a low waste payload and storage capacity payload compared to its weight and size.

5) Haslemere UDC in the south of Surrey operated this Garrett 1922 swap body vehicle. Looking brand new, its design enabled alternate uses including for roading work.

6) 1920s Garrett electric vehicle powered by energy generated at the local destructor and owned by the Borough of Hampstead. Loading precarious, and shows the fairly wide use of galvanised dustbins.



7

7) Hugely successful 1922 Shelvoke and Drewry sideloader that was exported all over the world. A company that gained great loyalty from its customers as well as its staff. One of the survivors here, now that it has been lovingly restored.

8) Treadle-operated Garner W3 Side Loader in the Brentwood UDC fleet Compact vehicle and the first pneumatic tyres of the series.

'Burn your refuse and save your rates' was the Inter war equivalent of 2007's 'Recycle Now' campaign, and a large number of councils contributed then to shared campaign slogans and materials - persuading households to make good use of domestic fires.



8



◀ Site view of the Chapel 'Separation and Incineration' plant in Southampton, opened in June 1937.

Picking line inside the Chapel plant. ▶

Kitty being led out of Shirley depot by Tom Wiseman for her last round, October 1967 ▶

Waste tipping at Riverside Park, Southampton after World War Two. ▶



'Separation and Incineration' Plants – 1930s Waste Management in the South East

Many destructors were not replaced, as increased costs often meant that transport and fairly uncontrolled tipping became the cheaper option. However, a new generation of incinerators were being designed and started to arrive in

urban areas of the South East and London in the 1930s, replacing the remaining destructors, and usually on the same sites.

'Separation and Incineration' plants were amongst the most innovative designs of these second generation plants. Adoption was led by Birmingham and a wider circle of waste managers from other councils, under the overall leadership of James Jackson OBE, General Manager of the Birmingham Corporation Salvage Department.

Important innovations in 'Separation and Incineration' plants included

- electro-magnetic ferrous metal recovery, often replaced by overband magnets in the 1940s

- hand picking from slow conveyors to separate glass (including refillable containers) bones, paper, cardboard, rags and non ferrous metal like aluminium



- rotary screens that separated the dust 'fines' to be sold to farmers, leaving a relatively homogenous 60% of coal products and cinders for burning
- innovations added like overhead suction of paper and cardboard (as in the photo on page 24).

Like the 19th century dustyards, only a tiny fraction of residual waste was left once an outlet for the clinker was achieved.

The plants played an important salvage role in the war and several continued in use into the 1950s. Incineration design also progressed with grit and particle interception and chimney redesign to reduce (but not eliminate) air pollution.

Some of the South East councils to adopt 'Separation and Incineration' (and their waste managers in the late 1930s) also contributed to a book on the subject in 1938:

- Beckenham (Mr P Parr)
- Dagenham (Mr F C Lloyd)
- Greenwich (Mr C Jennings)
- Hendon (Mr A O Knight)
- Ilford (Mr L E J Reynolds) and
- Southampton (Mr S G Stanton – the Chapel Plant – see more below).

Similar plants were also in use in the late 1930s and 1940s in Aylesbury, East Ham, Southampton, Walthamstow, Wealdstone and Wembley.

Other South East councils were recycling in a different way, by baling paper in the 1920s and 1930s, including Aylesbury, Barnes, Croydon, Greenwich, Guildford, High Wycombe, Tottenham, Walthamstow and Worthing.

Example of Dagenham's 'Separation and Incineration' Plant

WASTE QUANTITIES AND OUTPUTS 1936

Dagenham had 105,000 population, with roughly 15,000 tonnes of collected waste passing through the plant annually throughout its life. The 1936 plant outputs were:

Average Weekly Data	Throughput %	Weekly Weights Separated
Coal-related, all incinerated and used as clinker	62.0	180 tonnes
Dust/fines, separated by rotary screen and reused	23.8	69 "
Ferrous metal	5.5	16 "
Paper and board	4.8	14 "
Glassware	2.5	7.5 "
Rags	0.6	36 hundredweight
Bones	0.5	27 "
Carpets and gunny	0.2	13 "
Non-ferrous metal	0.1	5 "
Weekly total throughput	290 tonnes	

(Source: Neal – see below.)

Automatic paper separation before incineration in the 1930s

Another example of a Southampton horse-drawn cart, restored by Grundons.

Tipping at Chatham council's landfill, with informal salvage



CASE STUDY - SOUTHAMPTON'S 'SEPARATION AND INCINERATION' PLANT

Tuesday 29th June 1937 saw the official opening of the Refuse Disposal Plant at Corporation Wharf, Chapel, Southampton, replacing the then outdated destructor on the site, mentioned earlier.

Items such as tins and other magnetic material were extracted and baled, bottles and other valuables were hand picked. 36.39% was ashes and dust, so measures had to be taken to prevent it from being blown about the site, less of a problem nowadays, as modern waste contains a very small proportion of dust and ashes. The dust was screened and barged out to sea. Non salvageable material and the "more offensive classes of trades refuse and garbage with a high moisture content", were conveyed to furnaces and incinerated.



During the wars there was a great deal of reclamation and recycling, promoted by a national salvage publicity campaign to help “the War Effort”. However, after the Second World War, refuse tipping increased in Hampshire and other counties, and the prevailing modest standard, and informal salvage, is reflected in the photo of Chatham.

Southampton was also one of the last councils using horses for some collections near depots like Shirley, right up to 1967, and marked that event in 2007 with a 40th anniversary re-enactment.

The Southampton plant was modified in stages but closed in the early 1970s when Marchwood Incinerator opened. Four other incinerators were then in use in Hampshire in the 1970s and 80s, at Chineham, Otterbourne, Havant and Portsmouth.

Sources

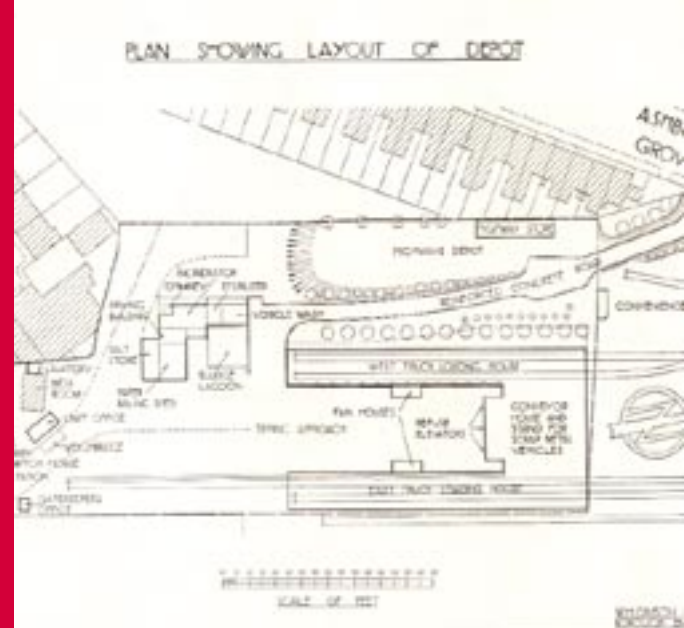
- James Jackson Learning Circle (1929) ‘Public Cleansing’, Ernest Benn
- AW Neal (1938) ‘Refuse Destructors and Separation’, Technical Press
- County Borough of Southampton Works Committee Souvenir of the Official Opening of the Chapel (‘Separation and Incineration’) Plant, Corporation Wharf, Southampton – 1937. Thanks to Ian Avery, former Hampshire waste Manager, who has a copy of the official launch booklet. Original photographs are in the Southampton City Council record office.
- History of Hampshire waste www.integra.org.uk/facts/history.html



◀ New 1930s Transfer facility at Ashburton Grove, Islington

Ashburton Grove Refuse Works building design and layout ▶

(Now the site of the Arsenal FC Emirates Stadium)



The 1929 'Dawes Report' - How Can London Best Manage and Minimise Its Waste?

... An Issue Still Unresolved In 2007

'The cry for experts has never been greater than now. Today, London is lacking in a definite scheme for the disposal of its refuse. A very serious financial problem will have to be faced in the very near future'.

No, this is not a recent quote. It was said by Arthur May, the first London member of the Institution in 1898, over 100 years ago. He was also echoing the earlier prophetic words of Corbyn Morris in 1751.

Cross boundary working has always been a problem for waste authorities. Efforts over the years underline the difficulties in tackling this issue, the structural obstacles, and the level of resistance facing those endeavouring to obtain agreed joint solutions.

DEBATE UP TO THE 1920s

It was clear in the 19th Century that the vestries were not the right structure, speeding their abolition in 1903 and the creation of Metropolitan Boroughs. Westminster City Council then co-ordinated a conference of the Boroughs on 20 May 1914, which reached an impressive level of initial agreement on joint working.

The main drivers then were

- rapidly rising costs of barging, transport and options like destructors
- the difficulty of obtaining 'dumping grounds' as they then called them.

The conference agreed that

- the 29 Metropolitan Boroughs should be divided into waste groupings
- that Boroughs work jointly to secure 'dumping grounds'
- the river boroughs join together to manage their own barges and waste facilities.

These issues were revived in the 1920s with a call by the Boroughs for the Ministry of Health to lead an inquiry. JC Dawes was appointed in 1925 to lead the investigation and report (SEE ALSO PROFILE OF JC DAWES).

LANDMARK DAWES REPORT 1929

After a thorough four year investigation, the landmark Dawes Report was published in 1929. The analysis by Dawes included that

- 1,202,000 tons of waste was being collected in Inner London
- 48% of waste was being dumped
- 182,000 tonnes of waste was processed for brickmaking
- 21 separation/incineration plants were then in operation, mainly destructors
- Dustmen had to walk through 63% of houses.

The 1929 Dawes Report led to a Departmental Committee of local authority representatives which in 1930 recommended

- centralised management of disposal under one body, on cost and efficiency grounds
- central delivery also of collection and street cleansing
- a range of measures to ensure a cleaner collection service including full scale adoption of metal dustbins
- major street cleansing improvement in London's poorest districts, where the service level was deficient and public health problems continued
- an end to crude dumping, and the use of site engineering to achieve 'controlled tipping'.

The Committee's views were however overturned. The vote by Boroughs on a single Inner London waste authority was 18 Boroughs against compared to 11 voting in the proposals. While the vote was closer than might be the case in 2007, the outcome was effectively to block discussion of reorganisation for several decades, until the Greater London Council was created in 1963, and inherited city wide disposal and waste planning.

One tangible outcome for reformers was some improvement in tipping practice.

1930s IMPACTS ON SOUTHERN COUNTIES

As Robert Sinclair said of Londoners in the 1930s and could equally say in 2007

'Have you ever given birth to a baby, dumped it on somebody's doorstep, and run away? If you are a Londoner you may do that sort of thing by proxy every day with the cabbage stumps from your own scullery. London's rulers faced with the problems of carting away the garbage of 8,000,000 people have brought to a fine art the practice of handing on the baby.'

Source: Robert Sinclair (1938) 'Metropolitan Man: the Future of the English', Allen & Unwin.



◀ Two examples of London collection ▶
 - high sided cart
 - swap bodies used by Kingston, combining horses and traction



The Dawes report had catalogued the uncontrolled dumps along the Thames, including graphic images of large smouldering tips at South Hornchurch at the end of a railway line from London. Further investigation identified 10 borough-operated tips for closure and 9 requiring major remedial work.

Not surprisingly, adjacent counties also started using their political power.

In 1930, for example, Essex parishes protest against plans for a newly proposed dump at Pitsea - opposing the indiscriminate dumping of refuse as rural councils then had no specific powers to stop new tips.

A Conference in London in 1930 of Buckinghamshire, Essex, Hertfordshire, Kent and Middlesex Councils adopted the following motion:

'That in the opinion of this Conference a local authority should not be permitted to deposit ...refuse outside its own area without the previous approval of the County Council and the District Council' of that area, with power of appeal to the Minister of Health'.

Essex and other counties involved their MPs. One result was that on 18 July 1933 Essex County Council gained powers for first time to control the London-run dumps, also forcing Westminster City Council to put its privately run Wennington tip into better condition.

Meanwhile, Surrey, Middlesex and other councils made similar efforts. All these control efforts were resisted by London councils who had no immediate alternatives and who then had neither the capacity, the budget, nor the political will to manage their waste differently. Gradually, the worst existing tips were closed, and new tips subject to higher initial requirements, and increased monitoring.

Example of controlled
tipping practice in
the 1930s that Dawes
promoted



70 YEARS ON ... 2007

Seventy years later the debate continues including the 2007 statement from Environment Minister Ben Bradshaw MP in a letter to London councils (January 2007) that he

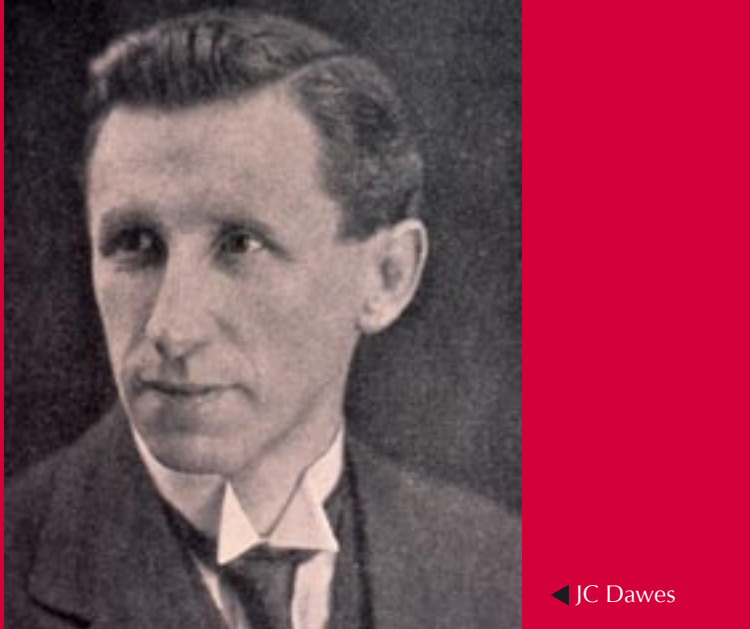
- Rejected plans to restructure London's waste services into a single waste authority because it would
 - divert efforts underway to achieve more sustainable waste management
 - increase the cost to council tax payers of dealing with London's waste
 - incur significant set-up costs and disruption, and
- Supported a London Waste and Recycling Forum with 50 per cent borough membership.

Sources:

1955 journal and other Institution Journals

'Public Cleansing – A Report of an Investigation into the Public Cleansing Service in the Administrative County of London' 1929 HMSO (known as the 'Dawes Report')

Eric Mossey 'Corporation of London' in RE Bevan (1967) 'Notes on Controlled Tipping', Institute of Public Cleansing.



Profile of JC Dawes, CBE Leading Waste Moderniser

Considered the greatest waste management moderniser of the twentieth century, author of the landmark Dawes report, and active contributor to the London Centre from 1918 to 1950.

Fellow of the Institution and President on six occasions – 1924, 1930, 1931, 1932, 1945 and 1946

Devoted his life to raising the profile of cleansing and salvage. As he said:

'It is a remarkable feature of sanitary history ... that the important service of refuse collection and disposal failed to secure adequate consideration even after it had been clearly established that the work was fundamental to municipal sanitation.'

(Source: Paper to the Institution of Civil Engineers – January 1953)

Director of Cleansing at Westminster, Harold Ardern (See Profile), said the following in the Institution Journal in his memory in July 1955:

'His experience and knowledge of public cleansing work was unique, but he has left an enduring record of his fertile mind, industry and patience.'

He also praised JC Dawes for his *'unfailing courtesy and sincerity and kindness of heart, attributes which, combined with his professional ability, made him so highly esteemed and respected.'*

Remembered by the Institution through the award of the 'Dawes Travel Bursary' to a Corporate Member or Fellow. Up to £2000 is awarded annually towards the costs of an overseas programme of research or study tour.

LIFE OF JC DAWES

Born 21st October 1878 in Wolverhampton, and trained at Wolverhampton College

1911 - Appointed Chief Sanitary Inspector and Cleansing Superintendent at Keighley Council. Responsible at Keighley for slum clearance, cleansing reorganisation and the expansion of salvage (as recycling was then called)

1916 - Developed the first public cleansing examination syllabus as Secretary of the Institution's Examination Board, used for the first time in 1920

1916 - Seconded to the Department of Supply where he served as Assistant Director of National Salvage

1918 - Appointed Chief Technical Adviser to the National Salvage Council, receiving an OBE for his wartime salvage contribution

1919 - Appointed Inspector of Cleansing and Salvage at the Ministry of Health

He ensured the adoption by councils of dramatically improved cleansing and 'controlled tipping' standards, as well as promoting salvage, and the benefits of comparative performance statistics. He conducted public enquiries into disputed waste proposals, when there was 'NIMBY' opposition to proposed landfills and/or opposition to the costs of new facilities. He ensured that new facilities were of sufficient quality before recommending loan approval

1922 - Wrote 'Suggested Precautions For the Controlled Tipping of Wastes', a code of practice aimed at ending unsanitary waste dumping by councils

He was the leading champion of 'controlled tipping'. His landfill recommendations, made in annual 'progress reports' such as in 1930 were:

- a minimum of 9 inches of final cover material
- the covering of all waste within 72 hours
- sealed decomposition, to prevent access to flies, rodents etc
- tidy operations and the prevention of wind blown litter
- effective restoration and after-use

1924 - First of six years as President of the Institution

1926 - Chaired the Ministry of Health committee on council waste costs and statistics, establishing annual statistical returns by local authorities

1926 to 1929 - Secretary to (and organiser of) the Committee responsible for the landmark 'Report on an Investigation into the Public Cleansing Service in London', widely known as the 'Dawes Report', following a London County Council deputation to then Minister of Health, Neville Chamberlain

1928 to 1935 - Chaired the International Association for Public Cleansing (INTAPUC) which organised the first international conference on public cleansing, in London in 1931. President of INTAPUC, the forerunner of the current International Solid Wastes Association (ISWA)

1934 - Author of the comprehensive 'Survey of the Public Cleansing Service in England and Wales'. Also presented this report to a conference of French councils

1936 - Advised the Maltese Government on improving public cleansing on the island

1938 to 1952 - President of the Sanitary Inspectors Association (SIA), now the Chartered Institute of Environmental Health – CIEH). He also made a major contribution to the development and leadership of this Association, including on technical issues like abattoir design

October 1939 - Following the outbreak of WWII, was appointed Assistant Director and then Director of Salvage and Recovery at the Ministry of Salvage

Between 1939 and 1947 was responsible for leading salvage, by local authorities, of the following amazing tonnages from household waste, a major physical and mental contribution to the war effort (see Wartime Salvage efforts)

1949 - Appointed as waste consultant to the World Health Organisation

1951 - Retired as part-time adviser to the Ministry of Health, at the age of 72

Died in Harrow on 10th June 1955.



◀ National salvage poster

Community salvage
in Clacton ▶

Separate food collection
by Guildford Council ▶

City of London -
photo of the blitz ▶

Feeding pigs started with
communal bins ▶



Wartime Salvage – Cleansing Managers Played a Major Role

'If the British Empire and its Commonwealth last for a thousand years, men will still say "this was their finest hour"'
Winston Churchill, June 1940.

In his rousing speech, Churchill could just as easily have been talking about the country's salvage efforts, the national and local 'zero waste' campaign that generated huge tonnages of secondary resources, and involved the whole population in 'total war'.

Councils and cleansing managers throughout London and the Home Counties made their contributions to the campaign, and to a demanding wider range of other war duties. Salvage was a key part of war propaganda aimed at all age groups, and backed by heavyweight national and local behaviour advertising including children's characters like characters as 'Superintendent Salvage' and 'Detective Inspector Waste'.

JC Dawes had been reappointed as National Director of Salvage and Recovery for the duration of the war, resuming his role from the closing stages of the First World War (see profile on page 30). In 1940, all large councils were compelled to establish salvage collections, including paper, metal/tins, glass, rubber, string, bones and pig food. They achieved this despite limited transport and the regular bombing of south east cities and facilities.



Monthly council salvage returns were compulsory and a total of 130 Salvage Circulars were issued by the Government to guide local councils by 1945. Salvage dominated the pages of the Institution Journal for six years, and featured just as frequently in local papers thanks to the efforts of cleansing managers like Frank Fitton of Wembley Borough Council.

Separate collections of up to five recyclables started, including household food waste. Communal kitchen waste bins were sited throughout towns and the product was used in local municipal pig farms or boiled up as pigfeed 'puddings' by special steam cookers. Large grey balls of 'Tottenham pudding' were then sent by rail to Norfolk and other pig farming areas. Over 7000 tonnes of pig feed were generated each month across the Centre, enough to feed over 50,000 pigs.

EXAMPLES OF SOUTH EAST WARTIME SALVAGE

Community committees were set up, and collections included Boys Clubs, Scouts & Guides. Joint meetings of councils were held in the Home Counties, like the meetings of Essex councils from May 1940 which continued to monitor salvage progress through the war. Anything metal was targeted and huge stockpiles of railings created in 1940. Many streets of pre-war housing are still missing railings today, over 60 years later. High wartime salvage prices also helped, with paper at £4/ton, rags £15/ton, and cans 30s/ton.

Other examples of community salvage:

- Pig clubs were set up on school playing fields, including on Battersea Park, and even in the swimming bath of the bombed out Ladies Carlton Club on Pall Mall
- The Women's Voluntary Service (WVS) made half a million salvage calls in London in the first six months of 1940 alone, and other volunteers went out with dustmen on their rounds to share the message.
- Bone baskets were hung from bus stop with signs saying 'a single chop bone could provide cordite for two cartridges'. Rag and bone merchants also collected door to door.

WARTIME NATIONAL SALVAGE TONNAGES

All that effort generated huge salvage tonnages between 1939 and 1947, an invaluable contribution to winning the war.

Fuel cinders, glass and inorganics	2,546,005 tons
Kitchen waste	2,368,485 tons
Paper, cardboard and books	2,141,779 tons
Ferrous metals	1,585,921 tons
Textiles	136,193 tons
Bones	68,695 tons
Non-ferrous metals	48,934 tons

Total tonnage 8,896,012 tons

Sources

Post-war speech by JC Dawes quoted in the Institution Journal
 Virginia Graham (1959) 'Story of the Women's Voluntary Service (WVS)' HMSO
 Frank Fitton's press cuttings, 1932 to 1976 CIWM library.



1 - 1948 picture of a Bedford tipper lorry operated by St Pancras Borough Council, collecting food waste for pig feed. A hard climb to empty the 'pig swill' bin.



2 - Fulham Borough Council's Brush three wheeler, a simply designed and flexible electric vehicle.

Vehicle Parade (2) - Continuing Innovations in Refuse Collection Vehicles (RCVs) Since the War

By the time of the first post war Annual Conference and Exhibition, South East vehicle manufacturers constituted a large percentage of the regular range of nationwide vehicle exhibitors, including

- Bedford trucks and Vauxhall Motors
- Dennis Brothers of Guildford
- Fords of Dagenham
- Scamell Lorries of Watford, and
- Shelvoke and Drewry of Letchworth.

The focus was on petrol and increasingly diesel engines. Innovation continued every year as the wide range of progressively improved and variable designs of collection vehicles used in the South East show here.



3 - Dennis 'Vulture' collection vehicle – an interesting shaped vehicle in use with its extra compartment in Surbiton (was eagle).



4 - Pagefield 'Paladin' vehicle. While the vehicle is no longer about, 'paladin bins' and versions of them are still in use across the world. The photo also shows the crew using the loading device.

BEDFORD AND VAUXHALL

The maker of Bedford trucks, Vauxhall, started in Bedfordshire in the 1890s, moving to Luton in the 1900s. Large-scale truck production developed with the Bedford range in 1931, following their 1920s takeover by US-based General Motors.

A wide variety of Bedford trucks and specialist Bedford vehicles were manufactured over the following half century, as the pictures of the Bedford truck and spacious sideloader cab show.

The photo of six besuited gents may demonstrate the forward tilt cab. But a crew of six would not be needed as they could fill this uncompacted side loader in record time, and the men in the picture do not look like it was their day job.

DENNIS BROTHERS

The firm that became Dennis Eagle had half of its roots in the South East, in the Dennis operations that grew and grew in Guildford. The original Mr Dennis had been apprenticed to an ironmonger but left to start his own business in the 1890s, fitting engines to bicycles and then tricycles. He was even arrested for speeding in one at 16mph down Guildford High Street. Their Woodbridge, Guildford site started operations in 1908.

From vehicle manufacture before and during the First World War, Dennis started making specialist refuse vehicles in 1921 and then just grew. After 1945, the ever innovative range of models included the Max, Pax, Horla, Hefty, Stork and Heron. Dennis concentrated on refuse and cleansing vehicles, along with fire engines.



5 - Corporation of London Dennis refuse vehicle in the 1960s.



6 - Eagle RCV being inspected by a deputation from West Africa - an industry also very keen on export potential.

The Dennis Paxit was particularly successful at home and abroad, including a swinging packing plate to compact the less dense waste being collected (shown later in the pages on barge transfer on the Thames). The picture of the Dennis 'Vulture' shows one of their more unique designs.

FORD

The first Ford 'Model T' trucks were imported from America in 1908, ahead of production starting in Britain. UK truck production moved to Dagenham from Manchester in 1931, with one of the most popular lines being the 'D series' from 1965.

The flexible chassis saw it adopted by councils keen to standardise their vehicle fleets. Being a general vehicle manufacturer, they left specialist vehicle making to others, offering the option of a Ford chassis as a reliable base.

SCAMMELLS

Scammells started out in the late 19th century before moving to Tolpit Lane, Watford in the 1920s. Their range included tractor units like the Pioneer, Explorer and Contractor.

In 1933 they introduced the very successful and manoeuvrable 'Mechanical Horse', a three wheeled petrol vehicle. From 1948, the Scammell Scrab range included significant RCV production



7 - Fleet of seven AEC 'Mammoth Majors' - bulk carriers that were operated by private contractors Pannells for Lambeth Borough Council from their transfer station. AEC built these vehicles in Southall, Middlesex.



8 - Late 1950s Bedford sideloader – demonstrating the comfortable forward-tilting cab.

SHELVOKE AND DREWRY

Mr Shelvoke and Mr Drewry started by producing a small truck in a barn in their own time and, having tested it, the truck and the business were a quick success. Refuse vehicles were an early target and rapid expansion followed when they set up a 6600 square foot factory in Letchworth, Hertfordshire in 1922.

The core was their classic Freighter, and they had produced 1000 of the S&D Freighters by 1929, before moving into a much larger factory in 1932. The Freighter was easy to maintain and had powerful features including hydraulic tipping, and low loading, a boon given the weight of ash and dust lifted in every typical bin of the day.

After the war, S&D moved into more conventional, modern designs using diesel engines. They continued to achieve high sales volumes from their W and T types, including effective compaction, high payloads and well-designed cabs. Shelvoke and Drewry is still remembered with affection by both its staff and former customers. long after the firm hit problems and went out of business in the 1980s.

Sources: Barrie C Woods (1999) *Municipal Refuse Collection Vehicles*, Trans-Pennine Publishing, including photos. Available for £7.50 including postage, from the publishers. Institution Journals since the war.



1957 - We'd Never Had It So Good

50 years ago, the 1950s were a period of economic growth and resurgence as we finally put the strictures of wartime economy behind us. It was the first decade when a high proportion of British people had access to a wide range of material possessions, and many new products including ideas imported from the USA, and the new-fangled American idea of supermarkets.

Jack Cohen and the Tesco firm he established had opened the first self-service store in 1947 in St Albans, in Hertfordshire to the confusion of shoppers who stood around waiting to be served. But the slogan 'pile it high and sell it

cheap' did catch on, and in 1956 Tesco opened the first self-service supermarket in an old cinema in Maldon, Essex.

As Waste Composition Analysis over the past century shows, on page 15, this new consumerism increased the variety and quantity of packaging and used products in the household waste stream, and required new bulky collections for items too big for the bin.

Another major change was also underway. The Clean Air Act was implemented in 1958, accelerating change from the burning of solid fuels, and making a major difference to reducing ash and cinders in dustbins, and changing the weights that dustmen had to carry.

LONDON AND SOUTHERN COUNTIES CENTRE IN 1957 - 50 YEARS SINCE IT BEGAN... AND 50 YEARS AGO TODAY

◀ *'You will see a state of prosperity such as we have never had in my lifetime - nor indeed in the history of this country'*

Harold Macmillan, British Prime Minister Bedford 20 July 1957

◀ Centre Council visit to CAV Works, Acton in March 1957

Delegates at the Institution's 1947 Annual Conference ▶



The spirit of the 1950s was about looking forward, not back. That was also the Centre's spirit too, though the pace of change was not quite as fast as it is now. The London and Southern Counties centre reached its half century with its AGM Westminster City Council on 11th April 1957, but the fact that it was the 50th anniversary was scarcely noticed and not recorded.

The 1957 Centre Council included:

Centre Chairman – Jack Forton of Reigate

Centre Secretary – F St L (Mac) McCarthy of St Marylebone, taking over from Eric Bell of Walthamstow who had just been appointed national President

Centre Councillors like Frank Fitton of Wembley, Freddie Shults of Southend on Sea and John Stephen of Luton. John Stephen represented the Centre on the Institution's General Council, along with 'Mac' McCarthy and W H Price MBE of East Ham, in addition to Past Presidents like Harold Arden MBE.

There was also a busy Social SubCommittee including the Chairman, Secretary, Mr Campbell of the City, Mr Rawnsley of Thurrock and Mr Sagar of Islington, and events that year included a West End theatre and supper outing.

The Centre had a busy Training SubCommittee including Harold Arden, and most Centre Councillors were also lecturers on the Testamur course. Three later leaders in waste management, Philip Patrick DFC, Freddie Shults and Eric Prentice later of Redbridge, all took and passed this professional examination at the same time in the cold December of 1947, three of hundreds to achieve professional competence this way.

A big feature of the year were visits to vehicle manufacturers and leading local authorities around the region. Membership was still all male, with the first woman Institution member not admitted until 1963 and that was up in Scotland.



◀ GLC Edmonton
Incinerator 1970

Hampshire energy ▶
from waste

Mechanical Biological ▶
Treatment (MBT) Plant
(page 41)



Incineration and New Waste Processing Options

As late as 1968 there were still 13 small 'Separation and Incineration' plants operating in Greater London, as they had been with modifications since the 1930s (see page 22). Most, other than Beckenham, no longer had 'picking belts'. By the late 1970s, all had been closed. The same change also occurred in South East towns and cities with similar plant.

In 1970 the Greater London Council commissioned a new 650,000 tonne per year Incinerator at Edmonton, North London (see picture) in addition to the GLC network of new facilities to transfer waste to landfill.

More recently, other incinerators have been built in the region including SELCHP at Deptford, several in Hampshire (see picture), at Colnbrook in Berkshire and Allington in Kent. Operating standards are also much higher following increased regulation in the mid 1990s. Facility design and integration with continually expanding recycling and composting is also now much improved.

However, landfill has been the dominant disposal option in the interim, with it being said only half jokingly in the 1980s that there were only three ways to deal with waste:

1) - You shifted it, 2) - You covered it, and 3) - You forgot it.



MBT plants are designed to handle raw 'black bag' municipal waste (after source segregated recycling and composting) and usually involve recyclate recovery (typically metals and glass) as well as producing a stabilised residue that can be used as refuse derived fuel, or landfilled in stabilised form where insufficient market

In 2006, there were about half a dozen MBT facilities under construction in the UK, including in London where the East London Waste Authority led a contract to Shanks in 2002. Frog Island Bio Material Recycling facility opened in April 2007 (see photo of an MBT plant).

Given the large and growing number of technologies and proprietary variants, there are now in excess of 50 different MBT plant combinations, and that does not include other technologies like anaerobic digestion which also have potential, particularly for separated waste streams.

Sources

GLC Public Health Engineering Department (1969) 'London's Refuse' Greater London Council (also a source of information used elsewhere on barging and 1960s recycling)

Waste processing options - www.waste-technology.co.uk and other web links.

In the current century, this option is no longer possible nor is a reliance on landfill even at increased environmental standards desirable. Landfill across the South East is running out fast but new waste processing facilities also involve significant delivery lags. The South East and particularly London face a massive challenge in moving to sustainable waste management. Along with the switch to a 'resource economy' (page 45), this is biggest challenge for the industry so far.

The processing options focus has recently widened to include other processing plant combinations. Mechanical Biological Treatment (MBT) is one such technology, a generic term for the integration of several processes found in Materials Recovery Facilities (MRFs), Refuse Derived Fuel (RDF), sorting and composting plants.



Changing Institution
logos reflect its phases
and evolution ►

◀ James Sumner (Jim)



Introduced in 1928



Introduced in 1981

Centre Members Who Have Made National Contributions

London and Southern Counties Centre members have played a major role in the life of the Institution nationally in the last 100 years, as these examples show. Many more have made contributions than are listed here, and there are also plenty of 'unsung heroes' too.

NATIONAL SECRETARIES FROM 1916 UNTIL 1948

When all the work was voluntary, being secretary was a significant extra to the day job before the days of paid Institution staff started in 1948.

AUTHORS - Indicates below some of the authors or regular magazine contributors on waste management, salvage and recycling that the Centre has produced over the years.

Thomas Crookes, Finsbury - National Secretary 1916 to 1920

In 1915, wrote in to complain that the Institute's journal was slightly dull, and paid the ultimate price, was then the unpaid Editor for the next 36 years, to 1951

* Also President in 1929 - Had moved to Scotland by then to take on the equivalent role to JC Dawes in England

William Heavey, City of London, National Secretary 1920 to 1931
President in 1908
- SEE PROFILE earlier

Harold Ardern, Westminster, National Secretary 1931 to 1948
- SEE PROFILE BELOW
President 1947/1948

Honorary Exhibition Organisers from 1958 to 1969

A key activity and source of funds for the Institution, building on the foundations that Harold Ardern laid as part of the earlier expansion of Annual Conference.

John Stephen 1958 to 1968 #
Freddie Shults, then Southend 1962 to 1966
R J Lawrence, also Southend 1966 to 1969.

Honorary National Treasurer from 1978 to 2007
Another significant and all-important workload.

Eric Mossey 1979 to 1991 (also Examination Board Secretary 1965 to 1975)
Roger Hewitt 1991 to date (2007)
Roger made a major contribution by to the CIWM achieving full chartered status.

CENTRE MEMBERS TO BECOME NATIONAL PRESIDENTS

■ **1957 Eric Bell, Walthamstow**
■ **1962 John Stephen, Luton #**
■ **1964 'Mac' McCarthy, St Marylebone**

■ **1967 James (Jim) Sumner, Ministry of Housing #**
Effectively took on the role that JC Dawes had delivered earlier within Government

■ **1975 Eric Mossey, City of London**
■ **1976 Ian Cooper, Westminster**

■ **1981 John Bonser, Walthamstow**

Played a major role in helping to spawn new Centres in the parts of the country that didn't then have them – East Anglia, South West and Northern Ireland, so all areas of the country gained the benefit of a Centre

■ **2000 Roger Hewitt, formerly Shanks**

■ **2002 Peter Ager, City of London**

■ **2005 Michael Philpott**, former Institute Chief Executive who successfully steered the Institution to achieve Chartered status.

NOT FORGETTING 'FORMER GLC BOYS' WHO SERVED AS PRESIDENTS

■ **1974 Philip Patrick #**

■ **1978 Frank Flintoff #**

■ **1980 AE 'Higgy' Higginson #**

President the year that the CIWM held its annual event as a full-scale International Conference in London.

■ **1986 Ron Millard #**

■ **1990 John Ferguson #** and also ISWA President

■ **1999 Bill Townend #**

■ **2007 Jeff Cooper #**

Harold Ardern OBE

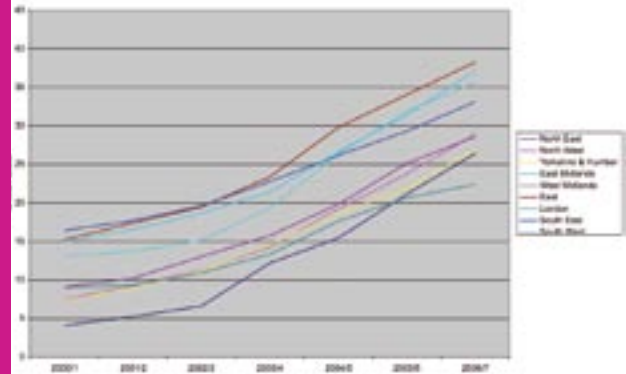
Effective Institution Secretary Between the Wars

National Secretary from 1931 to 1948, and National President 1947
Longest serving voluntary contribution to the Institution in its history
1921 - Joined Sheffield's cleansing department
1926 - Appointed Blackpool Cleansing Superintendent
1933 to 1953 - Director of Cleansing at Westminster City Council
Ran Institution from his London home until it was bombed in 1941
Developed top quality annual conferences
Expanded the vehicle and appliance exhibition and demonstrations, described at the 1958 conference as his 'pet'.



◀ 60% recycling at Latest Winchester Household Waste Recycling Centre, Hampshire

Recent Regional Recycling Comparison



Into the 21st Century - 'Resource Efficiency Not Waste'

For both London and the South East, the theme for the next century will increasingly be on resource management not on waste. This will include eliminating avoidable current wastage of natural resources and energy, redesigning products, packaging and distribution, creating new reprocessing capacity, and expanding the 3Rs more widely
- reduction, reuse and recycling.

Its enough of a challenge for decades of work. On household waste recycling for example, available data shows that London is now recycling and recovering far less waste than it did when the Centre was founded in 1907, albeit that household waste composition has changed (see page 15).

As the Chart above shows, despite doubling household waste recycling in the last 5 years, London has also fallen to bottom of the league of English regions on recycling, after being mid table in 2000. Meanwhile, the South East is one of the top performing regions. Towns and rural areas face less challenges than cities in moving to high recycling and composting, but there is still plenty more to do, including on other waste streams.

From Waste



◀ Hampshire
HNRI logo

to Resource Management

Initiatives based in the region which will assist this transformation include - WRAP, the nationally funded Waste & Resources Action Programme, based in Banbury and developing partnerships to encourage businesses and consumers to be more efficient in their use of materials, and to recycle more www.wrap.org.uk

Source for chart: Municipal Waste Statistics 2006/7, Department for Environment, Food & Rural Affairs (DEFRA) - www.defra.gov.uk/environment/statistics/wastats/bulletin07.htm

- Regional delivery of the Government's current Business Resource Efficiency & Waste (BREW) programme, to minimise commercial waste in both London and the South East
- London Remade, and its work developing local markets for London's recycled materials in the Thames Gateway www.londonremade.com
- the Hampshire Natural Resources Initiative (HNRI), a countywide cross-sector partnership whose aim is that Hampshire makes major progress by 2012 as a leader in local action to use natural resources efficiently www.hnri.co.uk.



◀ Annual Exhibition as part of CIWM National Conference

London and Southern Counties Centre in its Centenary Year

The CIWM London and Southern Counties Centre covers Institution members based in Greater London and the Home Counties – all of Kent, East and West Sussex, Surrey, Hampshire, Isle of Wight Berkshire, Buckinghamshire, Oxfordshire, Bedfordshire, Hertfordshire, and most of Essex.

It is easily the largest Centre as 2007 membership data shows.

Membership Grade	L&SC Centre Membership	Institution Total	Centre as % of Institution Total
Affiliate	600	2191	27.4
Associate	112	519	21.6
Corporate	499	2172	23.0
Fellows	26	106	24.5
Licentiate	15	80	18.8
Graduates	196	715	27.4
Hon Fellows	3	45	6.7
Life Member	2	11	18.2
Retired Member	38	158	24.1
Students	137	586	23.4
Technician	8	37	21.6
TOTAL	1636	6620	24.7

CENTRE COUNCIL CHAIRMEN OVER THE LAST 25 YEARS

2007 to 2009 Stephen Didsbury

2005 to 2007 Barry Dennis

2003 to 2005 Mike Bland

2001 to 2003 Chris O'Brien

1998 to 2001 Malcolm Sharp, starting the year of the Institution's national centenary

1997 to 1998 Geoff Prentice, who sadly died in July 1998

1995 to 97 Chris Tunaley

1993 to 95 Bill Townend

1991 to 93 Peter Ager

1989 to 91 Tony Mitchell

1987 to 89 John Ferguson

1985 to 87 AE 'Higgy' Higginson

1983 to 85 John Gratton

1981 to 83 Ernie Sharp

London and Southern Counties Centre Council 2007

The Centre Council provides leadership for the Centre and is elected by the membership via elections of a third of the Centre Council each year. The Centre Council represents its members, and organises the Centre's activities and programme.

2007 Centre Council, from left to right: ►

John Ferguson, Nick Patterson, Peter Ager, Mike Bland (Centre Secretary), Bill Townend, Malcolm Sharp, Stephen Didsbury (Centre Chairman), Ernie Sharp, Tony Hammond, Sarahjane Widdowson, Barry Dennis, Philip Rushbrook.

(Not in photo: Prof David Wilson, Chris O'Brien and Ian Dudding.)



2007/8 CENTRE COUNCIL MEMBERSHIP

Stephen Didsbury MCIWM (Elected Councillor & Chairman)
Nick Patterson MCIWM (Elected Councillor & Vice-Chairman)

Peter Ager FCIWM (Elected Councillor)
Mike Bland FCIWM (Elected Councillor,
Honorary Secretary & Honorary Treasurer)
Barry Dennis FCIWM (Elected)
Ian Dudding MCIWM (Co-opted)

John Ferguson OBE FCIWM (Ex-Officio, as National President in 1990)
Tony Hammond MCIWM (Elected)
Chris O'Brien MCIWM (Elected)
Dr Philip Rushbrook FCIWM (Appointed)

Ernie Sharp FCIWM (Co-opted)

Malcolm Sharp FCIWM (Elected)
Dr Bill Townend OBE FCIWM (Co-opted)
Sarahjane Widdowson Graduate Member CIWM
(Co-opted Councillor and New Generation Group Co-ordinator)
Prof David Wilson MBE FCIWM (Co-opted).

MCIWM – Member of the Institution, FCIWM – Fellow of the Institution.

'My First Week in Waste'

History is only kept alive by people recording their personal experiences and views. Several members who have been active in the Centre share here their memories of their first week in waste management and recycling, stretching back to the 1940s.

Mike Bland, Centre Secretary

My first week in the wastes industry was when I joined the Greater London Council Poisonous Waste Unit in March 1976. On my induction tour I was taken into the laboratory of Dr Mervyn Brown, a mad professor of a scientist in the Scientific Branch. "Here smell this" he said thrusting a fizzing test tube under my nose, "deadly that is!" I rushed headlong to the nearest source of fresh air, my mind questioning what sort of journey I was embarking on here. Thirty one years on, and with no regrets, every day in the industry brings something new, although not as alarming as that first experience.

Steve Didsbury, Centre Chairman and Head of Waste and Street Services, London Borough of Bexley

My first week in waste management was spent answering telephone calls in the information centre of the Waltham Forest Works Department. My Director's objective (John Bonser, President of the Institute in 1981/82 – see earlier) was for me to learn how residents felt about service failures so that as a management trainee I would definitely then concentrate on improving service standards.

Bob Lisney, Waste Consultant, who previously also led Hampshire's waste to resource initiatives.

The week before I joined Hampshire County Council I had declined to go to a waste conference as I did not think it would ever involve me. After all, I had joined the Council to manage personnel, finance and IT. Within six months I was in charge of letting the largest waste contract in Europe, with 1990 legislative changes knocking all existing arrangements sideways.

My greatest memory of those days was of the total dedication and unappreciated status of people working in waste. It was an Aunt Sally outfit in a department where roads were king. Now it is almost the other way round.

Dr. Adam Read

Former Co-ordinator of the London Centre New Generation Group and Head of Waste Management - Hyder Consulting

I was lucky enough to be offered the post of Recycling Officer at the Royal Borough of Kensington & Chelsea. I had just completed a thesis on Government Recycling targets, but I was not prepared for waste management on the front line.

Thankfully my line manager recognised this. My first week was spent out with the various recycling crews seeing how the systems really worked. I spent time with the split back fleet picking up both commingled recyclables and refuse and seeing just how hard it can be to decide which is which when running down the street! My apprenticeship ensured I kept a realistic perspective on public complaints and policy decisions because I had seen what worked and what didn't on the streets of Chelsea!

Philip Patrick, FCIWM and President in 1974.

Recorded over 60 years after Philip started with Westminster in 1946.

I joined Westminster's Cleansing and Transport Department in 1946, on discharge from the RAF. I was later promoted to be Superintendent of Gatliff Road Depot, following Jim Sumner's move to the Ministry of Health (See Profile). When I arrived, refuse was collected by battery-electric vehicles, mainly to keep down the noise levels in areas like Mayfair.

I was responsible for part of the street arrangements for the Coronation of Queen Elizabeth II, ensuring the procession route was sanded and gritted for the horses despite the heavy rain, and getting all the litter removed afterwards, a different angle on a state ceremony. Waste was not as popular then, so when asked your occupation the usual reply was 'I'm a local government officer'.



◀ Lewis Herbert and 2007 National President Jeff Cooper promoting bottle banks 25 years ago.

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AUTHOR - LEWIS HERBERT

Nearly a decade ago, Lewis Herbert MCIWM wrote the CIWM centenary history 'The History of the Institute of Wastes Management 1898 to 1898', and was subsequently awarded the CIWM President's Award 2000.

Lewis studied economic history at York University in the 1970s, and was later the Greater London Councillor who led on waste and recycling issues from 1981 to 1986.

He has been a leading innovator on recycling and reuse initiatives in the 20 years since, and continues to contribute to challenging projects while researching waste history and serving as a Cambridge City Councillor in his spare time.

Contact Lewis if you want a copy of the 1998 Institution history, or you have interesting historic material to share:

Lewis Herbert, WasteWISE Consultants Ltd, Cambridge
lewis@wastewise.org.uk 01223 411699 or 0774 853 6153

Further References

In addition to the Sources quoted on earlier pages, there is further interesting material in

- the continuous publication of Institution Journals from 1910 to date, and
- 'The History of the Institute of Wastes Management 1898 to 1898', written in 1998. Contact Lewis Herbert if you want a copy of the latter. Below are some wider sources, part of the extensive collection held by the CIWM in its HQ library in Northampton.

A) WIDER REFERENCES

- Sir John Simon KCB (1897 - 2nd edition) 'English Sanitary Institutions' John Murray
- WH Maxwell (1898) 'Removal and Disposal of Town Refuse', and (1905/19) 'Destructors and the Disposal of Town Refuse' Sanitary Publishing Company
- AL Thomson (1928) 'Modern Cleansing Practice: Its Principles and Problems' Sanitary Publishing Company
- JC Wylie (1958) 'The Wastes of Civilisation' Faber and Faber
- Matthew Gandy (1994) 'Recycling and the Politics of Urban Waste' Earthscan
- Barrie C Woods (1999) Municipal Refuse Collection Vehicles, Trans-Pennine Publishing. Still in print – available for £7.50 including postage from 01768 351053.

B) SOME PUBLICATIONS BY LONDON CENTRE AUTHORS

- Arthur May (1911) 'Cleansing' W.A. Hammond

- Dawes Report (1929) 'Public Cleansing – A Report of an Investigation into the Public Cleansing Service in the Administrative County of London' HMSO
- John Stephen (1951) 'Modern Cleansing Practice' Technical Publishing Company (updating the earlier work by AL Thomson)
- AE Higginson (1965) 'Analysis of Domestic Refuse' Institute of Public Cleansing
- Philip Patrick DFC (1965) 'Mechanical Street Cleansing' Institute of Public Cleansing
- Frank Flintoff and Ron Millard (1968) 'Public Cleansing' Applied Science
- David C Wilson (1980) 'Waste Management: Planning, Evaluation and Technologies' Clarendon.

WASTE ANALYSIS REFERENCES (Sources for graph on page 15)

- 1892 Russell's analysis of London waste (London County Council - 5 May 1893)
- 1925 Dawes report, quoted in David Wilson's book, referenced above
- 1936 Analysis by Dawes in 'Sanitarian' July 1953 p388, for 30 towns and cities
- 1963, 1966 & 1978 - 11th RCEP report 'Managing Waste: The Duty of Care' p25
- 1992 Analysis by Warren Spring Laboratory, quoted by Waste Watch
- 2003 North London Waste Authority waste analysis.

Where Will Waste and Resource Management Be 100 Years From Now, in 2107?

Now let us cast our minds forward and consider the next 100 years... What issues will the waste sector face? What is in store for the Centre? And what will be the role of the Chartered Waste Manager?

Waste is an inevitable by-product of society, and no matter how advanced we get there will always be waste products from our way of life and our consumer choices. So rest assured there will be a thriving London & Southern Counties Centre in 2107 and waste managers will continue to strive for the holy grail of 'sustainable waste management' – but it may not look quite like the systems of waste collection, recycling and treatment that we are so comfortable with in 2007.

By 2067 we will have suffered at the hands of climate change, sea level rise and the associated problems of resource reduction, population overcrowding and social unrest. We will have started to turn our backs on technology as our saviour and will have reverted to more localised systems of production, consumption and resource management. We will have re-tuned ourselves into our environment, rather than trying to manage and control it, and we will have reduced the wastes generated by society to levels approaching those of pre-industrial revolution Britain. We will have learnt that harmony with nature is the only way to ensure one planet living and the long term sustainability of the human race.

However, we will have harnessed the power of some of the technology breakthroughs of the early 21st Century. Almost everyone will be living in homogenised urban estates where our wastes are used to power local CHP systems, where our recyclables are considered valuable and are collected for reprocessing, and where the nutrients that remain in society's 'dead'

will be recycled and used to enrich our dwindling food stocks (not just a science-fiction author's nightmare).

We will have perfected the art of matter transportation, which would allow us to address the waste problem once and for all, but energy reserves will be scarce and as such the dematerialisation of society's waste will not be a deliverable option.

Instead we will use this technology to transport only our unwanted 'wastes' (perhaps 5% of all those produced) to the moon, where craters are in filled and the land 'farmed' for nutrients under large greenhouses to feed the Earth's population. However, before this becomes a reality landfilling in zero gravity will need to be addressed by the greatest scientists, academics and consultants of our time.

The world of tomorrow may not look too dissimilar from that of today. We will still be producing wastes and trying to treat them using 'age old approaches' of recycling, composting and energy recovery. Waste managers will still be fighting the tide of consumption (albeit a smaller tide than we face today) and the CIWM will still be hosting technical meetings to share best practice in high-rise CHP, nutrient recycling and sustainable space transport. But these meetings will not be in London, due to severe flooding in 2050, and will have moved to a new home in the South East – probably some where on the North Downs.

Waste Management in 2107 is something we need to think about today. Our choices, our work and our research today will impact and determine the environment, the consumers and the world in which wastes are created in the future. Wastes are the by-product of society, so we need to focus on the communities of tomorrow and ensure they are sustainable. Only then will we adequately address the spiralling waste problem we face today.

Author: Dr Adam D. Read
Head of Waste Management, Hyder Consulting

Adam presented a paper looking forward to 2107 at the Centre's 'Great Waste Debate' on 19th October 2007.

More on the Chartered Institution of Wastes Management (CIWM) ... and How to Become a Member

The Chartered Institution of Wastes Management (CIWM) is the professional body which represents well over 6,000 waste management professionals - predominantly in the UK but also overseas.

The CIWM sets professional standards for individuals working in wastes management and has various grades of membership determined by education, qualification and experience.

For the latest updates from the Institution and current events in the London Centre and nationally visit www.ciwm.co.uk



**The Chartered Institution
of Wastes Management**

TO BECOME A MEMBER, OR TO ASSIST A COLLEAGUE TO JOIN, CONTACT:

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9 Saxon Court, St. Peter's Gardens, Northampton NN1 1SX

Telephone: 01604 620426 or email: membership@ciwm.co.uk