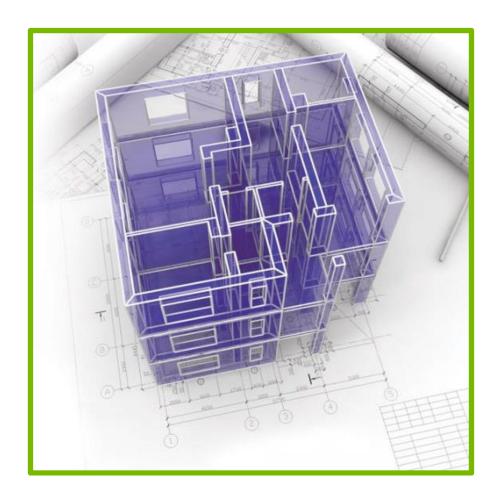
Waste Management Planning Advice for New Flatted Properties – Project Report



December 2014





LWARB developed a partnership with LEDNET to commission this report.

The London Waste and Recycling Board (LWARB) was established by the GLA Act 2007 to promote and encourage the production of less waste, an increase in the proportion of waste that is re-used or recycled and the use of methods of collection, treatment and disposal of waste which are more beneficial to the environment in London. LWARB has a fund made up of money from central Government (DEFRA) to achieve these objectives. Find out more at www.lwarb.gov.uk

The London Environment Directors' Network (LEDNET) is the membership association for London's Environment Directors, with representation from the GLA and London Councils. It provides a forum for Environment Directors to share learning and best practice and develop thinking on emerging policy. A London Environment Director acts as chair and deputy chair on a rotating basis. Find out more at

www.londoncouncils.gov.uk/londonfacts/londonlocalgovernment/a-z/j-l.htm#.VHhJesnravl

Written by: SOENECS Ltd developed a partnership with BPP Consulting LLP to deliver this report.



SOcial, ENvironmental & EConomics Solutions (SOENECS) Ltd provide strategic advice and consultancy to the public and private sectors. SOENECS specialise in the fields of waste management, resource management, circular economy, procurement, renewable deployment, carbon management and partnership delivery. Find out more at www.soenecs.co.uk



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Executive summary

The European Commission has issued a communication proposing municipal waste re-use and recycling targets of 70 per cent by 2030. England has a current target to recycle and compost 50% of household waste by 2020. This target is reflected in the Mayor of London's Municipal Waste Management Strategy¹ and the London Plan². The Draft Further Alterations to the London Plan (FALP)³ project that population growth will rise beyond that predicted in the 2011 London Plan. The FALP projects that there will be an additional 1,000,000 households by 2036. Currently, around half of London's households live in some form of flatted property. It is likely that a large number of the required new homes will be medium to high density developments. The requirement for a well-designed waste management system should form a fundamental part of the design and planning process because 80% of all environmental costs are predetermined during the conception and design phase of a project⁴. If infrastructure and methods for managing waste are not considered comprehensively at this stage, there is limited scope to introduce better waste management once a building has been constructed. A working group comprising members of the London Environment Directors Network (LEDNET), the London Waste and Recycling Board (LWARB) and London local authority waste officers identified a need for planning guidance for local authorities and the industry on how to effectively plan and design suitable storage and collection systems for waste and recycling from flatted properties.

LWARB and LEDNET commissioned a consultancy partnership formed by BPP Consulting LLP and SOENECS Ltd (SOENECS & BPP) to develop waste management planning advice for flatted properties. The overall requirement was to prepare a template policy or policies on planning for waste and recycling storage and collection in new build flatted properties.

Work undertaken involved literature reviews; assessment of existing planning policy; workshops with a diverse range of stakeholders; a survey of London Borough planning authorities and development of London, UK and international case studies. The conclusions of this work are set out in section 8 with key conclusions provided below:

Process

- All developers need to consider recycling and waste management systems at the early stage of design and planning;
- Planning Policy officers need to liaise with Development Management officers to help ensure policies are implementable and can be applied as envisaged; and
- Planning departments need to liaise closely with waste management departments (and operators/collectors) when preparing plans and / or guidance (policy officers) and when dealing with applications from pre-app through to determination (Development Management officers)

¹ http://www.london.gov.uk/priorities/environment/publications/the-mayors-waste-management-strategies

² http://www.london.gov.uk/thelondonplan/

³ http://www.london.gov.uk/priorities/planning/london-plan/draft-further-alterations-to-the-london-plan

⁴ Sophie Thomas RSA Great Recovery – speech at RWM 2014





Policy and guidance

- Authorities need clear planning policy that provides certainty over waste management requirements for consideration by developers and has teeth in determining applications;
- Development management planning policies will set out requirements in greater detail rather than strategic planning policies; and
- Supplementary Planning Documents (SPDs) that include more detail on requirements
 of planning policies have weight but need clear policy on which to be based, and can
 take time and resources to prepare various alternative options exist that may be
 more appropriate to different authorities.

Practice

- Even basic consideration of storage and collection systems in design will be helpful e.g. the environment in which containers are placed, internal storage, ease of access and participation etc.;
- Moving towards an 'ideal' development, where high rates of separation (to contribute to 50-70% recycling) is the ultimate goal; and
- Developers, architects, managing agents, planners and waste managers need to look at the development holistically and consider waste as a fourth utility.

This report gives an overview of the methods used to reach the conclusions above. Taking the conclusions into account, it then offers and describes three distinct outputs that are considered to assist with improving the management of waste in new flatted developments:

- Document 1: Template planning policy for adoption by London boroughs
- Document 2: Template waste management strategy for use by developers at pre-application planning stage
- Document 3: Case studies UK and international examples of recycling and wastes management practice in high rise buildings

These three documents have been written as stand-alone items for adoption and sharing by the waste and resources management, planning and development communities. The format and content of the template planning policy and waste management strategy have been shaped through extensive input from the project steering group. Consultation on the applicability of these documents has been undertaken through meetings with the Association of London Borough Planning Officers (ALBPO), the Catapult for Future Cities, the Institution of Civil Engineers (ICE) resources panel and architect practices.

Further work is considered necessary to embed into development practice, the consideration of operational waste management systems capable of achieving a recycling rate of 70%. This further work includes the following:

- Understanding the business case associated with installing high performing recycling systems in flatted properties.
- Communicating to the London Borough planning and waste management officers and councillors the outcomes of and opportunities presented by this report.
- The creation of a template for London Borough waste teams to complete that will
 provide developers with a clear understanding of the collection and management
 systems in place in that borough.





- A review of existing recycling options capable of increasing the opportunities for on-site waste treatment and reducing vehicle movements
- Consideration of opportunities to retrofit existing flatted properties in order to increase levels of recycling.

It is considered that sustained promotion of suitable waste management at the design and development stages of flatted properties will contribute to london achieving the 50% and 70% anticipated recycling targets for 2020 and 2030 respectively.





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1. Introduction

Growth in London's population will result in an estimated one million additional households by 2036, with a large proportion of these to be accommodated in new-build medium to high-density flatted developments. The additional waste resulting from this development is estimated to be in the region of one million tonnes per annum⁵. The London Waste and Recycling Board (LWARB), working in partnership with the London Environment Directors' Network (LEDNET) identified the need for planning guidance for local authorities to assist in the effective planning and design of suitable storage and collection systems for waste and recycling in new build flatted properties.

LWARB and LEDNET commissioned the consultancies BPP Consulting LLP and SOENECS Ltd (SOENECS & BPP) to develop waste management and recycling planning advice for new build flatted properties. The objective of the advice was to provide good practice guidance, legislative guidance and planning policies for the storage and collection of waste and recycling from new build flatted properties. The final outcomes should have regard to the European Commission's proposal to introduce 70% re-use and recycling targets for municipal waste by 2030 and be flexible to allow integration of new waste management solutions to achieve future targets and legislative requirements. The outcomes also need to take into account the additional burdens that increasing numbers of households and complex waste management systems can place on local authority waste budgets.

There are existing policies, guidance, voluntary codes and British Standards relating to the design of waste handling, collection and management infrastructure within new builds. However the consideration and implementation of these is not consistent at various planning stages across London local authorities. There is scope, therefore, to develop a consistent and pan-London approach to planning the design for waste management in flatted developments to ensure waste is dealt with effectively, in both their design and planning.

1.1. Methodology

The over-arching project requirement was to prepare planning advice in the form of a template planning policy or policies regarding waste and recycling storage and collection within new build flatted residential properties. The project deliverables are primarily aimed at local authority planning departments and waste management departments, and also intended for use by developers and architects. The methods employed to deliver the project outputs are described below:

1.2. Literature review

A review of national and local policies and guidance on waste and recycling storage and collection in flatted properties was carried out, expanding on the literature review previously provided by LWARB at the start of the project. The literature review extended to relevant documentation published in other countries. The following tasks were carried out:

⁵ Based upon 1 tonne per household of waste arising per annum





Identification of relevant documents through desk-based research, building on LWARB's previous literature review. A list of further documents was compiled for review that had relevance to the project, including:

- guidance provided by industry providers of goods and services
- development plans and planning guidance including Supplementary Planning Documents and guidance for architects and designers
- other practice guides provided by local government
- guidance on waste and recycling services provided to residents of specific flatted developments
- British Standards for the storage, management and collection of materials in flatted developments
- design guidance for waste management infrastructure in and around flatted properties
- reports of the performance of waste and recycling systems in flats
- media reports of new developments planned and recent developments built in the London area

In total over 60 documents were reviewed for relevant policy and operational information specific to new, flatted developments. An in depth review was carried out on several documents and this involved recording the following details on a literature review form:

- title, date and author of the document;
- summary of the information contained in the document; and
- ranking of the relevance of the document to the project

Some London Borough planning policy and guidance documents were reviewed to establish the extent to which relevant policy and guidance is already in existence. A full list of the documents reviewed is set out Appendix 4 accompanying this report.

1.3. Case study development

To identify specific 'live' examples and to augment the literature review, a desk-based review of planning applications was conducted, where there were examples of waste storage, handling and collection solutions proposed at planning application stage within permitted new residential developments. This research was primarily focused on London and the UK, but was expanded to include emerging practice from other cities of a similar status, such as New York, Paris and Tokyo. Where possible, innovative waste management solutions were highlighted, along with the identification of less successful examples.

Tasks carried out included:

 Desk-based research of 12 new developments. The aim of this approach was to identify examples of planning applications where supporting documents and/or waste strategies had been submitted, setting out the method for dealing with waste within proposed developments.





• Identification of developments where waste management was not adequately addressed at the planning application stage.

Selection of three case studies already constructed, that were regarded as 'good' to verify through a combination of site visits and telephone conversations with local authority waste managers to gain a fuller picture of how waste is being managed in the developments. This approach highlighted any operational aspects that had changed since the planning application stage.

It was felt that restricting case studies in the UK would be too narrow to understand what some of the world's developing cities are doing to manage recycling and waste issues. Cities of a similar status and nature to London were considered looking across Europe, America, Asia and Australia.

The full list of developments researched is set out in Appendix 3 to this report.

1.4. Current planning practice

A key objective of this project was to provide planning advice. Research was conducted to identify and review existing local authority planning policy documents relating to waste management provision, focusing on planning policies adopted by London boroughs. The aim of this task was to identify examples of good practice in terms of comprehensiveness of planning policy and supporting planning guidance such as Supplementary Planning Documents (SPDs). The focus was on adopted policies as these will have been approved by an independent planning Inspector to the extent that they are considered appropriate and deliverable, and consistent with national policy.

Tasks carried out included:

- Identification of local authority planning policy documents through desk-based research. A list of 40 planning documents were compiled for review that had relevance to the project, including:
 - Development plans;
 - Supplementary Planning Documents (SPDs);
 - Other practice guidance for waste management infrastructure in and around flatted properties including detailed advice for designers and architects that had not been prepared or adopted as SPD.
- Identification of existing relevant planning policy in London that could be used to inform the development of the template planning policy. National policy and guidance was also reviewed.
- A survey, requesting information from London Borough planning authorities, was devised and circulated on behalf of the project by the Association of London Borough Planning Officers (ALBPO). The survey pre-amble and questions asked are included in Appendix 5.





A meeting of the Association of London Borough Planning Officers on 7th November 2014 was also attended to present an overview of the project brief and gather views of attendees on the initial findings. Key observations from the meeting are set out in Appendix 8. The draft template policy was subsequently emailed to all members of ALBPO (the development management group) for comments. There was a limited response to this consultation but those who did respond felt the draft template planning policy would be useful.

1.5. Workshop and steering group meetings

The project was governed through a Steering Group, set up by LWARB and chaired by Jamie Blake, Assistant Director of Public Realm at London Borough of Tower Hamlets. Beverley Simonson, Business Development Officer (local authority support) at LWARB was responsible for overall project management on behalf of LWARB and LEDNET. Stakeholder engagement was sought throughout the delivery of the project, through the facilitation of a preliminary workshop and subsequent steering group meetings.

Preliminary workshop: the project was initiated with a workshop set up through LWARB and held at their offices on Friday 19th September 2014. The attendees were selected to ensure that a balanced representation of stakeholders were engaged and included the following:

Table 1: Steering Group Members

Name	Organisation	Stakeholder Interest
Jamie Blake	Assistant Director, London Borough of Tower Hamlets	Chair representing LEDNET
Beverley Simonson Business Development I Officer, LWARB		Project Manager
Susan May	Affinity Sutton	Housing Associations
Richard Gregg	Plastic Omnium / Sulo	Waste & Recycling Container Supplier and underground recycling banks consortium
James Keogh	Greater London Authority	Planner
Stuart Allen	Biffa Waste Services	Waste & recycling collections
		contractor
Jakob Rindegren Environmental Services Association		Trade Association / policy
Andy Day	London Borough of Croydon	Development Management Planner (representing ALBPO)
Kathy May	Royal Borough of Kensington & Chelsea and London Borough of Hammersmith & Fulham	Local authority waste manager (biborough)
David Greenfield	SOENECS Ltd	Project Delivery – Project Management
Rachel Espinosa	SOENECS Ltd	Project Delivery – Waste
Duncan Baker-	SOENECS Ltd	Project Delivery – Design
Brown		
David Payne	BPP Consulting LLP	Project Delivery – Planning

In order to inform the discussion at the steering group meeting a list of questions was circulated beforehand:





- What are the key operational factors that need to be identified when choosing a solution?
- Are there key determinants that may make solutions prohibitive?
- Are certain solutions more suitable at particular locations?
- What are the financial determinants?
- What factors affect the preferences for different solutions?
- Are you involved in any development that you feel was innovative in achieving high customer satisfaction and high recycling rates?
- Are existing building regulations / guidelines / planning policies sufficient for achieving high recycling rates in new high rise developments?

Throughout the interactive session, stakeholders expressed the challenges and issues they had experienced in the management of residential waste from flatted developments. These challenges are detailed in section 3 of this report. SOENECS & BPP facilitated group discussions to promote in-depth investigation of the challenges raised and subsequently disseminated the conclusions to the group following the workshop. This session provided direction and focus to the project going forward.

Steering group meeting 1: a second meeting was held on 23rd October 2014, approximately half way through the delivery of the project. The purpose of this meeting was to:

- provide a progress update to the steering group on tasks carried out to date;
- report on key findings of the literature reviews and case study identification;
- gather views from the group in order to refine and re-confirm the scope of the project; and
- determine the format of the proposed project outputs

Invitees included the list of attendees to the preliminary workshop with the addition of the following stakeholders:

- Wayne Hubbard, Chief Operating Officer, LWARB
- Jon Hastings, Waste Reduction & Disposal Manager, London Borough of Newham
- Simon Keal, Principal Policy & Projects Officer, London Councils
- David Birkbeck, Chief Executive Officer, Design for Homes
- Ian Blake, BPP Consulting, Project Delivery Planning

The key issues raised by the steering group are set out in more detail in section 3 of this report.

Steering group members were also consulted on drafts of the key project outputs (the template planning policy and template recycling and waste management strategy) and their views were taken into account in the final documents.

Dissemination workshops: it is intended that LEDNET/LWARB will hold a series of workshops at which the template outputs from this project will be disseminated to an audience of London Borough planning and waste management officers. These workshops are proposed for early 2015.





1.6. Project Outputs

The project was conceived to provide 'planning advice' to LEDNET and LWARB that could be disseminated to London Boroughs in order to encourage early engagement with developers, waste management teams and planners on waste operational issues in new, flatted developments. Having considered the initial findings of an extensive literature review, the following outputs were considered by the project steering group to be the most appropriate for this project:

- **Template planning policy** text of a planning policy (and pre-amble) that may be used in developing planning policy by borough planning officers and incorporated into the council's suite of documents. It is envisaged that the policy would be used in early and pre-application discussions with developers to provide an indication of aspirations and direction of travel (for example where adopted policy is lacking or being reviewed but not yet adopted). The template planning policy draws on existing practice (in selected London Borough development plans) and is set out in Appendix 1 to this report.
- Template recycling and waste management strategy template document with sections for developers to complete and submit with planning applications. This is designed to allow developers to provide details of the proposed storage, movement and collection of residents' waste within a new, flatted development. Completion of the template waste management strategy, will ensure that developers engage with waste management teams at an early stage in the design process and provide the information sought, or required, by planning teams when submitting a planning application.

The template waste management strategy includes a spreadsheet checklist for use by developers and architects when preparing their development designs and at pre-planning application stage. The strategy provides a prompt to allow developers and architects to consider the practicalities of storage, movement and collection of waste within a development's design. The template recycling and waste management strategy is set out in Appendix 2 to this report.





2. Waste management in new build flatted developments – challenges and opportunities

At the outset and during the project, the steering group was asked to provide their thoughts on the key challenges and opportunities associated with managing waste in flatted properties. This was undertaken to ensure that, where possible, the outputs of the project addressed the challenges and maximised the opportunities identified by this expert group. A summary of the outputs from this process is set out below in three sections, which considers:

- key challenges;
- key considerations for planning policy/advice; and,
- opportunities.

A full list of all challenges and opportunities is included within the notes from the steering group workshop in Appendix 7.

2.1. Key challenges

The table below highlights the key challenges identified by steering group members at the preliminary workshop, who were asked to consider some of the existing challenges in reaching high recycling targets in flatted properties.

Table 2: Steering Group Key Challenges for Managing Waste in New Flatted Developments

Table 2. Steering Group Rey Challenges for Managing Waste in New Hatted Developments				
Challenges				
Residents' understanding of how waste is to be managed within the development	Lack of culture of recycling			
Budget cuts to local authorities	Managing food waste			
Recycling targets for LA's	Transient population and education			
Internal space within flats	Ease of use / simplicity of the recycling system			
Access for local authorities	Costs of development, management and maintenance by developer/landlord/managing agent			
Turnover of residents / communications	Standardised containment			
Ventilation issues for some mechanical systems	Distance between home and collection point			
External space for storage of bins	Distance between collection point and vehicle			
Ownership of cleanliness within development	Timing of collection			

Many of these challenges related to the design of the building and how easy it is for residents to recycle, and for managing agents and local authorities to service the waste management requirements.





2.2. Key considerations

Input from the steering group and literature review findings suggested that the template planning policy and waste management strategy template should address the following practical issues:

Table 3: Practical Considerations to be addressed by the Project Outputs

Key Considerations	
Storage	-Consideration of internal/external areas and bins -Capacity -Accessibility/convenience -Separation of materials -Hygiene -Security -Amenity impacts
Visual	–Public Realm
Nuisance	-Noise -Odour
Collection	-Accessibility-Amenity impacts-Safety
On-site management	All of the above

2.3. Opportunities

The steering group felt that should the output from the project be successful, the following opportunities could be achieved or targeted for development and research:

Table 4: Potential Opportunities

Tuble 1.1 oterital opportunities				
Opportunities				
Internal design for recycling	Making waste a fourth utility			
Management of the development once occupied	Underground containers			
Package deals from developers	Vacuum systems			
Standardisation of products (though flexibility necessary in some areas)	National marketing campaigns and strap lines similar to '5 a day' messaging			
Improvement in street scene cleanliness	External space utilised in most sustainable way for living			
Future proofing of design would avoid expensive changes in the future	Peer pressure/cultural norm development			
Food waste could be collected separately and managed on or off site	Education in schools			
Tri bins installed in all new kitchens could manage internal space well and encourage recycling	All of the opportunities listed can also be listed as challenges			
Increased cleanliness	Reduced cost to the council			





Increased recycling

Green cities

The consideration of all these opportunities ensures that the project outputs will be of relevance to the users. Given that numerous points were raised, it was felt that the three most pressing concerns were:

- Ease of use / simplicity
- Costs of development, management and maintenance by developer/landlord/managing agent
- Standard containment across London, but not least common containment methods in one borough

These three points all relate to how materials are collected and managed, and if new builds were to consider these aspects at development stage, the ability for higher recycling targets to be achieved is more likely. Cost of delivery of some of these could be an issue; further work is required to understand the opportunities for investing at the development stage in appropriate recycling schemes.

The opportunities identified by the steering group are diverse and challenging, again, it was felt that there were some stand out opportunities that this project should focus on:

- Internal design for recycling
- Making waste a fourth utility
- Underground and Vacuum systems
- Food waste

It was clear from the research, that separately collecting food waste would allow higher recycling targets to be achieved as it is a high proportion of the waste stream. Targeting of individual materials was a common theme, however, if the link between internal kitchen design for separation and simplified collection systems for residents could be achieved, this may result in waste and recycling being respected as the fourth utility.





3. Improving waste management in flatted properties using the planning system

The following section will explore the relationship between the planning system and waste management and how the planning system can be used to improve the systems for managing wastes in the operational phase of a new development.

3.1. Existing planning system – scope, opportunities and limitations

The existing planning system manages development through the implementation of extant planning policy at national and local levels and, in Greater London only, at a regional level. Planning policy is therefore set out in different documents, which are well illustrated in the following diagram taken from the Haringey Local Plan:

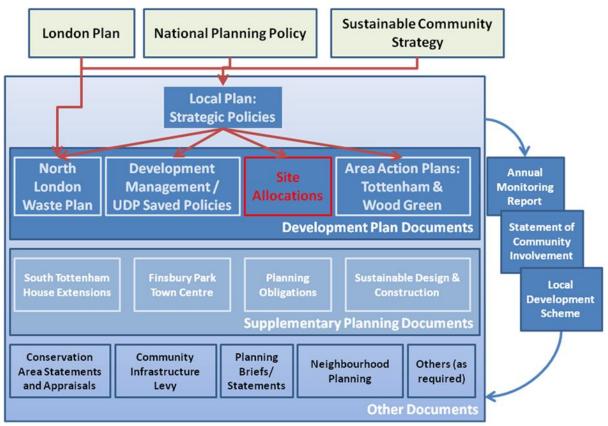


Figure one: Haringey Council Local Development Framework

3.1.1. National Planning Policy Framework

The overarching national planning policy for England, set out in the National Planning Policy Framework (NPPF), constitutes the government's view of what sustainable development in England means in practice for the planning system, including an economic, social and environmental role (paragraphs 6-7). The NPPF section on 'plan-making' considers the role of local plans and how local planning authorities should approach their preparation in order to ensure sustainable development takes place. Paragraphs 151 and 152 within this section include the following:





"151 Local Plans must be prepared with the objective of contributing to the achievement of sustainable development. To this end, they should be consistent with the principles and policies set out in this Framework, including the presumption in favour of sustainable development.

152 Local planning authorities should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development, and net gains across all three."

It is considered that the adoption of a policy that seeks the proper management of waste arising in flatted properties, by addressing the key considerations identified by the steering group (set out in Section 2, is wholly in accordance with these objectives.

Specific national planning policy concerned with ensuring the sustainable management of waste is set out in the recently published 'National Planning Policy for Waste'⁶. Much of this policy is concerned with the development of waste management facilities. However it also considers how local planning authorities should ensure that all development is designed to take account of the waste arising. Paragraph 1 makes it clear that:

"Positive planning plays a pivotal role in delivering this country's waste ambitions through:

- delivery of sustainable development and resource efficiency, including provision of modern infrastructure, local employment opportunities and wider climate change benefits, by driving waste management up the waste hierarchy;
- ensuring that waste management is considered alongside other spatial planning concerns, such as housing and transport, recognising the positive contribution that waste management can make to the development of sustainable communities;
- providing a framework in which communities and businesses are engaged with and take more responsibility for their own waste, including by enabling waste to be disposed of or, in the case of mixed municipal waste from households, recovered, in line with the proximity principle;
- helping to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment; and
- ensuring the design and layout of new residential and commercial development and other infrastructure (such as safe and reliable transport links) complements sustainable waste management, including the provision of appropriate storage and segregation facilities to facilitate high quality collections of waste."

Furthermore, paragraph 8 includes the following:

"When determining planning applications for non-waste development, local planning authorities should, to the extent appropriate to their responsibilities, ensure that:....

- new, non-waste development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development and, in less developed areas, with the local landscape. This

⁶ National Planning for Waste, DCLG, October 2014 https://www.gov.uk/government/publications/national-planning-policy-for-waste





includes providing adequate storage facilities at residential premises, for example by ensuring that there is sufficient and discrete provision for bins, to facilitate a high quality, comprehensive and frequent household collection service;"

The associated planning practice guidance⁷ elaborates on this point as follows:

"All local planning authorities can make a contribution to promoting the sound management of waste as part of any proposed development"

This includes helping to deliver the waste hierarchy in a number of ways including the following:

"promoting sound management of waste from any proposed development, such as encouraging on-site management of waste where this is appropriate, or including a planning condition to encourage or require the developer to set out how waste arising from the development is to be dealt with"

3.1.2. The London Plan

Specific strategic planning policy for Greater London is included in the Mayor's 'London Plan'. The London Plan forms part of the 'Development Plan' and so is a 'material consideration' to be taken into account when determining planning applications for development in London. London boroughs are also required to prepare local planning policy that is in general conformity with the London Plan⁸. The London Plan includes a section on waste within Chapter 5.0 (for ease of reference this section is reproduced in Appendix 6) which includes the targets for recycling and composting for waste from households, businesses and industry set out in Table 5below).

Table 5: Recycling /composting/re-use targets set in the London Plan

Waste stream	2015	2020	2031
Municipal Solid Waste	45%	50%	60%
Commercial & Industrial Waste	-	>70%	-
Construction, Demolition & Excavation	-	>95%	-
Diversion of biodegradable/recyclable	-	-	100%
wastes from landfill			

Source: London Plan (2011)

The London Plan also includes specific policy (clause 'E' of policy 5.17 'Waste Capacity'⁹), concerning the management of waste in all development, which states:

"Suitable waste and recycling storage facilities are required in all new developments".

Furthermore, the London Plan encourages new developments to utilise renewable energy and sets out the following expectation at paragraph 5.38:

⁷ Planning Practice Guidance, DCLG (first published October 2014) http://planningguidance.planningportal.gov.uk/blog/guidance/waste/8l.ondon.plan 2011 http://www.london.gov.uk/priorities/planning/london-plan

⁸London Plan, 2011 http://www.london.gov.uk/priorities/planning/london-plan
⁹ N.B. The London Plan is being updated by the 'Further Alterations to the London Plan' which are likely to be adopted in the Spring of 2015, however the GLA are not proposing changes to clause E of policy 5.17.





"Opportunities to incorporate energy from waste¹⁰ or, where technically feasible, renewable energy should be investigated."

And within paragraph 5.42:

"There is a presumption that all major development proposals will seek to reduce carbon dioxide emissions by at least 20 per cent through the use of on-site renewable energy generation wherever feasible. Development proposals should seek to utilise renewable energy technologies such as: biomass heating; cooling and electricity; renewable energy from waste; photovoltaics; solar water heating; wind and heat pumps. The Mayor encourages the use of a full range of renewable energy technologies, which should be incorporated wherever site conditions make them feasible and where they contribute to the highest overall and most cost effective carbon dioxide emissions savings for a development proposal."

The London Plan is supported by Supplementary Planning Guidance¹¹ for Housing¹² that includes more details on how housing proposals should come forward in a manner which conforms to the London Plan. A specific section on 'Refuse Facilities' is included in the guidance and includes the following at paragraph 2.3.9:

"Refuse, green waste and recycling is a rapidly changing field and there remain significant variations in local authority requirements, which need to be identified and understood at an early design stage and reconciled with the Code for Sustainable Homes technical guidance."

The section also sets out the following expected 'baseline' standards:

"Standard 3.5.1 – Communal refuse and recycling containers, communal bin enclosures and refuse stores should be accessible to all residents including children and wheelchair users, and located on a hard, level surface. The location should satisfy local requirements for waste collection and should achieve full credits under the Code for Sustainable Homes Technical Guide. Refuse stores within buildings should be located to limit the nuisance caused by noise and smells and provided with means for cleaning.

Standard 3.5.2 – Storage facilities for waste and recycling containers should be provided in accordance with the Code for Sustainable Homes Technical Guide and local authority requirements."

It is understood that this guidance is currently under review and it is anticipated that this report will help inform that review.

¹⁰ The London Plan includes the following about energy from waste: "Energy generated from waste provides a particularly significant opportunity for London to exploit in the future. Preference should be given to using advanced conversion technologies including anaerobic digestion, gasification and pyrolysis (see glossary) that have the potential to achieve greater efficiencies and carbon dioxide emissions savings."

¹¹ The general purpose of "Supplementary Planning Guidance" and its relationship with planning policy is explained elsewhere is this section. 12 Supplementary Planning Guidance for Housing (adopted 2012) https://www.london.gov.uk/priorities/planning/supplementary-planning-guidance





3.2. Local Plans and Policies

It can be seen from the above that the inclusion of a policy within a local plan that seeks to ensure the proper management of waste within flatted properties is entirely consistent with national policy and the London Plan. The development of such a template policy is a key part of this project and the factors taken into account in its preparation are considered in detail in Section 3 of this report.

In drafting the template policy, Planning Advisory Service guidance¹³ on drafting planning policies, has been taken into account. This includes the following:

"It can take some time to prepare a full set of policies to which there is broad consensus. In particular, work closely with development management officers to ensure the policies are fit for purpose, in particular check their wording supports plan objectives (see NPPF paragraphs 16 and 57, for example, which require that plans and policies are positive in tone)."

"9.6 Avoid negative "thou shalt not" type development control policies and embrace a "yes, unless" approach to drafting policies. The policies should be aimed at promoting the strategy that the authority is seeking to implement. Negative policies reinforce the reactive development control mind-set rather than the positive development management approach suitable for a genuinely plan-led planning system."

It is important to note that the usefulness of the template policy to each borough will be affected by two things:

- 1. Whether such a policy is already in place;
- 2. The stage at which a borough is at within its plan-making cycle.

The coverage of boroughs with a relevant policy already in place was in part established by work undertaken to identify relevant, existing policies (outlined in section 2). This work revealed that this is already a consideration for many, but not all boroughs. The results of this work are considered further in Section 6.

In terms of the second point above, the route for establishing local planning policy is via the preparation of a Local Plan that includes policies intended to consider all aspects of different types of development, including its location, with a view to achieving sustainable development (in accordance with the NPPF).

The preparation and adoption of local planning policy is a lengthy and resource intensive process with local plans often taking in excess of three years to reach adoption. There are several stages of preparation, prescribed in legislation14. As the preparation of a local plan progresses through its various stages of options and policy development, public and stakeholder consultation, Sustainability Appraisal, and finally examination, there will be opportunities to revise policies to reflect this guidance. However, where plans have been recently adopted and reviews are not underway or planned, the scope for preparing additional policy for adoption is clearly more limited.

^{13 &#}x27;Good Plan Making Guide - Plan Making Principles for Practitioners', Planning Advisory Service, September 2014 14 Town and Country Planning (Local Planning) (England) Regulations 2012.





3.3. London borough development plan timing matrix

A summary of the potentially most appropriate mechanisms to consider, depending on the stage at which a development plan is at in a given borough, is set out in Table 6 below.

Table 6: Consideration of approaches at different stages of development plan preparation

Stage of Local Plan Preparation	Possible Approach
Issues and options being developed	Borough to note the fact that poor rates of recycling within flatted properties is an issue and identify options to deal with it – options to include use of template policy. Also note London Plan requirement.
2. Preferred options (approach) being developed	Assess the best option to deal with issue (see above).
3. Proposed Submission Plan being prepared	Amend any existing policy and pre-amble addressing the issue to ensure matters covered by the template policy are addressed, including a requirement for developers to submit a waste management strategy (potentially utilising the template waste management strategy).
4. Plan about to be submitted to PINS for examination	Seek to identify policy in the Plan that could be used to ensure matters covered by the template policy are addressed, including a requirement for developers to submit a waste management strategy. Amend pre-amble to policy and identify as a proposed minor change.
5. Plan at examination	It may be too late at this stage to make necessary changes to the Plan; however, as part of their examination of the Plan, it is possible that the Inspector will identify the need for policy and/or guidance concerning waste management in flatted properties to be inserted and in such a case the template policy can proposed.
6. Plan recently adopted	Seek to identify policy included in the Plan that could be used to require developers to prepare a waste management strategy detailing the management of waste in flatted properties.
7. Plan to undergo review	In response to London Waste Strategies, borough to note the fact that poor rates of waste recycling within flatted properties is an issue and identify options to deal with the issue.

In the event that a borough doesn't have a specific policy concerning waste in flatted properties and is unwilling to adopt one in the short to medium term, it may still be possible for its planners to seek developers' consideration of this matter via the implementation of the aforementioned London Plan policy 5.17 (E).

It is recognised that while a policy can set out the 'in-principle' requirement for developers to consider waste in flatted properties, it is not appropriate for it to specify in detail how this





should be addressed as this may be inflexible, impose unreasonable burdens, and stifle innovation. It is unlikely therefore, that the policy itself will specify in detail the information that the developer is expected to provide. In light of this, further guidance is required to ensure that developers (and planners) are clear on what is necessary to ensure compliance with a policy.

Where adopted policy requires developers to consider waste storage and recycling in new developments, even where this is rather generic or vague, there is the potential to prepare additional guidance to flesh out its implementation in more detail. Such guidance, which expands on the meaning of local planning policies, is quite common and is generally set out in a 'Planning Advice Note' (PAN)¹⁵ or a 'Supplementary Planning Document' (SPD) (see text box below). Essentially both documents offer advice to developers but a SPD has greater weight as this goes through a formal process of preparation involving public consultation and Sustainability Appraisal. However, it takes longer to produce than a PAN that is essentially prepared 'internally', albeit with formal Member agreement. The drawback with a PAN is the lesser weight that may be accorded to it, in planning decisions and by developers, than to a formal SPD.

The review of existing guidance (see Section 6), revealed that some boroughs have already adopted SPDs or PANs covering this matter. The review of practice in Section 7 revealed that some developers are already submitting information concerning waste management in flatted residential development with planning applications, but the extent to which this is taking place, and the adequacy of the information submitted, is highly variable.

Following the review of existing guidance and practice, the approach recommended by this project is the use of a template recycling and waste management strategy to be completed by developers and submitted with relevant planning applications.

The recommended template is set out and considered further in Appendix 2 of this report. Use of the template can be enshrined in either a PAN or an SPD or can be made available to developers as a stand-alone document.

¹⁵ N.B. The term 'Planning Advice Note' has no formal status but is widely used in distinguishing additional planning guidance that is not a Supplementary Planning Document.





Further Information Regarding PANs and DPDs

In deciding whether to prepare a PAN or SPD, boroughs need to consider whether a PAN will provide sufficient encouragement to developers, or whether an SPD, the non-compliance with which can be used as a reason for refusing planning permission, is the most appropriate option. The contents of the PAN and SPD will be very similar – as mentioned above, the essential differences between them is the process of preparation, that affects the time taken to adopt, and the weight that can be applied to them when determining planning applications.

An SPD is typically used to help explain what a Local Planning Authority requires of a developer in the implementation of a planning policy. It takes at least a year to prepare and adopt an SPD. The main stages are:

- Preparation Stage this includes issues and options stage and a sustainability appraisal scoping report followed by a draft SPD and draft SA and Equalities Impact Assessment (if required).
- Publication Stage Consultation on the document is required at draft SPD stage (4-6 weeks) following a resolution at Member e.g. Cabinet level.
- Adoption Stage The SPD needs to be adopted at Member e.g. cabinet level following amendments arising from consultation. The report to Members should be accompanied by appendices setting out the schedule of responses and the SA and EqIA (if required).

Planning Advice Note

The information set out in the PAN is technical and restricted to that which describes 'how to do something right'. The matter being covered by a PAN is factual and not controversial. It should not therefore need a full consultation stage or a sustainability appraisal.

Supplementary Planning Document

Supplementary Planning Documents (SPDs) provide formal planning guidance on the interpretation of an adopted policy. They are defined as Local Development Documents within the Local Development Framework and are subject to consultation and often a sustainability appraisal. For these reasons they are afforded more weight when considering planning applications. It is necessary for development plans to include relevant policies upon which the SPD can be based. The mechanism for producing SPD has been specifically provided for in legislation via regulations 11 to 16 of the Town and Country Planning (Local Planning) (England) Regulations 2012, including for consultation and formal adoption, which has implications for the resources and time taken for their preparation. Paragraph 153 of the NPPF includes the following about the preparation of SPD:

"Supplementary planning documents should be used where they can help applicants make successful applications or aid infrastructure delivery, and should not be used to





3.4. Local validation lists

The need to produce a waste management strategy statement may be a mechanism for delivery that a SPD or PAN could promote, or this could be included in a borough's local planning 'validation list' i.e. a planning application would not be considered valid unless such a statement was included. Guidance on local validation lists is included in the national Planning Practice Guidance, which states:

"A local planning authority may request supporting information with a planning application. Its requirements should be specified on a formally adopted 'local list' which has been published on its website less than two years before an application is submitted. Local information requirements have no bearing on whether a planning application is valid unless they are set out on such a list."

The stages associated with developing a proposal and obtaining planning permission are set out in Table 7 below which also indicates when the issue of waste management might be considered.

3.5. Limitations

As described previously, some of the main limitations to preparing and adopting policies requiring design for waste storage and recycling, and additional guidance, relate to timing and stage of development of the development plan, and also to resources. However the opportunities that there may be to work around these have also been identified.

Additional limitations may include:

- political will to take forward policies;
- opposition from developers and others to additional requirements in terms of policy or process e.g. waste management strategy templates;
- organisational issues and relationships between planning and waste management departments;
- LPA resources available to monitor development ensuring it takes place in accordance with the permitted scheme;
- limited ability of planning to influence behaviour of residents who will occupy, and managers who will maintain, the permitted development high turnover of residents will have a further effect.

In addition, it should be noted that planning control only extends to development requiring planning permission. Therefore retro-fitting of developments is beyond its scope, as is incentivising or penalising behaviour. That said however, practice guides can of course be used to influence such matters.





Table 7: Stages of development having regard to the planning process

Stage	Activities	Comment
Pre-application	Development design. Discussion with local planning authority (LPA) about planning requirements. Consultation with community.	Developer ought to review planning policy and associated guidance at this stage.
EIA screening	Outline details of development submitted to establish need for Environmental Statement (ES).	Need for an ES is set out in The Town and Country Planning (Environmental Impact Assessment) Regulations 2011
EIA scoping	If ES needed, further information submitted to establish matters to be addressed in Environmental Statement. Statutory environmental bodies will input to this process.	If an ES is required it is likely that the management of waste will be 'scoped in' as a matter to be addressed in the ES.
Preparation of application (and Environmental Statement)	Application to include details showing how development is in accordance with planning policy. ES to address matters identified through scoping.	Applications will most likely require a 'Design and Access Statement16' which may include details concerning waste storage and collection.
Submission of application by developer and validation local planning authority	Validation of the application by the LPA involves ensuring that all necessary information has been submitted.	National requirements and local validations lists set out what should be submitted.
Determination of planning application	Once validated the LPA has 13 weeks to determine applications for major development (16 if an ES is required).	Planning applications for major development are usually determined by a Member committee.
Issue of planning consent with conditions	The planning consent will contain conditions that have to be satisfied.	Planning conditions set out necessary actions to ensure a development is acceptable.
Legal Agreement (Section 106)	A legal requirement may be necessary which requires the developer to make a financial contribution to off-site mitigation measures e.g. road improvements.	
Pre-construction sign off of conditions	The LPA will need to agree that some conditions, such as the submission of detailed information, have been met before construction can commence.	The LDA will sheet the second start the
Construction	Certain conditions will need to be	The LPA will check to see that the

¹⁶ These statements are a statutory requirement. They should set out how the proposal reflects the site and its setting and how it can adequately accessed by its users.





(compliance with conditions)	complied with during construction.	development is being constructed in accordance with the planning permission.
Post construction (sign off of conditions)	The LPA will check to see that the development has been constructed in accordance with the planning permission.	Measures may be necessary to remedy issues where the development is not in accordance with the planning permission.

4. Existing legislative, policy and operational tools for waste management in flatted properties

This section will explore the legislative, policy and operational tools availbe to planners and waste managers for influencing new developments.

4.1. Legislative and policy tools

The management of household waste is governed by a range of legislative and policy tools, which ultimately place the duty for collection, separation, recycling and final disposal of household waste on local authorities. Key legislative and policy tools include:

- Environmental Protection Act 1990
- Landfill Directive (Directive 1999/31/EC)
- Revised EU Waste Framework Directive
- Waste Regulations 2011 and 2012
- Waste Hierarchy
- Household Waste Recycling Act 2003
- Recycling targets

A common thread running through these documents is the requirement to separate waste for recycling purposes, which is imposed on local authorities through legislation and recycling targets. The operational methods/services used to implement these targets by local authorities is a matter of local choice and are dependent upon various factors already in place, such as:

- contracts for waste collection
- type of collection operated, vehicles used etc.
- contracts for recycling of materials
- contracts for disposal of residual waste

Early engagement between developers, architects and local authority waste service providers will ensure developers have an understanding of the operational issues facing local authority waste services locally and allow waste teams to guide the planned development on Borough-specific methods for waste and recycling collection.





4.2. Operational guidance available to developers

A range of guidance is already in existence in the UK, to provide information on the storage requirements for waste and recycling per residential unit, the positioning of containers and the manual handling of waste generated from within flatted properties. Key documents include:

- British Standard BS5906: 2005, Waste Management in Buildings Code of Practice
- British Standard BS1703: 2005, Refuse Chutes and Hoppers Specification
- Defra / CABE: 2008, Designing Waste Facilities, A Guide to Modern Waste Design
- BREEAM: Code for Sustainable Homes
- ADEPT 2010, Making Space for Waste
- WRAP 2009 Recycling Collections for Flats¹⁷

These documents, and others reviewed, provide developers with a wealth of detailed information on the operation of waste management within buildings taking a 'cradle to grave' approach. They provide advice on how to implement the British Standard requirements for minimising the health and safety hazards of moving waste from residential units to interim storage points and to the allocated collection area. They also provide advice on communicating with residents, managing agents and housing associations as well as local authority waste collection service providers. In particular British Standard BS5906: 2005 details operational requirements for the location of waste storage within buildings, for the benefit of residents and waste collection crews e.g.:

- that residents should have to carry their waste no more than 30m from their units to waste storage areas
- that containers must be placed within a maximum of 20m from the refuse vehicle access point to reduce the distance needed to pull bins

All of these requirements should be incorporated into the design. A list of documents reviewed is set out in Appendix 4.

4.2.1. Review of existing waste & recycling guidance documents in the UK and internationally

Following the research undertaken and the steering group meetings, some very useful guides, toolkits and strategies were found to assist developers in planning for waste and recycling facilities in new builds. A list of documents reviewed is set out in Appendix 4. Here follows a summary of the three documents that influenced the creation of a template recycling and waste management strategy:

4.2.2. Preston City Council waste storage and collection guidance for domestic and commercial developments

Preston City Council would like to see residential buildings designed and managed in a way that better facilitates the recycling of waste. The document was written to help all those involved in the design and management of buildings to produce waste management strategies

¹⁷ www.wrap.org.uk/flats





that best facilitate the storage of waste and maximise the amount, which can be sent for recycling. Preston City Council has made it a material planning consideration that developers are conscious of the waste that will be generated by their developments and that their proposals satisfy all the requirements of this document.

4.2.3. Chorley Council Waste storage and collection guidance for new developments

Chorley Council has made it a material consideration for developers to be conscious of waste management. However, their guidance outlines developer's responsibilities for waste storage and collection in new developments, including their Duty of Care obligations with respect to waste production, storage, and handling, as detailed in Waste Management The Duty of Care Code of Practice. The document is intended to help developers to produce successful waste management strategies and will also assist in complying with Part H of the Building Regulations 2002.

4.2.4. London Borough of Southwark Waste management guidance notes for residential developments

The Council's guidance document provides information on the waste storage and collection requirements that should be considered for residential developments in Southwark.

It is the view of the Council that following the guidance is integral to satisfying the requirements for waste facilities in the Sustainable Design and Construction supplementary planning guidance (SPG) section 6.2. The document states the Council's collection requirements as well as giving advice to developers on internal storage, bins and different types of developments.

4.2.5. New South Wales Australia better practice guide for waste management in multi-unit dwelling - high-rise residential blocks more than seven storeys

NSW state at the beginning of the document "Considerable care and consideration needs to be given to designing a waste management system for high-rise buildings. Due to the large amount of material generated, poor design decisions can have serious repercussions on the management of the building throughout its lifetime." They then go on to advise developers on better practice examples and guidance to submitting designs.

4.3. Summary of research

The process of reviewing the above, and other relevant documents, resulted in the identification of the following themes:

- Most guidance is intended as advice to developers on compliance with local considerations
- Most guidance was written from the local authorities point of view
- With the exception of the NSW guidance, most guidance didn't suggest ways to aim for more innovative solutions.





Taking these points into account, it was considered appropriate to develop a document that would improve developers' understanding of the importance of considering recycling in new builds – in particular from a local authority perspective. In addition, it was considered appropriate to provide developers with a 'hand holding' document that explains what needs to be considered at the design stage, and why. The result of this is the template recycling and waste management strategy that is discussed further in section 5.3.

4.4. Review of waste management in planning applications

As part of the literature review, a number of planning application documents for new build developments in London were researched to gather case studies of good practice locally (these are set out in section 7 of this report). This was demonstrated through evidence of waste strategy documents devised at the pre-application stage and submitted along with the suite of supporting documents accompanying the application. Some of the better examples of developments where waste management has been thought through at pre-application stage include the following:

4.4.1. London Borough of Croydon – Taberner House

This is a residential development of 5 blocks of between 6 to 32 storeys situated in the town centre, which is currently under construction. The 'Operational Waste Strategy' document sets out the way waste will be managed in the buildings once they are operational. The document makes references to the existing arrangements for waste collection in the London Borough of Croydon. Estimates of the amount of waste arisings from the number of units is set out, with the corresponding number of bins required to meet the demand. The current Council collection frequency is investigated and the strategy recommends that collections could be increased through the use of the Council's commercial waste collection service as a chargeable addition to the free weekly household waste collection service.

The recommended system is to provide flats with internal kitchen bins and the tower building will have a chute system with a tri-segregator for residual / recyclables / food waste, (provided by Hardall International Limited). The main waste storage room will be situated in the basement and will house three bins, into which the chute hopper will eject refuse and recycling into their respective bins. The building management team will be responsible for the bin storage area and taking interim bins in a dedicated waste lift to the ground floor temporary storage areas in lower level blocks using a pedestrian controlled vehicle (PCV). Without the temporary storage system, the container pulling distance would be longer than 20m from the vehicle collection point. Bulky waste is also covered by the strategy.

4.4.2. London Borough of Southwark – 80 Newington Butts

This development includes a 44-storey tower, a 7-storey terrace, theatre and café. Waste management is mentioned in the Environmental Statement Non-Technical Summary. Waste is to be stored in the basement and transported to ground level by a goods lift in Dante Place. The Waste Strategy pages refer to BS5906, as well as the LB Southwark UDP for refuse and servicing requirements which states 'refuse containers should be sited at ground level at





distances of not more than 10 metres from the collection vehicle'. Estimates for waste arisings from the Tower and Terrace are set out, with a semi-breakdown of materials.

The strategy involves segregation of recoverable and non-recoverable waste streams, to include recycling of paper, plastics, aluminium and glass through the use of colour-coded bins. The waste strategy is to be managed by the concierge. The Tower will have a central waste room of 150m2, with interim waste rooms on each floor. Food waste is not included. More detail regarding waste management plans for this development is set out in the Case Study document in Appendix 3.

4.4.3. London Borough of Lewisham – Surrey Canal Renewal

This is a new sports village development with multiple blocks of varying heights within which, the proposal is to install the Envac vacuum waste / recycling collection system. A separate waste management supporting document sets out waste storage capacity guidelines per 1/2/3 bed unit and gives the requirements for recycling capacity, including how refuse and recycling will be stored in each kitchen unit. Composting is referenced in terms of the provision of either home composting units or communal composting with the resulting material to be considered as compost for the landscaping scheme. Waste tonnages from the development are estimated, including recycling tonnages.

Waste will be segregated into three fractions: refuse, recycling and organic waste.

Buildings above 7 storeys will have access portals on each floor and residents in buildings below 7 storeys will take waste to ground floor portals. A small waste storage area for bulky waste will be provided. In addition, waste storage areas in ground or basement floors will be provided for the temporary storage of hazardous waste / batteries / paints / WEEE. The Envac portals will be expanded to public realm elements of the development.

These developments are not yet built so do not feature in the case studies, with the exception of the development at 80 Newington Butts, which has been included due to the comprehensive nature of its waste strategy.

4.5. Template recycling and waste management strategy for inclusion in planning applications

A general conclusion resulting from the review of planning applications in London, is that waste management is not consistently considered at the design stage and where it has been considered, often more attention has been given to the management of waste from the construction of the development, rather than what will be produced by residents.

Where household waste has been considered it is not consistently set out within the suite of supporting documents to planning applications, often featuring within Sustainability Impact Assessments but also as separate Waste Strategy documents. This makes it difficult to find developers' plans with regard to waste management.





In addition to this, the information provided is not consistent, with some examples of developments providing fairly comprehensive plans for waste management and others giving very little information. Examples of both are set out in section 7 below.

A final comment from the research is that the review of developers' own documents and websites show that they are not capitalising on the opportunity to promote good waste management practices in their buildings as a selling point to potential buyers. There is little evidence of waste minimisation and/or recycling rates being set or promoted from household waste generated per development and good, convenient waste management practices are not mentioned in promotional literature. This is despite evidence to show that developers promote other sustainable features such as wind turbines and solar energy as marketable items to give their developments an edge over others.

What is missing from the current suite of legislative, policy and operational guidance documents available, is a standard format for presenting waste management plans to be submitted with planning applications. The over-arching conclusion from the research is that a template recycling and waste management strategy document would greatly assist developers to provide this information in a consistent format and ensure that they include comprehensive data for local authorities to assess. A template recycling and waste management strategy has been developed as part of this project, to address this issue and which is set out in Appendix 2.





5. Review of existing planning policy and guidance

The literature review of existing planning policy and guidance involved reviewing a number of London Borough websites to identify the existence of relevant planning policy and guidance.

A survey was also sent to members of the Association of London Borough Planning Officers (ALBPO) that sought information concerning the existence of relevant policy and guidance (either adopted or being prepared). Nine responses were received.

A summary of the results of both the survey and literature review is set out in table 8 below:

Table 8 – Summary of review and survey of existing borough planning policy and guidance

London	Relevant	Relevant	vey of existing borough planning policy and guidance Comments
Borough	policy	guidance	Confinents
Dorougii	(Y/N)	(Y/N)	
Barnet	Υ	Υ	Policy included in Core Strategy (2012)
			Sustainable Design and Construction SPD (2013)
Bexley	Y	Y	Policy included in the Core Strategy (2014). Working on Detailed Policies and Sites Local Plan which will incorporate waste guidance - anticipated adoption Feb 2017. Design for Living SPD (2006)
Brent	Y	Y	Broad policy relating to sustainable design could be utilised. Waste and Recycling Storage and Collection Guidance for Residential Properties (2013)
Camden	Y	Υ	Camden Planning Guidance - Design (CPG1) April 2011 (Section 10 Waste and Recycling Storage)
Croydon	N	N	Development Management policies being prepared – consultation on issues and options in 2013. Intending to prepare guidance.
Ealing	Y	N	Broad policy concerning sustainable design included in the Core Strategy (2014). Comment: "We do receive lots of enquiries (probably 3 or 4 a week) on such matters however, and whilst colleagues in our waste team do advise on major applications, we do desperately need some form of written guidance covering this aspect of design."
Enfield	Y	Y	Policy included in Core Strategy (2010) Waste and Recycling Storage Planning Guidance (2008)
Greenwich	Y	Y	Policy included in the Core Strategy (2014) Guidance included in 'Greener Greenwich' SPD (2014)
Hackney	Y	Y	Policy included in the Core Strategy (2010) Refuse and recycling storage guidance (2014)
Hammersmith & Fulham	Y	Y	Strategic policy included in Core Strategy (2011) and specific policy in Development Management policies document (2013) Planning Guidance (2013)
Harrow	Y	Υ	Policy included in the adopted DM policies DPD (2013) Residential Design Guide SPD – awaiting adoption
Haringey	Y	Y	Broad policy in Core Strategy (2013). More detail concerning waste and recycling storage included in Development management Policies document. Sustainable Design & Construction SPD (2013) SPG 8a Waste and Recycling (2006)





Havering	Υ	N	Policy included in the adopted Core Strategy (2008) Not intending to produce guidance	
Hillingdon	Y	?	Broad policy included in Core Strategy (2012). DM policies being prepared although the draft DM Policies for design and high rise development have no mention of waste. Design and Accessibility Statement (HDAS) SPD Residential Layouts (2006)	
Hounslow	Y	Y	Policy included in submission draft plan – adoption expected in 2015 Guidance for planning applications: Recycling & non recycling provisions for new developments (2012)	
Islington	Υ	Y	Policy included in the adopted DM policies DPD (2013) Rubbish and Recycling Storage Guidance for Architects (2013)	
Lambeth	Y	Y	Broad policy in Core Strategy (2011). Detailed policy included in Submission draft of Development Management DPD. Waste & Recycling Storage and Collection Requirements: Technical Specification for Architects and Developers (2013)	
Merton	Y	Y	Policy included in the Core Strategy (2014) 'Guidance Note for Architects - Waste and Recycling Storage Requirements - For Commercial and Residential Premises in the London Borough of Merton' - available on request (not online)	
Newham	N	Y	No specific policy concerning managing waste in development. Extensive guidance in 'Waste management guidelines for architects and property developers'	
Richmond upon Thames	N	Y	Recycling for New Developments With Communal Facilities SPG (2004) Residential Development Standards SPD (2010)	
Southwark	Y	Y	Policy included in the adopted Core Strategy (2011) Draft development management policies – at 'issues and options' stage Generic guidance in Sustainable Design and Construction SPD (2009). Survey indicated that borough is intending to prepare more specific guidance.	
Sutton	N	Y	Sustainable Design and Construction-Interim Planning Guidance (2008)	
Tower Hamlets	Y	N	Policy included in Development Management policies (2013)	
City of Westminster	N	Y	Policy on waste included in the adopted Core Strategy (2013) but not specific. Currently preparing evidence base for development management policies Planning Advice – 'Recycling and Waste Storage Requirements 2012/13'	

5.1. Planning policy

The review of relevant policies involved consideration of the Plans of 20 boroughs (i.e. 60%) and the results are set out in Appendix 4. The review and survey of planning policy revealed that London has an incomplete coverage of local planning policy covering waste management within developments. It also revealed that the detail of relevant policies varies with some being





more strategic while others being more detailed - particularly those in Development Management Development Plan Documents as might be expected.

The variety in the detail of policies is demonstrated by the three examples below:

5.1.1. Hillingdon Local Plan Part 1 Strategic Policies (Adopted November 2012):

Policy EM11: Sustainable Waste Management

 "The Council will require all new development to address waste management at all stages of a development's life from design and construction through to the end use and activity on site, ensuring that all waste is managed towards the upper end of the waste hierarchy."

5.1.2. Harrow Development Management Policies (Adopted July 2013):

Policy DM45: Waste Management

- "All proposals will be required to make on-site provision for general waste, the separation of recyclable materials and the collection of organic material for composting. The on-site provision must:
 - a. provide satisfactory storage volume to meet the general, recycling and organic waste material arising from the site;
 - b. ensure satisfactory access for collectors and, where relevant, collection vehicles; and
 - c. be located and screened to avoid nuisance to occupiers and adverse visual impact."

5.1.3. Lambeth: Local Plan Proposed Submission Plan (November 2013): Policy Q12: Refuse recycling/storage

- "(a) Adequate refuse and recycling storage should be provided for all development. In order to protect visual and residential amenity and public health the council will expect all refuse and recycling storage to:
 - fully integrate into the wider design from the outset;
 - be attractively designed and screened and conveniently located for users and collection:
 - have heavy-duty, robustly detailed structures and detailing;
 - be fully ventilated and easy to clean/ maintain;
 - be large enough to accommodate the easy manoeuvring of refuse/recycling containers and have sufficient space to accommodate any increased storage requirements; and
 - be secure and safe."





"(b) In new-build schemes refuse storage areas should:

- be fully integrated into the building and placed close to the main entrance for ease of use; or be separate located well away from residential accommodation to avoid harm to amenity and outlook;
- have a water supply to allow for wash down;
- be naturally ventilated; preferably with robust metal framed louvered doors. Where necessary, especially where the storage is integrated within the building, mechanical extraction should be provided in order to effectively deal with odour."

5.2. Planning guidance

Although not every London borough was examined, the literature review and survey revealed that guidance covering waste storage and/or collection in residential development has already been prepared by at least 19 boroughs. The literature review also identified the existence of relevant guidance in other countries including Canada and Australia.

Some boroughs have adopted Supplementary Planning Guidance while some others have less formal guidance for developers and architects. In some cases the latter guidance has been prepared by waste management, rather than planning departments, which perhaps reflects where within their authorities, boroughs feel the direct impacts of poor waste management in development.

The guidance reviewed was found to be concerned with the following matters:

- The size and location of waste and recycling stores, and how the waste will be delivered to these facilities.
- Maximum drag distances for bins
- The size and quantity of containers for waste.
- Provision of internal and external space, location and accessibility (to residents and collectors), design of bin stores.
- Vehicular access paths, roads, turning circles, vehicle dimensions etc.
- Internal collection including chutes, door-to-door and communal space.
- Underground storage systems (with some authorities advising against this).
- On-site technologies and waste management methods including pyrolysis, micro combined heat and power, composting

Guidance expects information concerning the above to be provided with planning applications as well as the estimated volumes and types of waste produced by the development.

Guidance also frequently advises that consultation with borough waste management departments should take place in the early design stage in order to fully understand local requirements.





Literature review forms, which provide more information concerning the outcomes of the review of guidance are included in the appendix 4. Examples of some of the guidance identified, which summarises their content, are included below:

5.2.1. Hackney - Refuse and Recycling Storage Guidance - A guide for planners and architects submitting planning applications in LB Hackney.

- Not adopted as SPD
- Provides detailed guidance on space requirements, methods, containers, access and collection with diagrams to illustrate.
- Applications are required to provide waste management plans and identify space for waste and recycling on plans.
- Recommends early discussion with waste strategy (rather than planning) teams so should be good integration between these.
- Policy 32 of Core Strategy provides a hook.

5.2.2. Newham - Waste management guidelines for architects and property developers

- Provides detailed guidance on requirements of planning applications to set out provision for storage for waste and recyclable material.
- Encourages early consultation with the waste management department.
- Options for flatted developments are described including chute systems, internal storage and collection, and on-site treatment.

5.2.3. Environment Protection Authority, New South Wales

The Guidance is for both developers and designers and provides two options for high-rise developments:

- A. provision of interim storage for waste and recyclables on each floor in an interim storage area and caretaker service
- B. installation of a chute system leading to a central room at the base of the building possibly combined with on-site compaction.
- advantages, disadvantages and system requirements for each are outlined
- highlights that chutes may not be suitable for separate recyclable collection due to risk of damage, blockage and fire.
- The guidance also includes diagrams to illustrate suitable layout and design, including chute systems and vehicle access, and a checklist for developers, designers and planners to use to demonstrate what has been considered.





6. Conclusions and Key Findings

The conclusions and key findings reached from the work described above are set out below in the following categories:

- Current practice
- The planning system
- Implementation

6.1. Current Practice

The majority of London Boroughs have adopted planning policy, which could be used to require developers to set out proposals for the management of waste in new, flatted development. There is greater detail concerning the management of waste in Development Management policies/DPD than Strategic/Core Strategy documents. In any event, the London Plan also includes planning policy, which, if necessary, could be used to do the same.

A range of waste management operational guidance is already in existence providing information on storage requirements for waste and recycling per residential unit, location of containers, manual handling of waste by residents and waste collection crews, access requirements for refuse vehicles, communication and consultation with residents in flatted properties. A significant number of London Boroughs have prepared their own guidance. Despite this developers do not always address this matter adequately which may be due to the fact that there is no standard way for them to present waste management plans to local authorities for consideration.

Some developers of flatted properties are already submitting information concerning waste management with planning applications, but the extent to which this is taking place and the adequacy of the information submitted is highly variable.

Waste management is not consistently considered at the design stage and where it has been considered, often more attention has been given to the management of waste from the construction of the development, rather than what will be produced by residents. Similarly, information on waste management is not consistently supplied within planning applications, with some providing comprehensive plans for waste management and others providing very little information.

Developers and planners need to discuss proposals with waste collection teams at the earliest opportunity to ensure that the requirements of waste collection teams are taken into account. Some boroughs already have effective arrangements to ensure this takes place whereas other boroughs do not.

Developers are also missing an opportunity to promote good waste management practices in their buildings as a selling point to potential buyers.

It is evident that there is often no single ownership of waste management in a development. This is an important matter which directly affects residents and local authority services, but it is





influenced by several parties with different agendas i.e. developers, architects, property agents and planning authorities.

6.2. The Planning System

The planning system is an appropriate route to secure the consideration of waste management in proposals for new, flatted residential development. Existing national planning policy supports the development of systems that will ensure waste is properly managed.

The provision of clear planning policy provides certainty over requirements and 'has teeth' in determining applications and requiring consideration by developers.

SPDs have weight but need clear policies on which to be based and will take dedicated time and resources to prepare – other options may be appropriate to different authorities but same principles will apply.

The planning system is a significant part of the solution in ensuring better management of waste in new flatted properties but other aspects are also important.

6.3. Implementation

The take up of a template local planning policy on waste in flatted residential developments will depend on the stage at which Boroughs are at with the preparation of their local planning policies.

Close liaison between Planning officers and waste management teams (and operators/collectors) is important in ensuring that management of waste is properly considered in proposals for new development.

Systems that encourage management methods at or near the top of the waste hierarchy form a key part of a sustainable development e.g. CHP, onsite food digestion and vacuum systems are all part of the mix. Plans/systems for the separate collection of food waste are essential to meet high recycling targets.

Planning and design needs to ensure that facilities are convenient for residents, easy to use and attractive, to allow a 'recycling culture' to exist in new, flatted developments.

The provision of a template recycling and waste management strategy for developers to complete would greatly assist them to provide consistent and full data to allow local authorities to assess plans for the management of waste. This will in turn help to deal with communicating those services in developments where there is likely to be a high turnover of tenure.





7. Recommendations

The following recommendations are derived from the conclusions in the sections above. Fundamentally it is recommended that further work is undertaken to embed into development practice the need to consider operational recycling and waste management systems that are capable of achieving 70% recycling. The key recommendations are as follows:

Recommendation 1: Raising waste up the local policy agenda

The benefits to local authority waste services of planning for waste management in new residential developments need to be more clearly identified and communicated to planning officers and developers alike. This could be led by LWARB and LEDNET.

The proposed action is that LEDNET and LWARB facilitate a project that identifies the impact on local authority waste services, associated with effective and ineffective waste planning in new developments. The objective would be to highlight the ongoing effects on local authorities of managing waste from insufficiently planned waste management systems. The results of this work would then be communicated to local authority planning and waste officers.

Recommendation 2: Business case and financing model development

One of the barriers to the development of vacuum and underground systems is the economic viability associated with their installation. It appears that the business model for developments does not allow for such systems and work is therefore needed to consider funding models which might unlock up-front capital investment in innovative infrastructure e.g. a revolving fund.

The proposed action is that LEDNET and LWARB investigate ways to assist developers to secure additional capital at the outset of a development. The objective is to encourage developers to install innovative waste management systems that promote high levels of recycling, which would ordinarily be too costly at the outset.

Recommendation 3: Local waste collection authority template

There are many examples of guides provided by councils on their approach to recycling and waste collection – these guides may be used by developers to ensure that waste is presented to the collection authority in a manner that is compatible with their collection regimes. However, the guides are written differently and in some cases do not exist, it is therefore recommended that template guidance is prepared, for waste collection authorities to complete.

The proposed action is that local authorities complete 'sample' waste management strategy templates that reflect the targets, policies and collection systems in operation in their administrative areas. The objective of this approach would be to supply developers with easy access to the relevant information they need to work up their own, development-specific waste strategies.





Recommendation 4: Better practice waste management and recycling guide for developers

A better practice guide, similar to the NSW Better Practice Guide for Waste Management in Multi-Unit Dwellings, should be developed to further assist developers in understanding the options available to them for new residential development.

The proposed action is to produce a detailed and practical guide on the options available to developers, for collecting separated waste streams that promote high levels of recycling. The objective would be to describe the attributes of the different collection systems eg underground recycling containers, vacuum systems, interim storage rooms and provide guidance on key considerations to assist decision-making at the building design stage.

Recommendation 5: Investigation to council charging or offsetting of management fees linked to developments installed collection method.

A review be undertaken to assess the appropriateness of and extent to which, funding may be obtained from developers for waste collection and management infrastructure (e.g. Refuse collection vehicles, household waste sites) via the planning obligations¹⁸ and Community Infrastructure Levy mechanisms.

Recommendation 6: Investigate retrofit options for existing developments to increase recycling.

Consideration be given to how appropriate systems for waste management can be established in existing flatted properties (i.e. retrofit). The planning system will have a role to play but other mechanisms which would allow and encourage the installation of such systems need to be identified and relevant information disseminated

The proposed action is that LEDNET and LWARB facilitate a piece of work to identify practical methods to install / retrofit effective waste separation and recycling systems from existing developments that do not have sufficient methods in place. This could be done on the basis of categorising challenges to recycling into broad groupings e.g. building style and infrastructure design.

Recommendation 7: Planning assessment

A review of the appropriateness of all existing London Boroughs planning policy and guidance concerning waste management in flatted properties be undertaken in order to provide targeted recommendations on improving policy and guidance.

The proposed action is that LEDNET and LWARB facilitate a review of planning policy and guidance on an individual local authority basis and identify and report on gaps in provision. The objective of this exercise would be to identify opportunities for planning policy revision within each authority's planning making cycles.

¹⁸ Planning obligations secured pursuant to Section 106 of the Town and Country Planning Act 1990 are entered into as legal agreements between local planning authorities, landowners, developers and potentially other affected third parties. They can impose financial and non-financial obligations on a person or persons with an interest in the land and become binding on that parcel of land. Planning obligations are intended to make acceptable development which would otherwise be unacceptable in planning terms and can be used to prescribe, compensate and/or mitigate the impact of a development.





Recommendation 8: Communications strategy

A strategy for communicating the existence of the template planning policy and waste management strategy be prepared and implemented during 2015. This should include the importance of considering waste management in flatted development.

The proposed action is that LEDNET and LWARB facilitate a series of dissemination seminars to local authority planning and waste teams, to include developers, architects and landowners.

Finally, it is considered that LEDNET and LWARB have a key, ongoing, role to play in championing the installation of recycling and waste management systems in new flatted properties, which is essential if London is to reach the 50% and 70% recycling targets for 2020 and 2030 respectively.

Appendices

Appendix 1: Template Planning Policy

Appendix 2: Template Recycling and Waste Management Strategy for New Build Flats

Appendix 3: Case Studies

Appendix 4: Literature Review – Waste in Flatted Properties Project

Appendix 5: Survey of ALBPO Members - Pre-amble and Survey Questions

Appendix 6: London Plan Section on Waste

Appendix 7: Notes from Preliminary Workshop – 19th September 2014

Appendix 8: Notes from Steering Group Meeting 1 – 23rd October 2014

Appendix 9: Notes from Association of London Borough Planning Officers Meeting - 7th

November 2014





Appendix 1: Template Planning Policy

Please see separate document





Appendix 2: Template Recycling & Waste Management Strategy for new build flats

Please see separate document





Appendix 3: Case Studies

Please see separate document





Appendix 4: Literature Review - Waste in Flatted Properties Project

The following pages are detailed assessments of all the documents that were reviewed as part of this project. Each is a unique document. The assessment considered the following aspects:

Author/Organisa	tio	n:							
Document Title:									
Publication Date:									
URL (If Available):								
Type of Literature	e:								
Document Overview/Summ	ary	<i>/</i> :.							
What does this document tell			s ab	oout:					
1) What policy documentation already exists and the extent to which it is fit for purpose?									
2) Best practice guidance for provision of space, access, ease of use, contamination and safety.									
3) Any useful case studies									
Please rate the document for box):				elevance to this research	1 0	n the scale be	elov	w (placing an X in on	ne
Highly Relevant		Relevant		Of some relevance		Irrelevant		Highly Irrelevant	
			1						





Author/Organisation:	LB Barnet
Document Title:	Residential Design Guidance SPD (basic advice) – which refers to Information for Developers and Architects – Provision of household recycling and Refuse Waste Collection Services
Publication Date:	SPD April 2013 Information for Developers 2013/14
URL (If Available):	
Type of Literature:	Policy/Advice
Document Overview/Summary:	SPD provides basic advice (page 37) 11.9 The arrangements should comply with the Sustainable Design and Construction SPD (section 2.12) and the councils' "Information for developers and architects – provision of domestic and organic waste services, and recycling facilities 11.12 In flatted developments, waste and recycling storage should at an early stage be sensitively designed and located. Careful consideration should be given to access to waste disposal and recycling facilities, particularly for residents on upper floors. Storage areas should be in a position mutually convenient and easily accessible for both residents and waste and recycling collection crews. Advice for Developers provides guidance on bin provision and size, making space for storage and bins, and positioning bins to make deposit easy for residents (entrances, visible). Recommends against underground storage of bins

W	What does this document tell us about:					
2)	What policy documentation already exists and the extent to which it is fit for purpose?	Refers to separate Information for developers and architects and to Sustainable Design and Construction SPD which appears more relevant				
3)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	Brief				
4)	Any useful case studies	No				

Please rate the document for its relevance to this research on the scale below (placing an X in one box):





I RAIAVANT I I I I I I I I I I I I I I I I I I I	Highly Relevant	Relevant	Of some relevance	✓ Irrelevant	Highly Irrelevant	
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Author/Organisation:	LB Barnet
Document Title:	Supplementary Planning Document Sustainable design and Construction
Publication Date:	April 2013
URL (If Available):	file:///Users/davidpayne/Downloads/Sustainable_Design_and_Construction_adoption_25_apr_2013.pdf
Type of Literature:	Policy/Advice
Document Overview/Summary:	SPD provides guidance on all aspects of sustainable design including 'waste strategy' (p26) including: Ensuring that sufficient space is dedicated in appropriate places, including within and without residential properties, for the temporary storage of material to be recycled. For example, space should be provided within kitchens in new properties to accommodate extra bins which are required for separately storing items such as paper, bottles, cans and food waste for recycling. In consultation with the Council developers should comply with the standards set out in the council's guidance document "Information for developers and architects – provision of household recycling and refuse waste collection services A minimum internal storage capacity of 60 litres per dwelling (flats and houses) should be provided which can accommodate containers for the temporary storage of materials to be recycled. Materials will then be transferred to external containers for collection. (This standard is subject to change over time, so consultation with the council at the design stage is essential.) Ensuring that people can easily transfer material for recycling from their own premises, such as a residential unit, a shop or an office, to a location from which the material can be collected. Early consultation with the council is recommended to ascertain the best strategy for the recycling of household waste (see references). The requirements for storage of waste containers vary depending on the scale of development and whether it is for flats or houses.

What does this document tell us about:						
3) What policy documentation already exists and the extent to which it is fit for purpose?	Refers to separate Information for developers and architects and to other sources					





4)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	Brief
5)	Any useful case studies	No – guidance is very generic and vague and not specific to high rise/flats and focuses on bin sizes etc

Please rate the document for its relevance to this research on the scale below (placing an X in one box):					X		
Highly Relevant	Relevant	Of some relevance	1	Irrelevant		Highly Irrelevant	





Author/Organisation:	LB Brent
Document Title:	Increasing Participation in Recycling in Flats Task Group Report
Publication Date:	October 2009
URL (If Available):	
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify
Document Overview/Summary:	Reviews ways to encourage recycling. Envac impressed – and recommend new technology should be considered in all applications for flats. Range of collection methods in London: Kerbside (<8 flats in block in Brent) – source separation in boxes unlikely to be suitable for flats); door to door collection; collection point on each floor (high costs of caretaker); chutes (2 separate chutes – comingled recyclables plus residual) apparently successful in Westminster 0.7kg/household increased to 5.7kg/hh. Solutions need to be tailored to site. Comingled collections increases capture and uptake (Islington increase in participation from 12-27% in 8 months). Need for clear and consistent signage

WI	What does this document tell us about:				
4)	What policy documentation already exists and the extent to which it is fit for purpose?	Practice rather than policy			
5)	Best practice guidance for provision of space, access, ease of use, contamination and safety.				
6)	Any useful case studies				

Please rate the document for its relevance to this research on the scale below (placing an X in one box):





Highly Relevant	Relevant	Of some relevance	✓ Irrelevant	Highly Irrelevant	
Rolovanie					

Author/Organisation:	Dudley MBC
Document Title:	Waste Management Guidance Notes for Residential Developments
Publication Date:	?
URL (If Available):	
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify
Document Overview/Summary:	It stresses that early consultation by architects, planners and developers with the planning department is essential to consider appropriate provision for waste management. The guidance is not SPD. Most advice does not relate to high rise – the advice on flats is that communal facilities may be appropriate. It advises against chutes as these inhibit separation/separate collection of recyclables.

W	What does this document tell us about:					
5)	What policy documentation already exists and the extent to which it is fit for purpose?	SPD				
6)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	No				
7)	Any useful case studies	No				

Please rate the document for its relevance to this research on the scale below (in one box):				le below (placing an X
Highly Relevant	Relevant	Of some relevance	✓ Irrelevant	Highly Irrelevant





Author/Organisation:	LB Hackney					
Document Title:	Refuse and Recycling Storage Guidance – A guide for planners and architects submitting planning applications in LB Hackney					
Publication Date:	November 2012					
URL (If Available):	http://www.hackney.gov.uk/Assets/Documents/Architects- Recycling-Guide.pdf					
Type of Literature:	Guide					
Document Overview/Summary:	Emphasises need for early consultation, and that planning permission will not normally be granted until details of waste storage are provided. For major developments a waste management plan will be required. Negotiation with senior [waste] inspector over provision of waste storage is recommended, and meeting with waste strategy team is required 8 weeks prior to occupancy to ensure no negative impacts on collection services – so good integration between planning and waste services. Guidance on: - volume of storage required for different size developments and units is provided (50% of which is for recycling). - Maximum drag distances for bins - Accessibility - Separate storage for commercial and residential if mixed use - Advises against basement storage of bins - Requirement for 2 chutes (1 for recycling) if chutes installed - Waste collection area on each floor required for large developments - All planning applications have to 'take account' of target for 50% recycling by 2020 – space must be identified on plans - Vehicular access – paths, roads, turning circles, vehicle dimensions etc Includes case studies of communal composting from flats (85 units – unlikely to be high rise)					

Wł	What does this document tell us about:				
6)	What policy documentation already exists and the extent to which it is fit for purpose?	Core Strategy Policy 32			





7) Best practice guidance for provision of space, access, ease of use, contamination and safety.	Yes
8) Any useful case studies	

Please rate the document for its relevance to this research on the scale below (placing in one box):				e below (placing an	X			
Highly Relevant	Relevant	•	Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	LB Hammersmith and Fulham				
Document Title:	Planning Guidance SPD				
Publication Date:	July 2013				
URL (If Available):	http://www.lbhf.gov.uk/Images/Planning%20Guidance%20SPD%20nal_tcm21-181716.pdf				
Type of Literature:	SPD				
Document Overview/Summary:	SPD covering a wide range of issues. Storage of Refuse and Recyclables covered under Chapter 6 – Sustainability. Includes SPD policies [SPD not supposed to be a policy document]: SPD3 Residential Waste Storage: Adequate waste and recycling storage should be provided in all residential developments in the borough in order to encourage and increase the opportunities for the recycling and composting of waste. SPD4 Internal Storage: Internal storage for waste and recycling must be located in an accessible and commonly used area inside each dwelling. SPD7 Residential developments not served by kerbside collections: Properties that are not served by a kerbside collection must be provided with communal refuse and recycling bins. SPD8 Internal storage: The overriding policy for facilities in flats is that recycling should be at least as convenient for residents as it is to dispose of refuse. Advice is provided on provision of chutes and need for separate chites for recyclables (or a bi-separator mechanical chute with button control for separation of recyclables The siting of storage areas for containers and chutes should not cause householders to carry refuse further than 25 metres (excluding vertical distance). SPD13 Planning Application Procedures: Planning applications should clearly identify the proposed refuse and recycling storage points and the access routes for collection vehicles.				

What does this document tell us about:					
7) What policy documentation already exists and the extent to which it is fit for purpose?	SPD expanding on policy				





8)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	
9)	Any useful case studies	

Please rate the document for its relevance to this research on the scale below (placing an in one box):				X					
Highly Relevant	1	Relevant		Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	LB Harrow
Document Title:	Code of practice for the storage and collection of refuse and materials for recycling in domestic properties (supports Residential Design Guide SPD 2010)
Publication Date:	2008 (Code of Practice) and 2010 (SPD)
URL (If Available):	http://www.harrow.gov.uk/info/856/local_plan/841/residential_design file:///Users/davidpayne/Downloads/Code of Practice For The St orage and Collection Of Waste and Recycling.pdf
Type of Literature:	Code of Practice and SPD
Document Overview/Summary:	Provides guidance on size and types of containers to be provided and provision of access for collection. No details of internal design for recycling – some advice in Sustainable Design Checklist for major and minor applications.

What does this document tell us about:				
8) What policy documentation already exists and the extent to which it is fit for purpose?				
9) Best practice guidance for provision of space, access, ease of use, contamination and safety.	No			
10)Any useful case studies				

Please rate the document for its relevance to this research on the scale below (placing an X in one box):						
Highly Relevant	Relevant	Of some relevance	✓ Irrelevan	t Highly Irrelevant		





Author/Organisation:	LB Hounslow			
Document Title:	Guidance for planning applications - recycling and waste provision for new developments			
Publication Date:	2012			
URL (If Available):	http://www.hounslow.gov.uk/recycling_refuse_guide_for_new_de_velopments_12-13_v2.pdf			
Type of Literature:	Guide – listed under SPDs but nt clear if formally adopted SPD			
Document Overview/Summary:	Provides guidance on provision of containers and space requirements externally, and specifically for flats (page 12): - Facilities must be readily accessible by both residents and the collection crews with adequate space, ventilation (if internal) and lighting. - Facilities should be designed so that bins can be pulled easily and safely to the vehicle for collection, including dropped kerbs where required. This should avoid slopes and narrow access. - There is a 10 metre maximum pull distance for bins, from the bin store to the vehicle collection point. The ground surface must be smooth, with a minimum width of 1.9 metres. States that Waste and Recycling Facilities should be designed as an integral part of the development. These should be shown on the plans submitted for planning permission in accordance to guidance within this document. For larger developments, a condition may be imposed which would require the submission of detailed design prior to commencement of development. No detail on internal storage for flats			

What does this document t	tell us about:
9) What policy documentation already exists and the extent to which it is fit for purpose?	
10)Best practice guidance for provision of space, access, ease of use, contamination and safety.	No





11)Any useful case studies	

Please rate the in one box):	document for	its relevance to this res	ear	rch on the sc	ale	e below (placing an	X
Highly Relevant	Relevant	Of some relevance	1	Irrelevant		Highly Irrelevant	





Author/Organisation:	LB Islington
Document Title:	Recycling and refuse storage requirements
Publication Date:	2013
URL (If Available):	http://www.islington.gov.uk/publicrecords/library/Waste-management/Information/Guidance/2013-2014/(2013-06-07)-Rubbish-and-Recycling-Storage-Guidance-for-Architects.pdf
Type of Literature:	Guidance
Document Overview/Summary:	When a planning application is submitted, the Council will expect details of the proposed storage accommodation for waste and recyclable material to be specified.(3.1) In determining planning applications, permission will not normally be granted in advance of submission of details indicating satisfactory storage arrangements for recycling and refuse. However, in exceptional circumstances it may be considered appropriate to reserve details of the waste storage accommodation for approval prior to commencement of construction. (3.2) In major residential or commercial developments the Council may require a waste management plan to be submitted. This should indicate: estimated volumes and types of waste produced by the development, the size and location of waste and recycling stores and how recyclable material and other waste will be delivered to these stores, the equipment specified for containing the waste, and the proposed collection point and the method for transferring waste to this location. (3.3) Space designated for recycling and kitchen waste must be identified on plans submitted for planning permission. (7.2.3) Provides advice on storage volumes required (50% for recycling), drag distances, and vehicle access requirements for collection (similar to other guidance)

What does this document	tell us about:
10) What policy documentation already exists and the extent to which it is fit for purpose?	Guidance expanding on policy
11)Best practice guidance for provision of space, access, ease of use, contamination and safety.	





12)Any useful case studies	

Please rate the document for its relevance to this research on the scale below (placing an X in one box):					
Highly Relevant	Relevant	Of some relevance	1	Irrelevant	Highly Irrelevant





Author/Organisation:	LB Lambeth
Document Title:	Waste and recycling storage requirements - technical specification for architects and developers
Publication Date:	2013
URL (If Available):	http://www.lambeth.gov.uk/sites/default/files/rr-Lambeth- Architects-Code-of-Practice.pdf
Type of Literature:	Guidance
Document Overview/Summary:	Makes it clear that: - Lambeth Council has the powers, under section 46 of the Environmental Protection Act 1990, to specify the type and number of receptacles to be used and where they should be placed - Where waste and recycling provision is deemed to be inadequate the Planning Enforcement Team will investigate the matter and attempt to negotiate an informal resolution. - It is essential to discuss waste and recycling issues at an early stage. Discussions concerning the provision of waste storage accommodation should take place directly with the waste services team. Advice provided on - calculation of storage required for different scales of developments - Access and collection arrangements - streetscene - 4.1.1: Where multi-storey residential developments are proposed, the developer must provide a purpose built area for the storage of chamberlain bins or wheeled Eurobins (generally 660 litre or 1100 litre for refuse and 1280 litre for recycling). Alternatively, the developer might consider installing underground containers for waste and dry recyclable material. The bin store must be capable of housing the maximum number of containers required, based on an assessment of projected arisings. - 4.1.10: In all planning applications space should be allocated for the storage of dry recyclable material. - The provision of a compactor [Compactors for residential developments only tend to be effective if the development has a managed waste system with porterage], and cardboard baler if necessary, should be considered in order to reduce the volume of waste to be stored and collected. The Council endorses the objectives of BREEAM (Building Research Establishment Environmental Assessment Method) and in particular its aim to persuade developers, property owners and architects to provide separate storage facilities for recyclable materials (6.3). Details of container and vehicle dimensions and space requirements provided.





What does this document	tell us about:
11) What policy documentation already exists and the extent to which it is fit for purpose?	Guidance expanding on policy
12)Best practice guidance for provision of space, access, ease of use, contamination and safety.	
13)Any useful case studies	

Please rate the document for its relevance to this research on the scale below (placing an X in one box):							
Highly Relevant	Relevant	Of some relevance	1	Irrelevant		Highly Irrelevant	





Author/Organisation:	LB Newham
Document Title:	Waste management guidelines for architects and property developers
Publication Date:	
URL (If Available):	
Type of Literature:	Guidance
Document Overview/Summary:	When a planning application is submitted, the London Borough of Newham will expect details of the proposed storage accommodation for waste and recyclable material to be specified and agreed. In determining planning applications, permission will not normally be granted in advance of submission of details indicating satisfactory storage arrangements for waste and recyclable material. In larger developments the Council may require a waste management plan to be submitted. This should indicate: • Estimated volumes and types of waste produced by the development. • The size and location of waste and recycling stores, and how the waste will be delivered to these facilities. • The size and quantity of containers for waste. • Any proposed separate collection point, and the method for transferring waste to this location. Architects and developers are encouraged to consult with the Council's Waste Management department at the earliest opportunity in the design process (1.5) Provides detailed guidance on: - volume provision of internal and external space, location and accessibility, design of bin stores, vehicle access. - Internal collection including chutes, door-to-door and communal space. - underground systems f different types and designs (From 2015, the London Borough of Newham will be able to service standard underground waste storage systems, similar to those in use in Tower Hamlets and Lambeth). - On-site technologies and waste management methods incl pyrolysis, micro CHP, composting Consultation with waste management service at early stages is recommended to determine most suitable options

What does this document tell us about:					
12)What policy documentation already exists and the extent to which it is fit for purpose?	Guidance expanding on policy				





13)Best practice guidance for provision of space, access, ease of use, contamination and safety.	
14)Any useful case studies	

Please rate the in one box):	do	cument for	its	relevance to this reso	ear	ch on the sc	ale	e below (placing an	X
Highly Relevant	1	Relevant		Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	New South Wales Environment Protection Authority/Department of Environment and Climate Change NSW					
Document Title:	Better practice guide for waste management in multi-unit dwellings					
Publication Date:	2008					
URL (If Available):	http://www.epa.nsw.gov.au/warr/BetterPracticeMUD.htm					
Type of Literature:	Guidance					
Document Overview/Summary:	Contains specific guidance on high rise blocks of over 7 storeys (as well as for blocks between 4 and 7 storeys, mixed use, and integrated housing developments). Recommends 2 options: 1. storage of waste and recyclables in containers on each floor (interim storage area) with caretaker responsible for transfer to communal storage; 2. chute system for waste to central room at base of building discharging into carousel of container, possibly with compaction. Advantages, disadvantages and system requirements of each option are outlined. States that chutes are not suitable for recyclables as drop will damage materials and cardboard may get stuck creating blockage and fire hazard. Service lift (with caretaker) may be suitable where chutes are not, so if chutes installed will still need manual movement. Diagrams for each option provided to illustrate design and layout issues. Specifications given for container sizes, collection methods, vehicular access and turning circles, and signage. A checklist for designers/developers/planners is provided.					

What does this document	Vhat does this document tell us about:			
13) What policy documentation already exists and the extent to which it is fit for purpose?	Little			
14)Best practice guidance for provision of space, access, ease of use, contamination and safety.	Yes			





15)Any useful case studies	Needs further investigation to see if there are useful case studies

Please rate the document for its relevance to this research on the scale below (placing an X in one box):									
Highly Relevant	1	Relevant		Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	Ottowa City Council							
Document Title:	Solid waste collection guidelines for multi-unit residential development							
Publication Date:	October 2012							
URL (If Available):	http://ottawa.ca/calendar/ottawa/citycouncil/pec/2012/11- 13/Solid%20Waste%20Collection%20Guidelines%20- %20Doc%201.pdf							
Type of Literature:	Guidance							
Document Overview/Summary:	Developers are required to submit details of how adequate provision for waste collection will be made. Planners and 'Solid Waste staff' consider whether the proposals are adequate. Chapter 5 covers specifically high-rise, multi-unit development. Advice includes: General - Make use of on site system easy for residents, provide efficient collection, and is easy to maintain - Ground floor collection/storage area adjacent to loading area Storage and collection requirements – options include: - 3 separate chutes + organics in separate collection room - single chute with tri-sorter + organics in central room - collection room on each floor with separate containers for streams – kitchens with green waste bins - no chutes, central room on ground floor - no chutes, central room in basement/carpark Central room needs adequate ventilation, odour and temperature control. Access and storage volume standards are set out. Waste Management Briefs required from developers demonstrating how requirements met to provide adequate waste collection service. Detailed specifications given for container dimensions, bin store design, vehicular access. Checklist for Solid Waste Collection Design.							

What does this document t	What does this document tell us about:						
14)What policy documentation already exists and the extent to which it is fit for purpose?	Little						
15)Best practice guidance for provision of space, access, ease of use, contamination and safety.	Yes – detailed advice specific to high rise, but based on situation in Canada						





16) Any useful case studies	Needs further investigation to see if there are useful case studies

Please rate the document for its relevance to this research on the scale below (placing an X in one box):									
Highly Relevant	1	Relevant		Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	Taylor Intelligence (Egbert H Taylor and Company Ltd – providers of collection containers and services)					
Document Title:	Taking Recycling to a New Level - A White Paper into the potential contribution of low and high rise flats to UK and European recycling targets					
Publication Date:	2010					
URL (If Available):	http://www.taylorbins.co.uk/documents/intelligence/High-Rise-Report.pdf					
Type of Literature:	Promotional					
Document Overview/Summary:	Review of experience (and research by Glasgow Caledonian University) in North Lanarkshire of increase in recycling by residents of low and high rise following introduction of near-entrance recycling 'nodes' (purpose built communal recycling facility/containers).					

What does this document tell us about:						
15)What policy documentation already exists and the extent to which it is fit for purpose?	Little					
16)Best practice guidance for provision of space, access, ease of use, contamination and safety.	Yes					
17)Any useful case studies	Needs further investigation to see if there are useful case studies					

Please rate the document for its relevance to this research on the scale below (placing an X in one box):											
Highly Relevant	1	Relevant		Of some relevance		Irrelevant		Highly Irrelevant			





Author/Organisation:	Buro Happold Blog
Document Title:	Waste In New Age Skyscrapers
Publication Date:	5 th December 2013
URL (If Available):	http://www.burohappold.com/blog/post/waste-in-new-age-skyscrapers-2554/
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Report by Organisation
Document Overview/Summary:	A blog discussing how waste management needs to be re-thought in high-rise developments. Suggests gasification and AD systems are scalable enough to be sited within buildings.

Wł	nat does this document t	tell us about:
1)	What policy documentation already exists and the extent to which it is fit for purpose?	N/A
2)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	none
18)Any useful case studies	None

Please rate the document for its relevance to this research on the scale below (placing an X in one box):								
Highly Relevant	Relevant	Of some relevance	Х	Irrelevant		Highly Irrelevant		





Author/Organisation:	Canary Wharf Group Plc
Document Title:	Waste Management Strategy 2013 to 2017
Publication Date:	2013
URL (If Available):	http://group.canarywharf.com/wp-content/uploads/sites/2/2014/04/CWG-Waste-Strategy.pdf
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Report by Organisation
Document Overview/Summary:	Comprehensive waste management for how the estate will manage its waste including policies to conform with EU, UK, Regional waste strategies / targets. Utilise the 'Bycycler' system where waste is separated into 2 streams: dry recyclables & residual waste. Managed by cleaners utilizing colour-coded compactors in loading bays. Offices & retail only. Food waste trial is being rolled out – planning to use AD. WEEE boxes introduced. Cardboard balers in basements. Separate newspaper collection using an electric vehicle. Glass separately collected and broken into pieces using an 'imploder' – used for aggregate. Targets for recycling: Office buildings: 70% Retail: 60% Infrastructure: 40%

Wł	nat does this document t	tell us about:
2)	What policy documentation already exists and the extent to which it is fit for purpose?	Is in conformity with the Mayor's Waste Strategy 2007.
3)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	Waste contractors are required to log quantities and types of waste collected into a web-based monitoring system to allow CWML to monitor performance.
19)Any useful case studies	Could be a case study but for offices / retail only. Recommend a follow-up call to see how the food waste collection works in practice and how the trial roll-out has been implemented.





Please rate the document for its relevance to this research on the scale below (placing an X in one box):									
Highly Relevant		Relevant		Of some relevance	X	Irrelevant		Highly Irrelevant	





Author/Organisation:	Construction Enquirer						
Document Title:	Plans unveiled for 70-storey Canary Wharf Resi Tower						
Publication Date:	3 March 2014						
URL (If Available):	http://www.constructionenquirer.com/2014/03/03/plans-for-70-storey-canary-wharf-resi-tower/						
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Media						
Document Overview/Summary:	This article provides examples of the high-rise residential developments being planned for the Canary Wharf area of LB Tower Hamlets. It shows artists impressions of the scale and size of towers being proposed by developers to the Council. The article references the following developers and proposed buildings: Ryan Corporation: 74 floor building in West India Dock Quay, formerly named the Columbus Tower Chalegrove Properties: 75 floor building in Westferry Road Berkeley Homes: 80 storey tower at South Quay Plaza Canary Wharf: 58 floor luxury apartments in the Diamond Tower Investin: plans for Quay House at 2 Admirals Way						

Wł	nat does this document t	tell us about:
3)	What policy documentation already exists and the extent to which it is fit for purpose?	n/a
4)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	n/a
20	Any useful case studies	n/a

Please rate the document for its relevance to this research on the scale below (placing an X in one box):





Highly Relevant	Relevant	X Of some relevance	Irrelevant	Highly Irrelevant
Relevant				

Author/Organisation:	Elephant's Foot Recycling Solutions					
Document Title:	Waste Management Plan prepared for Bao Jia Developments Shayer Group: Mixed Use Development 272-318 George Street, Brisbane, Queensland Australia					
Publication Date:	October 2013					
URL (If Available):	http://www.elephantsfoot.com.au/products/garbage-chute					
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Report by Organisation					
Document Overview/Summary:	Detailed and comprehensive description of how waste is expected to be separated by residents and desposited into computerized chutes (eDiverter chutes) on each level. Gives detail on how waste will be managed by caretakers in the basement, stored in wheeled bins & transferred into compactors for collection by the Council from a loading bay. Bulky waste is also included. Food waste not_included from residents, only from the hotel. The waste management plan is aimed at the developers of a new high-rise residential & mixed-use development including a hotel, in Brisbane, Australia.					

W	nat does this document t	tell us about:
4)	What policy documentation already exists and the extent to which it is fit for purpose?	N/A
5)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	Detailed plan of the movements and 'touch points' for waste by residents and caretakers in a new development. Includes information on space required for containers and a bulky waste storage area. Focuses on design elements for the waste movement system through the building including acoustics. Diagrams in appendices.
21)Any useful case studies	Useful and detailed case study for an overall waste separation and collection plan in a specific development, however food waste is not included from residents, only from the hotel. Document is aimed at providing detail to the developer prior to completing the internal design of the building. Contains a list of equipment to be provided, including equipment during construction phase to minimize odours, build up of dirt, provide ventilation etc.





D	_						_		
Please rate the document for its relevance to this research on the scale below (placing an X in one box):									
Highly Relevant		Relevant	X	Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	Eureka Living website / Eureka Tower, Melbourne
Document Title:	Web instructions to residents about waste & recycling
Publication Date:	Live
URL (If Available):	http://eurekaliving.com.au/recycling-waste/ http://eurekaliving.com.au/wp-content/uploads/2011/12/Welcome- Guide.pdf
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Report by Organisation
Document Overview/Summary:	A 91 floor residential and mixed use building in Melbourne, Australia. Welcome leaflet to residents plus information on the website about how waste is to be sorted by residents and deposited either in chutes (refuse) or in a separate room with shelving on each level for recyclables. Also gives information on what to do with bulky waste. Food waste not included from residents.

Wł	nat does this document	tell us about:
5)	What policy documentation already exists and the extent to which it is fit for purpose?	N/A
6)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	none
22)Any useful case studies	Could be an added case study for an overall waste separation and collection in a specific development, however food waste is not included from residents.

Please rate the document for its relevance to this research on the scale below (placing an X in one box):							X
Highly Relevant	Relevant	Of some relevance	X	Irrelevant		Highly Irrelevant	





Author/Organisation:	Hardall Refuse Chutes
Document Title:	Webpage
Publication Date:	Current
URL (If Available):	http://www.hardall.co.uk/refusechutes.html
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Company Webpage
Document Overview/Summary:	Technical information from the manufacturer of chutes for refuse in high rise developments. The company claim the chutes conform to BS 1703: 2005 and BS 5906: 2005. The information contains a link to a page that estimates waste
	generated per residential unit per week. Contains a full detailed specification of the chutes for ease of use and could be useful to developers.

Wł	nat does this document t	tell us about:
6)	What policy documentation already exists and the extent to which it is fit for purpose?	N/A
7)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	Conformity with BS 5906
23	Any useful case studies	

Please rate the document for its relevance to this research on the scale below (placing an X in one box):					
Highly Relevant	Relevant	X Of some relevance	Irrelevant	Highly Irrelevant	





Author/Organisation:	Egbert Taylor						
Document Title:	Urban Solutions - waste and recycling storage solutions for planners, developers and architects						
Publication Date:	Current						
URL (If Available):							
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Promotional Literature						
Document Overview/Summary:	Technical information from the manufacturer of a range of street-based refuse containers which are suitable for refuse/recycling in high rise developments. The company claim the containers conform to the Code for Sustainable Homes. The brochure contains information and images of underground recycling containers also. Contains a full detailed specification of each bin type for ease of use and could be useful to developers.						

W	nat does this document t	tell us about:
7)	What policy documentation already exists and the extent to which it is fit for purpose?	N/A
8)	Best practice guidance for provision of space, access, ease of use, contamination and safety.	Conformity with Code for Sustainable Homes
24)Any useful case studies	

Please rate the document for its relevance to this research on the scale below (placing an X in one box):							X		
Highly Relevant		Relevant	X	Of some relevance		Irrelevant		Highly Irrelevant	





Author/Organisation:	WRAP
Document Title:	Recycling Collections for Flats
Publication Date:	
URL (If Available):	http://www.wrap.org.uk/content/recycling-collections-flats-introduction http://www.wrap.org.uk/content/recycling-collections-flats-understanding-flats
Type of Literature:	Please select from: Academic, News Media, Policy, Reports by Organisations, Other: Please specify Reports
Document Overview/Summary:	This document is a guidance report for Local Authorities to assist in the introduction of recycling schemes in flats primarily those that are already in existence. It is broken down into chapters that are designed to be able to be read independently from each other and encompass the following sections:
	 Strategic Planning Operational Planning Operation of Different Collection Schemes Implementation of Recycling Schemes
	Flats as defined and explored within the document include: low-rise blocks, flats above shops, mansion blocks and converted houses as well as high-rise blocks. As the guidance is predominantly aimed at introducing recycling schemes in flats that are already in existence, it is primarily a 'retro-fit' guidance document. As such it looks in detail at opportunities to fit recycling around the existing structure and storage areas of buildings rather than how to effectively plan recycling into a building at design stage.
	There are some useful and relevant operational sections that could be applicable to new-build properties in the design phase, should developers seek operational guidance. Specifically it explores the operation of:
	 Bring recycling systems at ground level Chute recycling schemes that discharge waste into central containers in ground / basement level Door-to-door collections from each flat Collections from each floor in a block Food waste collections Bulky waste collections
	The guidance also looks at the importance of communication with residents and the potential for engagement with caretakers and building managers to improve recycling performance.





What does this document t	tell us about:
8) What policy documentation already exists and the extent to which it is fit for purpose?	Operational guidance primarily
9) Best practice guidance for provision of space, access, ease of use, contamination and safety.	
25)Any useful case studies	Case studies are not relating to new build properties

Please rate the document for its relevance to this research on the scale below (placing an X in one box):							
Highly Relevant	Relevant	Of some relevance	X	Irrelevant		Highly Irrelevant	

Review of London Borough planning policies concerning storage and collection of waste in residential properties

Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording	
Brent	Core Strategy (July 2010): http://brent.limehouse.co.uk/por tal/planning /cspo/adopted_cs	CP 19 Brent Strategic Climate Change Mitigation and Adaptation Measure All development should contribute towards achieving sustainable development, including climate change mitigation and adaptation. Major proposals (10 or more dwellings and 1,000m² or more floorspace) and proposals for sensitive uses (education, health and housing) in Air Quality Management Areas, should subn a Sustainability Statement demonstrating, at the design stage, how sustainable design and construction measures are used to mitigate and adapt to climate change over the intended lifetime of a development.	
Ealing	Core Strategy (April 2012): http://www.ealing.gov.uk/downl oads/download/1322/ad option_of_the_development_or_c ore_strategy	Policy 1.1: Spatial Vision for Ealing 2026 (k) To promote sustainable design and construction in all development to play our part in addressing the global challenge of climate change.	
Harrow	The Development Management Policies (July 2013): http://www.harrow.gov.uk/info/ 856/local_plan/609 /development_management_policies	Design, Layout, Privacy and Amenity Policy DM 1: Achieving a High Standard of Development F. the functionality of the development including but not limited to the convenience and safety of internal circulation, parking and servicing (without dominating the appearance of the development) and the appearance, capacity, convenience, logistics and potential nuisance of arrangements for waste, recycling and composting; Policy DM 26: Conversion of House and other Residential Premises F. make adequate arrangements for the storage and collection of waste and recycling material generated by future occupiers of the development (see Criterion C) which does not give rise to nuisance to future and neighbouring occupiers;	





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording
2010481		Policy DM 45: Waste Management All proposals will be required to make on-site provision for general waste, the separation of recyclable materials and the collection of organic material for composting. The on-site provision must: a. provide satisfactory storage volume to meet the general, recycling and organic waste material arising from the site; b. ensure satisfactory access for collectors and, where relevant, collection vehicles; and
Hillingdon Local Plan: Part 1 Strategic Policies (November 2012) 10. http://www.hillingdon.gov.uk/media.jsp?mediaid=27633 safe con		c. be located and screened to avoid nuisance to occupiers and adverse visual impact. Policy BE1: Built Environment 10. All developments should be designed to make the most efficient use of natural resources whilst safeguarding historic assets, their settings and local amenity and include sustainable design and construction techniques to increase the re-use and recycling of construction, demolition and excavation waste and reduce the amount disposed to landfill;
	Local Plan: Part 2 Development Management Policies (September 2014) https://www.hillingdon.gov.uk/m edia.jsp?mediaid=31023&filetype =pdf	Policy EM11: Sustainable Waste Management The Council will require all new development to address waste management at all stages of a development's life from design and construction through to the end use and activity on site, ensuring that all waste is managed towards the upper end of the waste hierarchy.
Hounslow	Local Plan (Proposed Submission draft) http://www.hounslow.gov.uk/local_plan_proposed_submission_draft_consultation_document	Policy SC6 – Managing Building Conversation and Sub-Diversion of the Existing Housing We will expect development proposals to j. Be of a high quality design and include provision for the storage of waste and recycling.
	_volume_1_part_2.pdf	Policy SC10 – Homes in Multiple Occupation





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording
		e. All proposals must include suitable facilities for the storage and collection of waste and recycling in a manner that complies with waste authority guidelines and will not have a serious impact on the character and appearance of the local area;
Richmond	Core Strategy (Adopted 2009): http://www.richmond.gov.uk/cor e_strategy-3.pdf	None of direct relevance identified.
	Development Management Plan (2012) http://www.richmond.gov.uk/final_development_ management_plan_adopted_nov_	
	2011.pdf	
Tower Hamlets	Managing Development Document: Development Plan Document (2013) http://www.google.co.uk/url?sa= t&rct=j&q=&esrc=s&source=web &cd=4&ved=0CDwQFjAD&url=ht tp%3A%2F%2Fwww.towerhamlets	Policy DM 14 Managing Waste 2. Development should demonstrate how it will provide appropriate storage facilities for residual waste and recycling as a component element to implement the waste management hierarchy of reduce, reuse and recycle. 3. Major development should provide a Waste Reduction Management Plan for the construction and operation stages.





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording	
Sutton	Local Development Framework Core Planning Strategy (2009) https://www.sutton.gov.uk/CHtt pHandler.ashx?id=17558&p=0	None of direct relevance identified.	
Croydon	UDP Adopted (2006)	UDP Adopted (2006) Policy provides basic guidance: Refuse and Recycling Storage UD15 New development, and the conversion of properties, will only be permitted if it provides temporary storage space for refuse which is generated by the development and which is adequately screened and conveniently located. 4.82 Facilities should be considered at the initial design stage to ensure they are properly integrated, unobtrusive but accessible and of a sufficient size to accommodate predicted volumes of waste generation. Where possible, areas for housing refuse facilities should be located behind the building line in purpose built enclosures. Refuse facilities, which are used by several households and/or businesses, need to be carefully integrated into the overall design of the development to ensure that their visual impact is minimised	
	Local Plan Strategic Policies (2013) http://www.croydon.gov.uk/cont-ents/departments/planningand-regeneration/pdf/localplan/localplan-adopted.pdf regeneration/pdf/localplan/localplan-adopted.pdf	Local Plan Strategic Policies CLP1 (Adopted 2013) Very little reference – Policy SP6 Environment and Climate Change refers to BREEAM standards (SP6.3) and making provision for waste facilities (SP6.6) It refers to the South London Waste DPD prepared with other Boroughs (Merton, Kingston and Sutton) as means of identifying capacity required across the area. Detailed Policies Local Plan (Reg 18) Preferred and Alternative Options (Oct-Dec 2013) States that: 6.62 The existing Unitary Development Plan policies have proved useful to both the Council and those applying for planning permission by providing guidance about the location and	





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording		
		design of facilities which are integral to the functional running of each development. Preferred Option set out below. Alternative option is do nothing and rely on NPPF which is silent on the issue so LBC would need to rely on generic design policies. Policy DM13: Refuse and recycling		
		Option 1		
		Preferred option		
		DM13.1 To ensure that the location and design of refuse and recycling facilities are treated as an integral element of the overall design, the Council will require developments to:		
		 a. Sensitively integrate refuse and recycling facilities preferably within the building envelope; 		
		b. Ensure facilities are visually screened;		
		c. Provide adequate space for the temporary storage of waste materials generated by the development; and		
		d. Provide layouts that ensure facilities are easily accessible by residents.		
		DM13.2 To ensure refuse and recycling facilities are easily accessible by operators, the council will require developments to provide access roads that:		
		a. Are constructed to highway adopted standards;		
		b. Are capable of allowing access for refuse vehicles of at least 10.75m long, 2.5m wide and 3.5 m high; and		
		c. Facilitate the safe manoeuvring of refuse vehicles.		





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording	
		Option 1 (preferred option) 6.64 This option will enable the Council to update and clarify the existing Unitary Development Plan refuse and recycling policy to provide clear guidance about where these facilities should be located. Where the poor siting of these facilities could result in the loss of amenity space, this policy provide developers with clarity about the Council's requirements. 6.65 This approach is in line with the NPPF and the Mayor Of London's Housing Supplementary Guidance and is therefore the Council's preferred option. 6.69 The Council considers the layout, siting, function and design of recycling and refuse storage facilities to be of equal importance. If considered at the initial stage of the design process, proposals for new developments will be able to successfully integrate refuse and recycling into the building envelope without causing undue noise and odour nuisance. 6.71 It is important that refuse facilities are located in an area where they can be easily accessible to all residents, including children and wheelchair users. This would include the provision of a safe route for those on foot as well as ensuring facilities are located on a hard level surface. When designing these facilities it is important to ensure that the Council's requirements for collection of waste facilities have also been satisfied. 6.73 This policy should be used in conjunction with the Mayor Of London's Housing Supplementary Guidance.	
Barnet	Local Plan (Core Strategy) (2012): http://www.barnet.gov.uk/downloads/download/1000/adopted_local_plan-core_strategy_dpd	Policy CS 14 Dealing With Waste We will encourage sustainable waste management by: • promoting waste prevention, re-use, recycling, composting and resource efficiency over landfill. • requiring developments to provide waste and recycling facilities which fit current and future collection practices and targets.	
Greenwic h	Royal Greenwich Local Plan: Core Strategy with Detailed Policies () http://greenwich-	Policy H5 Housing Design xi. Adequate provision for waste recycling	





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording
Enfield	consult.limehouse.co.uk/portal/ro yal_greewich_local_plan?pointId= 1406799140627 Core Strategy 210-2025: https://www.enfield.gov.uk/dow nloads/file/6928/enfield_core_str ategy	Policy DH1 Design x. Demonstrate on-site waste management including evidence of waste reduction, use of recycled materials and dedicated recyclable waste storage space Core Policy 22 Delivering Sustainable Waste Management Require appropriate provision to be made for on-site waste treatment, storage and collection throughout the lifetime of the development.
	Development Management Document (Draft 2013) http://www.enfield.gov.uk/info/1 000000456/local_plan_planning policy/1896/ development_management_docu ment_dmd	Draft DMD 56 Responsible Sourcing of Materials, Waste Minimisation and Green Procurement The council is concerned with the waste generation of any new development, and as such will: Expect all developments to make appropriate provision (within individual units and as part of the overall development as appropriate) for waste storage, sorting and recycling, and adequate access for waste collection. Encourage non waste related development to provide on-site solutions for treating/managing waste generated by the development (i.e. composting, dedicated AD plants for food waste)
Haringey	Local Plan (2013) http://www.haringey.gov.uk/haringey_local_plan_strategic_policies s - march 2013 intro ch 1.pdf	
Westminst er	Local Plan (2013) http://transact.westminster.gov.uk/docstores/publications store/Westminster%27s%20City%20Plan%20Adopted%2 ONovember%202013%20FINAL%2 OVERSION.pdf	Policy S28 Design Development Will ensure the reduction, reuse or recycling of resources and materials, including water, waste and aggregates. This will include providing for an extended life -time of the building itself through excellence in design quality, high quality durable materials, efficient operation, and the provision of high quality floorspace that can adapt to changing circumstances over time.





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording
Islington	Core Strategy (2011): http://www.islington.gov.uk/publ icrecords/library/Environmental- protection/Quality-and- performance/Reporting/2011- 2012/%282012-03-03%29-Core- Strategy-February-2011.pdf	Policy CS 11 Waste The council will encourage sustainable waste management by: B. Requiring developments to provide waste and recycling facilities which fit current and future collection practices and targets and are accessible to all.
Hackney	http://www.hackney.gov.uk/Ass ets/Documents/Adopted-LDF- Core-Strategy-final- incchaptimagescov-Dec2010-low- res.pdf Core Strategy Adopted November 2010	Policy 32 New development in Hackney must support the objectives of sustainable waste management. This includes: The incorporation of integrated and well designed recycling, composting and residual waste storage facilities in all new developments, and reuse storage where appropriate;
Lambeth	Core Strategy Adopted 2011 http://www.lambeth.gov.uk/sites /default/files/pl-ldf-core- strategy.pdf	Policy S8 Sustainable waste management relates to provision of sites. Para 4.41 states that The Development Management DPD [presumably over-taken by Local Plan preparation] will address issues in relation to the detailed application of Core Strategy policy including on-site waste management facilities, waste and recycling storage and collection, re- use of materials and site waste management plans. Policy S7 Sustainable Design and Construction refers to (e)provision for sustainable waste management Policy EN Sustainable Waste Management also focuses on provision of sites but also requires that: (c) On-site waste management facilities should be incorporated into all major development proposals unless it is demonstrated that provision is not viable or the location renders the site unsuitable for such facilities.





Name of Borough Relevant Plan (Plus Website Link) Relevant Policy Wording	
2013 http://www.lambeth.gov.uk/sites/default/files/Lambeth_Local_Pla (a) Adequate refuse and recycling storage should be provided for all developed protect visual and residential amenity and public health the council will expect recycling storage to:	
(i) fully integrate into the wider design from the outset; (ii) be attractively designed and screened and conveniently located for users (iii) have heavy-duty, robustly detailed structures and detailing; (iv) be fully ventilated and easy to clean/ maintain; (v) be large enough to accommodate the easy manoeuvring of refuse/recycli have sufficient space to accommodate any increased storage requirements; at (vi) be secure and safe. (b) In new-build schemes refuse storage areas should: (i) be fully integrated into the building and placed close to the main entrance be separate - located well away from residential accommodation to avoid harroutlook; (ii) have a water supply to allow for wash down; (iii) be naturally ventilated; preferably with robust metal framed louvered doconcessary, especially where the storage is integrated within the building, mechanish should be provided in order to effectively deal with odour. On estates and on spacious developments in-ground refuse storage and freestorage have been used successfully. However, they will not be acceptable on highway unless an agreement is in place to ensure they are managed and main the wider development. 10.43 Lambeth would welcome and support proposals to bring forward under disposal networks. Underground systems are only likely to be viable in areas redevelopment programmes such as Vauxhall, but have successfully been into Wembley and elsewhere in Europe. 10.44 The council will prepare a supplementary planning document and prospecifications to assist applicants in this regard.	eling containers and and e for ease of use; or rm to amenity and cors. Where echanical extraction e-standing refuse on the public aintained as part of erground waste s with major atroduced in





Name of Borough	Relevant Plan (Plus Website Link)	Relevant Policy Wording	
Newham	Core Strategy adopted http://www.newham.gov.uk/Documents/Environment%20and%20planning/CoreStrategy2004-13.pdf		
Hammers mith & Fulham	Development Management Policies Adopted 2013 http://www.lbhf.gov.uk/Images/ DM%20LP%2001.07.13_tcm21- 181585.pdf	Policy CC3 Waste Management. To pursue sustainable waste management, including: ensuring that all developments provide suitable waste and recycling storage facilities; Policy - DM H5 Sustainable waste management All new developments should include suitable facilities for the management of waste generated by the development, including the collection and storage of separated waste and where feasible on-site energy recovery. All developments, including where practicable, conversions and change of use, should aim to minimise waste and should provide convenient facilities with adequate capacity to enable the occupiers to separate, store and recycle their waste both within their own residence and via accessible and inclusive communal storage facilities, and where possible compost green waste on site; 4.179 Therefore in order to facilitate the sustainable management of waste in the future it is essential that all developments provide adequate facilities for the separation of waste and recyclables in the home and for its satisfactory storage prior to collection. Where feasible space or facilities for the composting of green waste should also be provided (see SPD for further guidance).	





A full list of reviewed documents

Author	Title	Date	Web / link
BBC News	Hong Kong Copes with Tight Living Spaces	11-Apr-13	http://www.bbc.co.uk/news/world-asia-china- 21973486
Canary Wharf Group Plc	Waste Management Strategy 2013 to 2017	2013	http://group.canarywharf.com/wp- content/uploads/sites/2/2014/04/CWG-Waste- Strategy.pdf
Hong Kong Government	Guide Book on Source Separation of Waste in Residential Buildings	2006	http://www.epd.gov.hk/epd/english/environmentinhk/waste/prob_solutions/guidebook2006/ENG-main.htm
NBS Building Regulations	Building Regulations Guide 2011: Waste Storage for Buildings	2011	http://www.thenbs.com/BuildingRegs/Associate dDocuments/ShowContents.aspx?section=GBR& topic=b_1101_assdoc_gbr_01920&tl=no
Construction Enquirer	Plans unveiled for 70-storey Canary Wharf Resi Tower	03-Mar-14	http://www.constructionenquirer.com/2014/03/03/plans-for-70-storey-canary-wharf-resi-tower/
London Waste & Recycling Board	Flats Recycling Programme Evaluation Report	Aug-13	http://www.wrap.org.uk/sites/files/wrap/Flats% 20Programme%20Report_email%20version.pdf
ADEPT	Making Space for Waste	2010	http://www.lgcplus.com/Journals/3/Files/2010/7/14/ADEPTMakingspaceforwaste_000.pdf
Institution of Civil Engineers	Planning for Resource Sustainable Communities. Vol 1. Waste Infrastructure and Management - A code of Practice	2012	http://www.ice.org.uk/getattachment/aec15bfa-e710-4b9d-9259-2e4bda628e4e/Planning-for-resource-sustainable-communitiesWas.aspx
DEFRA/WasteWa tch	Recycling for Flats: Planning, monitoring, evaluating and the communication of recycling schemes for flats with case studies from the UK and abroad	2006	http://www2.wrap.org.uk/downloads/Recycling for flats March 2006 WW Defra.7a7cdf26.91 24.pdf
WRAP	Recycling for Flats		http://www.wrap.org.uk/content/recycling-collections-flats-introduction http://www.wrap.org.uk/content/recycling-collections-flats-understanding-flats
LB Brent	Waste and Recycling Storage and Collection guidance for Residential Properties	2013	http://brent.gov.uk/media/2225012/waste%20pl anning%20guidance%202013%20v2.pdf
LB Brent	Increasing Participation in recycling in flats - an Overview and Scrutiny Tsk Group	2009	http://brent.gov.uk/media/2025456/0909%20recycling%20in%20flats%20final%20report.pdf
LB Brent	Design Guide For New Development: Supplementary Planning Guidance SPG 17	Oct-01	https://www.rudi.net/system/files/file/file/Brent+Design+Guidance.pdf
LB Brent	Core Strategy	Jul-10	http://brent.limehouse.co.uk/portal/planning/cs po/adopted_cs





Dudley MB Council	Waste management guidance notes for residential developments	?	http://www.google.co.uk/url?sa=t&rct=j&q=&es rc=s&source=web&cd=4&ved=0CDYQFjAD&url =http%3A%2F%2Fwww.dudley.gov.uk%2FEasysit eWeb%2Fgetresource.axd%3FAssetID%3D15204 7%26type%3Dfull%26servicetype%3DAttachment &ei=w2V4VPusHqq07Qa2s4DgBg&usg=AFQjCN HRqvdKX0uqILu3WCtuqM2ddhb2Gw&sig2=zFd 5Up1XTuhdnfM2zMagGw&bvm=bv.80642063,d .ZGU
Mayor of London	Sustainable Design and Construction SPG	Apr-14	https://www.london.gov.uk/sites/default/files/Sustainable%20Design%20%26%20Construction%2OSPG.pdf
Aberdeen City Council	SPG Waste management requirements in residential development	2012	http://www.aberdeencity.gov.uk/nmsruntime/saveasdialog.asp?IID=31834&sID=14394
Stirling Council	SPG19 Waste management requirements for development sites	Sep-12	http://www.stirling.gov.uk/ documents/tempo rary-uploads/economy,-planningand regulation/supp-guidance-sept-2012/sg19- waste-management.pdf
Cambridgeshire CC & Peterborough City Council	RECAP Waste management design guide SPD	2012	http://www.peterborough.gov.uk/pdf/RECAP% 20SPD%20web.pdf
LB Ealing	Core Strategy	Apr-12	http://www.ealing.gov.uk/downloads/download/1322/adoption_of_the_development_or_core_s trategy
LB Hammersmith and Fulham	Core Strategy	2011	http://www.lbhf.gov.uk/Directory/Environment and Planning/Planning/Planning policy/16452 5 Core Strategy.asp
LB Hammersmith and Fulham	Development Management Policies	2013	http://www.lbhf.gov.uk/Images/DM%20LP%200 1.07.13 tcm21-181585.pdf
LB Hammersmith and Fulham	Planning Guidance SPD	2013	http://www.lbhf.gov.uk/Images/Planning%20Guidance%20SPD%20final_tcm21-181716.pdf
LB Greenwich	Royal Greenwich Local Plan: Core Strategy with Detailed Policies	Jul-14	http://greenwich- consult.limehouse.co.uk/portal/royal_greewich_l ocal_plan?pointId=1406799140627
LB Barnet	Residential Design Guidance SPD	2013	http://www.barnet.gov.uk/info/940172/resident ial_design_guidance/1097/residential_design_guidance
LB Barnet	Local Plan (Core Strategy)	2012	http://www.barnet.gov.uk/downloads/downloadd/1000/adopted_local_plan-core_strategy_dpd
LB Hillingdon	A Visions for 2026 Local Plan: Part 1 Strategic Policies	Nov-12	http://www.hillingdon.gov.uk/media.jsp?mediaid=27633
LB Hillingdon	Local Plan: Part 2 Development Management Policies	Sep-14	https://www.hillingdon.gov.uk/media.jsp?media id=31023&filetype=pdf
LB Hillingdon	Hillingdon Design and Accessibility Statement (HDAS). Supplementary Planning Document- Residential Layouts	2006	https://www.hillingdon.gov.uk/media.jsp?media id=7254&filetype=pdf
Taylor Intelligence (Taylor Bins)	Taking recycling to a new level	2010	http://www.taylorbins.co.uk/documents/intellig ence/High-Rise-Report.pdf
LB Hounslow	Local Plan	Proposed Draft	http://www.hounslow.gov.uk/local_plan_proposed_submission_draft_consultation_document





			volume 1 part 2.pdf
LB Hounslow	Guidance for planning applications: Recycling & non recycling provisions for new developments within the London Borough of Hounslow for residential and commercial sites	Apr-12	http://www.hounslow.gov.uk/recycling_refuse_guide_for_new_developments_12-13_v2.pdf
LB Newham	Waste management guidelines for architects and proprty developers	?	http://www.newham.gov.uk/Documents/Environment%20and%20planning/WasteManagementGuidelinesArchitectsPropertyDevelopers.pdf
LB Harrow	The Development Management Policies	Jul-13	http://www.harrow.gov.uk/info/856/local_plan/609/development_management_policies
LB Harrow	Harrow Residential Design Guide Spd	2010	http://www.harrow.gov.uk/www2/documents/s 72388/Residential%20Design%20Guide%20SPD. pdf
LB Enfield	Waste and Recycling Storage Planning Guidance-Appendix 1	?	http://www.enfield.gov.uk/downloads/file/691/ waste and recycling planning storage guidanc e
LB Enfield	Core Strategy	2010	https://www.enfield.gov.uk/downloads/file/692 8/enfield_core_strategy
LB Enfield	Development Management Document	Draft 2013	http://www.enfield.gov.uk/info/1000000456/local plan planning policy/1896/development management document dmd
LB Haringey	Sustainable Design & Construction Supplementary Planning Document	Mar-13	http://www.haringey.gov.uk/sustainable_design_and_construction_spd_adopted_march_2013.pdf
LB Haringey	SPG 8a Waste and Recycling	2006	http://www.haringey.gov.uk/spg_8a waste_and_recycling-3.pdf
LB Haringey	Local Plan	2013	http://www.haringey.gov.uk/haringey_local_pla n_strategic_policies march_2013_intro_ch_1.pdf
Taylor	Urban Solutions - waste and recycling storage solutions for planners, developers and architects		http://www.taylorbins.co.uk/documents/literature/Taylor-Urban-Solutions.pdf
LB Richmond Upn Thames	Supplementary Planning Document: Residential Development Standards	Mar-10	http://www.richmond.gov.uk/spd_residential_d evelopment_standards_2010_final_version_30_1 1_10.pdf
LB Richmond Upn Thames	Recycling for New Developments with Communal Facilities	2010	http://www.richmond.gov.uk/spg_recycling_for_ new_developments_with_communal_facilitiep_ df
LB Richmond Upn Thames	Core Strategy	2009	http://www.richmond.gov.uk/core_strategy- 3.pdf
LB Richmond Upn Thames	Development Management Plan	2012	http://www.richmond.gov.uk/final_developmen t_management_plan_adopted_nov_2011.pdf
Harmony (US systems manufacturer)	Building waste management solutions for high rise properties	?	http://harmony1.com/industry/high-rise- property/
Hardall refuse chutes	Website for company producing chutes	2005	http://www.hardall.co.uk/refusechutes.html
LB Westminster	Local Plan	2013	http://transact.westminster.gov.uk/docstores/publications_store/Westminster%27s%20City%20Plan%20Adopted%20November%202013%20FINAL





			%20VERSION.pdf
NSW EPA (Australia)	Better practice guide for waste management in multi-unit dwellings. High rise residential blocks more than 7 storeys	2002	http://www.epa.nsw.gov.au/resources/warr/08 42HighRise.pdf
Burohappold	Waste in new age skyscrapers	2013	http://www.burohappold.com/blog/post/waste-in-new-age-skyscrapers-2554/
LB Islington	Core Strategy	2011	http://www.islington.gov.uk/publicrecords/library/Environmental-protection/Quality-and-performance/Reporting/2011-2012/%282012-03-03%29-Core-Strategy-February-2011.pdf
LB Islington	Recycling and refuse storage requirements	2013	http://www.islington.gov.uk/publicrecords/library/Waste-management/Information/Guidance/2013-2014/(2013-06-07)-Rubbish-and-Recycling-Storage-Guidance-for-Architects.pdf
LB Tower Hamlets	Development Plan Document	2013	http://www.google.co.uk/url?sa=t&rct=j&q=&es rc=s&source=web&cd=4&ved=0CDwQFjAD&url =http%3A%2F%2Fwww.towerhamlets.gov.uk%2Fi doc.ashx%3Fdocid%3D75777f98-4db2-475e- 88d4-e2d969ba383b%26version%3D- 1&ei=bHYuVK2SB8zbaLaggcAl&usg=AFQjCNF W_QNt60SfYYhj4PV-aRNFZTXxS
LB Hackney	Core Strategy	Nov-10	http://www.hackney.gov.uk/Assets/Documents/Adopted-LDF-Core-Strategy-final-incchaptimagescov-Dec2010-low-res.pdf
LB Hackney	Refuse and recycling storage guidance - a guide for planners and architects submitting planning applications		http://www.hackney.gov.uk/Assets/Documents/Architects-Recycling-Guide.pdf
LB Bexley	Architects guide to sustainable design and construction	2007	http://www.bexley.gov.uk/CHttpHandler.ashx?i d=1426&p=0
LB Lambeth	Core Strategy	2011	http://www.lambeth.gov.uk/sites/default/files/p l-ldf-core-strategy.pdf
LB Lambeth	Local Plan	2013	http://www.lambeth.gov.uk/sites/default/files/L ambeth_Local_Plan_Proposed_Submission_2611 13-2_Part_9.pdf
LB Lambeth	Waste and recycling storage requirements - technical specification for architects and developers	2014	http://www.lambeth.gov.uk/sites/default/files/r r-Lambeth-Architects-Code-of-Practice.pdf
LB Lambeth	Refuse & Recycling Storage Design Guide	Jul-13	http://lambeth.gov.uk/sites/default/files/refuse %20and%20recycling%20design%20guide%20201 3%20final_0.pdf
Mayor of London/Design for London/LDA	Interim London Housing Design Guide	2010	https://www.london.gov.uk/sites/default/files/lnterim%20London%20Housing%20Design%20Guide.pdf
Ottowa	solid waste collection design guidelines for multi residential development	2012	http://ottawa.ca/calendar/ottawa/citycouncil/pe c/2012/11- 13/Solid%20Waste%20Collection%20Guidelines% 20-%20Doc%201.pdf





Elephant's Foot Recycling	Waste Management Plan prepared for Bao Jia	Oct-13	http://www.urbis.com.au/magazines/wp-content/uploads/2013/11/Volume-11-Waste-
Solutions (Australia)	Developments Shayer Group		Management-Plan.pdf
LB Sutton	Sustainable Design and Construction Interim Planning Guidance IPG	May-08	https://www.sutton.gov.uk/CHttpHandler.ashx? id=3543&p=0
LB Sutton	Local Development Framework Core Planning Strategy	2009	https://www.sutton.gov.uk/CHttpHandler.ashx? id=17558&p=0
Envac UK	Wembley City Case Study (on their website)	current	http://www.envacuk.co.uk/case_studies/wembley-city
LB Newham	Local Plan-Core Strategy	Jan-12	http://www.newham.gov.uk/Documents/Environment%20and%20planning/CoreStrategy2004-13.pdf
Eureka Living website	Eureka Tower waste & recycling instructions for residents	current	http://eurekaliving.com.au/recycling-waste/ http://eurekaliving.com.au/wp- content/uploads/2011/12/Welcome-Guide.pdf
Strata Building Southwark	No details about waste & recycling arrangements on website	current	http://www.stratalondon.com/inhabit
BS5906:2005	Waste Management in Buildings: Code of Practice	2005	http://www.rbkc.gov.uk/pdf/BS5906-2005.pdf
SLR / Lend Lease	St Mary's Residential Elephant & Castle Waste Strategy		http://planningonline.southwark.gov.uk/DocsOnline/Documents/238278_1.pdf
BS1703:2005	Refuse chutes and hoppers. Specification.	2005	-
LB Southwark	Waste Management Guidance Note Residential Developments	Feb-14	http://www.southwark.gov.uk/downloads/download/2589/waste_management_guidance_notes_for_residential_properties_
LB Southwark Planning Pages		current	http://planningonline.southwark.gov.uk/
LB Croydon - Morello Cherry Orchard Rd Development	Menta Redrow Ltd - Development website	current	http://publicaccess.croydon.gov.uk/online-applications/applicationDetails.do?activeTab=extenalDocuments&keyVal= CROYD DCAPR 136 902
LB Croydon - Taberner House Development	CCURV Croydon Council Urban Regeneration Vehicle (LB Croydon & John Laing)	current	http://publicaccess.croydon.gov.uk/online- applications/propertySearchResults.do?action=fir stPage
LB Croydon	UDP	2006	http://www.croydon.gov.uk/contents/departments/planningandregeneration/pdf/localplan/replacement-udp.pdf
LB Croydon	Local Plan Strategic Policies	2013	http://www.croydon.gov.uk/contents/departments/planningandregeneration/pdf/localplan/localplan-adopted.pdf
LB Lewisham - Surrey Canal Renewal	Renewal New Bermondsey Two Ltd	current	http://www.surreycanal.com/planning
St George's Wharf Tower	Berkeley Homes website	current	http://www.berkeleygroup.co.uk/new-homes/london/vauxhall/the-buckingham-suite





Appendix 5: Survey of ALBPO Members - Pre-amble and Survey Questions

Introduction

The increase in development of new housing in the last 24 months and projected growth in new high rise housing stock presents a challenge to local authorities that are required to plan for their development, and, to a certain extent, service their operations, which, in particular, involves the collection and management of waste. The provision of waste collection and recycling services in flatted properties has been found to be an especially challenging issue that is commonly experienced in London. In light of this a working group comprising members of London Environment Directors' Network (LEDNET), London local authority waste officers and the London Waste and Recycling Board (LWARB) have identified a need for planning guidance for local authorities and the development industry that considers how to effectively plan and design suitable storage and collection systems for waste and recycling at flatted properties.

SOENECS/BPP Consulting have been commissioned by the LWARB and LEDNET to prepare template planning policy and guidance which may be used to ensure that the management of waste is taken into account in the design and operation of flatted residential development.

Survey of London Planning Authorities

With a view to establishing existing good practice approaches, SOENECS/BPP Consulting wish to establish the extent to which London Borough planning policy and guidance already considers the management of waste in residential development. The following survey is intended to provide this information and your participation would be greatly appreciated.

- 1. Borough:
- 2. Status Of Local Plan (Core Strategy) (chose one):
 - Evidence base preparation and/or early scoping of issues and options
 - Consultation on issues and options (Reg¹⁹ 18 stage)
 - Consultation of preferred options (Reg 18 stage)
 - Consultation on Proposed Submission Plan complete (Reg 19 stage)
 - Plan submitted for examination (Reg 22 stage)
 - Consultation on main modifications complete (if required)
 - Plan adopted (if so please state month and year)
- 3. Status of Development Management/Control Policies (if not included in the Local Plan (Core Strategy)) (chose one):
 - Evidence base preparation and/or early scoping of issues and options
 - Consultation on issues and options (Reg 18 stage)
 - Consultation of preferred options (Reg 18 stage)
 - Consultation on Proposed Submission Plan complete (Reg 19 stage)
 - Plan submitted for examination (Reg 22 stage)
 - Consultation on main modifications complete (if required)
 - Plan adopted (if so please state month and year)

¹⁹ The Town and Country Planning (Local Planning) (England) Regulations 2012





4. Have you adopted planning policy that requires developers to demonstrate how new (and ideally high rise) residential development should be developed, and managed, taking sustainable waste management (e.g. recycling) into account? Yes/No

If 'yes', please provide details of the reference no. and name of the policy and plan:

5. Have you adopted or, do you intend to prepare guidance on the management of waste in residential development? Yes/No

If 'yes', please confirm position:

- Adopted Supplementary Planning Document
 - Please provide name and date of adoption (month/year)
- Adopted other guidance (e.g. Planning Advice Note)
 - o Please provide name and date of adoption (month/year)
- Preparing, or intend to prepare, Supplementary Planning Document
 - Please provide anticipated date of adoption (month/year)
 - Please provide anticipated date of adoption (month/year)

Preparing, or intend to prepare, other guidance (e.g. Planning Advice Note)





Appendix 6: London Plan Section on Waste

Waste

- 5.65 The Mayor is committed to a policy framework for waste management which starts from the position the best approach is to reduce the amount of waste that arises in the first place. Where this is not possible, he supports an approach based on the waste hierarchy that emphasises re-use, and then recycling and composting, before energy recovery and disposal. Generally, applying the waste hierarchy will achieve the greatest carbon dioxide equivalent savings. However, there are certain circumstances where the waste hierarchy conflicts with achieving the greatest climate change benefits. For example, depending on the condition of wood, it may be better to generate energy using wood waste rather than to recycle it. In these cases the approach that will deliver the greater climate change benefits should be given preference. This Plan, and the Mayor's waste strategies, set out policies to achieve this.
- 5.66 The Mayor believes that making better use of waste has a major role to play in tackling climate change and that London's waste is potentially a valuable resource that can be exploited for London's benefit, and not solely a disposal problem. London cannot deal with these issues in isolation. The Mayor intends to work closely with neighbouring regions and local authorities to ensure these challenges and opportunities are addressed in the most environmentally friendly and effective ways possible. London has a leading part to play in ensuring this.
- 5.67 With this in mind, London should manage as much of the capital's waste within its boundaries as practicable, enabling London and Londoners to receive environmental and economic benefits from its management. Likewise, the Mayor believes that boosting recycling performance and recovering energy from biomass will deliver environmental and economic benefits to London.

POLICY 5.16 WASTE SELF-SUFFICIENCY

Strategic

- A The Mayor will work with London boroughs and waste authorities, the London Waste and Recycling Board (LWARB), the Environment Agency, the private sector, voluntary and community sector groups, and neighbouring regions and authorities to:
 - a manage as much of London's waste within London as practicable, working towards managing the equivalent of 100% of London's waste within London by 2031
 - b create positive environmental and economic impacts from waste processing
 - c work towards zero biodegradable or recyclable waste to landfill by 2031.
- B This will be achieved by:
 - a minimising waste
 - b encouraging the reuse of and reduction in the use of materials
 - c exceeding recycling/composting levels in municipal solid waste (MSW) of 45 per cent by 2015, 50 per cent by 2020 and aspiring to achieve 60 per cent by 2031
 - d exceeding recycling/composting levels in commercial and industrial waste



5.68



- of 70 per cent by 2020
- e exceeding recycling and reuse levels in construction, excavation and demolition (CE&D) waste of 95 per cent by 2020
- f improving London's net self-sufficiency through reducing the proportion of waste exported from the capital over time
- g working with neighbouring regional and district authorities to co-ordinate strategic waste management across the greater south east of England.

London produced 22 million tonnes of waste in 2008. London's waste arisings are

types of waste produced in London:
 municipal household waste (MSW) is the waste generated by London's households, collected by or on behalf of local authorities, amounting to approximately 4.2m tonnes in 2008 (19 per cent of all waste)
 commercial & industrial waste (C&I) is waste generated by industry in London, collected largely by the private sector, amounting to approximately 7.5m tonnes in 2008 (34 per cent of all waste)
construction, excavation and demolition waste (CE&D) is the waste generated by development activity in London (for example, old buildings being demolished, new ones being constructed), primarily dealt with by the private sector and amounting to approximately 10.4m tonnes in 2008 (47 per cent of all waste).

- 5.69 The Mayor wants to see a step change in London's recycling performance. Although there have been recent improvements in municipal waste recycling rates (up from 8 per cent in 2001 to 21 per cent in 2008), the Mayor wishes to see a doubling to 45 per cent by 2015 and then 50 per cent by 2020. There is also considerable variation in municipal waste recycling performance across London, ranging in 2008 from 14 per cent to 41 per cent, demonstrating that better performance is achievable. Overall, London recycles 57 per cent of all waste. Around 56 per cent of municipal waste goes into landfill sites that are located largely outside London. It is estimated that London currently manages 53 per cent of its own waste, taking account of total waste arisings.
- 5.70 Although this step change poses a big challenge, the proposed municipal waste recycling targets match those set by the South London Waste Partnership, West London Waste Authority, North London Waste Authority and the East London Waste Authority, which together represent two-thirds of London's municipal waste authorities. The targets also recognise household waste recycling targets that were set by two-thirds of London boroughs under local area agreements to achieve, on average, 36 per cent recycling by 2011. Furthermore DEFRA requires boroughs to commit to 50 per cent household waste recycling performance as a requirement for receiving Private Finance Initiative (PFI) credits for waste procurement. The Mayor's aspiration is for London to achieve 60 per cent recycling of municipal waste by 2031. This performance level is supported by research undertaken by WRAP showing that 68 per cent of household waste is recyclable.
- 5.71 This Plan sets out the spatial policies to support the Mayor's Waste Strategy and includes its targets for recycling and reduction of waste to landfill. Performance should improve for all forms of waste in London in terms of greater efficiency of use, a reduction in amounts generated and an increase in recycling. The greatest need and opportunity for improved performance is the municipal waste collected





by boroughs, largely from households. The Mayor believes that recycling and composting targets for commercial and industrial waste are challenging but achievable, and reflects the current relatively high level of commercial and industrial recycling, which in 2008 was estimated to be 42 per cent. Recycling targets are carried forward from the 2008 version of the London Plan.

- 5.72 The recycling targets included in this Plan and in the Waste Strategy have a direct impact on London's waste self-sufficiency. The Mayor is committed to working towards zero waste to landfill by 2031.
- 5.73 The key objectives in terms of the spatial distribution of waste facilities within London, as set out in PPS10: Planning for Sustainable Waste Management, are that communities should take more responsibility for the management of their own waste (self-sufficiency), and that waste should be disposed of in one of the nearest appropriate installations (proximity). This means that waste planning authorities should achieve the maximum degree of self-sufficiency possible commensurate with their obligations for managing waste, while recognising that in some instances the nearest appropriate installation might lie outside the Greater London boundary. The Mayor, when determining local authority waste management contracts, will adopt a flexible approach to self-sufficiency. In line with the objective of proximity, preference may be given to facilities outside the Greater London boundary if they are closest to the point of where the waste is produced. More detail on municipal waste management contracts and self-sufficiency is set out in the Mayor's Waste Management Strategy.
- 5.74 The Mayor will work with London's neighbours in the South East and East of England to co-ordinate strategic waste management across the three regions to reduce the capital's dependence on landfill disposal outside London. He will adopt a flexible approach to how self-sufficiency is achieved, so that the carbon outcome of any treatment method and transportation are given greater consideration in assessing proposals for waste facilities.

5.75	The Mayor wants to make the most of London's waste to harness its energy and employment benefits. For the purposes of meeting self-sufficiency, in addition to prevention, reduction and re-use, waste is deemed to be managed in London if:
	 it is used in London for energy recovery (eg through anaerobic digestion, pyrolysis/gasification or through existing incinerators)
	 it is compost or recyclate sorted or bulked in London material recycling facilities for reprocessing either in London or elsewhere
	□ it is a 'biomass fuel' as defined in the Renewable Obligation Order.

POLICY 5.17 WASTE CAPACITY

Strategic

A The Mayor supports the need to increase waste processing capacity in London. He will work with London boroughs and waste authorities to identify opportunities for introducing new waste capacity, including strategically important sites for waste management and treatment, and resource recovery parks/consolidation centres, where recycling, recovery and manufacturing activities can co-locate.





Planning decisions

- B Proposals for waste management should be evaluated against the following criteria:
 - a locational suitability (see LDF preparation paragraphs F and G below)
 - b proximity to the source of waste
 - c the nature of activity proposed and its scale
 - d a positive carbon outcome of waste treatment methods and technologies (including the transportation of waste, recyclates and waste derived products) resulting in greenhouse gas savings, particularly from treatment of waste derived products to generate energy
 - e the environmental impact on surrounding areas, particularly noise emissions, odour and visual impact and impact on water resources
 - f the full transport and environmental impact of all collection, transfer and disposal movements and, in particular, the scope to maximise the use of rail and water transport using the Blue Ribbon Network.

The following will be supported:

- g developments that include a range of complementary waste facilities on a single site
- h developments for manufacturing related to recycled waste
- i developments that contribute towards renewable energy generation, in particular the use of technologies that produce a renewable gas
- j developments for producing renewable energy from organic/biomass waste.
- C Wherever possible, opportunities should be taken to provide combined heat and power and combined cooling heat and power.
- D Developments adjacent to waste management sites should be designed to minimise the potential for disturbance and conflicts of use.
- E Suitable waste and recycling storage facilities are required in all new developments.

LDF preparation

- F Boroughs must allocate sufficient land and identify waste management facilities to provide capacity to manage the tonnages of waste apportioned in this Plan. Boroughs may wish to collaborate by pooling their apportionment requirements.
- G Land to manage borough waste apportionments should be brought forward through:
 - a protecting and facilitating the maximum use of existing waste sites, particularly waste transfer facilities and landfill sites
 - b identifying sites in strategic industrial locations (see Policy 2.17)
 - c identifying sites in locally significant employment areas (see Policy 4.4)
 - d safeguarding wharves (in accordance with policy 7.26) with an existing or future potential for waste management.
- H If, for any reason, an existing waste management site is lost to non-waste use, an additional compensatory site provision will be required that normally meets the maximum throughput that the site could have achieved.
- 5.76 Increasing London's waste processing capacity is a major mayoral priority. The Mayor will work with all parties to achieve this. Through the London Waste and Recycling Board (LWARB), the Mayor will collaborate with boroughs and other





partners to make the capital a global beacon of best practice in waste management.

5.77	PPS10 requires the Mayor through the London Plan to:
	 identify the tonnages of municipal and commercial/industrial waste requiring management and to apportion them by waste planning authority area
	 evaluate the adequacy of existing strategically important waste management and disposal facilities to meet London's future needs, both for municipal and other waste streams
	$\hfill \square$ identify the number and type of new or enhanced facilities required to meet those needs
	 identify opportunities for the location of such facilities and, where appropriate, criteria for the selection of sites.

- 5.78 Waste issues were thoroughly scrutinised in the London Plan Examinations in Public in 2006 and 2007 and the Mayor sees no benefit in reopening recent debates, particularly those around the borough-level apportionment methodology. However, he has acknowledged that projected MSW and C&I waste arisings at borough level the key to waste management, apportionment and self-sufficiency need updating. The GLA has accordingly brought forward new independent borough-level projections of London's waste arisings, and borough-level apportionment of MSW and C&I waste using the 2007 methodology.
- 5.79 Table 5.2 gives projected MSW and C&I arisings at borough level for key milestones through to 2031. Table 5.3 sets out projected MSW and C&I waste to be managed in London apportioned to boroughs based on the methodology agreed for the 2008 version of the London Plan ie each borough's percentage share of waste to be managed in London is the same as before. Self-sufficiency (the proportions of total MSW and C&I waste managed in London) at key milestones has been modelled as a linear increase from the 2008 baseline (56 per cent MSW and 68 per cent C/I) to 100 per cent for 2031, in line with the objectives of Policy 5.16.
 - 5.80 Boroughs may collaborate by pooling their apportionment requirements. Provided the aggregated total apportionment figure is met, it is not necessary for boroughs to meet both the municipal and commercial/industrial waste apportionment figures individually. Boroughs need to examine how capacity can be delivered in detail at the local level as site allocations in LDFs to meet their apportionments. Boroughs working collaboratively must demonstrate that their joint apportionment targets will be met, for example, through the preparation of joint waste DPDs, joint evidence papers or bilateral agreements.
- 5.81 Boroughs and waste authorities should identify sites which are potentially suitable for a variety of technologies, depending on the particular site's opportunities and constraints, and assess how many facilities and what type of waste processing facilities/technologies will be required locally to meet their apportionments.





5.2 Municipal and commercial/industrial waste projections at borough level at key milestones through to 2031 (1000 tonnes pa)

pa)	0044	1	0046		0004		0000		0004	
	2011		2016		2021		2026		2031	
	MSW	C&I								
Barking &										
Dagenham	103	74	113	72	123	75	133	79	141	81
Barnet	187	189	202	188	217	189	232	192	244	200
Bexley	135	84	138	77	142	77	145	72	148	69
Brent	136	202	143	200	149	199	156	196	161	194
Bromley	169	180	173	182	178	185	182	187	186	188
Camden	140	411	146	404	153	410	159	417	163	421
City	38	466	41	481	44	496	46	512	48	517
Croydon	184	198	193	198	202	196	211	195	218	196
Ealing	158	232	164	219	170	211	176	209	181	207
Enfield	155	148	159	140	164	136	168	133	172	134
Greenwich	117	105	130	105	144	104	157	105	168	106
Hackney	131	109	140	105	147	101	155	100	162	103
Hammersmit										
h & Fulham	91	184	95	186	99	189	103	195	107	204
Haringey	129	90	135	89	141	87	147	90	151	88
Harrow	120	143	123	139	126	136	129	134	131	133
Havering	135	132	143	130	152	126	160	126	168	125
Hillingdon	152	336	157	335	162	338	167	341	171	348
Hounslow	132	231	136	223	140	215	144	212	147	211
Islington	124	280	132	286	140	289	147	285	153	284
Kensington										
& Chelsea	102	149	106	151	111	156	115	155	119	153
Kingston										
upon	68	131	70	131	72	134	74	138	76	143





London Total	4261	6485	4487	6451	4709	6458	4927	6504	5108	6596
Westminster	192	744	202	746	212	756	221	767	228	792
Wandsworth	126	174	133	178	139	182	145	183	150	187
Forest	130	90	136	87	141	81	147	78	151	79
Waltham										
Tower Hamlets	127	266	142	273	157	282	171	292	183	309
Sutton	93	110	94	108	96	107	98	109	99	110
Southwark	122	296	132	295	142	291	152	294	160	297
Richmond upon Thames	100	143	103	142	105	141	107	141	109	143
Redbridge	123	114	128	109	134	104	139	98	143	95
Newham	154	123	170	123	186	124	202	124	215	127
Merton	94	117	96	112	99	111	101	109	103	110
Lewisham	144	85	151	82	158	81	165	80	171	81
Lambeth	150	151	158	152	166	150	174	157	180	162
Thames										

Source: LRS Consultancy for GLA, December 2009





Table 5.3 Waste to be managed in London apportioned by borough (thousand tonnes per annum)																
		2011			2016			2021			2026			2031		
	apportionment (% share of waste to be managed in London)	MSW	C&I	Total	MSM	C&I	Total	MSW	C&I	Total	MSW	C&I	Total	MSW	C&II	Total
Barking & Dagenham	6.1	159	283	441	194	309	502	230	336	567	270	366	636	309	399	708
Barnet	2.7	70	125	195	98	136	222	102	149	251	119	162	281	137	176	313
Bexley	5.5	144	256	398	175	279	453	208	304	512	243	331	574	279	361	640





Brent	3.4	06	160	249	109	174	284	130	190	320	152	207	359	175	225	400
Bromley	3.0	77	137	213	94	149	243	112	163	274	131	177	308	150	193	343
Camden	2.3	59	105	164	72	115	187	86	125	211	100	136	237	115	149	264
City	n/a	40	09	100	41	59	100	42	58	100	43	57	100	44	56	100
Croydon	3.0	62	141	219	96	154	250	115	167	282	134	182	317	154	199	353
Ealing	4.4	114	202	315	138	221	359	165	241	405	193	262	455	221	286	507
Enfield	3.7	96	170	265	116	186	302	139	202	341	162	220	383	186	240	426





Greenwich	4.0	106	188	292	128	205	333	153	223	376	179	243	422	205	265	470
Hackney	2.5	65	116	180	62	126	205	94	137	232	110	150	260	126	163	289
Ham'smith & Fulham	3.0	78	139	216	92	152	246	113	165	278	132	180	312	152	196	348
Haringey	2.3	59	105	164	72	115	187	86	125	211	100	136	237	115	149	264
Harrow	2.2	57	101	158	69	110	180	82	120	203	96	131	228	111	143	254
Havering	4.0	105	187	291	128	204	331	152	222	374	178	241	419	204	263	467
Hillingdon	3.7	96	170	265	116	186	302	139	202	341	162	220	382	186	240	426





Hounslow	3.5	92	165	256	112	179	292	134	195	329	157	213	370	180	232	412
Islington	2.4	64	113	176	22	124	201	92	135	227	108	147	255	124	160	284
Kensington & Chelsea	2.4	64	113	176	77	124	201	92	135	227	108	147	255	124	160	284
Kingston u Thames	1.8	46	81	126	56	89	144	99	26	163	77	105	183	89	115	203
Lambeth	2.7	70	125	195	85	136	222	102	149	250	119	162	281	137	176	313
Lewisham	2.5	99	117	182	80	128	207	95	139	234	111	151	263	128	165	293
Merton	2.9	92	136	211	63	148	240	110	161	271	129	175	304	148	191	339





Newham	4.9	129	229	356	156	249	405	186	272	458	218	296	514	250	323	572
Redbridge	1.9	49	87	136	09	95	155	71	104	175	83	113	196	95	123	218
Richmond u Thames	2.2	56	100	156	89	109	178	81	119	200	95	129	225	109	141	251
Southwark	3.0	77	137	213	94	150	243	112	163	275	131	177	308	150	193	343
Sutton	2.4	63	112	175	77	123	199	91	133	225	107	145	252	123	158	281
Tower Hamlets	3.8	98	175	273	120	191	311	143	208	351	167	227	394	191	247	439
Waltham Forest	2.4	64	113	176	22	123	200	92	134	226	108	146	254	123	159	283





		7:	40	71	111	49	78	126	58	84	142	89	92	160	78	100	
Wan	ndsworth	හ න:	66	177	275	121	193	313	144	210	354	168	229	397	193	249	

Note: Boroughs may collaborate by pooling their apportionment requirements. Provided the aggregated total apportionment is met (MSW plus C/I), it is not necessary for boroughs to meet both MSW and C/I apportionment figures individually.

Source: GLA December 2009 – using the apportionment model prepared for the London Plan February 2008 (consolidated with Alterations since 2004) by Jacobs UK Ltd July 2007, waste arisings prepared by LRS Consultancy December 2009, and self-sufficiency (the proportion of waste managed in London) modelled in line with the objectives of Policy 5.16





- 5.82 It is envisaged that land in strategic industrial locations will provide the major opportunities for locating waste treatment facilities (see Annex 3). Boroughs should also look to locally significant industrial sites and existing waste management sites. Existing waste management sites (including safeguarded wharves with waste use or potential) should be clearly identified and safeguarded for waste use. Suitable brownfield sites and contaminated land elsewhere may also provide opportunities.
- 5.83 Allocations will need to balance the benefits of smaller, local sites against the overall demand for land for waste and for a range of other activities in a situation in which there are severe limitations of land supply, and against the benefits of co-locating a range of facilities together in a smaller number of larger sites. The Mayor will work with boroughs and waste authorities to identify opportunities for introducing new waste capacity, including strategically important sites for waste management and treatment, and resource recovery parks/consolidation centres, where recycling, recovery and manufacturing activities can co-locate.
- 5.84 For waste that cannot be recycled or composted (including anaerobic digestion), the Mayor has a preference for advanced conversion waste processing technologies such as gasification and pyrolysis but is keen that proposals for new facilities are evaluated by carbon outcome (end-to-end) to ensure the best possible environmental impact.
- 5.85 The Mayor wants to develop a minimum greenhouse gas performance for technologies recovering energy from non-recyclable waste. All waste treatment technologies will need to meet this level, or demonstrate they can practically meet it in the future in order to gain Mayoral support. Work is underway with local authorities to agree a common tool for measuring and determining a minimum greenhouse gas performance for the treatment of non-recyclable waste. It is envisaged the minimum greenhouse gas performance will need to achieve at least a positive carbon outcome, whereby the direct emissions from the technology are offset by emissions savings from the generation of energy in the form of heat, electricity and transport fuel. This would, for example, tend to rule out new mass burn incineration facilities of mixed waste generating electricity only, but may allow combustion of biomass waste where both heat and power generated are used. This approach supports anaerobic digestion or gasification technologies able to achieve high efficiencies particularly when linked with gas engines and hydrogen fuel cells.
- Waste processing facilities, including materials recycling facilities and depots, inert waste recycling plants, composting facilities, waste treatment and energy recovery facilities, and reprocessing of recyclables, should be well designed. They need not be bad neighbours and could be a source of new products and new jobs. They should be developed and designed in consultation with local communities, taking account of health and safety within the facility, the site and adjoining neighbourhoods. Energy recovery should be carried out through advanced conversion techniques, ie gasification, pyrolysis or anaerobic digestion, or any combination of these. Developments for manufacturing related to recycled waste, deriving fuel from waste and recovering value from residual waste should be supported. Where movement of waste is required, priority should be given to facilities for movement by river or rail. Opportunities to provide combined heat and





power and combined cooling, heat and power should be taken wherever possible (see Policies 5.5, 5.6 and 5.8). Developments adjacent to waste management sites should be designed to minimise the potential for disturbance and conflicts of use.

5.87 Although no further landfill proposals in London are identified or anticipated in the Plan, if proposals do come forward for new or extended landfill capacity or for land-raising, boroughs should ensure that the resultant void-space has regard to the Mayor's Municipal Waste Strategy.

POLICY 5.18 CONSTRUCTION, EXCAVATION AND DEMOLITION WASTE

Planning decisions

- A New construction, excavation and demolition (CE&D) waste management facilities should be encouraged at existing waste sites, including safeguarded wharves, and supported by:
 - a using mineral extraction sites for CE&D recycling
 - b ensuring that major development sites are required to recycle CE&D waste on-site, wherever practicable, supported through planning conditions.
- B Waste should be removed from construction sites, and materials brought to the site, by water or rail transport wherever that is practicable.

LDF preparation

- C LDFs should require developers to produce site waste management plans to arrange for the efficient handling of CE&D waste and materials.
- 85.88 Re-use and recycling rates for construction, excavation and demolition (CE&D) waste in London are already high estimated at 82 per cent for 2008. Nevertheless, the Mayor believes that there is room for improvement. Policy 5.16 sets a target of 95 per cent for recycling/reuse of CE&D waste by 2020, and the Mayor supports more beneficial and higher order uses of this inert waste, for example, in conjunction with land reclamation or coastal defences. A combination of on-site mobile facilities on construction sites, effective use of existing waste processing sites and, where appropriate, safeguarded wharves, and the provision of recycling facilities at aggregate extraction sites, should be capable of meeting the anticipated future requirement within London to achieve a more beneficial reuse of this material.

POLICY 5.19 HAZARDOUS WASTE

Strategic

A The Mayor will prepare a Hazardous Waste Strategy for London and will work in partnership with the boroughs, the Environment Agency, industry and neighbouring authorities to identify the capacity gap for dealing with hazardous waste and to provide and maintain direction on the need for hazardous waste management capacity.

Planning Decisions

B Pending outcome of the work proposed in paragraph A of this policy, development proposals that would result in the loss of existing sites for the treatment and/or disposal of hazardous waste should not be permitted unless





compensatory site provision has been secured in accordance with Policy 5.17H.

LDF preparation

C LDFs should:

- a make provision for hazardous waste treatment plants to achieve, at regional level, the necessary waste management requirements
- b identify suitable sites for the storage, treatment and reprocessing of relevant or a range of hazardous waste streams
- c identify sites for the temporary storage, treatment and remediation of contaminated soils and demolition waste during major developments.
- 5.89 In 2007 around 300,000 tonnes of hazardous waste was produced in London 35 per cent from construction, excavation and demolition waste (containing asbestos and contaminated soil), 21 per cent from oil and oil/water mix waste, and 44 per cent as waste from chemical and other industrial processes. Changes to the definition of hazardous waste mean that the amount of such waste produced will grow in the short and medium term, and London will need more and better hazardous waste treatment facilities to cope with this. Without sustained action there remains the risk of a major shortfall in our capacity to treat and dispose of hazardous waste safely. This could lead to storage problems, illegal disposal (including fly tipping) and rising public concern about health and environmental impacts. There is therefore a need to continue to identify hazardous waste capacity for London. The main requirement is for sites for regional facilities to be identified. Boroughs will need to work together and with neighbouring authorities to consider the necessary regional/local facilities.





Appendix 7: Notes from Preliminary Workshop – 19th September 2014

Planning for waste management at new build flats Notes from the steering group workshop 19th September 2014

Attendees

Jamie Blake, London Borough of

Tower Hamlets & LEDNET

Susan May, Affinity Sutton Housing

association

James Keogh, Greater London

Authority

Jakob Rindegren, Environmental

Services Association

Richard Gregg, Plastic Ominum Urban

Systems Ltd

David Greenfield, SOENECS & BPP

Consulting

Duncan Baker Brown, SOENECS &

BPP Consulting

Beverley Simonson, LWARB

Kathy May, London Borough of Hammersmith & Fulham & Royal Borough of Kensington & Chelsea

Stuart Allen, Biffa

Andy Day, Croydon Council and

Association London Borough Planning

Officers

David Payne, SOENECS & BPP

Consulting

Rachel Espinosa SOENECS & BPP

Consulting

Apologies

Simon Keal, London Councils David Birkbeck, Design for Homes

Opening roundtable discussion - Challenges and Opportunities

Challenges	
Residents know the system	Lack of culture of recycling
Budget cuts to Local authorities	Managing food waste
Recycling targets for LA's	Transient population and education
Internal space within flats	Ease of use / simplicity of the recycling system
Access for local authorities	Costs of development, management and maintenance by developer/landlord/managing agent
Turnover of residents / communications	Standardised containment
Ventilation issues for some mechanical systems	Distance between home and collection point
External space for storage of bins	Distance between collection point and vehicle
Ownership of cleanliness within development	Timing of collection
Key Considerations	





Storage	-Consideration of internal/external areas and bins
	-Capacity
	–Accessibility/convenience
	-Separation of materials
	–Hygiene
	-Security
	–Amenity impacts
<u>Visual</u>	–Public Realm
<u>Nuisance</u>	-Noise
	-Odour
<u>Collection</u>	-Accessibility
	–Amenity impacts
	-Safety
On-site Management	All of the above

Opportunities	
Internal design for recycling	Making waste a fourth utility
Housing management	Underground containers
Package deals from developers	Vacuum systems
Standardisation of products (though	National marketing campaigns and strap
flexibility necessary in some areas)	lines similar to '5 a day' messaging
Improvement in Street scene cleanliness	External space utilised in most sustainable
	way for living
Future proofing of design would avoid	Peer pressure/cultural norm development
expenses changes in the future	
Food waste could collected separately and	Education in schools
managed on or off site	
Tri bins installed in all new kitchens could	All of the opportunities listed can also be
manage internal space well and encourage	listed as challenges
recycling	
Increased cleanliness	Reduced cost to council
Increased recycling	Green cities





- Need to consider alongside internal space standards
- Distance from bins to collection vehicles important
- Standardisation of products and services would help e.g. colour of bins, but flexibility still needed as may not be practical for some areas
- Consider what communal collection points practicable near flat (in block, on upper levels) or outside
- Turnover of tenure big issue in London eg 30% of children entering school system in Tower Hamlets don't leave system there difficult to influence and educate/change culture
- Need to minimise frontage required for waste storage this is leading to solutions
 where less space is provided and as a result the site managers have to foot the bill for
 more frequent collections. One building in Stratford, with 42 storeys of flats and hotel,
 zero car parking and a footprint about the size of a postage stamp, is potentially going
 to be providing so little space for bins that they will be paying for a daily (including
 Sunday) collection.
- Mayor's housing SPG being reviewed opportunity to influence
- All need to be addressed at design stage of development
- Future proofing design (buildings and service) is big issue
- Need to flag importance of early engagement and intervention at design stage
- Design needs to make segregation and movement to 'deposit' point easy for residents
 WRAP document motivates
- Need to 'channel' developers to make it happen
- Need a stronger lever / statute to force inclusion in development?
- Need to recognise transient population is difficult to communicate with and influence/educate
- Need to include food waste collections to get anywhere near 70% recycling rate (anticipated to be future requirement)
- A document that could allow planners to influence and if necessary turn down applications. The role of non-council planning authorities needs to be sorted out on this. The GLA seems more focused on waste infrastructure/allocation in this regard, but as has been shown with the LLDC and its predecessors, there are real problems with these outside organisations approving developments that have not provided a suitable waste management solution.
- Would be good to utilise the pre application process more
- Access is a key issue. Larger developments are increasingly being built with a limited amount of parking, weird road layouts, cycle facilities everywhere etc. In /addition to bin-pulling distances, reversing distances need to be kept in check. Designers also need to be aided through the Manual for Streets and modelling systems being updated with a wider range of refuse vehicle types so that swept-path tracking can be carried out effectively a lot of what Newham receives models a vehicle that is smaller than that used by many boroughs.





Detailed discussions and comments for the seven questions

Q1 What are the key operational factors that need to be identified when choosing a solution?

- Manufacturers (bins, systems) don't have scale (for investment)
- No-one has ownership of the problem residents, property agents, developers, local authority front end cost on developers, LA has no influence on planning and therefore future costs (could LA & property agents invest in development)
- All have different costs at different times with no coordination and fragmented budgets
- Need to understand the 'value chain' where costs and benefits (savings) may exist for different parties – public sector, housing management, developers
- Could be requiring developer to demonstrate how proposed waste system will work and deliver eg 80%/weight of segregated material – be clear what is required form developer in terms of outcome
- Vehicle movements
- Number of bins unrealistic to expect LA to empty a multitude of bins in one visit
- Drag distance of bins where can the vehicle realistically stop in relation to the bin store

Q2 Are there key determinants that may make solutions prohibitive?

- There is lack of clear policy at national (at least England) level Scotland has zero waste policy that may be driving progress
- PFI not helpful as contractors seek to reduce early costs and investment (eg in systems)
- Interested in parallels with and lessons from BREEAM how it originated (voluntary code) and ended up as policy tool (in planning policy) how did it originate, and what were the drivers how do replicate BREEAM get waste into the standard
- Need to future proof designs therefore think backwards from desired output/outcome (70% recycling rate) and what's needed to get there
- Segregated (clean) waste key to deliver benefits to waste contractor
- Need to recognise primacy of space in London underground systems may be particularly relevant. An issue in some areas because of existing underground infrastructure there are issues with servicing underground bins where space for parking, the highway, pedestrians etc. is also a factor. Proper space for these bins needs to be allocated, with consideration of the extra time spent emptying them compared to Eurobins.
- Ownership is key issue in flats due to lack of space, visibility (no peer pressure to do right thing). Consider provision of financial benefits back to residents via managing agents
- Planning and design needs to ensure facilities are easy to use and attractive
- Easier to introduce recycling culture to new build than existing flats
- Consider new models of management Local Authority leasing system (eg underground) from contractor over long term.
- Flytipping is a major issue in London, and the role that bins, bin stores etc. play in attracting it is poorly understood by architects. In Newham a lot of solutions are put forward that propose management intervention to bring bins to a presentation point as a means of overcoming space, access and proximity issues, but experience shows that this can lead to localised loss of environmental quality.





• Depends on the LA set up. E.g. you couldn't have certain underground systems if the authority doesn't have a hook lift. So the prohibitive determinant can be dependant on each LA

Q3 Are certain solutions more suitable at particular locations?

- New builds should have greatest opportunity
- 70% of new builds in Croydon are in town centre
- The outskirts have heritage, and transportation issues
- Some housing is built on 'windfall sites' which can be random
- In many cases retrofit of a high rise could be considered
- Tower blocks in CBD areas need to integrate with street scene and a shared collection method would be preferable
- All new builds should consider CHP, onsite food digestion, vacuum systems, solar and grey water recycling. This would mean only dry recyclables would need to be collected de-centralised energy (do they have to have this post 2016?)
- Alternative collections methods should be considered, e.g. material backhauling or the Amazon drones (we need to be future proofing)
- Where does smart cities come into this?
- Some sites are built on residential masterplans, how do we influence?
- Bulky waste needs to have storage facilities absolutely esp in social housing, Ideally there needs to be some consideration of how this links in to local third sector reuse capacity.
- There is a compromise between fully vacuumed and resident satisfaction and cost.
- Low rise blocks may be able to have the same collections at kerbside. This is something that should be considered at the design stage – liaise with the LA
- Vacuum seems more be suitable for larger estates but I may be wrong
- High rise chutes for waste only would inhibit recycling and should be banned! Needs to treat waste and recycling the same

Q4 What are the financial determinants?

- There is potentially £437billion of new build to be spent in London
- Bin stores take up space, if this space was released because of underground systems, the sale of additional properties would cover the capital costs. Underground systems generally require more space outside. A lot of new-builds are being squeezed right up to the 'red line' of their sites, which means there is often not a great deal of room outside the footprint of the building to fit in the underground units. They should not be put in on the public highway, you can't overhang them with upper floors, and as such the space benefits they potentially bring could be lost by having to reduce the footprint of the whole building to accommodate them outside.
- Pre application planning process can reduce costs and be used to influence designers
- The cost of putting certain systems in could be off putting to a developer.

Q5 Responses: What factors affect the preferences for different solutions?

- Existing infrastructure eg underground services preventing Envac being installed, There are also fleet issues, including ensuring LA's have the right vehicles to service the new build
- Dual system proximity to communal areas
- Turnover of residents





- Future-proofing systems
- Who will be occupying the buildings and what types of waste will they produce
- Disposal contracts / infrastructure already in place
- What businesses will be doing in the future
- Habits of residents in doing their recycling
- Management of blocks / caretakers' job specs
- URS additional cost for maintenance to be considered.
- Who has ownership of the infrastructure eg reference SUDS (sustainable urban drainage systems)
- Cost
- Future materials mix produced which could change eg waste types changed over the years
- The Waste Regulation 2011 and 12 and requirements for LA's to separate 4 materials
- Other waste / recycling services delivered to kerbside properties
- Aligning strategy with infrastructure
- Simplicity of the solution
- Minimise H&S issues: ventilation etc
- Communication should be national eg Recycle now, Keep Britain Tidy, learn from other national schemes
- Expectations of residents to spend time / effort to separate materials for recycling
- High-rise property design single aspect homes & ventilation issues / space restricts keeping waste in properties for very long
- Proximity to business units to reduce their use of bins for commercial waste
- Needs to be a robust flexible approach
- Resilience to flooding? We seem to be on a path towards the kind of weather than involves heavier, more intense downpours. Existing designs of underground bin system may have problems in these conditions, given the propensity for ponding, temporary flooding etc. in this country (and the investment needed in drainage to stop this would be immense). In Singapore they build up all entrances to underground chambers, stations etc. so that you go up a couple of steps before being able to go down, so that any such ponding caused by sudden downpours cannot get in.

Q6 Responses: Are you involved in any development that you feel was innovative in achieving high customer satisfaction and high recycling rates?

• Envac at Wembley with 44% recycling rate from flats – can they achieve 70%

Q7 Responses: Are existing building regulations/guidelines/planning policy sufficient for achieving high recycling rates in new high rise developments?

- No. The space internally is not there, plus it is not obligatory
- National space standards are being reviewed
- Code for sustainable homes is being incorporated into Building Regs
- Allocated capacity for waste & recycling per dwelling doesn't compare to kerbside containers space for both
- There is no requirement on building managers to do much. Even if the developers put in sufficient segregation within the flats and down in the bin stores, it's then left to the local authority to try to get the residents recycling despite the inherent difficulties.





High level points coming from 1-1 sessions

- Workshop very good, raised key issues
- Need to also focus on retrofit and existing flatted properties
- Lobby for national campaign on key issues (KBT e.g. rubbish dumping, waste min recycling etc)
- Transient populations, culture change, rewards
- Design of material processing for logistics (what is the space requirement?)
- Do need LA's need to touch the waste
- Circular economy
- Number of different solutions
- Existing systems plus's and minuses
- Limiting factors
- Matrix of resident economic, environmental and social
- Blue print possibly need more emphasis on options and development of an options matrix
- Concern about understanding future targets and therefore future proofing
- Need flexible solutions
- Food waste collections
- Adapt to changing environment
- Workshop difficulty in providing effective systems in flats best solution may look very different for housing
- Flush out waste on a daily basis
- No storage and no ventilation
- What can they can recycle easily?
 - o Easy: paper card, plastics and tins
 - o Medium: glass
 - o Hard: food
 - o Difficult: bulky, inc cardboard
 - o Looking at quick wins first, barriers of turnover and resident engagement
 - Cost of maintaining and managing systems (M&E)
- Huge question mark over M&E costs who would be responsible for management of M&E
- Problems are similar to CHP
- Problems are about operations
- Design of M&E schemes is dependent on designers, trades, users
- Developers will build to sell, not to occupy!

Diversity of approaches should mean that we have a unifying campaign nationally, bringing together houses and flats (give flat residents part of message)

Flexible solution to include wide range of existing vehicles (fleet)

Practically each household being given a roll of bags (with pockets) for different materials on a daily basis (perforated)

Big central developments

Number of new developments and type

Mid range development is key

High end incomes

Starting at both ends low and top





Appendix 8: Notes from Steering Group Meeting 1 – 23rd October 2014

Planning for waste management at new build flats Actions from the steering group workshop 23rd October 2014

Attendees

Beverley Simonson, LWARB

Susan May, Affinity Sutton Housing association

James Keogh, Greater London Authority

Environmental Jakob Rindegren, Services

Association

Richard Gregg, Plastic Ominum Urban Systems Simon Keal, London Councils

David Greenfield, SOENECS & BPP

Ian Blake, SOENECS & BPP

Jon Hastings LB of Newham Kathy May, LBHF & RBKC

David Birkbeck, Design for Homes Andy Day, Croydon Council and

ALBPO

Rachel Espinosa SOENECS & BPP

Apologies

Jamie Blake, Tower Hamlets & LEDNET

Stuart Allen, Biffa

Overview:

A presentation was made on the methodology and research undertaken to date. The presentation gave an overview of the outcome from the first workshop, a reiteration of the aim of the project, three UK case studies for how waste is managed in new builds, three international case studies of how vacuum systems are being incorporated into new "green city" developments, a review of planning policies and SPD's. Throughout the presentation, there was active questioning and debate. BPP SOENECS concluded with a next steps proposal that was fine tuned by the steering group. It was agreed that the following outcomes would be delivered:

- A project report a summary of the methodology, research and analysis undertaken with conclusions including case studies
- A Planning guide a template policy that can be used by planners for insertion into local plans and explain some of the good practice solutions
- A developer's guide split into three sections:
 - the process and timescales for considering waste and recycling in new builds
 - a waste strategy options appraisal template for developers to demonstrate consideration of different waste and recycling management options
 - A waste strategy template that will be submitted to planners as part of the design and access statement

Timescales

The developers and planning guides will be drafted for presentation to the ALBPO meeting on 7th November (a draft will be sent to Beverley and Jamie for consideration on 4th November). The final project report and developer and planning guides, following user testing, will be finalised for circulation w/c 24th November with a final steering group being held w/c 1st Dec to present the final output to the steering group and develop a plan for communications.





Appendix 9: Notes from Association of London Borough Planning Officers (ALBPO) Meeting – 7th November 2014

This meeting formed a regular series of ALBPO meetings which take place to share experience, best practice and receive updates on various matters relevant to planning in London. It was attended by around 30 planning officers representing borough planning authorities from across London. It should be noted that there are two ALBPO groupings, one that focuses on development management and the other on policy – this meeting was of the development management group.

Beverley Simonson (LWARB) and Ian Blake (BPP Consulting) were given around 30 minutes to explain the Waste in Flatted Properties Project. This included setting out the associated issues, the objectives of the project, progress so far and next steps. Following the presentation there was a short opportunity for questions and comments. Key observations from the meeting were as follows:

- From a show of hands it appears that the majority of boroughs in attendance do communicate with their waste teams when processing relevant applications. However there are some that appear not to. One attendee mentioned that they struggled to get any response from their waste team.
- One borough (Westminster) has a post within the planning section dedicated to considering how development proposals take the management of waste into account.
- One authority mentioned that they have a clear process in place that ensures that their waste team is consulted over relevant proposals. Another (City of London) mentioned that all relevant proposals were sent to their waste manager for comments.
- A representative from Newham echoed comments made by Jon Hastings at previous steering group meetings concerning the following:
 - o Resistance from Thames Water to the use of sink macerators for food waste
 - Use of Section 106 contributions in the procurement of waste collection vehicles
- The fact that some developers intend to use a private waste collection service was discussed. This may mean that developers do not consider that it is necessary to pay attention to the waste collection authority. However it was noted that such private arrangements may only last a few years after which collection defaults to the borough, and so, on this basis, developers should have to consider waste collection authority requirements.
- Comments were made about commercial waste being more of a problem and while it
 was clarified that this project does deal with such waste it was also noted that many
 housing proposals form part of a mixed-use developments which include the
 production of commercial waste.
- Other comments were made about the unsuitability of older existing development (especially where listed) to the retrofitting of features intended to assist with waste management. Again the scope of the project was clarified (i.e. related to new build).
- There was a brief discussion about chute systems and their suitability general sense was that caused problems.
- It was felt that any move towards the standardization of approaches to waste collection by borough waste collection authorities would be beneficial.





• The suggestion that there would be a dissemination 'workshop' for planning and waste teams in the new year seemed to be well received.





London Waste and Recycling Board (LWARB)





www.lwarb.gov.uk