

**United Kingdom Holocaust Memorial
and Learning Centre**

Waste Management Strategy
December 2018

The Secretary of State for Housing Communities and Local Government



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1. INTRODUCTION

1.1. BACKGROUND

- 1.1.1. WSP have been appointed by the Ministry for Housing, Communities and Local Government (MHCLG) to provide a Waste Management Strategy for the UK Holocaust Memorial and Learning Centre (UKHMLC).
- 1.1.2. This Waste Management Strategy considers the potential impacts that may arise from waste generated during the construction and operational phases, with the overall aim of developing a strategy for legislative compliance and good practice in the separation, storage and collection of waste arisings.

1.2. PROPOSED DEVELOPMENT

- 1.2.1. The United Kingdom Holocaust Memorial Foundation launched an international design competition in September 2016 for the UKHMLC. The winning architects designed a structure to be located at the southern end of Victoria Tower Gardens, with the aim to honour the victims and survivors of Nazi persecution and to educate future generations about the dangers of prejudice.
- 1.2.2. The UKHMLC comprises the following elements:
 - A memorial (D1 land use);
 - An adjacent learning centre (D1 land use); and
 - A small refreshment kiosk (A1 land use).

1.3. SITE DESCRIPTION

- 1.3.1. The Memorial is proposed to be located within Victoria Tower Gardens, a Grade II* listed public park which is bounded by Millbank to the west, the River Thames to the east, the Palace of Westminster to the north and Lambeth Bridge to the south.
- 1.3.2. The site is located within the administrative boundary of Westminster City Council (WCC).

1.4. REPORT STRUCTURE

- 1.4.1. This report is set out in the following format:
 - **Section 1: Introduction**
 - **Section 2: Waste Legislation, Policy and Guidance** - details of the national legislation and local waste policy that have relevance to the Proposed Development.
 - **Section 3: Management of Operational Waste** - provides an estimate of waste arisings and outlines the plan which would be adopted to manage waste once operational.
 - **Appendix A: National and Local Waste Policy & Guidance**

2. WASTE LEGISLATION, POLICY AND GUIDANCE

2.1. INTRODUCTION

- 2.1.1. The development and implementation of European Union (EU) waste policy and legislation is delivered by EU Directives, such as the Landfill Directive, Waste Electrical and Electronic Equipment Directive etc. Member States must implement the policy drivers and requirements of these Directives through national legislation.
- 2.1.2. The revised Waste Framework Directive (rWFD) is a unique EU Directive because it clarifies the definition of 'waste' and of other concepts such as 'recycling' and 'recovery'. It implements a revised Waste Hierarchy, expands the 'polluter pays' principle by emphasising producer responsibility and applies more stringent waste reduction and management targets for Member States. It also requires Member States to take measures to promote high quality recycling and to set up separate collections of paper, plastic, metal and glass.
- 2.1.3. The government has decided that at the point at which the UK is expected to leave the EU (March 2019), all EU legislation which has not already been transposed into UK law will be transferred to UK statute. From then on, all EU environmental legislation will remain in force as part of UK law and can be repealed or amended at the will of Parliament or the devolved parliaments / assembly.
- 2.1.4. This section contains details of the national legislation that is relevant to the Proposed Development, much of which is influenced by the rWFD. National and local waste policy and guidance reviewed during the preparation of this Waste Management Strategy are listed below.

2.2. NATIONAL LEGISLATION

- 2.2.1. A list of relevant items of national waste legislation is outlined below in reverse chronological order:
- **Waste Management, The Duty of Care Code of Practice (2016 update)** - This code of practice replaces the 1996 Code and is pursuant to Section 34(9) of the Environmental Protection Act 1990. It sets out practical guidance on how to meet waste duty of care requirements and is admissible as evidence in legal proceedings i.e. its rules will be taken into account where relevant in any case based on breach of the duty of care.
 - **The Waste (England and Wales) Regulations 2011 (as amended)** - From 1 January 2015, waste collection authorities must collect waste paper, metal, plastic and glass separately. It also imposes a duty on waste collection authorities, from that date, when making arrangements for the collection of such waste, to ensure that those arrangements are by way of separate collection.
 - **Environmental Protection Act 1990 - Part II** of the act was originally implemented by the Duty of Care Regulations 1991. The Duty of Care is a legal requirement for those dealing with certain kinds of waste to take all reasonable steps to keep it safe and is set out in Section 34 of the Act. The Waste (England and Wales) Regulations 2011 repealed the Environmental Protection (Duty of Care) Regulations 1991 and apply the Duty of Care requirements brought in by the Environmental Protection Act 1990.

2.3. NATIONAL AND LOCAL WASTE POLICY

- 2.3.1. The relevant national and local waste policy that was reviewed during the preparation of this Waste Management Strategy is outlined below and further detail provided in **Appendix A**:
- MHCLG, *National Planning Policy Framework* (2018);
 - MHCLG, *National Planning Policy for Waste* (2014);
 - Department for Environment, Food and Rural Affairs (Defra), *Waste Management Plan for England* (2013);
 - Greater London Authority (GLA), *Making Business Sense of Waste: The Mayor's Business Waste Strategy for London* (2011);

- GLA, *The London Plan: The Spatial Development Strategy for London Consolidated with Alterations since 2011* (2016);
- GLA, *Draft New London Plan Showing Minor Suggested Changes* (2018);
- Westminster City Council (WCC), *Municipal Waste Management Strategy 2016-2031* (2014);
- WCC, *Westminster's City Plan* (2016); and
- WCC, *Waste and Recycling Storage Requirements (Development Division 2017-2018)*.

3. MANAGEMENT OF OPERATIONAL WASTE

3.1. INTRODUCTION

3.1.1. This section outlines the strategy which will be adopted to manage the operational waste arisings from the Proposed Development once operational.

3.2. GENERATION OF WASTE

3.2.1. WCC do not have a waste metric for museums / learning centres in their waste storage guidance, therefore it was proposed that the following metric from British Standard *BS5906:2005 Waste management in buildings – Code of practice* was used for the Proposed Development:

- 5 litres per 1sqm for ‘Leisure centres’.

3.2.2. The waste officer from WCC (Saeed Oluwadipe) confirmed to WSP via email on 6 February 2018 that this British Standard metric would be acceptable for a land use class not mentioned in the WCC guidance.

3.2.3. It is anticipated that the Proposed Development would be a comparatively low waste-generating building, with the main waste sources limited to the café and retail space, WCs and office areas. The land uses for each floor and indication as to whether they would be waste-generating areas or not have been summarised in **Table 3.1**.

Table 3.1: Establishment of waste-generating areas

Level	Use	Sqm	Waste generating?
Ground Floor	Service Lift	24	-
	Exit Stair	23	-
	Loading Bay / Goods Entrance	27	-
	Security	65	65
	Entrance Pavilion	25	-
	Toilet	3	3
	Sub-total		167
B2 Mezzanine	BOH Circulation	43	-
	Cafe and Retail	84	84
	Exit Stair	23	-
	Learning Centre	85	85
	Learning Centre Lobby	154	-
	Lift Lobby	11	-
	Loading Bay / Goods Entrance	24	-
	Plant	22	-

	Storage	14	-
	Toilet Lobby	3	-
	Toilets	31	31
	Sub-total	494	200
B3 Basement	Bin Store	7	-
	BOH Circulation	88	-
	CCTV	10	10
	Changing Room	14	14
	Cloakroom	19	-
	Cloakroom Lobby	8	-
	Exit Stair	34	-
	Info Desk	6	6
	Kitchen	18	18
	Learning Centre	1,172	1,172
	Learning Centre Lobby	130	-
	Lift	11	-
	Lift Lobby	11	-
	Loading Bay / Goods Entrance	24	-
	Lockers	6	-
	Memorial Lift	6	-
	Office	87	87
	Plant	344	-
	Service Lift	24	-
	Storage	49	-
	Storage Room	27	-
	Threshold	356	-
	Toilets	51	51
	Toilets Lobby	3	-
	Sub-total	2,505	1,358

	Total	3,166	1,626
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3.2.4. Of the total floor area (3,394 sqm), it is estimated that 1,626 sqm would be waste-generating.

3.2.5. This floor area was then used to estimate weekly waste generation, as summarised in **Table 3.2**.

Table 3.2: Estimated weekly waste generation

Floor Level	Total waste generating area (sqm)	Weekly waste metric	Waste generation (litres)
Ground	68	5 litres per 1sqm	340
Basement 2	200		1,000
Basement 3	1,358		6,790
Total	1,626	-	8,130

3.2.6. It is estimated that the waste-generating areas of the Proposed Development could generate 8,130 litres per week. Waste would be collected more frequently than once per week by a private contractor, therefore, the waste storage area has been designed for a lower storage capacity. The storage arrangements are described further in the following sections.

3.3. STORAGE OF WASTE

Internal Storage

3.3.1. Once the Proposed Development is operational, the day-to-day management of waste will be the responsibility of a Facilities Management (FM) team. Refuse and recycling would be collected from the various uses on a daily basis and stored in separate wheeled bins in stores on each floor. **Figures 3.1, 3.2 and 3.3** shows the location of the internal bin stores on each floor.

Figure 3.1: Bin store location - basement

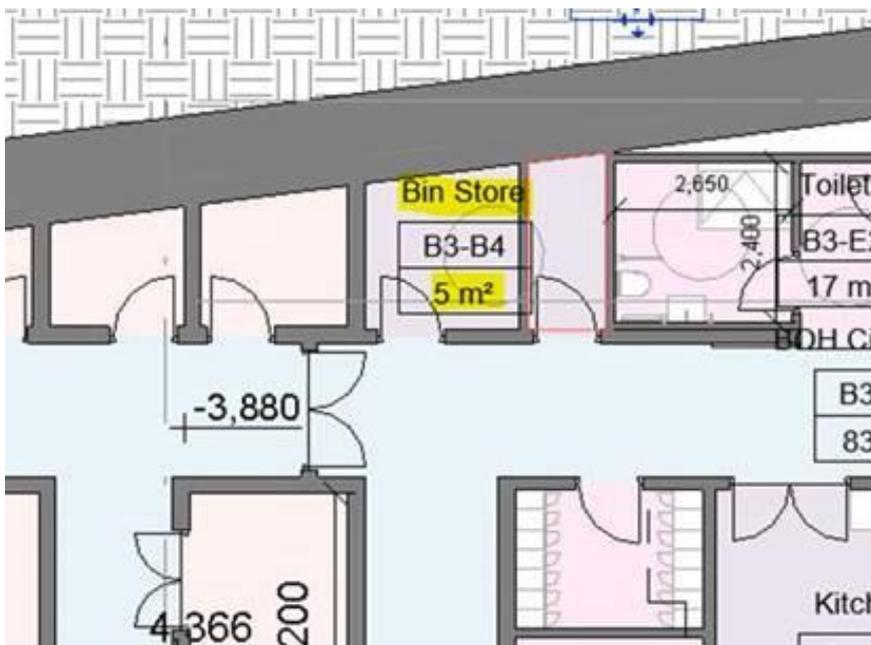


Figure 3.2: Bin store location - mezzanine

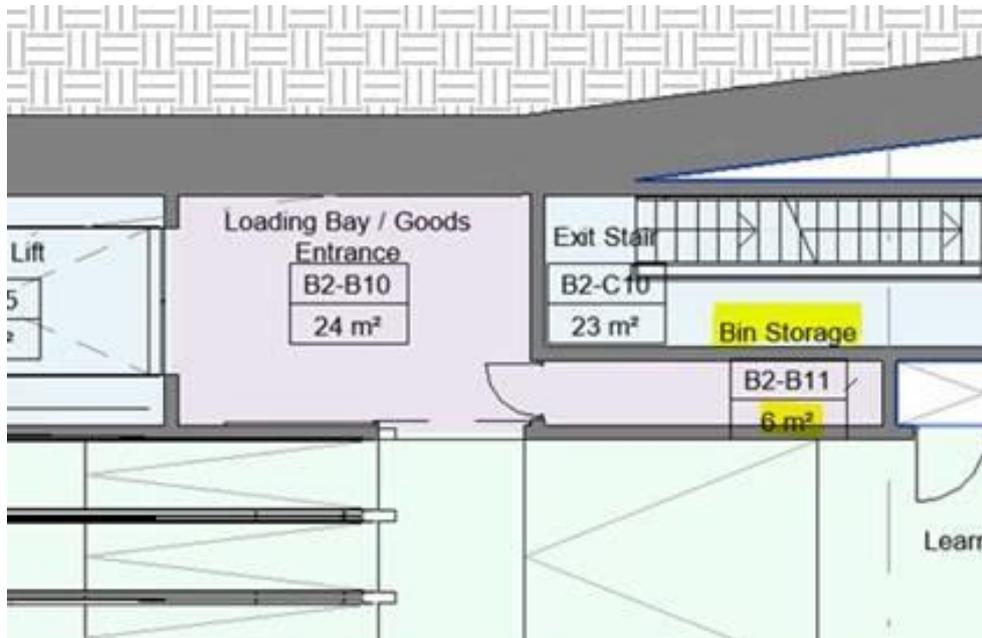
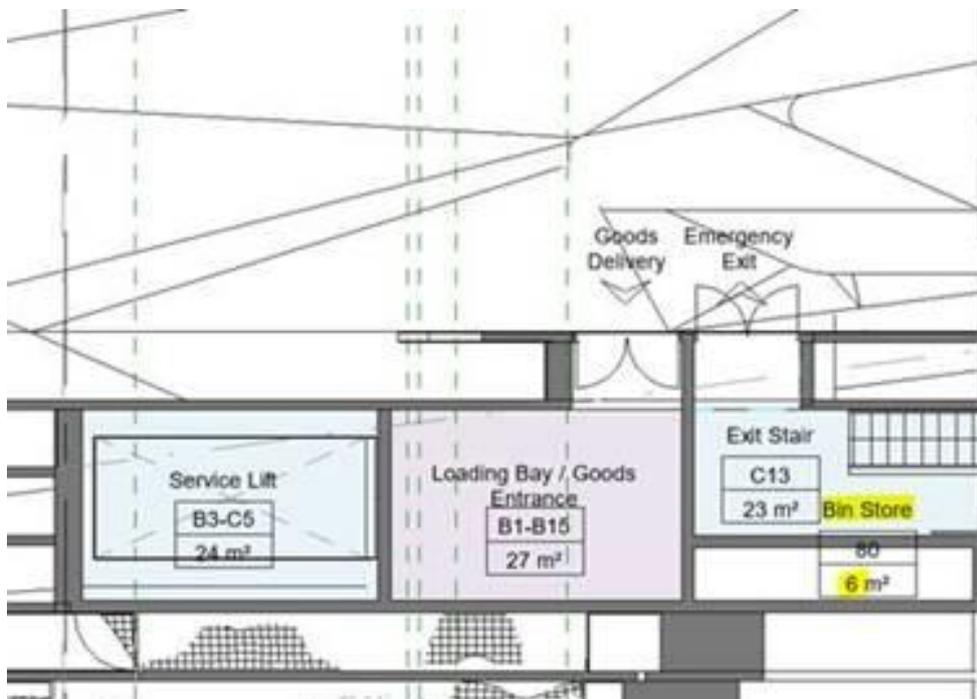


Figure 3.3: Bin store location – ground floor

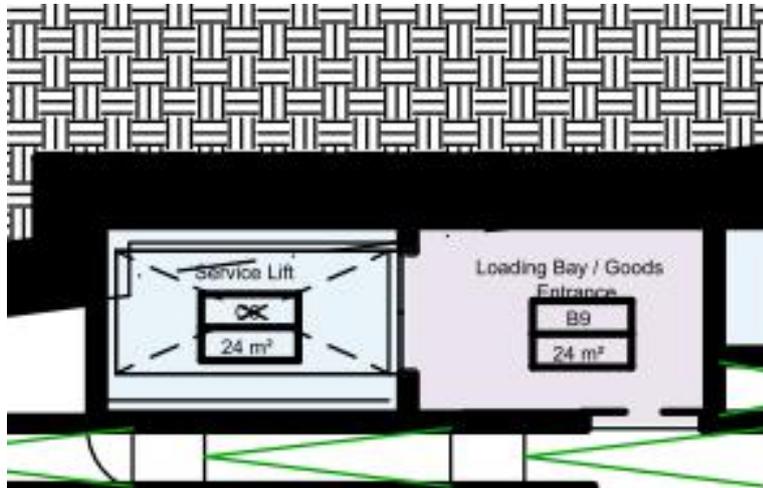


Source: Adjaye Associates, Basement Plans

External Storage

- 3.3.2. Prior to collection, the FM team would transport the bins from the internal store to the service lift and temporarily store the bins in the loading bay area. The location of the loading bay is shown in **Figures 3.4**.

Figure 3.4: Location of the loading bay



Source: Adjaye Associates, Basement 2 + Basement 3 Plans, Drawing No.: NHM-AA-XX-B1-DR-A-11910, Rev.: P0.1

3.4. COLLECTION OF WASTE

- 3.4.1. The proposed servicing strategy seeks to reduce the need for on-street servicing whilst also recognising the security requirements commensurate with a development of this nature and location. Any vehicle entering the Site increases the security risk as well as potential conflict between pedestrians on Millbank and vehicles crossing the footway.
- 3.4.2. WCC's preference is for off-street servicing, and the proposals include a servicing bay within the Memorial boundary. This would be accessed through gate 3.
- 3.4.3. Vehicular access to the site will be controlled by a form of bollard, protecting not just the site itself but also the footways either side (i.e. to prevent a vehicle from using the crossover to enter the protected footway).
- 3.4.4. Due to the trolleying distance requirements, waste will be collected by a private contractor(s). Refuse and recycling from the individual uses (exhibition space, café etc.) will be kept in a bin store located alongside the servicing bay.
- 3.4.5. Refuse Collection Vehicles (RCVs) will enter and exit the site in forward gear. Collection is anticipated to take place between 19:00-20:00, outside the opening hours of the Gardens and Memorial.
- 3.4.6. Tracking has been undertaken for a 7.9m RCV as waste would be collected by private contractors and vehicles of this length are standard for operations of this nature.
- 3.4.7. The tracking of RCVs entering and exiting the Proposed Development have been provided in **Figures 3.5** and **3.6**.

Figure 3.5: RCV entering

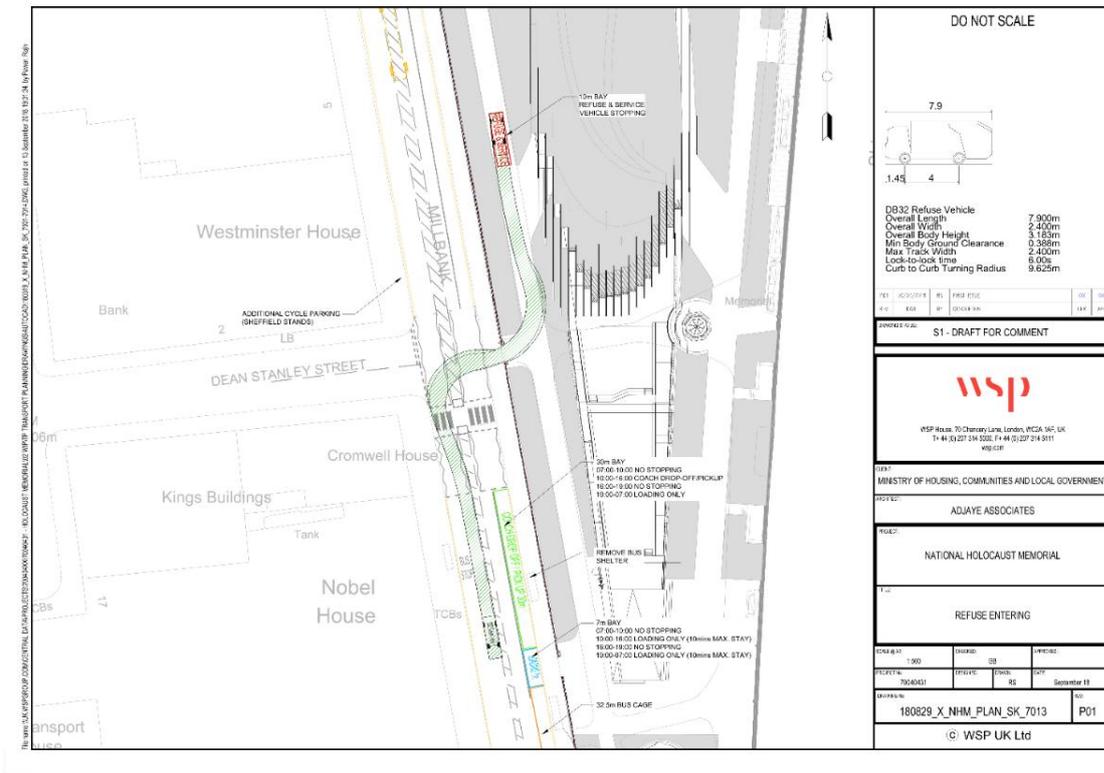
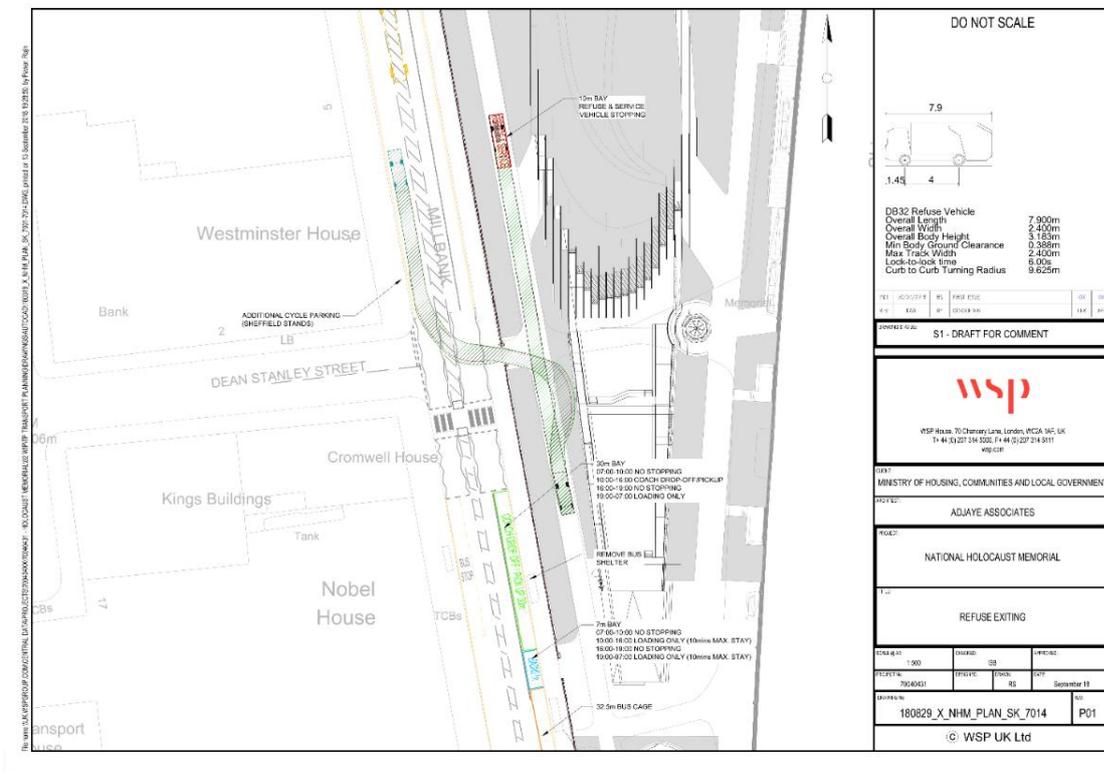


Figure 3.6: RCV exiting



APPENDIX A: NATIONAL AND LOCAL WASTE POLICY & GUIDANCE

National Waste Policy

National Planning Policy Framework (2018)¹

The revised National Planning Policy Framework incorporates policy proposals previously consulted on in the Housing White Paper and the Planning for the right homes in the right places consultation. Budget 2017 included additional proposals to change planning policy and legislation to bring forward more land in the right places. It does not include anything of relevance to waste management that would be applicable to the Proposed Development.

National Planning Policy for Waste (2014)²

The National Planning Policy for Waste replaces 'Planning Policy Statement 10: Planning for Sustainable Waste Management' (PPS 10) and is to be considered alongside other national planning policy for England - such as in the NPPF and the Waste Management Plan for England. As its primary focus is on planning for waste management facilities, it is not considered relevant to the Proposed Development.

Waste Management Plan for England (2013)³

The Waste Management Plan for England, published in December 2013, provides an analysis of the current waste management situation in England and fulfils the mandatory requirements of Article 28 of the revised Waste Framework Directive (WFD). The WFD required that Member States ensure that their competent authorities, in this instance Defra, establish one or more waste management plans covering all of their territory.

The Plan does not introduce new policies or change the landscape of how waste is managed in England. Its core aim is to bring current waste management policies under the umbrella of one national plan. It supersedes the previous waste management plan, the Waste Strategy for England 2007.

The mandatory requirements of Article 28 of the revised WFD specify that waste management plans must contain the following information:

- *'An analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken to improve environmentally sound preparing for reuse, recycling,*

¹ Ministry for Housing, Communities and Local Government (MHCLG) (2018) *National Planning Policy Framework*
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685289/Draft_revised_National_Planning_Policy_Framework.pdf

² MHCLG (2014) *National Planning Policy for Waste*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

³ Department for Environment, Food and Rural Affairs (Defra) (2013) *Waste Management Plan for England*
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/265810/pb14100-waste-management-plan-20131213.pdf

recovery and disposal of waste and an evaluation of how the plan will support the implementation of the objectives and provisions of the revised WFD.

- *The type, quantity and source of waste generated within the territory, the waste likely to be shipped from or to the national territory, and an evaluation of the development of waste streams in the future;*
- *Existing waste collection schemes and major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste or waste streams addressed by specific Community legislation;*
- *An assessment of the need for new collection schemes, the closure of existing waste installations, additional waste installation infrastructure in accordance with Article 16 (on the proximity principle), and, if necessary, the investments related thereto;*
- *Sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary; and*
- *General waste management policies, including planned waste management technologies and methods, or policies for waste posing specific management problems.*

In addition, Schedule 1 to the Waste (England and Wales) Regulations 2011 sets out other obligations for the Plan which have been transposed from the revised WFD. These other obligations include:

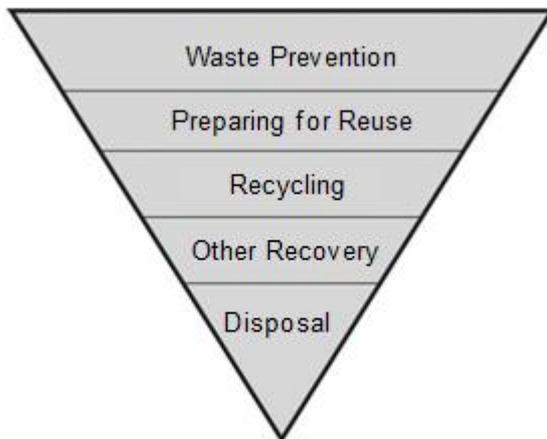
- *In pursuance of the objectives and measures in Directive 94/62/EC (on packaging and packaging waste), a chapter on the management of packaging and packaging waste, including measures taken pursuant to Articles 4 and 5 of that Directive.*
- *Measures to promote high quality recycling including the setting up of separate collections of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors.*
- *As appropriate, measures to encourage the separate collection of bio-waste with a view to the composting and digestion of bio-waste.*
- *As appropriate, measures to be taken to promote the reuse of products and preparing for reuse activities, in particular -*
 - (a) measures to encourage the establishment and support of reuse and repair networks;*
 - (b) the use of economic instruments;*
 - (c) the use of procurement criteria; and*
 - (d) the setting of quantitative objectives.*
- *Measures to be taken to ensure that by 2020*
 - (a) at least 50% by weight of waste from households is prepared for reuse or recycled.*
 - (b) at least 70% by weight of construction and demolition waste⁷ is subjected to material recovery.'*

Waste Hierarchy

The Waste Hierarchy requires avoidance of waste in the first instance followed by reducing the volume that requires disposal after it has been generated.

It gives an order of preference for waste management options to minimise the volume for disposal, as shown in **Figure A1.1**.

Figure A1.1: The Waste Hierarchy



Source: Waste Framework Directive

The main principles of the Waste Hierarchy are:

- Waste should be prevented or reduced at source as far as possible;
- Where waste cannot be prevented, waste materials or products should be reused directly or refurbished and then reused;
- Waste materials should be recycled or reprocessed into a form that allows them to be reclaimed as a secondary raw material;
- Where useful secondary materials cannot be reclaimed, the energy content of the waste should be recovered and used as a substitute for non-renewable energy resources; and
- Only if waste cannot be prevented, reclaimed or recovered, should it be disposed of into the environment and this should only be undertaken in a controlled manner.

The Waste Hierarchy has been implemented *in England and Wales by the Waste (England and Wales) Regulations 2011*. These regulations require that an establishment or undertaking that imports, produces, collects, transports, recovers or disposes of waste must take reasonable steps to apply the Waste Hierarchy when waste is transferred or disposed of.

London and Local Waste Policy

The Mayor's vision for London's waste (2010)⁴

In 2010, the Mayor unveiled London's first dedicated draft document aimed at tackling the 16 million tonnes of waste from sources such as the commercial & industrial (C&I) and construction, excavation & demolition (CE&D) sectors.

⁴ Greater London Authority (GLA) (2010) *The Mayor's vision for London's waste*

<http://legacy.london.gov.uk/mayor/environment/waste/docs/vision-jan2010.pdf>

The strategy, which is non-statutory, particularly focuses on waste reduction and highlights the economic benefits of businesses improving their waste management practices.

When the document was published, London recycled 57% of its waste; the Mayor specified a target of 80% of all London's waste to be recycled or composted by 2031.

Making Business Sense of Waste: The Mayor's Business Waste Strategy for London (2011)⁵

Making Business Sense of Waste is the first Mayoral strategy for London's business waste. It sets out initiatives to help all kinds of London's businesses, from shops, restaurants, office buildings, manufacturers to construction companies to save money and reduce harm to the environment through better waste management.

The London Plan: The Spatial Development Strategy for London Consolidated with Alterations since 2011⁶

The London Plan is the overall strategic plan for London; it sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

The waste management policies of relevance to the Proposed Development are as follows:

'Policy 5.3 Sustainable Design and Construction

Planning decisions

Major development proposals should meet the minimum standards outlined in the Mayor's supplementary planning guidance and this should be clearly demonstrated within a design and access statement. The standards include measures to achieve other policies in this Plan and the following sustainable design principles:

...

e minimising the generation of waste and maximising reuse or recycling.'

'Policy 5.16 Waste Net 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 2026

b create positive environmental and economic impacts from waste processing

c work towards zero biodegradable or recyclable waste to landfill by 2026.

⁵ GLA (2011) *Making Business Sense of Waste: The Mayor's Business Waste Strategy for London*

<https://www.london.gov.uk/WHAT-WE-DO/environment/environment-publications/mayors-business-waste-management-strategy>

⁶ GLA (2016) *The London Plan: The Spatial Development Strategy for London Consolidated with Alterations since 2011*

https://www.london.gov.uk/sites/default/files/the_london_plan_2016_jan_2017_fix.pdf

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 local authority collected waste (LACW) of 50% by 2020 and aspiring to achieve 60% by 2031

d exceeding recycling/composting levels in commercial and industrial waste of 70% by 2020

e exceeding recycling and reuse levels in construction, excavation and demolition (CE&D) waste of 95% 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 coordinate strategic waste management across the greater south east of England.'

Draft New London Plan Showing Minor Suggested Changes (2018)⁷

The London Plan is the overall strategic plan for London, it sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

The strategy includes the following waste management policy that has influenced the development of more specific business waste guidance:

'Policy D1 London's form and characteristics

3.1.8 Shared and easily accessible storage space supporting separate collection of dry recyclables, food waste and other waste should be considered in the early design stages to help improve recycling rates, reduce smell, odour and vehicle movements, and improve street scene and community safety.'

'Policy SI7 Reducing waste and supporting the circular economy

Waste reduction, increases in material reuse and recycling, and reductions in waste going for disposal will be achieved by the Mayor, waste planning authorities and industry working in collaboration to:

5) design developments with adequate and easily accessible storage space that supports the separate collection of dry recyclables (at least card, paper, mixed plastics, metals, glass) and food.'

Westminster's City Plan (2016)⁸

Westminster's Local Development Framework is a 'portfolio' of documents which together provide a comprehensive local policy framework for the city. The main document is the local plan, Westminster's City

⁷ GLA (2018) *Draft New London Plan Showing Minor Suggested Changes*

https://www.london.gov.uk/sites/default/files/draft_london_plan_-_showing_minor_suggested_changes_july_2018.pdf

⁸ WCC (2016) *Westminster's City Plan*

<https://www.westminster.gov.uk/westminsters-city-plan-strategic-policies>

Plan. This will include both strategic and more detailed policies to manage the city and deliver Westminster's future sustainable development.

The following policy extract is considered to be of relevance to the management of waste at the Proposed Development:

'Policy S44 Sustainable Waste Management

The council will require the minimisation of waste, the increase in the re-use, recycling and composting of waste, and the reduction in the amount of waste disposed at landfill in order to contribute towards the waste reduction targets set out in the London Plan.

In order to ensure sufficient opportunities for the provision of waste management facilities in appropriate locations, in accordance with the London Plan waste apportionment, the council will;

- *Protect existing waste and recycling management sites, protect any new street cleansing depots, micro-recycling centres and in-vessel composters which are secured during the lifetime of the plan, and require the equivalent or increased capacity as part of any development that would result in the loss of any or all of a designated waste site.*
- *Require major new development to provide on-site recycling and composting waste management facilities, except where the council considers that it is inappropriate or unfeasible to do so. In such cases, new facilities will be provided off-site and may include shared provision with another development or an existing waste facility in the vicinity that has capacity, except where the council considers that it is inappropriate or unfeasible to do so. Where it is not possible to provide either on-site, off-site or shared waste facilities, a payment in lieu will be required to a Waste Management Fund to allow the council to provide suitable facilities in the vicinity.*
- *Identify potential new locations suitable for waste management facilities during the lifetime of Westminster's City Plan using the following criteria:*
 - *Proximity to source of the waste;*
 - *The nature and scale of the facility;*
 - *Any potential impact on the surrounding area including noise, emissions, odour and visual impact;*
 - *The full transport impact of all collection, transfer and disposal movements, including maximising opportunities for transport by rail or water; and*
 - *The need to use sites that are currently in industrial use or are existing waste management sites.*
- *Secure any new waste sites identified during the lifetime of the plan, other than street cleansing depots, micro-recycling centres and in-vessel composters, within a Waste Development Plan Document.*
- *Work in partnership with the objective of securing joint working arrangements with other London Boroughs in order to pool waste apportionment, and set out these arrangements within a Waste Development Plan Document.'*

WCC, Waste and Recycling Storage Requirements (Development Division 2017-2018)⁹

⁹ WCC (2017) *Waste and Recycling Storage Requirements (Development Division 2017-2018)*
http://transact.westminster.gov.uk/docstores/publications_store/planning/Waste_Storage_Requirements.pdf



WCC's Guidance Waste & Recycling Storage Requirements provides detail on the required storage facilities for waste and recycling from the Proposed Development and has been referred to in the development of this waste strategy.

The Guidance states:

'When a new development, extension or change of use is submitted for approval the scheme will be assessed to ensure that adequate storage facilities are provided for waste and recyclable material. This requirement should therefore be considered at the earliest stages of the design process and details included on drawings submitted to the Council when applying for planning permission.'



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