East London Joint Waste Plan

Waste Management Topic Paper

Report: Consultation Draft

Version: 2.0

Date: July 2024

Barking & Dagenham

Havering LONDON BOROUGH

Newham London

London Borough of Redbridge

BPP Consulting Document Control

Project: East London Joint Waste Plan

Report: Waste Management Topic Paper

Version Description: Consultation Draft

Version No: 2.0

Date: 25.07.24

Version No.	Version Description	Author	Date	Reviewed	Date
1.0	Draft for client review	Alan Potter (Partner)	03.07.24	Ian Blake (Partner)	05.07.24
2.0	Consultation Draft	Alan Potter (Partner)	25.07.24	Alan Potter (Partner)	25.07.24

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Abbreviations and Glossary

Abbreviations

CHP	Combined Heat and Power
DEFRA	Department for Food & Rural Affairs
EA	Environment Agency
EfW	Energy from Waste
ELWA	East London Waste Authority
EWC	European Waste Catalogue
HIC	Household, Industrial, and Commercial Waste
HWRC	Household Waste Recycling Centres
LACW	Local Authority Collected Waste
LCA	Lifecycle assessment
LLW	Low Level Radioactive Waste
LP	London Plan
LPA	Local Planning Authority
MBT	Mechanical Biological Treatment
MSW	Municipal Solid Waste
NPPF	National Planning Policy Framework last updated on 19 December 2023
NPPW	National Planning Policy for Waste last updated on 16 October 2014
PPG	Planning Practice Guidance
RWS	Resources & Waste Strategy (2018)
WDI	Waste Data Interrogator
WDF	Waste Data Flow

Glossary

Apportionments	Tonnages of HIC waste allocated to each Borough for management provision through the London Plan.
Anaerobic Digestion	A process to manage organic matter including green waste and food waste broken down by bacteria in the absence of air, producing a gas (biogas) and nutrient rich solid or liquid (digestate). The biogas can be used to generate energy either in a furnace, gas engine, turbine or to power vehicles, and digestate can be applied to land as a fertiliser.
Asset Management Plans	Plans produced by water companies setting out business plan for next five-year period. These are submitted to Ofwat for scrutiny prior to adoption.
Biogenic	Material within the waste stream that has been generated by the bio-cycle and was growing in the last hundred or so years. Examples include food, paper, garden waste, wood/timber.
Circular Economy	The circular economy means decoupling economic activity from the consumption of resources. It is based on three principles: Design out waste and pollution; keep products and materials in use; regenerate natural systems.
Combined Heat and Power (CHP)	The harnessing of both electricity and heat from power generating plants in this case incinerators burning waste.
Commercial Waste	Waste from factories or premises used for the purpose of trade or business, sport, recreation or entertainment.
Composting	A process in which biodegradable waste (such as green waste and kitchen waste) is broken down in aerobic conditions by naturally occurring micro-organisms to produce a material suitable for use as a soil improver.
Department for Food & Rural Affairs	The UK Government department responsible for developing national waste management policy.
Deposit Return Schemes	Scheme to incentivise return of single-use drinks containers for recycling.
East London Waste Authority	The statutory Waste Disposal Authority (WDA), responsible for the disposal of LACW collected by or on behalf of the London Boroughs of Barking & Dagenham, Havering, Newham and Redbridge.
Energy from Waste	The conversion of the calorific value of waste into energy, normally heat or electricity through applying thermal treatment of some sort. May also include the production of gas that can be used to generate energy.
Environment Agency	The body responsible for the regulation of waste management activities through issuing permits to control activities that handle or produce waste. It also provides up-to-date information on waste management matters and deals with other matters such as water issues including flood protection.
Environmental Permits	A regulatory document that sets out legally enforceable parameters within which regulated waste management facilities must operate, issued by the Environment Agency.
Extended Producer Responsibility	Scheme to introduce payments for managing household packaging waste and packaging.
European Waste Catalogue	Comprehensive listing of wastes, divided into 20 chapters, most of which relate to the type of industry that produced the waste, although some are based on materials and processes. Each waste type is assigned a unique six-digit code. The EWC is transposed into UK law through The List of Wastes (LOW) Regulations.
Foul sewer	A system of underground pipework maintained by the local statutory sewerage undertaker that carries used and dirty water to a wastewater treatment plant for cleansing.

Gasification	A thermal process that converts carbonaceous materials into gases, such as syngas, that may be used for energy production or chemical synthesis.
Household, Waste	Waste from households collected through kerbside rounds, bulky items collected from households and waste delivered by householders to household waste recycling centres and "bring recycling sites". along with waste from street sweepings, and public litter bins.
Household Waste Recycling Centres	A waste management facility provided by ELWA, where members of the public living in East London may take their household waste for management.
Inert waste	Waste which is neither chemically nor biologically reactive and will not decompose or will only do so very slowly. Examples of this are sand, concrete, and bricks.
Life Cycle Assessment (LCA)	Life Cycle Assessment involves an analysis of the burden provision of a product or service makes on planetary resources and systems. It provides a framework for measuring the relative impact of different waste management options and facilitating decision making.
Local Authority Collected Waste	Waste collected by or on behalf of a local authority. Includes household waste and business waste collected by a local authority and non-municipal fractions such as construction and demolition waste delivered to HWRCs.
Local Plans	Prepared by local planning authorities, Local Plans guide decisions on future development proposals for an area. They set out policies to be used in decision making which are supported by a vision for how the local planning authority want the Plan area to develop.
Local Planning Authority	Local council with responsibility for determining planning applications and producing local plans.
(The) London Plan	The Spatial Development Strategy for Greater London produced by the Mayor. Latest version is 2021.
Low Level Radioactive Waste	Radioactive waste that contains relatively low levels of radioactivity. Includes items such as scrap metal, paper and plastics and smaller amounts come from medical and research facilities.
Mechanical Biological Treatment	A waste facility that combines a sorting facility with a form of biological treatment such as composting, bio-drying or anaerobic digestion
Municipal Solid Waste (MSW)	Commonly known as refuse or rubbish and is a waste type consisting of everyday items that are discarded by the public. It covers household waste and household-like commercial and industrial waste (e.g. from offices or hotels).
Non-hazardous waste landfill	A landfill permitted to accept non-inert (biodegradable) wastes e.g. municipal and commercial and industrial waste and other non-hazardous (including inert) wastes. May only accept hazardous waste if a special cell is constructed.
Non-inert waste	Waste which is either chemically or biologically reactive and will decompose overtime. All waste other than inert waste (see entry) and hazardous waste.
Ofwat	The Water Services Regulation Authority, or Ofwat, is the body responsible for economic regulation of the privatised water and sewerage industry in England and Wales.
Planning Practice Guidance	Guidance published by central Government to support plan making and development management decision making. Applicable across England.
Pyrolysis	Thermal process to promote the decomposition of organic (carbon-based) materials which, occurs in the absence or near absence of oxygen, and it is thus distinct from combustion (burning).
'R1' Recovery status	The definition in the revised Waste Framework Directive for a 'recovery' operation requires municipal waste incinerators to demonstrate a plant's will achieve an minimum threshold of efficiency in converting municipal waste to energy. Plants operating at or above the stipulated thresholds can be classified as 'recovery operations' for the purposes of the waste hierarchy. Incinerators

	operating below the threshold are classed as 'disposal'.
Waste Data Interrogator	Environment Agency dataset for waste accepted and removed from sites with environmental permits for waste management activities collected from operators of permitted facilities.
Waste Data Flow	Online data portal for use by English local authorities to report on LACW management data to central Government (DEFRA).
Waste Disposal Authority	A local authority responsible for managing the waste collected by councils acting as waste collection authorities and the provision of household waste recycling centres. In this case ELWA
(The) Waste Hierarchy	Priority listing of management methods for waste set out in the Waste Framework Directive, transposed into UK law.

1 Executive Summary

1.1 This document provides an introduction to waste management in East London, drafted to support the Regulation 18 Draft East London Joint Waste Plan (2024). It provides background information and justification for the approach and policies related to waste management. The document references several key documents that have informed the preparation of this topic paper, including assessments of existing waste management capacity and forecasts for different types of waste arising in East London.

1.2 The main types of waste produced in the East London Waste Plan area are:

- Local Authority Collected Waste (LACW)
- Commercial and Industrial Waste (C&I waste)
- Construction, Demolition and Excavation Waste (C, D & E)
- Hazardous Waste
- Wastewater and Sewage Sludge

1.3 Local Authority Collected Waste (LACW) consists of waste collected by, or on behalf of, a local authority and includes household waste, bulky waste, street sweepings, and green waste. In 2022, 0.48 million tonnes of LACW was generated in East London, with 0.19 million tonnes managed through incineration with Energy from Waste (EfW), 0.13 million tonnes recycled or composted, and only 117 tonnes managed through disposal to landfill[1].

1.4 Commercial and Industrial waste (waste produced by business and industry) does not have readily available data on tonnages generated in East London. Projected tonnages are collectively accounted for in the London Plan (2021) apportionments of household, industrial, and commercial waste (HIC) to 2041 that each Borough is expected to plan for.

1.5 Construction, Demolition, and Excavation Waste (C, D & E) consists mainly of inert materials such as soils, stone, concrete, brick, and tile, as well as non-inert elements like wood, metals, plastics, and plasterboard. Different types of C, D & E waste require different forms of management, such as recycling or deposit on land for beneficial purposes e.g. landscaping and engineering works (depending on the nature of the waste). In 2022, 2.12 million tonnes of C, D & E waste was generated in East London, with 38% arising from construction and demolition activity and 62% from excavation works. At least 71% of the

[1] The difference between the individual values and the total is principally made up by the loss of moisture at the two MBT plants that operate under the ELWA contract for managing LACW arising in East London.

excavation waste was managed through recovery routes, while at least 68% of C&D waste was managed in this way[2].

1.6 In East London hazardous waste arises mainly from construction and demolition activity, vehicle maintenance and/or dismantling activity, and healthcare. It is estimated that nearly 58,000 tonnes of hazardous waste was produced in East London in 2022. Due to the relatively small amounts of hazardous waste and the need for specialist facilities, this waste may travel further afield for management and there is no policy expectation that it has to be managed within the Plan area.

1.7 Wastewater and the sewage sludge that results from its treatment is managed by Thames Water. Wastewater treatment capacity is planned for in 'Asset Management Plans', and a major upgrade is underway at Beckton Sewage Treatment Works to address changing needs and provide for growth and compliance.

1.8 Agricultural waste arisings in East London are small, with quantities requiring offsite management assessed as being so low as to not require specific provision of management capacity.

1.9 Low-level radioactive waste (LLW) is mainly produced from hospitals, research establishments, and the nuclear industry. It is likely that very little LLW is produced in East London, and any resulting LLW will continue to be managed via existing arrangements.

1.10 Waste management facilities in East London generally require planning consent granted by each Borough as Local Planning Authority (LPA) and Environmental Permits granted by the Environment Agency (EA). There are currently around 100 such sites in East London managing waste.

1.11 In summary, the document provides an overview of the different types of waste generated in East London and the existing waste management infrastructure. It highlights the need for planning policies to encourage the management of waste in accordance with the waste hierarchy and the importance of considering specific waste characteristics for appropriate management technologies.

2 Introduction

2.1 This Topic Paper presents the background evidence on waste management in East London that underpins the Regulation 18 Draft ELJWP (2024). The Topic Paper includes justification for the approach and policies relating to waste management, which is in addition to that included as supporting text in the Plan.

2.2 The preparation of this Topic Paper, has been informed by the following documents in particular:

- Assessment of Existing Waste Management Capacity in East London (July 2024)
- Baseline & Forecast for Construction, Demolition & Excavation Waste Arising in East London to 2042 (July 2024)
- Baseline & Forecast for Hazardous Waste Arising in East London to 2042 (July 2024); and
- The London Plan 2021 - the apportionments for HIC waste and other waste related policies.

2.3 This paper sets out the current position in East London with regards to waste arisings, current management arrangements and existing management capacity, against which the proposed policies included in the Regulation 18 draft of the new plan has been formulated.

3 Existing waste management

3.1 The legal definition of waste, set out in section 75(2) of the Environmental Protection Act 1990, is “any substance or object which the holder discards, or intends or is required to, discard”. The key concept relates to the producer or holder's intention regardless of whether the waste may have a value to the recipient.

3.2 The main types of waste produced in the East London Waste Plan area are:

- Local Authority Collected Waste (mainly household waste) (LACW);
- Commercial and Industrial Waste (waste from businesses and industry) (C&I waste);
- Construction, Demolition and Excavation Waste (C, D & E W);
- Hazardous Waste from various sources; and,
- Wastewater and Sewage Sludge.

3.3 The principal objective of planning for the management of waste[3] is to protect the environment and human health by:

- preventing or reducing the generation of waste;
- where its production is unavoidable, reducing the adverse impacts of its generation and management; and
- reducing the overall impacts of the use of resources from which waste may arise and improving the efficiency of such use.

by paying regard to the above objectives, the overall burden of the waste created by society should reduce and the value it contributes back to the economy maximised.

Waste Datasets

Environment Agency Waste Data Interrogator (WDI)

3.4 Environment Agency dataset that reports waste accepted and removed from sites with environmental permits for waste management activities. The WDI is the principal dataset used to account for waste arising and within particular Plan areas. It classifies waste using the European Waste Catalogue (EWC) and relies on data collected from operators of permitted facilities.

Defra Wastedataflow (WDF)

3.5 Wastedataflow is an Online data portal for use by English local authorities to report on LACW management data to central Government (DEFRA). Data submitted is used to report on national LACW management performance.

[3] See *The Waste (England and Wales) Regulations 2011(as amended)* and *The Waste (Circular Economy) (Amendment) Regulations 2020.*

Local Authority Collected Waste

3.6 Local Authority Collected Waste (LACW) consists of waste that comes into the control of, the local authority i.e. the council in whose borough it arises. LACW collected by, or on behalf of, the East London Boroughs includes household waste collected from homes (residual, dry mixed recycling and food waste), bulky waste and other waste delivered by householders to Household Waste Recycling Centres (HWRCs) provided by each Borough, street sweepings, green waste from the maintenance of public parks and open spaces, and a small quantity of clinical waste[4]. LACW can also include waste collected from businesses, known as 'trade waste', if a business specifically requests the local authority to collect it. Waste collected by a private contractor is known as 'Commercial and Industrial Waste.

3.7 The LACW produced in East London is managed under a contract let and overseen by the East London Waste Authority (ELWA) - an entity that performs the waste disposal authority function of the four Boroughs[5]. In 2022 0.48 million tonnes of LACW was generated in East London. Of this 0.39 million tonnes arose from households. Of the total, 0.19 million tonnes was managed through incineration with Energy from Waste (EfW), 0.13 million tonnes was recycled or composted, with very little managed through disposal to landfill. The above data is based on returns submitted by ELWA to central Government via an online reporting portal known as WasteDataFlow.

3.8 ELWA adopted a Joint Strategy for the management of East London's LACW in 2022, covering the period 2027-57[6]. This Joint Strategy sets out the strategic aims and aspirations for resources and the management of LACW, for which the Partner Authorities have responsibility, between 2027 and 2057. The Strategy covers the period after the end of the current long-term contract for waste treatment services (2002 to 2027). The Joint Strategy recognises that action to deliver improvements in the management of LACW needs to start as soon as possible to achieve future performance aspirations. Steps that the Partner Authorities are taking to improve performance in the intervening years, including development of an East London Waste Prevention Programme and Borough Reduction and Recycling Plans that are submitted to the Mayor of London. These Programmes and Strategies have also informed the development of the ELJWP 2024. It should be borne in mind that while most visible, LACW only forms part of the total quantity of waste to be managed arising in East London.

[4] Household clinical waste is not deemed hazardous unless a particular risk has been identified (based on medical diagnosis).
[5] https://eastlondonwaste.gov.uk/
[6] A Joint Strategy for East London's Resources and Waste 2027 –2057 https://eastlondonwaste.gov.uk/files/_uploads/Joint%20Strategy%20for%20East%20Londons%20Resources%20and%20Waste%202027%20to%202057.pdf

Commercial & Industrial Waste

3.9 While national planning policy identifies Commercial and Industrial waste as a separate waste stream to LACW, in the London Plan it is combined with LACW and collectively referred to as household, industrial and commercial waste, or 'HIC waste' for short. These waste types are grouped together as there are similarities between their characteristics, and hence they may be managed through similar types of waste management facility.

3.10 Data for tonnages of C&I waste generated in East London is not readily available due to the lack of clear definition in the available datasets[7]. Therefore, it is not possible to establish the management profile of this stream with the same degree of certainty as for LACW. However, for the purposes of planning for this waste stream, the London Plan apportionments determine the future combined need for the management of HIC waste within East London through to 2041.

Construction, Demolition and Excavation Waste

3.11 C, D & E waste comprises waste arising from the construction and demolition activities, including excavation undertaken prior to construction, and consists mainly of inert materials such as soils, stone, concrete, brick and tile. Non-inert elements are also present in this waste stream such as wood/timber, metals, plastics, plasterboard, green waste and residual food wastes from canteens. Hazardous waste (see below) is also present particularly when development takes place on brownfield sites that have been affected by historical contamination such as former industrial sites like the land redeveloped for what is now the former Olympic Park.

3.12 Different types of C, D & E waste require different forms of management. For example, hard inert materials (such as concrete, brick and road planings arising from demolition and road maintenance) can be converted into materials by crushing and screening, which may then be used to substitute for primary minerals in construction activities. Soft materials such as soils and sub-soils can be deposited on land for beneficial purposes such as the restoration of minerals workings (i.e. quarries) and engineering projects such as flood prevention schemes and acoustic bunds. The non-inert component such as metals and plasterboard may be recycled back into products through manufacturing facilities if separated. Ultimately there is very little C, D & E waste that cannot be recycled or recovered in some other way.

[7] The EWC categorises municipal waste under a single Chapter, Chapter 20, and this includes both LACW and waste arising from businesses. Differentiating between the data for C&I waste arisings and LACW reported in the Environment Agency Waste Data Interrogator, involves a complex process, and one that has not been taken in this case as the London Plan apportionments define the waste management requirements, or need, to be met through the Plan for these waste types together.

3.13 The production of C, D & E waste is influenced by large-scale infrastructure and development projects such as the Thames Tideway Tunnel, as well as commercial and residential developments, which means that peaks and troughs in its production are often observed with arisings not necessarily following a predictable pattern. In light of this the London Plan does not apportion quantities of C, D & E waste for management to individual Boroughs, but Boroughs are still required to plan for the management of this waste stream.

3.14 In 2022 it is estimated that 2.12 million tonnes of C, D & E waste was generated in East London[8]. Of this 38% arose from construction and demolition activity while 62% arose from excavation works. This difference is significant because the London Plan sets separate targets for the management of excavation waste, from those applied to construction and demolition waste. At least 71% of the excavation arising was managed through recovery routes while at least 68% of C&D was managed through recovery. The remainder in both cases was managed through transfer stations from where it would be transferred on to an unknown final fate.

3.15 Given it is a bulky and heavy waste type, C, D & E waste does not tend to travel significant distances from its source.

Hazardous Waste

3.16 Hazardous wastes are categorised as those that are harmful to human health, or the environment, either immediately or over an extended period of time. In East London, hazardous waste arises mainly from: Construction and demolition activity, vehicle maintenance and/or dismantling activity and healthcare. Types of hazardous waste include contaminated soils, infectious clinical waste and waste oils.

3.17 It is estimated that nearly 58,000 tonnes of hazardous waste was produced in East London in 2022[9]. The term 'hazardous waste' covers a wide range of waste types which each may require management at specialist facilities, such as hazardous waste landfills and high temperature incinerators. Given they generally arise in relatively small amounts, due to economies of scale, such facilities are often developed to manage quantities greater than that arising in a single Plan area. Therefore, this waste may travel further afield for management than most other waste types. For example, around 1,200 tonnes of soil and stones containing dangerous substances in 2022 was managed at a treatment site in Sandwell (West Midlands), some 150 miles away from East London.

[8] *Baseline & Forecast for Construction, Demolition & Excavation Waste Arising in East London to 2042* BPP Consulting July 2024
[9] *Baseline & Forecast for Hazardous Waste Arising in East London to 2042* BPP Consulting July 2024

Wastewater and Sewage Sludge

3.18 Wastewater generally comprises effluent from homes and industrial and commercial premises and in some case surface water runoff from roads and other hard surfaces discharged to the foul sewer system from where it is channelled to wastewater or sewage treatment works for treatment[10]. Output of this treatment is sewage sludge that may, if it meets certain parameters, be applied to land as a fertiliser in accordance with the *Sludge (Use in Agriculture) Regulations 1989* and associated best practice guidance. Sludge applied in this manner falls outside the normal regulatory regime for waste. Alternatively, the sludge can be treated either through anaerobic digestion or incineration. The cleaner effluent may be discharged to a watercourse in accordance with a discharge consent granted by the Environment Agency.

3.19 In East London, wastewater and the resulting sewage sludge are managed by Thames Water. Wastewater treatment capacity is planned for in 'Asset Management Plans'. Thames Water use information in the public domain to forecast when upgrades to wastewater treatment facilities will be required.

3.20 Beckton Sewage Treatment Works, located in the London Borough of Newham, is the key facility serving East London, being Thames Water's, and the UK's, largest sewage treatment works. To address changing need, a major upgrade is underway so it can receive wastewater from the new Thames Tideway Tunnel and provide for growth in housing in East London,.

Agricultural Waste

3.21 Given the relatively small amount of land subject to cultivation in East London arisings of agricultural waste are small, with quantities requiring offsite management particularly low. The Environment Agency dataset, the WDI, indicates there is very little agricultural waste produced in East London requiring the provision of off-site management facilities.

Low level radioactive waste

3.22 Radioactive waste is any material that is either radioactive itself or is contaminated by radioactivity and for which no further use is envisaged. Radioactivity can pose health risks when organism are exposed to elevated levels, and while potentially hazardous radioactive waste is not included in the definition of hazardous waste and is therefore accounted for separately. Most radioactive waste is produced from nuclear power stations and from the manufacture of fuel for these power stations. This is referred to as 'nuclear waste.' Radioactive waste also arises from nuclear research and development sites and Ministry of Defence sites. No such sites exist in East London.

[10] These works can provide a valuable function in managing wastes other than wastewater, that arise in liquid and sludge form such as septic tank emptyings that serve properties not connected to the foul sewer.

3.23 Radioactive waste also arises from medical, industrial and research establishments such as hospitals and universities. This is sometimes referred to as 'non-nuclear waste'. Being of a low level of radioactivity this may be referred to as low level radioactive waste (LLW), or even very low level radioactive waste (VLLW).

3.24 LLW consists mainly of paper, plastics and scrap metal items that have been used in hospitals, research establishments and the nuclear industry. It is likely that very little LLW is produced in East London, and according to the Environment Agency public register, one organisation holds three permits covering two locations in Havering to keep and use radioactive materials in East London. Any resulting LLW will likely be continue to be managed via existing arrangements.

4 Waste Management Facilities

4.1 There is a multiplicity of ways by which waste may be managed. Much depends on the specific characteristics of the waste itself which determine suitability for management through different technologies. For example, only waste that may degrade when subject to biological processes is suitable for management through organic waste treatment technologies such as mechanical biological treatment, anaerobic digestion and composting. Similarly, only waste capable of combustion should be subjected to thermal treatment processes such as incineration, gasification or pyrolysis. The cleanliness of waste materials can play a major role when it comes to considering its suitability for onward recycling through reprocessing plants such as paper mills and glass factories. This in turn may be heavily influenced by the collection methods used and the facilities provided at the point where the waste arises.

4.2 In general, facilities where waste is managed require express planning consent for a waste use. In addition, they also generally require Environmental Permits that in England are granted by the Environment Agency.

Existing Waste Management Estate in East London

4.3 The ELJWP area has a range of permitted waste management facilities that handle waste both from within and beyond East London. Data for 2022 indicates there are around 100 sites in East London currently managing waste under environmental permits granted by the Environment Agency. Figure 1 shows the distribution of the existing waste management facilities in East London.

4.4 The principal types of waste management facilities within East London are as follows:

- Non-hazardous landfill including silt lagoons
- MBT plants (x2)
- C, D & E waste recycling facilities
- HIC waste recycling facilities
- Metal recycling sites
- HWRCs (x4).

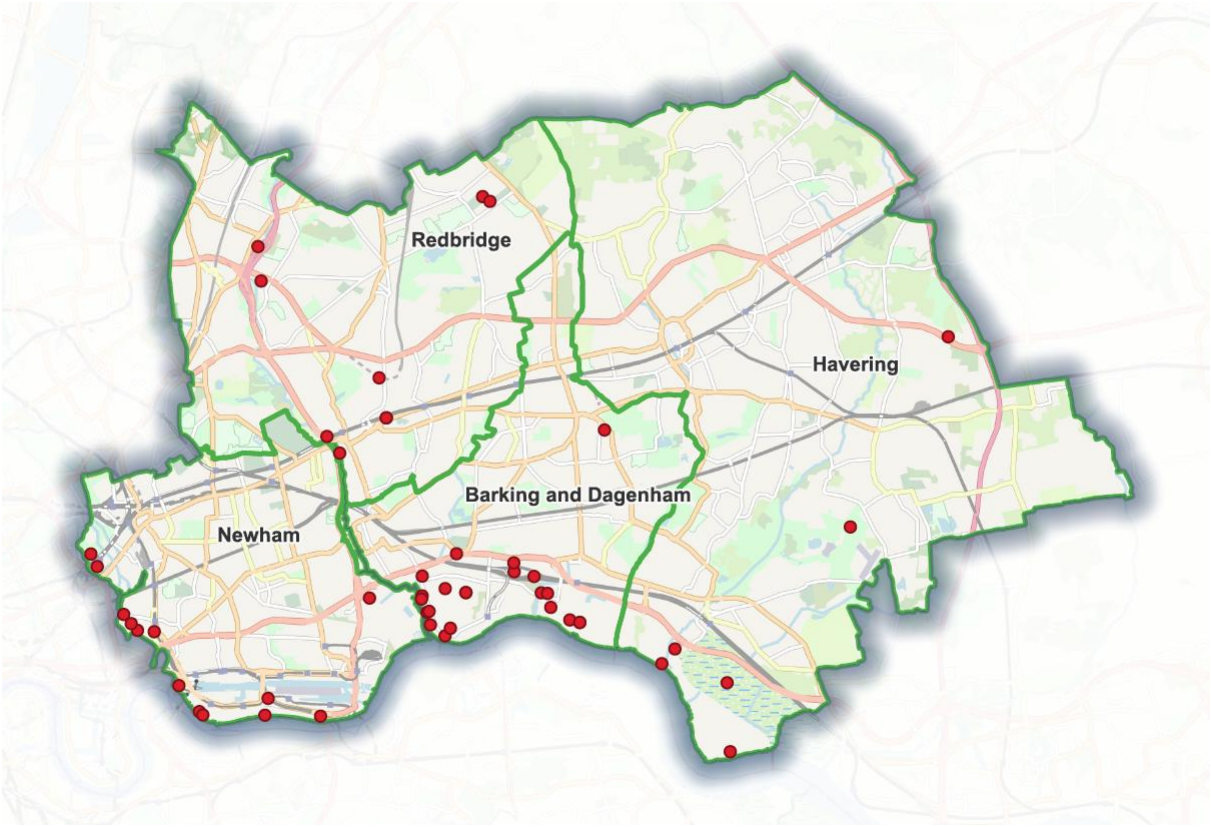

Figure 1: Map of Existing Waste Sites in East London

5 The Policy Context

5.1 The policy context within which the ELJWP has been prepared is set out in Figure 2 below.

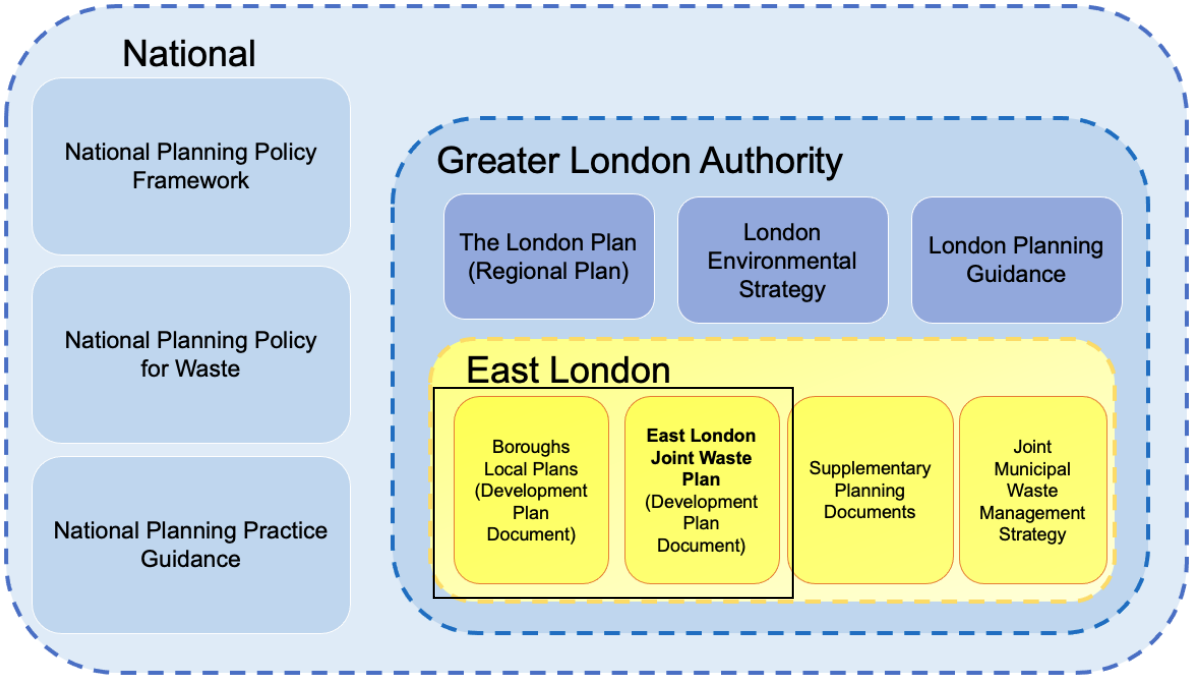

Figure 2 – The ELJWP Within the Wider Policy Context

National Policy

5.2 The key objective of national policy for managing waste[11] is to protect the environment and human health by:

- preventing or reducing the generation of waste;
- where its production is unavoidable, reducing the adverse impacts of its generation and management; and
- reducing the overall impacts of the use of resources from which waste may arise and improving the efficiency of such use.

5.3 The National Planning Policy for Waste 2014 (NPPW))[12], associated Planning Practice Guidance (PPG) and the Resources and Waste Strategy for England 2018 (RWS)[13] currently set the policy context for waste management in England. Whilst the National Planning Policy Framework (NPPF) does not contain policies specific to waste, its principles are relevant. The Waste

[11] See *The Waste (England and Wales) Regulations 2011(as amended)* and *The Waste (Circular Economy) (Amendment) Regulations 2020.*

12 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364759/141015_National_Planning_Policy_for_Waste.pdf

13 https://www.gov.uk/government/publications/resources-and-waste-strategy-for-england

Management Plan for England[14] signposts policies concerning waste management in England in particular those included in the RWS as a route to demonstrating compliance with Waste Framework Directive requirements. This was updated in 2021 and such is considered to be the most current expression of Government policy on the subject.

5.4 Both NPPW and RWS require application of the Waste Hierarchy in priority order as one of the key principles of achieving sustainable waste management. The 'Waste Hierarchy' sets out different ways of dealing with waste as shown in Figure 3 below. 'Prevention' is the preferred option with 'Disposal' at the bottom being the option of last resort.

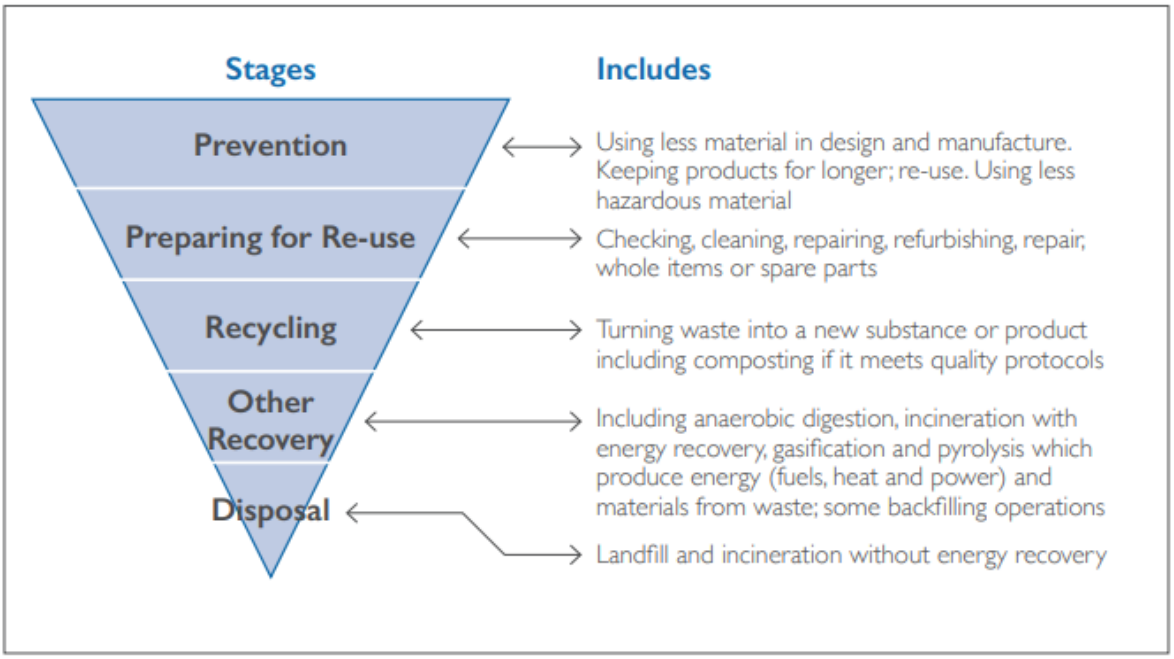

Figure 3 The Waste Hierarchy[15]

5.5 The RWS sets out current Government thinking on waste management in England, including how the country is to minimise waste and manage it more effectively through maximising opportunities to generate value from material that is both prevented from entering, and extracted from, the waste stream.

5.6 The RWS identifies five strategic ambitions:

- To work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025;
- To work towards eliminating food waste to landfill by 2030;

14 https://www.gov.uk/government/publications/waste-management-plan-for-england-2021
15 Source: *National Planning Policy for Waste*, MHCLG, 2014. It should be noted that the most recent Govt publication showing the hierarchy included anaerobic digestion in the recycling tier.

- To eliminate avoidable plastic waste over the lifetime of the 25 Year Environment Plan;
- To double resource productivity by 2050; and
- To eliminate avoidable waste of all kinds by 2050.

5.7 The RWS is also concerned with ensuring that society's approach to waste aligns with the following circular economy principles:

- design out waste and pollution;
- keep products and materials in use; and
- regenerate natural systems.

Circular Economy

5.8 The role waste management plays in the material cycle that is central to creating a more circular economy is illustrated in Figure 4 below.

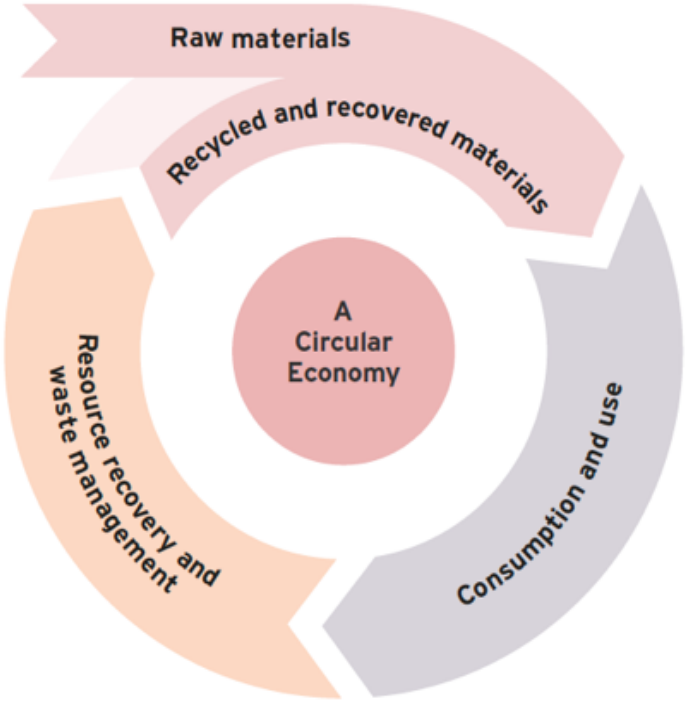

Figure 4 Circular Economy[16]

5.9 The Circular Economy can also aid in tackling the climate emergency. When applied to the built environment, circular economy principles significantly reduce greenhouse gas emissions by avoiding extraction of raw materials, reducing production of construction materials, retaining embodied carbon and eliminating waste. In July 2023 the Government published its waste prevention plan titled 'Waste prevention programme for England: Maximising Resources, Minimising Waste'. This is considered in detail in the separate topic paper on Circular Economy.

16 Source: Resources and Waste Strategy, DEFRA, 2018

Environment Act 2021 Targets

5.10 The Environment Act 2021 requires Government to set long-term, legally-binding environmental targets[17], including those for resource efficiency and waste reduction. In response to this requirement the Government has set the following targets in its Environmental Improvement Plan 2023, which build on the targets set out in the RWS set out previously as follows:

- eliminate avoidable waste by 2050 and double resource productivity by 2050;
- explore options for the near elimination of biodegradable municipal waste to landfill from 2028;
- eliminate avoidable plastic waste by 2042; and,
- halve 'residual' waste (excluding major mineral waste) produced per person by 2042.

5.11 The target for the reduction in residual waste is enshrined in The Environmental Targets (Residual Waste) (England) Regulations 2023 which came into force on 30 January 2023. The target is for the reduction of residual waste (excluding major mineral wastes) on a kg per capita[18] basis by 50% by 2042 from 2019 levels (574 kg per capita). Accordingly, the residual waste long-term target is that by the end of 31 December 2042 the total mass of residual waste for the calendar year 2042 does not exceed 287 kg per capita. Routes through which waste is managed as residual are:

- sent to landfill in the United Kingdom;
- put through incineration in the United Kingdom;
- used in energy recovery in the United Kingdom; or
- sent outside the United Kingdom for energy recovery.

5.12 The residual waste reduction targets are expected to be achieved through a combination of waste prevention and increased recycling rates. Government modelling has shown recycling rates may need to reach 75% by 2042. This is expected to be achieved by the introduction of Extended Producer Responsibility initiatives for certain products and materials, and a deposit return scheme relating to packaging waste, and the adoption of a simpler approach to recycling involving the statutory requirement for the separate collection of at least five materials: glass; metals; plastics; paper; and, food waste, from all households and business premises by 2028. This may require provision of additional waste management facilities where source separated materials can be bulked up and/or treated (e.g. food waste).

17 https://www.gov.uk/government/publications/environment-bill-2020/august-2020-environment-bill-environmental-targets

18 Per head of population in England

5.13 Alongside the separate collection and extended producer responsibility as part of the initiative to achieve zero avoidable waste by 2050, the Routemap for Zero Avoidable Waste in Construction was launched in 2021[19]. This includes the following targets :

- By 2040 eliminate all but hazardous C&D waste entering landfill.
- By 2040 reduce soil to landfill by 75% based on 2020 level and reduce to zero by 2050 unless required for landfill operation purposes.

Other targets are likely to be set for construction waste reduction and recovery including cost reduction through designing out waste and material optimisation.

5.14 In addition to the above measures relating to construction, the NPPW requires that when determining planning applications for non-waste development, local planning authorities should, to the extent appropriate to their responsibilities, ensure that the handling of waste arising from the construction and operation of development maximises reuse and recovery opportunities, and minimises off-site disposal. Additionally, Chapter 2 of the National Planning Policy Framework (NPPF) recognises the need for the planning system to consider the prudent use of natural resources and waste minimisation in the pursuit of sustainable development. The National Planning Policy Framework and the National Planning Policy for Waste are to be considered as material considerations by local planning authorities when making decisions on planning applications and when preparing their local plans.

5.15 In light of the aforementioned targets and initiatives over the forthcoming plan period, a substantial shift towards a more sustainable waste management system is anticipated. This entails a heightened focus on recovering more materials and reducing the proportion of waste buried or burnt. This may require additional and different waste management facilities, coupled with source/supply chain initiatives that extend beyond the scope of waste management planning as currently understood/applied. The composition of waste requiring management can also be expected to change over time, as it has done in the past.

Climate change

5.16 The production and management of waste needs to consider impacts on climate and how practices need to adapt in light of changes to the climate. This is considered in detail in the separate topic paper on Climate Change.

[19] https://www.constructionleadershipcouncil.co.uk/news/zero-avoidable-waste-routemap-launch/

Net self sufficiency

5.17 Self-sufficiency in terms of waste, as outlined in Article 16 of the EU Waste Framework Directive[20], refers to the principle that each Member State of the European Union should aim to manage and dispose of its own waste within its borders, to the extent possible. This encourages Member states to take responsibility for their own waste and is designed to reduce the need for cross boundary waste movements, which can create inequalities between countries and waste tourism. The principle applies at national level to England & Wales as a whole[21].

5.18 The principle of self-sufficiency has been adapted for local waste planning purposes to establish how much management capacity should be provided in each waste Plan area, Through the addition of the term 'net', this recognises that movements of waste occur between waste Plan area, as waste does not generally recognise administrative boundaries. Movements can be beneficial for optimising the waste management system where economies of scale apply. This means there is no expectation that each tonne of waste produced in a particular Plan area is to be managed within that Plan area. Rather that, overall, there should be a balance of provision. The objective of net self-sufficiency is therefore to ensure that there is sufficient capacity to manage the tonnage of waste equivalent to that predicted to arise within a Plan area. The degree to which a Plan area is net self-sufficient can be established by comparing the available capacity within the Plan area with the projected capacity requirements[22]. A snapshot of the position for East London is presented in Figure 5, based on actual reported movements in 2022.

5.19 It should be noted that Figure 5 presents:

1. a snapshot in time for a single year; and
2. is not necessarily a true representation of net -self-sufficiency as actual inputs to facilities in 2022 may not be reflective of potential capacity of sites operating in East London (in most cases inputs will be lower than actual site capacity).

[20] https://eur-lex.europa.eu/eli/dir/2008/98/oj

[21] As transposed in English law through *The Waste (England and Wales) Regulations 2011* as amended.

[22] The London Plan applies the principle of net self sufficiency to waste management across London (see later section).

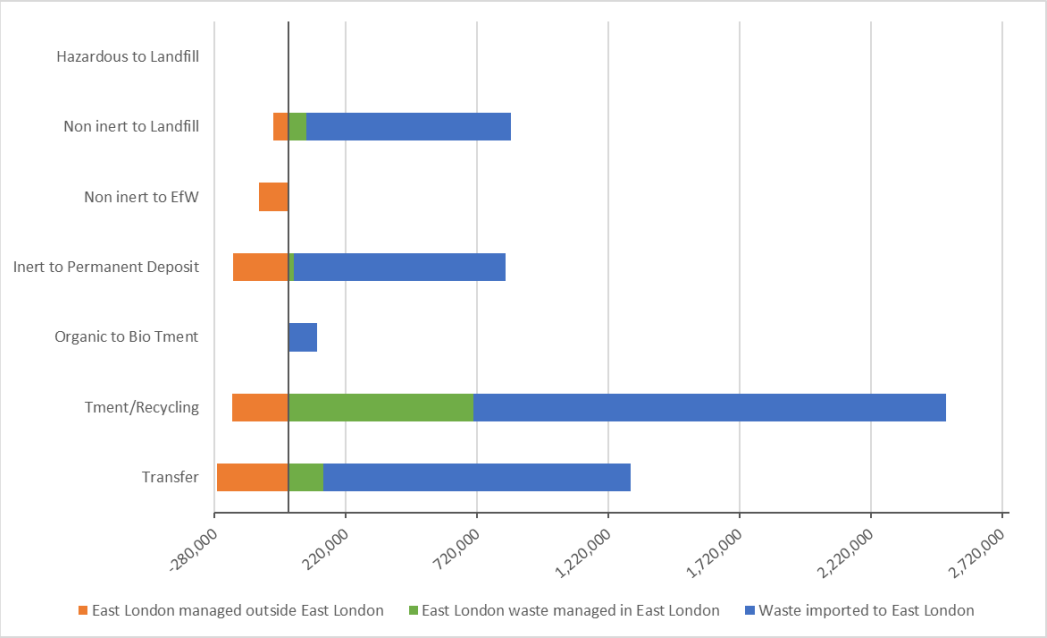

Figure 5: Waste import and export balance in East London 2022 by management method and waste type where known (tonnes)

The Proximity Principle

5.21 The management of any waste by disposal, or the recovery of mixed municipal waste is also subject to the proximity principle[23] which seeks to ensure that mixed municipal waste collected from private households be disposed of, or recovered, in one of the nearest appropriate installations. This is to be by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

5.22 This is intended to result in the establishment of an integrated and adequate network of installations for the disposal and recovery of mixed municipal waste collected from private households across the country. The requirement also extends to where the collection includes similar types of waste collected from non-household sources (e.g. waste from offices and retail premises).

5.23 This principle is to be applied when decisions are taken on the location of facilities for the management of mixed municipal waste collected from private households and similar waste (see above) for disposal or recovery. This is reflected in NPPW that expects waste planning authorities to:

> *"...plan for the disposal of waste and the recovery of mixed municipal waste in line with the proximity principle, recognising that new facilities will need to serve catchment areas large enough to secure the economic viability of the plant;".*

[23] As transposed in English law through *The Waste (England and Wales) Regulations 2011* as amended..

5.24 NPPW requires local planning authorities with responsibility as Waste Planning Authority for their area, to include policies in their development plans which set out an overall strategy for the pattern and scale of waste development, ensuring sufficient provision is made for infrastructure for waste management, and energy that may be produced (including heat).

Waste Movements

5.25 Data shows that waste is routinely transported between East London and other Waste Planning Authority (WPA) areas. This cross-boundary movement is typical of the way in which waste is managed in general, as it has little regard for administrative boundaries. Flows of waste from East London which may be strategic to the management of waste over the Plan period have been identified[24]. This identified a total of 16 permitted facilities receiving potentially strategically significant quantities of waste in 2022, spread across a total of 12 WPA areas. These host WPAs are being contacted as part of the consultation on the Reg 18 Draft ELJWP to confirm that such flows may continue over the plan period.

Regional Policy – The London Plan

5.26 There are thirty-three-administrative areas within London: twelve inner boroughs, twenty outer boroughs, and the City of London. Newham is the only inner borough within the ELJWP area.

5.27 The administrative geography of London is overseen at a regional level by the Greater London Authority (GLA) which produces amongst other policy documents, The London Plan and the London Environment Strategy (LES). The London Plan provides strategic planning policy for the whole of London and how certain matters, including waste, should be addressed by Boroughs in preparing their Development Plan documents.

Apportionments

5.28 The London Plan states that London should manage as much of its waste within its boundaries as practicable, aiming to achieve net self-sufficiency by 2026 in all waste streams except for excavation waste[25]. To meet this aim, the London Plan 2021 forecasts arisings of Local Authority Collected Waste (referred to as household waste) plus Commercial and Industrial waste (C&I waste)[26] for London as a whole, then split down on a Borough level through to

[24] See *East London Joint Waste Plan, Identification of Strategically Significant Cross Boundary Waste Movements*, BPP Consulting, July 2024

[25] Excavation waste is excluded from the London Plan net self-sufficiency target as it is more difficult for London to provide sites for its management or beneficial use due to the land area occupied by such management facilities (footnote 164 of London Plan).

[26] Collectively referred to as household, industrial and commercial waste or HIC for short.

2041. These forecasts are used as a basis to apportion quantities of this waste for management to each Borough so that the overall goal of managing the equivalent of 100 per cent of London's HIC waste within London (i.e. net self-sufficiency) by 2026 (Policy SI 8) is achieved. The quantities arrived at are referred to as the London Plan apportionments ('LP apportionments' for short).

5.29 The Borough level LP apportionments was generated through a process that included assessment of existing capacity in each Borough along with a number of other factors considered by the GLA to influence the ability of a particular Borough to provide requisite HIC waste management capacity. The types of capacity considered to count towards the management of apportioned waste (hereinafter referred to as 'qualifying capacity') is defined in Paragraph 9.8.4 of the London Plan as follows:

- energy recovery in London;
- production of solid recovered fuel (SRF) and refuse derived fuel (RDF) in London;
- sorting or bulking for re-use or recycling including anaerobic digestion. The reuse or recycling may take place within or outside London providing the capacity is located within London; and
- reuse or recycling including anaerobic digestion within London.

5.30 London Plan arisings and forecasts for the East London Boroughs are set out below in 1 below. The London Legacy Development Corporation (LLDC) does not have a separate waste apportionment through the London Plan 2021, and therefore waste management within the LLDC's jurisdiction that falls within the ELJWP area is accounted for by the apportionment assigned to the London Borough of Newham.

Table 1 London Plan Forecast HIC Waste Arisings & Apportionments for the East London Boroughs

Borough	Forecast HIC Waste Arising		LP Apportionments	
	2021	2041	2021	2041
Barking & Dagenham	214,000	230,000	505,000	537,000
Havering	229,000	249,000	370,000	393,000
Newham	244,000	260,000	383,000	407,000
Redbridge	196,000	216,000	151,000	160,000
Total	***883,000***	***955,000***	***1,409,000***	***1,497,000***

5.31 The apportionments for East London are significantly higher than the area's actual projected arisings which demonstrates how East London is expected to make a significant contribution towards London meeting the 2026 net self-sufficiency target.

5.32 The London Plan also sets out management targets for waste generated in London in Policy SI 7 Reducing waste and supporting the circular economy. These targets reflect those in the London Environment Strategy (LES) as follows:

- zero biodegradable or recyclable waste to landfill by 2026
- meet or exceed the municipal waste recycling target of 65 per cent by 2030
- meet or exceed the targets for each of the following waste and material streams:
    - construction and demolition – 95 per cent reuse/recycling/recovery
    - excavation – 95 per cent beneficial use (with 100% inert put to use)

5.33 In addition, in connection with hazardous waste management capacity, paragraph 9.8.18 of the London Plan identifies *"..a need to continue to identify hazardous waste capacity for London ...in co-operation with other Plan areas."'*

5.34 The London Plan requires boroughs to allocate sufficient land and identify waste management facilities to provide capacity in their plans to manage the tonnages of waste apportioned and for those waste streams not apportioned by the London Plan but still subject to the management targets set out in London Plan policy.

Circular Economy

5.35 The London Plan includes a requirement for 'referable applications'[27] to be submitted with a 'Circular Economy Statement' that demonstrates how the development will come forward in a manner which is consistent with achieving a circular economy. This includes how much waste the proposed development is expected to generate and where it will be managed. The GLA has published further guidance on the content of Circular Economy Statements.

5.36 The London Plan requires boroughs to "…allocate sufficient sites, identify suitable areas, and identify waste management facilities to provide the capacity to manage the apportioned tonnages of waste". This is in line with the NPPW which requires waste planning authorities to "…identify sites and/or areas for new or enhanced waste management facilities". The London Plan identifies existing waste management sites, Strategic Industrial Locations, Locally Significant Industrial Sites and safeguarded wharves as suitable for new waste facilities.

[27] Referable applications include those for developments providing 150 residential units, other types of development of 20,000sq.m in central London or 15,000sq.m outside Central London, developments 25m high adjacent to the Thames or 30m high elsewhere in London.

Safeguarding

5.37 The London Plan seeks to safeguard all existing waste sites so they are retained in waste use. The London Plan defines 'existing waste sites' as those with planning permission for waste use or those subject to an Environment Agency environmental permit for waste management.

5.38 In the event that an existing waste site is subject to an application for development for a non waste use, the London Plan requires compensatory capacity to be provided. Compensatory capacity must be at or above the same level of the waste hierarchy of that which is lost, and that any loss of hazardous waste treatment capacity must be replaced with similar. Existing waste sites may only be released without compensatory capacity being provided if it can be demonstrated that there is sufficient capacity elsewhere in London and the target of achieving net self-sufficiency is not compromised. This is to be achieved through a plan led approach.

5.39 The London Plan supporting text indicates that boroughs with surplus capacity share this with boroughs facing a shortfall before considering release of sites from safeguarding protection. The London Plan also acknowledges that it may not always be possible for boroughs to meet their apportionment within their boundaries and in these circumstances the *'transfer of apportioned waste'* may be agreed upon between donor and receiving boroughs. This may be achieved through specific commitments included in the host authority's local waste plan.

Housing design

5.40 Furthermore, the London Plan includes policy (Part G of Policy D4 Housing quality and standards) that requires housing to be designed with adequate and easily accessible storage space that supports the separate collection of dry recyclables (for at least card, paper, mixed plastics, metals, glass) food waste as well as residual waste.

6 Future requirements for waste management capacity

6.1 In order to establish how much waste management capacity may be needed over the Plan period, an assessment of existing permitted waste management capacity available within East London against the requirements of the London Plan has been undertaken[28]. The findings of the study are set out below:

Management Capacity for Apportioned Waste

6.2 It is estimated that there is currently 2,560,000tpa of permitted capacity in East London capable of managing apportioned waste. This is more than sufficient to manage the London Plan apportioned forecast arisings of 1.5million tonnes in 2041. A sensitivity analysis was undertaken to account for the possible loss of MBT capacity after 2027 when the current treatment contract for the management of LACW let by ELWA terminates, and this showed that even with this loss, a capacity shortfall is not predicted to materialise over the Plan period.

6.3 The surplus capacity for the management of apportioned waste at 2041 is estimated to range between c.0.63 Mtpa (without MBT) and c.1.0Mtpa.

Management Capacity for C, D & E Waste

6.4 Based on an extrapolation of the baseline value for C, D & E waste arisings from East London in 2022 of 2.12 million tonnes, it has been estimated up to 2.5 million tonnes might arise in 2041. Comparing this to an estimate of existing C, D & E waste management capacity of c3.8 million tonnes reveals an estimated capacity surplus of approximately 1.7 million tonnes p.a.

Management Capacity for Hazardous Waste

6.5 Based on an extrapolation of the baseline value for hazardous waste arisings from East London in 2022 of 57,700 tonnes, it has been estimated a slightly lower tonnage of 54,700 may arise in 2041. Comparing this to an estimate of existing hazardous waste management capacity of c39,000 tonnes reveals a shortfall in capacity over the Plan period. However given the diverse nature of hazardous wastes, there is no policy expectation that individual Plan areas be net self sufficient for the management of hazardous waste forecast to be produced. Rather that existing capacity be safeguarded and additional capacity be sought in co-operation with other Plan areas.

[28] *East London Joint Waste Plan, Assessment of Existing Waste Management Capacity*, BPP Consulting, July 2024

6.6 Therefore the indicated presence of a shortfall should not be a barrier to release of other sites, or impose a requirement to provide for additional capacity through allocation in the ELJWP.

6.7 This study therefore confirms the conclusions of the previous assessment[29] that predicted there would be no shortfalls in waste management capacity over the Plan period that warrant inclusion of specific land allocations in the new ELJWP.

Permanent Deposit of Waste to Land Capacity

Non inert Waste Landfill Capacity

6.8 East London hosts the last remaining merchant non-hazardous waste landfill still operating in London, that of Rainham located in LB Havering. While the planning consent for Rainham Landfill is set to expire in 2024, there is currently a live application to extend its life through the deletion of any time limit. A scenario whereby the site continues to provide capacity for East London's waste requiring landfill to the point when all of its void space has been exhausted has therefore been considered on a without prejudice basis. This found that if dedicated to the management of waste or residues requiring disposal arising in East London alone, its capacity would be exhausted in 2036. After this time any waste or residues requiring disposal would need to be exported for management at landfills outside London.

Providing for Waste From Beyond the Plan Area

6.9 When planning for waste, the NPPW expects WPAs to assess whether the unmet needs of other WPA areas could be met within their own areas. In light of the identified surplus in capacity for the management of waste apportioned to Boroughs through the London Plan and forecast to arise from other sources, as part of the consultation on this Plan, the Boroughs are inviting other Boroughs, who have demonstrated that they are unable to meet their apportionments within their own areas to consider whether the surplus in east London might offer an opportunity for their apportionments to be met.

[29] *Evidence Base for the East London Joint Waste Plan for the East London Boroughs of Barking & Dagenham, Havering, Newham, and Redbridge*. Anthesis Final Report (2022).