Joint Waste Development Plan | **Local Plan/Local Development Framework**

London Borough of Barking & Dagenham
London Borough of Havering
London Borough of Newham
London Borough of Redbridge

Joint Waste Development Plan
for the
East London Waste Authority Boroughs




Adopted February 2012

For further information please refer to your Council's website:

www.barking-dagenham.gov.uk
www.havering.gov.uk
www.newham.gov.uk
www.redbridge.gov.uk

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01 Introduction

What is the Joint Waste Development Plan Document (DPD)?

1.1 The Planning and Compulsory Purchase Act 2004 requires local authorities to replace the existing Unitary Development Plan (UDP) with the Local Development Framework (LDF). The LDF includes DPDs, which must include specific waste policies which are consistent with PPS10 and in General Conformity with the London Plan.

1.2 The purpose of the Joint Waste DPD is to set out a planning strategy to 2021 for sustainable waste management which enables the adequate provision of waste management facilities (including disposal) in appropriate locations for municipal and commercial and industrial waste, having regard to the London Plan Borough level apportionment and construction, excavation and demolition and hazardous wastes. The Joint Waste DPD forms part of the LDF for each borough and helps deliver the relevant elements of the Sustainable Community Strategy for each borough.

Who has prepared the Joint Waste DPD?

1.3 The Joint Waste DPD has been developed by the four East London Waste Authority (ELWA) boroughs of LB Barking & Dagenham, Havering, Newham and Redbridge. The decision to work together was established through the boroughs' Local Development Schemes and builds on the positive working relationship already established between these boroughs as part of ELWA.

Map 1: East London Waste Authority boroughs, Olympic area (LB Newham) and the London Thames Gateway Development Corporation area

Borough Local Plan/Local Development Frameworks

1.4 The Joint Waste DPD is part of each borough's Local Plan/Local Development Framework, however it differs from other borough DPDs as it sets waste management targets and allocates sites suitable for waste development for implementation across all of the four boroughs. Table 1 below shows borough-specific DPDs prepared or currently under development. Additional DPDs may also be prepared for each borough as required.

Table 1: Summary of Development Plan Documents and status for each borough

Borough	Documents
Barking & Dagenham	• Core Strategy (Adopted July 2010) • Borough Wide Development Policies DPD (Adopted March 2011) • Site Specific Allocations (Adopted December 2010) • Barking Town Centre Area Action Plan (Adopted February 2011)
Havering	• Core Strategy (Adopted, July 2008) • Site Specific Allocations (Adopted, July 2008) • Development Control Policies (Adopted October 2008) • Romford Area Action Plan (Adopted October 2008)
Newham	• Core Strategy (Adopted January 2012)
Redbridge	• Core Strategy (Adopted March 2008) • Borough Wide Primary Policies DPD (Adopted May 2008) • Development Sites with Housing Capacity (Adopted May 2008) • Development Opportunity Sites (Adopted May 2008) • Ilford Town Centre Area Action Plan (Adopted May 2008) • Gants Hill Area Action Plan (Adopted March 2009) • Crossrail Corridor Area Action Plan (Adopted September 2011) • Minerals DPD (Submission)

1.5 All boroughs have an adopted Statement of Community Involvement. The consultation process for the development of the Joint Waste DPD was consistent with the requirements as set out in each borough's SCI.

1.6 Details of other documents referred to throughout this document are detailed below:

- **Planning Policy Statement 10: Planning for Sustainable Waste Management** (ODPM, July 2005)
- **The London Plan** (GLA July 2011)
- **Building the Evidence Base and Identifying the Issues & Options**
  Consultation Document (May 2007)
  Technical Report (October 2006)
  Sustainability Appraisal Interim Report: An appraisal of the Issues and Options (May 2007)
  Report on Consultation (November 2007)
- **Preferred Options**
  Preferred Options Report (April 2008)
  Sustainability Appraisal of Preferred Options (April 2008)
  Site Assessment to inform Preferred Options (June 2007)
  Sustainability Appraisal of reasonable alternative sites (July 2007)
  Preferred Options Technical Report (April 2008)
- **Proposed Submission Documents**
  Proposed Submission Joint Waste DPD
  Joint Waste DPD Map
  Sustainability Appraisal of the Joint Waste DPD
  Technical Report

1.7 The Joint Waste DPD was adopted on the following dates: 19 January 2012 (Redbridge); 1 February 2012 (Havering); 22 February 2012 (Barking and Dagenham); and 27 February 2012 (Newham).

02 Background

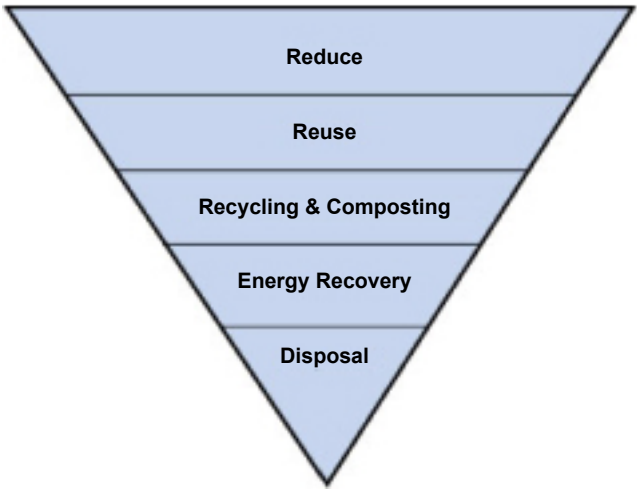
Waste Policy Context

2.1 The Joint Waste DPD is influenced by, and needs to have regard to, the relevant policies, plans and programmes at international, national, regional and local levels. A summary of the key policies, plans and programmes are detailed below.

EU legislation

2.2 The **Waste Framework Directive** [75/442/EEC] is the principal EU legislation for waste and requires measures to ensure that waste is recovered or disposed of without endangering human health or causing harm to the environment. A key principle of the directive is the waste hierarchy, with the objective to manage waste as near to the top of the hierarchy as possible.

The Waste Hierarchy



- The most effective environmental solution is often to reduce the generation of waste – **reduce**
- Products and materials can sometimes be used again, for the same or a different purpose – **reuse**
- Resources can often be recovered from waste – **recycling and composting**
- Value can also be recovered by generating energy from waste – **energy recovery**
- Only if none of the above offer an appropriate solution should waste be disposed of

National Policy

2.3 The **UK Sustainable Development Strategy** [1] sets out the overarching approach to sustainable development. The **Waste Strategy for England 2007** was published following a comprehensive review of Waste Strategy 2000. The key objectives are to decouple waste growth from economic growth and put more emphasis on waste prevention and reuse; increase diversion of municipal and non-municipal waste from landfill; secure investment in waste infrastructure; and to get the most environmental benefit from the investment through increased recycling of resources and recovery of energy from residual waste. The Waste Strategy sets national targets for recycling and composting of household waste and the recovery of municipal waste.

2.4 **Planning Policy Statement 10: Planning for Sustainable Waste Management** establishes key planning objectives through which planning authorities should prepare and deliver their planning strategies. PPS10 recognises that positive planning has an important role in delivering sustainable waste management through the development of appropriate strategies for growth, regeneration and prudent use of resources, and by providing sufficient opportunities for new waste management facilities of the right type, in the right place and at the right time.

2.5 PPS10 reflects many of the principles of the Waste Framework Directive and requires waste planning authorities to identify suitable site opportunities for waste management facilities.

Regional policy

2.6 **The London Plan** provides the strategic framework for the preparation of local Development Plan Documents (DPD). The Plan identifies the waste management facilities required to satisfy the identified need and distribution across the region.

2.7 The London Plan (2011) provides planning policies for waste management which boroughs must be in general conformity with, including the tonnages of municipal and commercial and industrial waste to be managed by each London borough, revised targets for recycling of municipal waste and new targets for recycling of commercial and industrial waste and recycling or reuse of construction and demolition waste.

2.8 The London Plan encourages the regeneration of east London, concentrating development in '**Opportunity Areas**', of which Barking Reach, London Riverside, Ilford, Lower Lea Valley, Royal Docks and Stratford are located within the ELWA boroughs. Opportunity Areas are identified on the basis that they are capable of accommodating substantial numbers of new jobs and/or homes and their potential should be maximised.

[1] Securing the Future - the UK Government Sustainable Development Strategy (March 2005)

Adjoining regional or local policy

2.9 It is important for the Joint Waste DPD to take into account the relevant strategies and plans of adjoining areas. The key waste planning policies from adjoining areas are detailed below:

Thurrock Core Strategy Issues and Options Consultation
Proposes to reduce the use of landfill including importation of London's waste to landfill residues by 2015 and only if landfill capacity is still available. It was favoured by 71% of respondents. The **Essex Waste Development Plan** is currently in preparation.

North London Waste Plan – Issues & Options Consultation
Question 4 asks whether North London should identify just enough land to meet its apportionment or identify more land as good practice for contingency reasons and/or to achieve a greater level of self sufficiency within North London. If the North London Waste Plan identifies additional land it may result in a reduced apportionment to East London boroughs if the London Plan apportionment is reviewed.

Local policy

2.10 **Planning Policy Statement 12: Local Development Frameworks** recognises the Local Development Framework as a key component in the delivery of each borough's **Sustainable Community Strategy** and requires Local Development Documents to express those elements of the Community Strategy that relate to the development and use of land.

2.11 The preparation of each borough Core Strategy reflects their Sustainable Community Strategy.

London Borough of Barking & Dagenham
Barking and Dagenham's Sustainable Community Strategy, The Community Plan (2009 Agreed Version) has six aims, one of which is to work together for a clean, green and environmentally sustainable borough. As part of this the Partnership will be focusing on reducing the amount of waste that goes to landfill and reducing how much carbon dioxide is released into the environment. The rate of recycling (NI192) in 2008/09 was 25%, increasing to 32% in 2009/10.

London Borough of Havering
Havering's Sustainable Community Strategy (2008 -2013) states that the Local Strategic Partnership (LSP) wishes to ensure a clean, safe and green borough. High recycling rates will reduce the burden we place on landfill and the Council will invest in new ways of improving recycling rates. The rate of recycling (NI192) in 2007/08 was 23.98%, increasing to 27.37% in 2008/09 and 34.35% in 2009/10.

London Borough of Newham
Newham Sustainable Community Strategy (2010-2030) states that the LSP wishes to help residents and businesses to minimise waste arisings and to recycle in the easiest and most cost effective way. The Council is examining ways to reduce the amount of waste produced, improve how it is disposed of and improve access to recycling. The rate of recycling (NI192) increased from 16% in 2008/9 to 19% between April and November 2009; the baseline (2007/8) rate was 15%.

London Borough of Redbridge
The Redbridge Sustainable Community Strategy (SCS) (2008-2018) sets an ambition to promote a positive attitude to the environment and have a cleaner, greener Redbridge. As part of this ambition the strategy makes a commitment to reduce waste production and increase recycling. The SCS provides the overarching framework for all Local Development Documents, and the Joint Waste DPD will assist with the delivery of its priorities. The 2009/10 AMR showed that the recycling and composting rate in Redbridge was 31.5%, which was an increase from 26.2% in 2008/09, but below the 40% national target.

2.12 This Joint Waste DPD must be in conformity with borough Core Strategy policies. Borough Core Strategy policies of specific relevance to the Joint Waste DPD are outlined below:

Barking & Dagenham (Adopted July 2010)	**POLICY CR3: Sustainable Waste Management**
Havering (Adopted July 2008)	**Policy CP11: Sustainable Waste Management**
Newham (Adopted January 2012)	**Policy INF3: Waste and Recycling**
Redbridge (Adopted March 2008)	**Strategic Policy 11: Waste**

2.13 The ELWA **Joint Waste Management Strategy** details how the ELWA boroughs intend to manage municipal waste.

The Joint Waste Management Strategy set out below was approved by ELWA in February 2006.

This strategy shows how the East London Waste Authority, together with the Constituent Councils, intend to manage municipal solid waste by means of a Vision, Objectives and Targets.

Our vision is:

"To provide an effective and efficient waste management service that is environmentally acceptable and delivers services that local people value"

Our objectives are to:

(i) Provide reliable and achievable services in terms of management and disposal of the waste

(ii) Provide services that are environmentally and economically sustainable in terms of:

- encouraging waste minimisation initiatives
- seeking to maximise waste recycling and composting opportunities potentially supported by energy recovery
- meeting national recycling and recovery targets whilst recognising regional waste strategies
- complying with legislation on waste management
- contributing to local economic development.

(iii) Help promote the most cost effective delivery of services

(iv) Ensure that the services shall be sufficiently diverse and flexible and not dependent upon a single method of waste treatment

Our joint targets are to:

- stabilise or reduce the level of waste generated to below 515 kg per year per head of population
- achieve and where possible exceed, statutory recycling and composting standards
- recycle or compost 25% of our waste from April 2005, 30% from April 2010 and 33% from April 2015
- divert from landfill 40% of waste from April 2007, 45% from April 2010 and 67% from April 2015
- reduce biodegradable municipal waste sent to landfill to below 210,000 tonnes per year from April 2009, 140,000 tonnes per year from April 2012 and 100,000 tonnes per year from April 2019
- find the best methods to serve all households with a recycling collection of at least four materials by 2008.

We will achieve this by working in partnership across the councils, with our contractors and with other stakeholders, putting in place incentives to achieve targets where we can.

Joint Waste Management Strategy (ELWA, February 2006)

Scope of the Joint Waste DPD

2.14 PPS10: Planning for Sustainable Waste Management requires the Joint Waste DPD to set out policies and proposals for waste management in line with the London Plan and ensure sufficient opportunities for the provision of waste management facilities in appropriate locations.

2.15 It is not necessary for the Joint Waste DPD to repeat or reformulate national or regional policies, nor to address issues adequately covered in the London Plan or borough Core Strategies[2].

2.16 London Plan Policy 5.17 requires the Joint Waste DPD to identify sufficient land to provide capacity to **manage** the apportioned tonnages of municipal solid waste (MSW) and commercial and industrial (C&I) waste. Waste is deemed to be managed in London if it is used for energy recovery in London, or it is compost or recyclate sorted or bulked in London material recycling facilities for reprocessing either in London or elsewhere.

2.17 Although the London Plan borough level apportionment does not include construction, excavation and demolition waste (C, D&E) or hazardous waste streams, these are addressed in London Plan Policy 5.18 and as such are included in the Joint Waste DPD.

2.18 Further detail of these waste streams and their future management is in Chapter 4 of this document.

Sustainability Appraisal

2.19 Each stage in the preparation of the Joint Waste DPD has been subject to Sustainability Appraisal, as required by Section 5a and 5b of the Planning and Compulsory Purchase Act, the Environmental Assessment of Plans and Programmes Regulations 2004 and incorporating the requirements of EU Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (commonly referred to as the Strategic Environmental [SEA] Directive). The Sustainability Appraisal documents form part of the evidence base to this DPD. The key recommendations of the Sustainability Appraisal are summarised below:

Sustainability Appraisal Recommendations

- Encourage the reduction, reuse and recycling of waste produced by the construction industry
- Secure an appropriate range of facilities for the management of waste
- Allocate sufficient resources to waste issues
- Help facilitate the provision of ongoing education and practical advice relating to waste
- Take into account proposals for an additional 54,000 new dwellings in the Thames Gateway London area
- Include sustainable transport factors – particularly encouraging the movement of waste by rail and water – in site assessment for facilities
- Consider environmental separation buffers around suitable sites for waste management facilities

Source: *From Table 2.1: Key Messages from the Context Review, Sustainability Appraisal of the Joint Waste DPD Preferred Options, April 2008*

[2] PPS12: Local Spatial Planning (2008) paras 4.30 and 5.1

2.20 The Sustainability Appraisal of Preferred Options[3] tested the DPD objectives, policies and identified sites against the Sustainability Framework. The Appraisal suggested mitigation measures which were incorporated into the development of this Proposed Submission Document. A Final Sustainability Appraisal specifically relating to the Proposed Submission Joint Waste DPD was also produced.

Note: A Habitats Regulations Assessment of the Joint Waste DPD was undertaken to determine whether the DPD will effect European biodiversity designations. The HRA was developed in consultation with officers at Natural England.

[3] Joint Waste DPD Preferred Options – Sustainability Appraisal Report (Scott Wilson Ltd with Land Use Consultants, April 2008)

03 Strategic Objectives

3.1 The evidence base revealed that there is a need to provide additional waste treatment capacity within the ELWA area to manage waste without endangering human health or the environment and to enable communities to take responsibility for the waste produced.

Vision Statement

The vision for the East London Joint Waste Development Plan Document is that it aims to manage waste produced in the boroughs of Barking and Dagenham, Havering, Newham and Redbridge in line with the growth set out in the boroughs' adopted and emerging Local Development Framework Core Strategies. It responds to East London's location within two Growth Areas (Thames Gateway and London-Stansted-Cambridge-Peterborough corridor), and identifies required levels of waste management capacity which can be delivered by 2021.

The production of waste will be minimised, recycling and composting will be increased, and substantial reductions in the use of landfill will be achieved. This will be done in the unique context of East London, which is self-sufficient by having facilities in place to deal with its own waste. Boroughs will work with the Mayor of London to deliver his aspiration that no untreated waste will go directly to landfill, as set out in London's emerging Waste Strategy. The Joint Waste Plan will deliver sustainable development by addressing waste as a resource without endangering health or harming the environment. In dealing with waste, boroughs will ensure that well designed, high quality waste facilities are developed, including the promotion of green industries, which integrate with and complement opportunities for regeneration across East London.

3.2 The Joint Waste DPD Objectives, as developed throughout the planning process, are to:

A) Deliver sustainable development by driving waste management up the waste hierarchy, addressing waste as a resource and looking to disposal as the last option, while recognising that disposal must be adequately catered for;

B) Work towards meeting targets set out in the Waste Strategy for England 2007, and the London Plan;

C) Enable the provision of a range of waste technologies;

D) Enable the provision of facilities to allow for net self-sufficiency in the ELWA boroughs in accordance with the London Plan;

E) Enable waste to be managed in one of the nearest appropriate installations without endangering health or harming the environment;

F) Integrate waste planning with other spatial concerns, including regeneration plans;

G) Reverse the historical trend of the ELWA area being the dumping ground for London's waste; and

H) Encourage our communities to take more responsibility for their waste.

3.3 In addition to relevant European, national and regional policy, these objectives have also been developed to encompass the relevant principles from the borough *Sustainable Community Strategies*, *Core Strategies* and targets from the adopted *Joint Waste Management Strategy*. Implementation of these objectives will require action from the whole community, including producers, retailers, consumers, local authorities and the waste management industry – waste management is everybody's responsibility.

3.4 The Borough Core Strategies each contain a strategic waste policy which sets the framework for the Joint Waste DPD including:

- encouraging movement up the waste hierarchy
- suitable locations for waste management facilities
- help deliver targets for recycling and composting
- regard to the London Plan apportionment
- Joint Waste DPD to identify amount of waste to be managed, the range and type of facilities needed, sufficient land to manage waste apportionment and suitable locations for these facilities.

04 Future Waste Management Requirements

How much waste will we need to manage at 2021

4.1 The determination of how much waste will need to be managed by the ELWA boroughs was debated through previous public consultation. The London Plan identifies the borough level apportionment of **municipal solid waste (MSW)** and **commercial and industrial waste (C&I)** to be managed. The apportionment for each ELWA borough is pooled for the purpose of this Joint Waste DPD.

4.2 The London Plan borough level apportionment does not include **construction, excavation, demolition waste (C,E&D)** or **hazardous waste**. Forecast scenarios and variables for construction and demolition waste and hazardous waste were consulted on at the Issues and Options stage and inclusion of these waste streams in the Joint Waste DPD are supported by representations received.

4.3 Graph 1 below show the tonnages of these waste streams to be managed by the ELWA boroughs to 2021. Municipal solid waste and commercial and industrial waste tonnages are as per London Plan (Consolidated with Alterations since 2004) Table 4A.6.[4] Construction, excavation and demolition waste and hazardous waste projections for the ELWA boroughs are as set out in the Issues and Options Consultation Document.

Graph 1: Waste volumes projected to be managed by the ELWA boroughs

[4] The projections for municipal solid waste and commercial and industrial waste have been reduced in the latest version of the London Plan which was published in July 2011.

What facilities will we need?

4.4 Taking into account the reduced apportionment in the London Plan (2011) the ELWA boroughs will need to provide sufficient waste management capacity for:

- 1.573 million tonnes of MSW and C&I waste at 2021
- 1.267 million tonnes of C,E&D waste at 2021; and
- 0.095 millions tonnes of hazardous waste at 2021.

4.5 A detailed list of current recycling, composting, recovery, disposal and transfer waste management facilities in the ELWA boroughs and individual annual permitted tonnages is included in the *Joint Waste DPD Technical Report*. A summary of the relevant facility types and their estimated capacity is shown in Table 2 below.

Table 2: Existing waste management capacity in the ELWA area

Facility type	Number of facilities	Annual permitted tonnage	Estimated actual capacity (75%)
A13 - Household Waste Amenity Sites (Reuse and Recycling Centres)	4	167,050	125,288
A15 - Material Recycling Treatment Facility	10	950,500	712,875
A20 - Metal Recycling Sites	5	488,080	366,060
A22 - Composting Facility	2	202,000	151,500
A16 - Physical Treatment Facility	3	174,000	130,500
A17 - Physico-Chemical Treatment Facility	1	90,000	67,500
A23 - Biological Treatment Facility	2	193,080	145,080
A11 - Household, Commercial and Industrial Waste Transfer Station	23	3,252,833	2,439,625
A18 - Incineration (Clinical Waste)	1	7,000	5,250
A09 - Special Waste Transfer Station	6	470,627	352,970
A12 - Clinical Waste Transfer Station	3	6,040	4,250
A14 - Transfer Station taking Non-Biodegradable Wastes	2	280,800	210,600
A05 - Landfill taking Non-Biodegradable Wastes	6	866,000	649,000

4.6 Waste management facilities that do not count toward meeting the capacity required to manage MSW and C&I wastes include transfer stations and landfill as these options do not support recycling. Vehicle dismantlers are also not included as it is a transfer-type operation. The existing capacity of ELWA's four Reuse and Recycling Centres is included as 50% of the annual permitted tonnage as this is the percentage of waste that is currently recycled or composted at these sites (as opposed to RRCs operating as transfer stations). As with all the other facilities (see paragraph 4.7 below), the *Joint Waste DPD Technical Report* then applies an actual throughput of 75% of this existing capacity at ELWA's four Reuse and Recycling Centres (i.e. 75% of 50% of the annual permitted tonnage). As almost all C,E&D waste is inert it is appropriate to include Landfill taking Non-Biodegradable (i.e. inert) waste.

4.7 It is generally accepted that most facilities are licensed for a throughput in excess of what they achieve in practice. As there is considerable uncertainty surrounding actual throughput and little available data, the *Joint Waste DPD Technical Report* uses an estimate for actual throughput of 75% of maximum available capacity to maintain consistency with data used in the London Plan.

4.8 The number and mix of facilities that will be required within the ELWA area is dependent not only on the amount of waste that will require treatment but also how it is treated. The Waste Strategy for England 2007 establishes the following targets for waste management:

Table 3: Target MSW, C&I and C,E&D recovery, composting and recycling to 2020

	MSW					C&I			C,E&D
	Recycling	Composting	Recycling + Composting	Other recovery	Total recovery[1]	Recycling	Composting	Recycling & Composting	Recycling & Reuse
2010	27%	13%	**40%**	13%	**53%**	38%	18%	**56%**	-
2015	30%	15%	**45%**	22%	**67%**	43%	21%	**64%**	-
2020	33.5%	16.5%	**50%**	25%	**75%**	47%	23%	**70%**	**95%**

Note [1] 'Recovery' means to obtain value from waste through one of the following means:

- Recycling
- Composting
- Other forms of material recovery (such as anaerobic digestion)
- Energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolisis, or other technologies)

Source: Waste Strategy 2000 for England and Wales, DETR May 2000.

4.9 These targets highlight a commitment to drive waste management up the waste hierarchy and divert more waste from landfill and are endorsed in the National Waste Strategy 2007 and the London Plan.

4.10 In addition to the targets established in the Waste Strategy 2000 and the London Plan, the ELWA boroughs have planned on the basis of that waste which is not recycled or composted being recovered and therefore no waste going to landfill. Based on this approach for the management of waste in the ELWA area, and the existing waste management capacity in the ELWA boroughs (as detailed in Table 2) the ELWA boroughs need to provide capacity as summarised in Table 4 below in order to manage the apportionment of MSW and C&I waste in the London Plan (2011). A detailed explanation and spreadsheet of these calculations is included in the *Joint Waste DPD Technical Report*.

Table 4: Summary of average capacity surplus/deficit within the ELWA boroughs required to meet the London Plan (2011) apportionment for MSW and C&I waste.

Waste management route	**Capacity Required**		
	2011	2016	2021
Recycling (MSW and C&I)	*786,203 tpa*	*674,313 tpa*	*415,428 tpa*
Composting (MSW and C&I)	**-47,440 tpa**	**-109,170 tpa**	**-320,255 tpa**
Recovery (all facilities)	**-262,710 tpa**	**-256,090 tpa**	**-269,370 tpa**

Note [1] A deficit, or future capacity requirement, is shown in bold with a minus sign in front. Surplus capacity is shown in italic text.
Note [2] Table 4 is based on the assumption of 75% capacity utilisation of existing facilities (refer to paragraph 4.7)

4.11 The 2011 London Plan figures are lower than in the previous London Plan (consolidated with alterations since 2004) and have resulted in increased flexibility within the Joint Waste DPD in terms of site deliverability. Such flexibility recognises that in some cases a site may not come forward or be required to meet the apportionment during the plan period. Site delivery and capacity requirements will be monitored extensively through LDF Annual Monitoring Reports. Where it is apparent that surplus capacity has been identified it may be necessary to put back the delivery of a waste management facility to a later five year period, or review its allocation in the DPD and seek an alternative use. As set out in Policy W2, sites will only be approved where they are needed to contribute to meeting the London Plan apportionment figures for the ELWA boroughs, and capacity sought only where there is an identified need.

4.13 **Construction, excavation and demolition waste:** It is estimated that a large portion of recycling and reuse of construction, excavation and demolition waste currently occurs on site rather than in designated licensed facilities, or is transferred out of London through inert transfer stations. As such it is not considered that additional permanent new C,E&D recycling facilities are required.

4.14 As an alternative to allocating sites for C,E&D recycling facilities, Joint Waste DPD Policy W1 encourages the reuse of C,E&D waste at or near to construction sites with on-site recycling wherever possible. There is increasing opportunity for the use of recycled aggregate (sourced from a variety of construction, excavation and demolition wastes) in a wide range of applications within the construction industry, and as a result of landfill legislation changes, on-site remediation of contaminated soils is increasing. Additionally, Policy W4 ensures that the potential benefits of landfilling inert C,E&D waste are maximised.

4.15 **Hazardous waste:** The *Study of Arisings and Management of Non-Municipal Wastes in the ELWA area* (ERM, 2005) considered it not appropriate for the ELWA boroughs to aim for self-sufficiency in the management of hazardous waste or to allocate specific sites suitable for hazardous waste management due to the variety and nature of hazardous wastes and the specialist management techniques and facilities required. This is supported by Policy 5.19 of the London Plan which states that the Mayor will work with the Boroughs, the Environment Agency and industry to provide and maintain direction on the need for hazardous waste management capacity.

4.16 The *London Plan, Spatial Development Strategy for Greater London* (Greater London Authority, 2011) noted that in 2007 around 300,000 tonnes of hazardous waste was produced in London, 35% from C&D waste (containing asbestos and contaminated soil), 21% from oil and oil/water mix waste, and 44% from chemical and other industrial processes. There are no figures for hazardous waste on an individual borough basis; however with 32 boroughs and the City, the individual tonnages generated in each are likely to be low. The types of hazardous waste arising in the ELWA area include such materials as televisions, computer monitors and fluorescent lighting (classified as hazardous wastes under the Hazardous Waste Directive list of wastes); thus households and businesses will also contribute towards hazardous waste arisings. Some hazardous waste can be reused, recovered or recycled – such as solvents, oils and metals. Others are incinerated or sent to landfill – however there are fewer landfill sites able to accept hazardous waste since implementation of the Landfill Directive in 2004. Whilst the London Plan recognises that there is a need to identify hazardous waste capacity for London's hazardous waste, due to the nature and quantities of this, the London sub-regions are unlikely to be self-sufficient. Detailed data on hospital/health care wastes across the ELWA area is not available. Current estimates from health service colleagues indicate that Newham General Hospital for example generates around 850 tonnes of waste p.a. – of which 380 tonnes are clinical waste and 380 tonnes general 'black bag' waste. Seventy tonnes of general waste is currently recycled – primarily card and paper – more recycling is planned, with the aim of recycling 50% of the domestic waste stream. Very little waste now requires incineration – e.g. the approximate clinical waste arising from health centres within Barking and Dagenham is 46 tonnes p.a. – of which some 2-3 tonnes require incineration. In Havering, St. George's Hospital generates approximately 22 tonnes p.a. of clinical waste.

4.17 The definition of hazardous waste includes substances that commonly make up household, commercial and industrial construction (including Waste Electrical and Electronic Equipment) and construction, excavation and demolition waste streams

(including asbestos and contaminated soils). Whilst London Plan Policy 5.19 states that Development Plan Documents should make provision for hazardous waste treatment plants to achieve, at a regional level, the necessary waste management requirements, there is no definition of such facilities. Any application for a waste management facility that manages hazardous waste would be determined in accordance with the policies of this Joint Waste DPD.

4.18 The existing hazardous waste management capacity within the area is listed in Table 2 - special waste [470,000 tpa] and clinical waste [6,000 tpa] transfer stations and clinical waste incineration [7,000 tpa]. On-site soil treatment facilities, including temporary facilities, provide additional capacity. While just the recovery (incineration) capacity is classified as 'treatment', special waste transfer stations play an important role in the storage and reprocessing of hazardous waste streams, especially as the Hazardous Waste Directive and Regulations require more sophisticated levels of separation of the different categories of hazardous, non-hazardous and inert waste.

4.19 **Electrical equipment**: The Waste Electrical and Electronic Equipment Directive (WEEE) aims to minimise the impacts of electrical and electronic equipment on the environment during their lifetime and when they become waste. The Directive applies to a wide range of products including fridges, washing machines, TVs, computers, fluorescent tubes and electronic games/toys and encourages and sets criteria for the collection, treatment, recycling and recovery of waste equipment. All four of ELWA's Reuse and Recovery Centres are Designated Collection Facilities (DCFs) which separate and recycle used electrical equipment with a current recycling rate in excess of 90% by weight.

What waste management technologies and facilities?

4.20 A range of facilities, including type, size and mix of technologies, will be necessary to meet the overall capacity requirements. Recycling, composting, recovery and processing facilities cover a range of technology types that will have specific site characteristics. A summary of existing and emerging waste technologies is set out below:

Materials Recycling Facility / Material Recovery Facility (MRF)
An MRF is designed to process source separated or co-mingled dry recyclables into individual materials prior to despatch to reprocessors who prepare the materials for manufacturing into new recycled products. The MRF is made up of a series of conveyor belts and a mix of manual and automatic machines to separate the materials and remove any items that can be recycled.

In-vessel composting (IVC)
In-vessel composting is used to cover a wide range of composting systems, all of which feature the enclosed composting of biodegradable material, therefore allowing a higher degree of process control. They are usually categorised into five types: containers, silos, agitated bays, tunnels, and enclosed halls. Many IVC systems involve the forced aeration

of the feedstock and capture and manage process air to reduce potential nuisance, such as odour. The enclosed nature of these facilities allows for the further control of nuisance, including noise and dust. The compost produced is far more stable and sanitary than the biodegradable MSW input. Moreover, the material may be screened into particle sizes suited to its end-use, and may be blended with other materials, such as sand, to produce artificial topsoil.

Open-air composting

Open-air composting has quite different land use implications from other waste management techniques. The process involves mechanical turning of shredded biodegradable waste to enable effective degradation. Open windrow composting operations can take place outdoors or using minimal buildings and as such the operations are comparable to agricultural practices and may therefore be appropriate to locate in the open countryside or Green Belt. These facilities would not normally be compatible with a hi-tech business park or urban setting.

Mechanical Biological Treatment (MBT)

Mechanical biological treatment is a generic term for the integration of several processes commonly found in other waste management technologies, including MRFs, sorting and composting plants. A common aspect of all MBT plants used for MSW is to sort mixed waste using a range of techniques, including hand picking, mechanical sorting and magnetic separation, and to extract materials for recycling. The biological element of the process can take place prior to or after sorting. MBT plants can incorporate a number of different processes in a variety of combinations, with the exact mix of technologies determined by the objectives of the plant.

Anaerobic digestion (AD)

Anaerobic digestion is a biological treatment where biodegradable wastes are converted to a 'digestate' (containing biosolids and a liquid) and biogas. The waste is decomposed by bacteria in the absence of air – a key difference from composting processes. Biodegradable waste is broken down in an enclosed vessel under controlled conditions. The methane rich biogas released during this process can be collected and burnt as a fuel to generate electricity.

Advanced Thermal Treatment (ATT)

Advanced thermal treatment is a general term primarily used for waste management technologies that use pyrolysis or gasification to process waste and generate power (and often to recover heat). ATT excludes the conventional incineration of waste. Within the ELWA area, a proposal for advanced thermal treatment (excluding conventional incineration) will be considered where the development will recover energy, and where it can be demonstrated that waste to be treated in this way cannot practically and reasonably be reused, recycled or processed to recover materials. This will ensure that the thermal treatment plant does not 'crowd out' other technologies with the potential for recycling or otherwise gaining benefit from the waste prior to its thermal treatment. Opportunities to include provision for Combined Heat and Power (CHP) and Combine Heat Power and Cooling (CHPC) will be supported.

C,E&D Recycling

Temporary C,E&D recycling facilities can potentially be located on development sites for the reprocessing of a range of C,E&D wastes (including concrete, tiles, brick and asphalt) into recycled aggregate for use in the construction industry. Further details are available at www.aggregain.org.uk (part of the WRAP Aggregates Programme).

C,E&D waste recycling and processing facilities can also be co-located on mineral sites. Broadly, the materials are similar in nature, as are the general processes that both C,E&D waste and raw materials undergo (including screening and grading of material, crushing and breaking), and there are potential transport-related savings through the use of heavy goods vehicle movements delivering C,E&D waste and removing minerals or secondary aggregate. Permissions granted for C,E&D waste management facilities on mineral extraction sites will be temporary and restricted to the operational life of the mineral site.

Where should new facilities be located?

4.21 In accordance with PPS10, the London Plan and borough Core Strategy policy, the Joint Waste DPD identifies sites suitable for recycling and waste treatment facilities. The process for determining these sites has been documented throughout the development of this document and has been influenced by representations received.

4.22 The suitability of a site for a waste facility was based on criteria consistent with PPS10, the London Plan and sustainability objectives. Full details of the methodology used for the assessment of potential sites for waste management uses, as well as the findings of the site assessment and recommendations for preferred sites to be included in the Joint Waste DPD can be found in the *Site Assessment to inform Preferred Options* report[5] .

4.23 The site assessment procedure also considered the typical characteristics of modern waste management techniques and facilities and key local issues associated with the operation of each process.

[5] East London Joint Waste DPD – Site Assessment to inform Preferred Options. Prepared by Land Use Consultants and Environmental Resources Management Ltd, June 2007.

05 Policies

Policy W1: Sustainable Waste Management

The boroughs will aim to drive waste management up the waste hierarchy by promoting waste minimisation, materials reuse, recycling & recovery of resources and help the delivery of national and regional targets for recycling and composting set out in the Waste Strategy for England 2007 and the London Plan by:

(i) working in partnership with the general public and the business community in the ELWA area to provide information and advice and raise awareness;

(ii) working in partnership with local community and voluntary groups and social enterprises to encourage waste minimisation, materials reuse, recycling and recovery of resources;

(iii) ensuring that developers and contractors design new housing, commercial and other developments to maximise opportunities for future occupiers to minimise, reuse, recycle and recover resources from waste, by providing adequate space and facilities for storage and handling of segregated waste; and

(iv) require the reuse of construction, excavation and demolition waste during new developments, such as the Thames Gateway, with on-site recycling and use of recycled aggregate wherever possible and encourage use of sustainable transport modes where the movement of waste is necessary.

Justification

5.1 The objective of the Waste Framework Directive is to manage waste as near to the top of the waste hierarchy as possible with European, national and regional policies placing increasing emphasis on waste reduction. Achieving these objectives will require a concerted effort to decouple waste growth from economic growth, which will need a change in producer and consumer behaviour and current patterns of the manufacture and consumption of goods. There is increasing pressure both nationally and regionally for business to take the lead, especially with regard to packaging waste.

5.2 The agreed targets for the Joint Waste DPD intend to deliver sustainable waste development (Preferred Objective A) and are consistent with the Waste Strategy for England 2007 and the London Plan (2011).

These are:

- **Recycling & Composting of MSW -** 40% by 2010, 45% by 2015, 50% by 2020
  Waste Strategy for England (2007, page 11)

- **Recovery of MSW -** 53% by 2010, 67% by 25, 75% by 2020
  Waste Strategy for England (2007, page 11)

- **Recycling and composting of C&I -** 70% by 2020
  London Plan 2011 Policy 5.16 (Waste Self-Sufficiency)

- **Recycling and reuse of C,E&D -** 95% by 2020

5.3 Achieving these targets will require investment in new infrastructure and technologies to treat the wastes generated within the ELWA area. Efforts will extend to the commercial and industrial (C&I) and construction, excavation and demolition (C,E&D) waste streams. The ELWA boroughs will be supportive in generating, and encouraging others to generate, markets for recycled materials through working with public organisations, as well as local privately funded initiatives. Other approaches include adopting green procurement practices and encouraging the use of recycled aggregate in the construction industry.

5.4 The Joint Waste DPD encourages the development of new and emerging advanced conversion technologies for waste. Such technologies might include recycling, composting, mechanical biological treatment, anaerobic digestion and gasification/ pyrolysis, and where appropriate the co-location of these facilities to form resource recovery parks will be supported. By not prescribing preferred waste management technologies the Joint Waste DPD will maintain flexibility and allow industry to bring forward appropriate development proposals.

5.5 For proposed facilities lower down in the waste hierarchy, applicants will be expected to demonstrate satisfactorily how their proposals integrate into the sustainable approach to waste management sought by the ELWA boroughs. Their proposals must take into account any opportunities for treatment of waste further up the hierarchy. New and innovative approaches to waste management will be supported where benefits are demonstrated.

Policy W2: Waste Management Capacity, Apportionment & Site Allocation

The London Plan identifies the amount of municipal and commercial waste to be managed by the ELWA boroughs as 1,228,000 tonnes at 2011; 1,395,000 tonnes at 2016 and 1,573,000 tonnes at 2021. The ELWA boroughs will meet this apportionment by:

(i) Safeguarding the capacity of existing waste management facilities listed in Schedule 1 and encouraging increased processing of waste at these facilities, to run at a higher figure towards the licensed capacity; and

(ii) Approving strategic waste management facilities where it will contribute to the ELWA boroughs meeting the London Plan apportionment on sites within the locations listed in Schedule 2.

Where the applicant can demonstrate there are no opportunities within these preferred areas for a waste management facility, sites within designated industrial areas as identified in borough Local Development Frameworks will be considered.

Planning permission will only be granted for new waste water and sewage treatment plant, extensions to existing works, or facilities for the co-disposal of sewage with other wastes, where development is either needed to treat waste arisings from within the East London Waste Authority area or in the case of arisings from elsewhere the need cannot practicably and reasonably be met at another site – subject to the relevant borough's policy/guidance and Policy W5 of this Plan. Wherever practical and economical, renewable energy generation will be encouraged as part of such waste management facilities.

In all cases applications will be required to meet the relevant borough design guidance and Policy W5.

Justification

5.6 PPS10 requires that the Joint Waste DPD identifies sites and areas suitable for the waste management facilities that support the apportionment as set out in the London Plan.

5.7 The loss of existing waste management capacity or suitable sites for future facilities to other development pressures will make waste recycling, diversion and recovery targets harder to achieve. PPS10 recognises that all local planning authorities have a responsibility to consider the impact of other development on existing waste management facilities and on sites and areas allocated for waste management. The London Plan requires that existing waste management sites should be safeguarded, unless appropriate compensatory provision is made. It is deemed that the sites listed in Schedule 1 and Schedule 2 satisfy this.

5.8 The Councils recognised that before all the sites in Schedule 2 are operational it will need to treat carefully proposals which involve the loss of existing waste management facilities that are not safeguarded. This is necessary to ensure there remains sufficient capacity in place to meet the apportionment. The Councils will require appropriate compensatory provision to be made where this is not the case.

5.9 A detailed explanation of the calculations of how the apportioned waste will be treated (as per the targets for municipal and commercial and industrial waste), existing capacity of existing waste management facilities in the ELWA boroughs, and new capacity which the Joint Waste DPD must plan for is included in the *Joint Waste DPD Technical Report*. Table 5 summarises the capacity required and estimated land take that may be required to provide this capacity.

Table 5: Summary of average capacity required within the ELWA boroughs and land area required to meet the London Plan apportionment for MSW and C&I waste

Waste management route	**Capacity Required**	**Land area required**
Composting (MSW and C&I)	47,440 tonnes at 2011 +61,730 tonnes at 2016 +211,085 tonnes at 2021	3 - 6ha 4 - 12ha 6-12ha
Recovery (all facilities)	262,710 tonnes at 2011 -6,620 tonnes at 2016 + 13,280 tonnes at 2021	3-5ha 0ha 1ha

5.10 Schedule 2 identifies a number of areas within which potentially available and suitable sites for waste management facilities can be located. These areas represent a refinement of the broad locations identified in the London Plan and borough Core Strategies. This builds flexibility into the Joint Waste DPD and the boroughs are confident that sufficient opportunities will arise within these areas.

5.11 Each of the identified sites was considered in the context of the type of waste treatment technology that could be suitable on that site based on the typical characteristics and key local issues published in *Planning for Waste Management Facilities* and *Recycling and Recovery Facilities*.

5.12 The sites identified in Schedule 2 provide sufficient potential capacity to manage the tonnages of waste presented above. In considering the need for development, the ELWA boroughs will have regard to the remaining capacity of existing facilities, as well as other permitted waste facilities. It is important that the ELWA boroughs work together to ensure that new development does not constrain land that has been safeguarded for waste management facilities.

5.13 There is an established network of sewage facilities within East London, but upgrades may be required during the Plan period and this may involve new development. As the Landfill Directive introduces a ban on the disposal of liquid to other landfill facilities, this may result in additional pressure to find available space within operational sewage treatment plants to manage liquid wastes that were previously disposed of through landfill. Sewage treatment plants may also be appropriate locations for new facilities to manage domestic and other wastes.

Policy W3: Energy recovery facilities

Opportunities for the incorporation of waste recovery and treatment facilities, where the energy produced from biological or thermal treatment can be utilised in local schemes, should be considered for all major new developments.

Applications for advanced thermal treatment facilities[1] will be considered only where the waste to be treated cannot practicably and reasonably be reused, recycled or processed to recover materials and where there is provision for energy recovery and co-location with complementary activities.

In all cases applications will be required to meet relevant design guidance and Policy W5.

[1] Advanced Thermal Treatment technologies exclude conventional incineration

Justification

5.14 While the Joint Waste DPD supports, in accordance with the waste hierarchy, that opportunities for recycling and composting are maximised before energy recovery is considered, energy recovery facilities will play an important role in the future management of London's waste.

5.15 Advanced thermal treatment (or advanced conversion) technologies including gasification, pyrolysis and anaerobic digestion provide opportunities for local renewable energy generation supported by the Renewables Obligation Certificates system and the Government's Energy White Paper. The Joint Waste DPD does not express a preference for technologies in order to maintain flexibility with regard to emerging technologies and allow proposals to be determined on their merits. The Joint Waste DPD supports the Defra Waste Infrastructure Delivery and New Technologies Demonstrator Programmes in developing UK specific examples of these technologies.

5.16 As any energy recovery technology is more beneficial if both heat and electricity can be recovered, particular attention is focussed on siting facilities in order to maximise opportunities for Combined Heat and Power (CHP) and Combined Cooling Heat and Power (CCHP). Potential co-location opportunities should be considered at the early stages of planning major new developments.

Policy W4: Disposal of inert waste by landfilling

The ELWA boroughs will only grant planning permission for waste disposal by landfilling provided:

(i) the waste to be disposed of cannot practicably and reasonably be reused; and

(ii) the proposed development is both essential for and involves the minimum quantity of waste necessary for:

a) the purposes of restoring current or former mineral workings sites; or

b) facilitating a substantial improvement in the quality of land; or

c) facilitating the establishment of an appropriate after-use; or

d) improving land damaged or degraded as a result of existing uses and where no other satisfactory means exist to secure the necessary improvement; and

Where the above criteria are met, all proposals for landfilling should:

(i) incorporate finished levels that are compatible with the surrounding landscape. The finished levels should be the minimum required to ensure satisfactory restoration of the land for an agreed after-use; and

(ii) include proposals for high quality restoration and aftercare of the site, taking account of the opportunities for enhancing the overall quality of the environment and the wider benefits that the site may offer, including nature and geological conservation and increased public accessibility.

Justification

5.17 Due to the need for inert C,E&D waste landfill capacity the voids left by mineral working can be used for landfill to achieve restoration of the site. Policy W4 sets the requirements that will govern the circumstances under which these sites can be used for landfill materials.

5.18 To ensure that the potential benefits of landfill are maximised, such proposals must include consideration of final use of the land, including proposals for a high quality of restoration and long term management plans for the restored site. In accordance with sustainability objectives after-uses with open space and/or biodiversity conservation will be favoured. All restored landfills will be expected to incorporate high quality standards of restoration of the site that are appropriate to the surrounding landscape. In this regard boroughs' LDF minerals policies must also be met.

Policy W5: General Considerations with regard to Waste Proposals

Planning permissions for a waste related development will only be granted where it can demonstrate that any impacts of the development can be controlled to achieve levels that will not significantly adversely affect people, land, infrastructure and resources.

Applications for new facilities that manage non-apportioned waste must demonstrate that there is not a more suitable site nearer the source of waste arising with regard to the factors listed below.

The information supporting the planning application must include, where relevant to a development proposal, assessment of the following matters and where necessary, appropriate mitigation should be identified so as to minimise or avoid any material adverse impact and compensate for any loss including:

(i) the release of polluting substances to the atmosphere or land arising from facilities and transport;

(ii) the amount of greenhouse gases produced;

(iii) the development on sites that are likely to be at greater risk now, or over the lifetime of the development due to climate change;

(iv) the likely increase in pressure on resources with climate change;

(v) the contamination of ground and surface water;

(vi) the drainage of the site and adjoining land and the risk of flooding;

(vii) water consumption requirements and consideration of water management within operational plant;

(viii) groundwater conditions and the hydrogeology of the locality;

(ix) the visual and landscape impact of the development on the site and surrounding land, including townscape and agricultural land;

(x) in the case of buildings, demonstration of high quality of design and sustainable construction and drainage techniques;

(xi) adverse effects on neighbouring amenity including transport, noise, fumes, vibration, glare, dust, litter, odour and vermin;

(xii) transport impact of all movements, including opportunities for use of sustainable transport modes, traffic generation, access and the suitability of the highway network in the vicinity, access to and from the primary route network;

(xiii) adverse impacts of all movements including: traffic generation, an unsuitable highway network, inadequate accessibility to the site or the primary road network in the vicinity; and limited or no opportunities for the use of sustainable transport modes;

(xiv) the loss or damage to significant biodiversity conservation interests;

(xv) the loss or damage to the historic environment, archaeological and cultural resources of value and importance;

(xvi) potential danger to aircraft from bird strike and structures;

(xvii) scope for limiting the duration of use; and

(xviii) the management arrangements for residues arising from any waste management facility.

Justification

5.19 All planning applications for waste management facilities will need to cover all relevant matters in detail and are expected to include management and mitigation for potentially adverse effects resulting from the proposed development.

5.20 In assessing applications, due regard will be paid to prevailing national policy and guidance appropriate both to the areas and features of acknowledged importance and to the proposed means of dealing with waste. The assessment will also take into account whether any significant adverse impact identified can be controlled to acceptable levels. Consideration will also be given to relevant borough specific DPDs in Barking and Dagenham, Havering, Newham and Redbridge, to ensure that policy conflict does not arise.

5.21 To maintain the principles of sustainable development and the right balance of waste facilities across London, proposals for new facilities managing waste which is not included within the London Plan apportionment for the ELWA area must undergo a sequential test. This will entail the applicant demonstrating as part of their application that there are no more suitable opportunities to manage the non-apportioned waste closer to its source. This is necessary to ensure that the distance waste is transported is minimised, to encourage communities to take more responsibility for managing their own waste, and to prevent an over-concentration of waste management facilities in east London.

5.22 The handling, treatment and disposal of waste should not give rise to pollution or have a significantly adverse environmental impact. Adequate monitoring and safeguards should be maintained to minimise the risk of problems in the future. These issues are the primary responsibility of the pollution control authorities, generally the Environment Agency, but planning should ensure that the location of proposed waste development is acceptable.

5.23 As reliance on landfill diminishes, waste management is increasingly expected to occur within purpose built structures. A high quality of building design and site layout in proposals for waste management facilities is expected.

5.24 The construction and operation of waste management facilities should not give rise to an unacceptable impact on the amenities of residents, or on the local and wider environment. Sufficient information from applicants will therefore be required to ensure 0sadequate protection of these interests before granting planning permission. Adequate pollution control technology is expected to be installed and operated and best practice on site management and operations should be included with the planning application, as poor site management can lead to adverse amenity and environmental impacts.

5.25 Consideration of traffic generation characteristics will incorporate an assessment of the level and type of traffic generated and the impact of that traffic. This assessment will identify opportunities for use of sustainable transport modes, the suitability of access and the highway network in the vicinity of the site, including access to and from the primary route network, designated routes and vehicle operating times and works necessary to accommodate the development.

5.26 Residual wastes will arise from waste management facilities. These wastes will need to be managed and these management details are expected to be included with the planning application.

5.27 Developers are encouraged to contact the appropriate ELWA borough prior to submission of a planning application to discuss all relevant matters.

06 Monitoring and Implementation

Looking ahead

6.1 The development of this Joint Waste DPD is based on a variety of assumptions, notably with regard to forecasting waste arisings, calculating future capacity requirements for recycling, composting, recovery and treatment facilities, and the type of facilities that may provide this capacity during the plan period. Details of these assumptions and how they have influenced each phase are documented in *Building the Evidence Base and Identifying Issues and Options* and *Preferred Options Report*.

6.2 As stated in Chapter 4, the London Plan identifies the borough level apportionment of municipal solid waste and commercial and industrial waste to be managed. Future amendments to this apportionment could change the amount of waste to be managed by the ELWA boroughs and therefore the facility capacity needed. In addition, changes to national or regional targets for recycling, composting and recovery could impact the type of facilities needed to manage the apportioned waste. The Technical Report (*Joint Waste DPD Technical Report*) provides a spreadsheet where the variables input (including apportionment, recycling and composting targets and existing facility capacity) calculate the estimated facility capacity needed. This spreadsheet will allow future calculations to be made should one or more of these variables change. It is anticipated that any future significant review of the waste chapter of the London Plan would coincide with a review of this DPD.

6.3 A range of facilities (type, size and mix of technologies) sited at a range of locations will be necessary to meet the overall capacity requirements. The estimated land take requirements and general siting criteria for new waste facilities were based on *Planning for Waste Management Facilities – A Research Study* ODPM (August 2004), *Recycling and recovery facilities – Sites investigation in London*, Land Use Consultants and SLR Consulting Ltd for the GLA (July 2005) and the Defra Waste Implementation Programme New Technologies publications and Waste Technology Data Centre. The Joint Waste DPD acknowledges that waste technology is constantly evolving and encourages the development of new and emerging technologies. The DPD does not prescribe preferred technologies in order to maintain flexibility and allow the waste management industry to bring forward appropriate waste facility proposals.

6.4 The sites identified in Schedule 2 provide sufficient potential capacity to manage the apportionment in accordance with PPS10 and the London Plan. The availability and future suitability of these sites will be reviewed and updated as part of the review of this DPD.

Monitoring

6.5 A key requirement of the Planning and Compulsory Purchase Act 2004 is for Planning Authorities to assess the extent to which policies in local development documents are being implemented. This chapter outlines how the policies in the Joint Waste DPD will be monitored against core output indicators as prescribed by the Communities and Local Government Department as well as local output indicators which have been established by the four authorities for the purpose of this DPD and take into account the recommendations within the Sustainability Appraisal. To provide evidence that the policies are being implemented, targets are provided for both the core and local output indicators.

6.6 Where monitoring identifies serious/sustained failure to meet core and local targets, the four Planning Authorities will seek to understand the reasons why this is occurring and take effective management measures to correct any problems. In the case of failure to deliver new waste facilities in accordance with apportionment set out in the London Plan, key management actions may include:

- Re-assess existing designated sites and identify further sites suitable for new waste facilities, as required by PPS10 (paragraph 19).
- Bring forward waste facilities through site planning briefs.
- Use Compulsory Purchase Orders to assemble key sites where other delivery mechanisms have failed.
- Working with the Greater London Authority on any future reviews of waste apportionment.
- Continue to work closely with ELWA to ensure municipal waste facilities and infrastructure is being provided and resourced in line with the Integrated Waste Management Strategy.
- Joint working with other London boroughs, local authorities from outside Greater London, the Greater London Authority and the Environment Agency. Continued membership and participation at the London Regional Technical Advisory Body (RTAB) will provide an appropriate platform for this.

6.7 Monitoring will be undertaken on an annual basis and coincide with preparation of each Borough's Annual Monitoring Report, which is submitted annually to CLG by 31 December, for the previous financial year.

Indicators and targets

Indicator	Source of indicator	Target	Related Policies	Related Strategy Objectives
Capacity of new waste management facilities by type (recycling and composting, recovery, treatment)	Core Output Indicator W1	Progressive year on year cumulative increase toward 450,000 tpa capacity for municipal, commercial and industrial composting and 340,000 tpa recovery and treatment	W1; W2; W3	B, C, D, E, G, H
Provision of 2 small scale IVC/AD facilities at Ferry Lane North, Havering	Local Output Indicator	Delivery within 2015-2020	W2	B,C,D,E,G,H
Provision of 2 medium and 1 small scale facility for IVC/ AD/Recovery at Dagenham Dock, Sustainable Industries Park, Barking & Dagenham	Local Output Indicator	Delivery by 2020	W2	B,C,D,E,G,H
Provision of medium scale composting facility at Gerpins Lane, Havering	Local Output Indicator	Delivery within 2015-2020	W2	B,C,D,E,G,H
Provision of large scale composting facility at Hall Farm, Havering	Local Output Indicator	Delivery within 2015-2020	W2	B,C,D,E,G,H
Provision of medium to large scale facility for IVC/AD/ MBT/Thermal (excl incineration) at Beckton Riverside, Newham	Local Output Indicator	Delivery within 2010-2015	W2	B,C,D,E,G,H
Type of waste (eg MSW, C&I, hazardous etc) managed (%) at each new facility	Local Output Indicator	n/a	W2; W3	B, C, D, E, G
Amount of municipal waste arising, and managed by management type (recycling and composting, recovery, treatment)	Core Output Indicator W2	Average amount of municipal waste recycled and composted meets targets of 40% (2010); 45% (2015); 50% (2020)	W1; W2	A, B, C, D, E, G
Number of planning permissions for waste facilities granted contrary to Environment Agency advice on flooding and water quality grounds	Core Output Indicator E1 (adapted)	Target = 0	W5(iii); W5(v); W5(vi)	E, F

Number of planning permissions for waste facilities granted contrary to the local advice of the local Environmental Health Officer or the Environment Agency on air quality grounds	Local Output Indicator	Target = 0	W5(i); W5(xi)	E
Renewable energy (MW) generated from waste facilities	Core Output Indicator E3 (adapted)	Progressive year on year increase as policies are applied	W3	E, F
Proportion of waste developments with planning permission, starting in operation within that year, with sustainable design and construction features	Local Output Indicator	Target = 75%	W1; W5(vii); W5(x)	A, F, H
Proportion of waste developments with planning permission, starting in operation within that year, with provision for transport of waste or recyclables within the UK by rail or water	Local Output Indicator	Progressive year on year increase as policies are applied 2001 - 2011: 5% increase in river freight traffic	W1;'W5(xii)	A, E
Number of safeguarded waste sites (Schedule 1) developed for non-waste uses	Local Output Indicator	Target = 0	W2	C, D, F
Actual waste throughput of Schedule 1 sites (where data available)	Local Output Indicator	Annual Permitted Tonnage (Licensed Capacity)	W2	B,C,D,E,G,H
Number of planning permissions with a proportion of reuse or recycling of construction, demolition and excavation waste on site	Local Output Indicator	Progressive year on year increase as policies are applied	W1	A, E, F, H
Amount of construction, demolition and excavation waste disposed of at inert landfill sites	Local Output Indicator	Progressive year on year decrease in amount of waste landfilled	W4	A, C, E, F
Percentage of household waste sent for reuse, recycling and composting	National Indictor 192	Barking & Dagenham: 23.5% 2008/09; 25.5% 2009/10; 28% 2010/11 Havering: 27% 2008/09; 30% 2009/10; 33% 2010/11 Newham: 20% 2008/09; 22% 2009/10; 27% 2010/11 Redbridge: 25% 2008/09; 27.5% 2009/10; 30% 2010/11	W1	A, B, H
Percentage of household waste recycled and composted at ELWA RRC sites	Local Output Indicator	n/a	W2	
Residual household waste generated per household	National Indicator 191	Havering: 832tpa 2008/09; 809tpa 2009/10; 776tpa 2010/11	W1	A, B, H

Delivery organisations

6.8 It is anticipated that a number of organisations will work in partnership to implement the policies in the Joint Waste DPD. The schedule below outlines how each policy will be implemented. The organisations listed have contributed to preparation of the DPD and the actions required stem from Strategies and Plans they already have in place. All bodies therefore recognise their contribution to achieving delivery of the Joint Waste DPD.

Policy	Mechanisms	Lead Actors	Support Roles
W1	Encourage waste prevention and minimisation	Defra (WRAP); GLA; Borough Cleansing Services	Commerce and industry sectors
W1	Increase recycling and composting	ELWA; Borough Cleansing Services	
W1	Ensure planning applications for new developments have suitable recycling/ composting facilities	Borough Planning Services; Borough Cleansing Services; development industry	
W1	Encourage reuse of construction, excavation and demolition waste in new development	Borough Planning Services; development industry	ODA, LTGDC
W2	Work in partnership to bring forward sites identified for new waste facilities	Borough Planning Services, waste management industry	GLA
W3	Encourage the co-location of facilities	Borough Planning Services, waste management industry	GLA
W4	Encourage use of recycled construction, excavation and demolition material in new development	Borough Planning Services, construction industry	GLA WRAP
W5	Apply sustainable design and construction principles to new waste development	Borough Planning Services, waste management industry	

Schedule 1

Ref	Facility name	Borough	Facility type	Annual Permitted Tonnage
RECYCLING				
80090	Gerpins Lane Reuse & Recycling Centre	Havering	A13 - Household Waste Amenity Site	115,500
80679	Jenkins Lane Waste Management Facility	Newham	A13 - Household Waste Amenity Site	110,000
80106	Chigwell Road Reuse & Recycling Centre	Redbridge	A13 - Household Waste Amenity Site	28,600
80105	Frizlands Lane Reuse & Recycling Centre	Barking & Dagenham	A13 - Household Waste Amenity Site	80,000
	Bywaters	Newham	A15 - Material Recycling Treatment Facility	500,000
80126	Ilford Recycling Centre	Redbridge	A15 - Material Recycling Treatment Facility	7,500
80518*	Rainham Waste Recycling & Reclamation Centre	Havering	A15 - Material Recycling Treatment Facility	50,000
80734	Express Recycling & Plastics Limited	Havering	A15 - Material Recycling Treatment Facility	30,000
	White Mountain Roadstone Ltd	Barking & Dagenham	A15 - Material Recycling Treatment Facility	12,000
80704*	Rainham Waste Recycling & Reclamation Centre	Havering	A15 - Material Recycling Treatment Facility	131,000
BT 9364**	Jenkins Lane MRF	Newham	A15 - Material Recycling Treatment Facility	50,000
BT 9372**	Frog Island MRF	Havering	A15 - Material Recycling Treatment Facility	70,000
80759	Closed Loop Recycling SITA UK Ltd, Barking Materials Recycling Facility	Barking & Dagenham Barking and & Dagenham	A15 - Material Recycling Treatment Facility A15 - Material Recycling Treatment Facility	25,000 75,000

80120	Reuse Collections Limited	Barking & Dagenham	A14 – Transfer Station taking Non-Biodegradable Wastes	260,000
80091	Jewometals (UK) Ltd	Barking & Dagenham	A20 – Metal Recycling (mixed MRSs)	24,000
80115	The Remet Company Ltd	Newham	A20 – Metal Recycling (mixed MRSs)	41,600
80125	Mayer Parry Recycling Ltd (EMR)	Newham	A20 – Metal Recycling (mixed MRSs)	150,000
COMPOSTING				
80704*	Rainham Waste Recycling & Reclamation Centre	Havering	A22 - Composting Facility (in-vessel)	49,000
80704*	Rainham Waste Recycling & Reclamation Centre	Havering	A22 - Composting Facility (windrow/ wood processing)	153,000
RECOVERY				
80704*	Rainham Waste Recycling & Reclamation Centre	Havering	A16 - Physical Treatment Facility (lamp processing)	24,000
80620	Hunts Wharf	Barking & Dagenham	A16 - Physical Treatment Facility	150,000
	Clinical Waste Ltd (Goodmayes Hospital)	Redbridge	A18 – Incinerator (Clinical Waste)	7,000
Potential	Novera Gasification (Frog Island)	Havering	A17 - Physico-Chemical Treatment Facility (gasification)	90,000
80662	Frog Island Bio-MRF	Havering	A23 - Biological Treatment Facility	93,600
BT 9364	Jenkins Lane Bio-MRF	Newham	A23 - Biological Treatment Facility	99,840

* Please note that the Rainham Waste Recycling and Reclamation Centre Facilities are only safeguarded until 2018 when their existing planning permissions expire.

** The Frog Island and Jenkins Lane Bio MRFs have a licensed capacity of 372,000 tonnes per year. The drying process reduces this by 20% and 10% of the waste is recycled. The remaining waste has three constituents; refuse derived fuel (89,280 tonnes), compost (89,280 tonnes) and rejected waste (89,280 tonnes). In line with the definition of waste deemed to be managed in London given in paragraph 5.75 of the London Plan, the rejected waste and refuse derived fuel cannot be counted and for this reason is not safeguarded.

Schedule 2

Area	Borough	Approx ha	Scale of facility	Type of Facility	Existing Use	Landowner	Timescale	Implementation
Ferry Lane North	Havering	0.5 – 1.5ha	2 small scale facilities	IVC / AD	Waste Management	First London Environmental Ltd.	2015 - 2020	Modify / intensify waste management within the site through the provision of two small scale facilities.
Dagenham Dock Sustainable Industries Park	Barking & Dagenham	4.5 – 11.5	2 Medium scale facility and 1 small scale facility	IVC / AD / Recovery	Strategic Industrial Location	Main landowner is London Thames Gateway Urban Development Corporation	2010- 2020	Dagenham Dock Sustainable Industries Park identified suitable for sustainable industries including waste industries 1 large scale facility: Application submitted in 2010 for by Thames Gateway Power for development of Thames Gateway Energy Facility - an energy generation facility to generate low carbon renewable combined heat and power. Would utilise 120,000 tonnes of non-recyclable waste using 3.34 ha of land in the northern part of the SIP. Further facilities: Awaiting applicants to come forward
Gerpins Lane – adjacent to Gerpins Lane RRC	Havering	1.5 – 5ha	Medium scale facility (composting only)	Composting	Greenfield site	ELWA	2015 - 2020	Site currently owned by ELWA. Implementation dependent on private operator coming forward.
Hall Farm – former landfill site	Havering	19ha	Large scale facility (composting only)	Composting	Greenfield site	ELWA	2015 - 2020	Site currently owned by ELWA. Implementation dependent on private operator coming forward.
Beckton Riverside	Newham	7ha (gross); 3.5ha (net)	Medium to large scale facility	IVC / AD / MBT / Thermal excl. incineration	Preferred Industrial Location	British Gas	2010 - 2015	Overall site area = 7 ha Located in close proximity to Jenkins Lane MRF Awaiting applicants to come forward

Abbreviations and terms

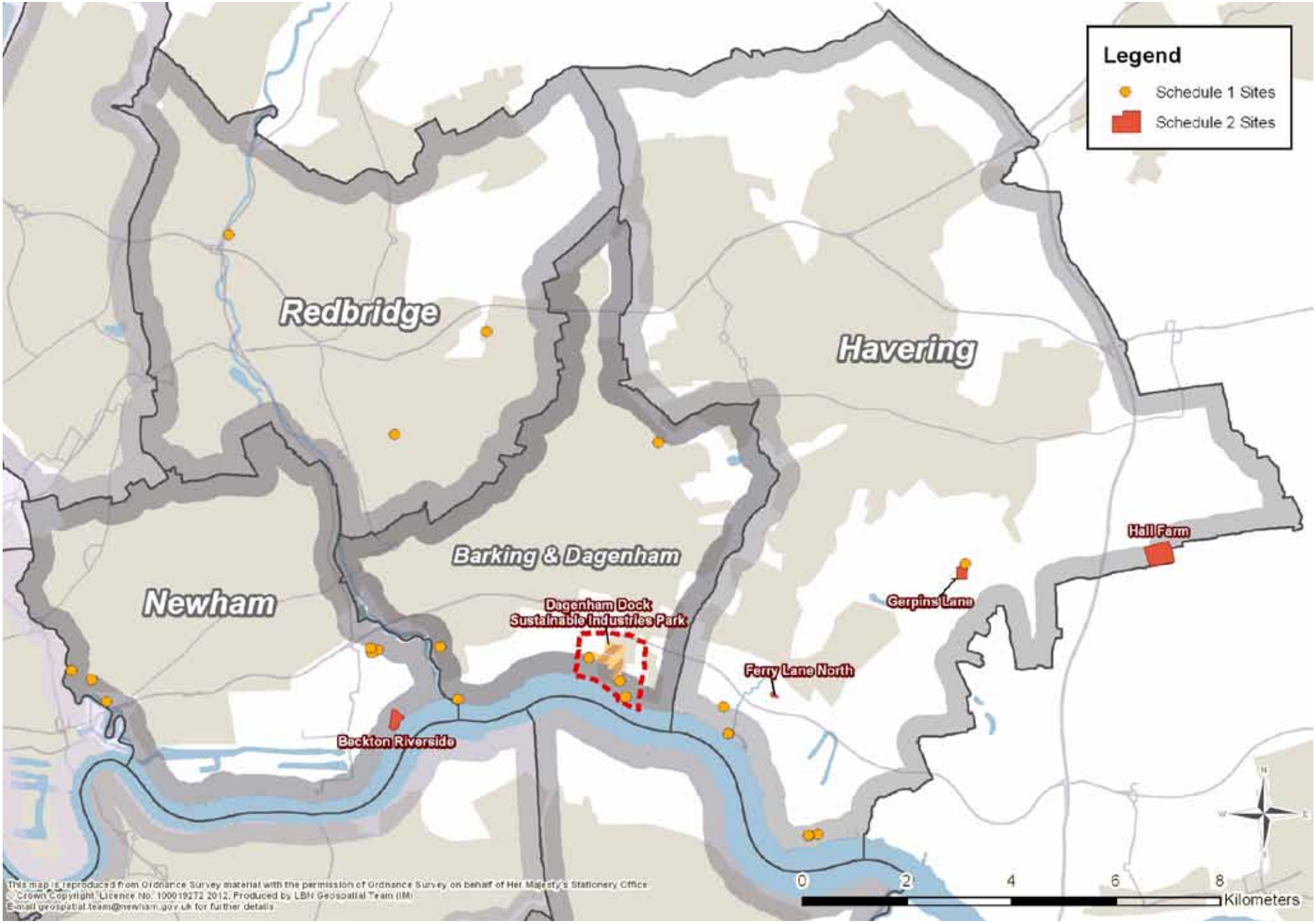
Aerobic	In the presence of oxygen
Anaerobic	In the absence of oxygen
Anaerobic Digestion (AD)	A process in which biodegradable material is encouraged to break down in the absence of oxygen. Waste is broken down in an enclosed vessel under controlled conditions, resulting in the production of digestate and biogas
Biodegradable	Capable of being degraded by plants and animals. Biodegradable municipal waste includes paper and card, food and garden waste, and a proportion of other wastes, such as textiles
Biogas	Gas resulting from the fermentation of waste in the absence of air (methane/carbon dioxide)
Biological Material Recovery Facility (Bio-MRF)	Bio-MRFs dry and stabilise waste before sorting out further materials for recycling, energy recovery (production of a renewable fuel) and disposal
Biological treatment	A treatment technology that uses bacteria to consume organic waste
C&I	Commercial and industrial
Combined Heat and Power (CHP)/ Combined Cooling, Heat and Power (CCHP)	The combined production of electricity and usable heat. Steam or hot water, which would otherwise be rejected when electricity alone is produced, is used for space or process cooling or heating
Commercial waste	Waste from premises used wholly or mainly for the purposes of a trade or business, or for the purpose of sport, recreation, education or entertainment. Excludes household, agricultural or industrial waste
Composting	The biological decomposition of organic material by micro-organisms under controlled, aerobic conditions
Construction, excavation & demolition waste (C,E&D)	Waste building materials, packaging, rubble from construction and remodelling, repair and demolition operations on roads, houses, commercial buildings and other structures and excavation waste
DCLG	Department of Communities and Local Government
DEFRA	Department for Environment Food and Rural Affairs

Development Plan Document (DPD)	Spatial Planning documents within the portfolio of Local Development Documents in a Local Development Framework.
Digestate	Solid and liquid product resulting from anaerobic digestion
Disposal	Final placement or destruction of toxic, radioactive, or other wastes. Disposal may be accomplished through use of approved secure landfills, surface impoundments, land farming, deep-well injection, ocean dumping, or incineration
Dry recyclables	Dry recyclable household waste includes: papers (newsprint, pamphlets, envelopes, books), food tins (steel), drink cans (aluminium), milk and juice cartons & plastic bottles
EA	Environment Agency
ELWA	East London Waste Authority
Energy recovery	Obtaining energy from waste through a variety of processes (e.g. combustion)
Gasification	The process whereby carbon based wastes are heated in the presence of air or steam to produce fuel-rich gases. The technology is based on the reforming process used to produce town gas from coal
GLA	Greater London Authority
Green belt	The fundamental aim of green belt policy is to prevent urban sprawl by keeping land permanently open; the most important attributes of green belts is their openness
ha	hectare
Hazardous Waste	Waste which because of its characteristics poses a present or potential hazard to human health or the environment
Incineration	The controlled thermal treatment of waste by burning, either to reduce its volume of toxicity. Energy recovery from incineration can be made to produce heat and/or power
Inert waste	Waste that does not normally undergo any significant physical, chemical or biological change when deposited at a landfill site. It may include materials such as rock, concrete, brick, sand, soil or other material arising from construction, excavation or demolition

In-vessel composting (IVC)	The aerobic decomposition of shredded and mixed organic waste within an enclosed container, where the control systems for material degradation are fully automated. Moisture, temperature and odour can be regulated, and stable compost can be produced much more quickly than open windrow composting
Industrial Waste	Waste arising from the provision of public services and industrial activities. Excludes construction and demolition material
JWDPD	Joint Waste Development Plan Document
JWMS	Joint Waste Management Strategy
ktpa	kilo-tonnes per annum
Landfill	Disposal sites for non-hazardous solid wastes spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day
Local Development Framework (LDF)	A portfolio of Local Development Documents providing the spatial planning framework for an area
London Plan	Refers to the current iteration of the London Plan, published in July 2011 the Spatial Development Strategy for Greater London.
Mechanical Biological Treatment (MBT)	A generic term for mechanical sorting/separation technologies used in conjunction with biological treatment processes, such as composting
Materials Recycling Facility/Material Recovery Facility (MRF)	Dedicated facility for the sorting/separation of recyclable materials
Mixed waste	Mixed waste can refer to any combination of waste types with different properties
Municipal Solid Waste (MSW)	Waste collected by local authorities. Mainly composed of household waste but also includes street cleaning waste, waste from reuse and recycling centres and commercial and industrial waste collected by local authority
Planning & Compulsory Purchase Act 2004	Planning Act that came into force in 2004 and introduce reforms to the UK Town and Country Planning system

Planning Policy Statements (PPS)	Statement of national planning policy to replace PPG notes under the Planning & Compulsory Purchase Act 2004
Proximity principle	This principle seeks to minimise the negative impacts of waste by dealing with waste as near as practical to its place of production
Pyrolisis	During pyrolisis organic waste is heated in the absence of air to produce a mixture of gaseous and liquid fuels and a solid, inert residue (mainly carbon)
Recovery	To obtain value from waste through recycling, composting, energy recovery or other forms of material recovery, such as anaerobic digestion
Recycling	Involves the processing of wastes, into either the same product or a different one
Refuse derived fuel	A fuel produced from combustible waste that can be stored and transported, or used directly on site to produce heat and/or power
Reuse	Can be practiced by the commercial sector with the use of products designed to be used a number of times, such as reusable packaging
Sustainability Appraisal (SA)	A tool for assessing policies to ensure that they reflect sustainable development objectives, including environmental, social and economic factors. The Planning and Compulsory Purchase Act 2004 requires local planning authorities to undertake a sustainability appraisal of all local development documents
Thermal treatment	The general term used for waste management technologies designed to generate power, and often to recover heat, through the combustion of waste
tpa	tonnes per annum
Transfer	The handling and transport of waste
Transfer station	Facility where solid waste is transferred from collection vehicles to larger trucks or rail cars for longer distance transport

Treatment	Treatment is any process that changes the physical, chemical, or biological character of a waste to make it less of an environmental threat
Unitary Development Plan (UDP)	Statutory development plan prepared by Unitary Authorities. To be replaced by Local Development Framework under the Planning & Compulsory Purchase Act 2004
Waste hierarchy	The waste hierarchy acts as a guide when determining the most sustainable waste management options from the ideal of prevention and reduction to the last resort of disposal
Windrow composting	The aerobic decomposition of appropriate shredded biodegradable waste using long narrow piles, known as 'windrows'. The process involves mechanical turning and re-mixing of the material to enable effective degradation. This results in a bulk-reduced, stabilised residue known as compost. Windrow composting can take place outdoors or within buildings and the process takes around three months.


Legend
Schedule 1 Sites
Schedule 2 Sites
Redbridge
Havering
Barking & Dagenham
Newham
Hall Farm
Gerpins Lane
Dagenham Dock
Sustainable Industries Park
Ferry Lane North
Beckton Riverside
0
2
4
6
8
Kilometers
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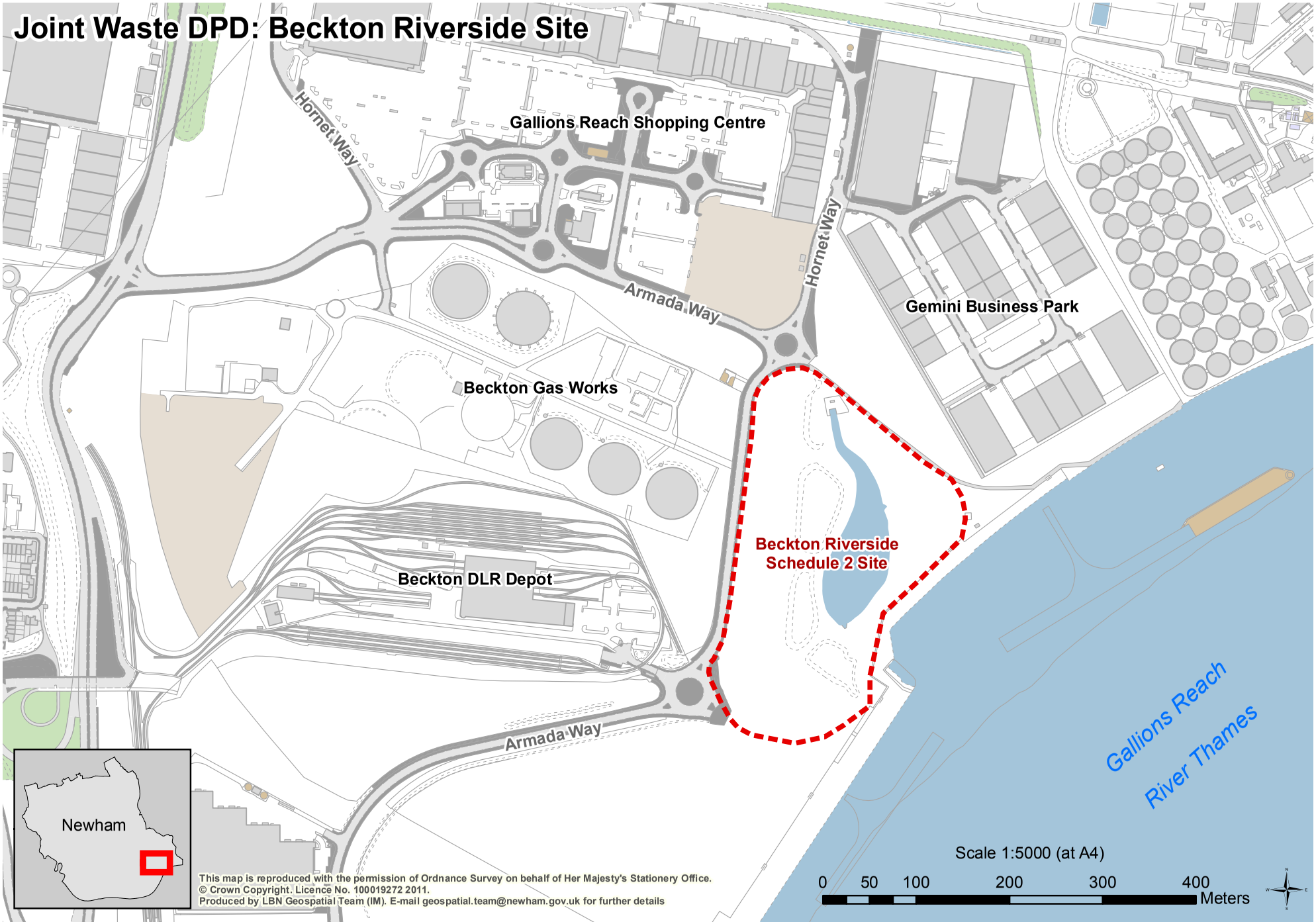
Joint Waste DPD: Beckton Riverside Site
Hornet Way
Gallions Reach Shopping Centre
Armada Way
Hornet Way
Gemini Business Park
Beckton Gas Works
Beckton Riverside
Schedule 2 Site
Beckton DLR Depot
Armada Way
Gallions Reach
River Thames
Newham
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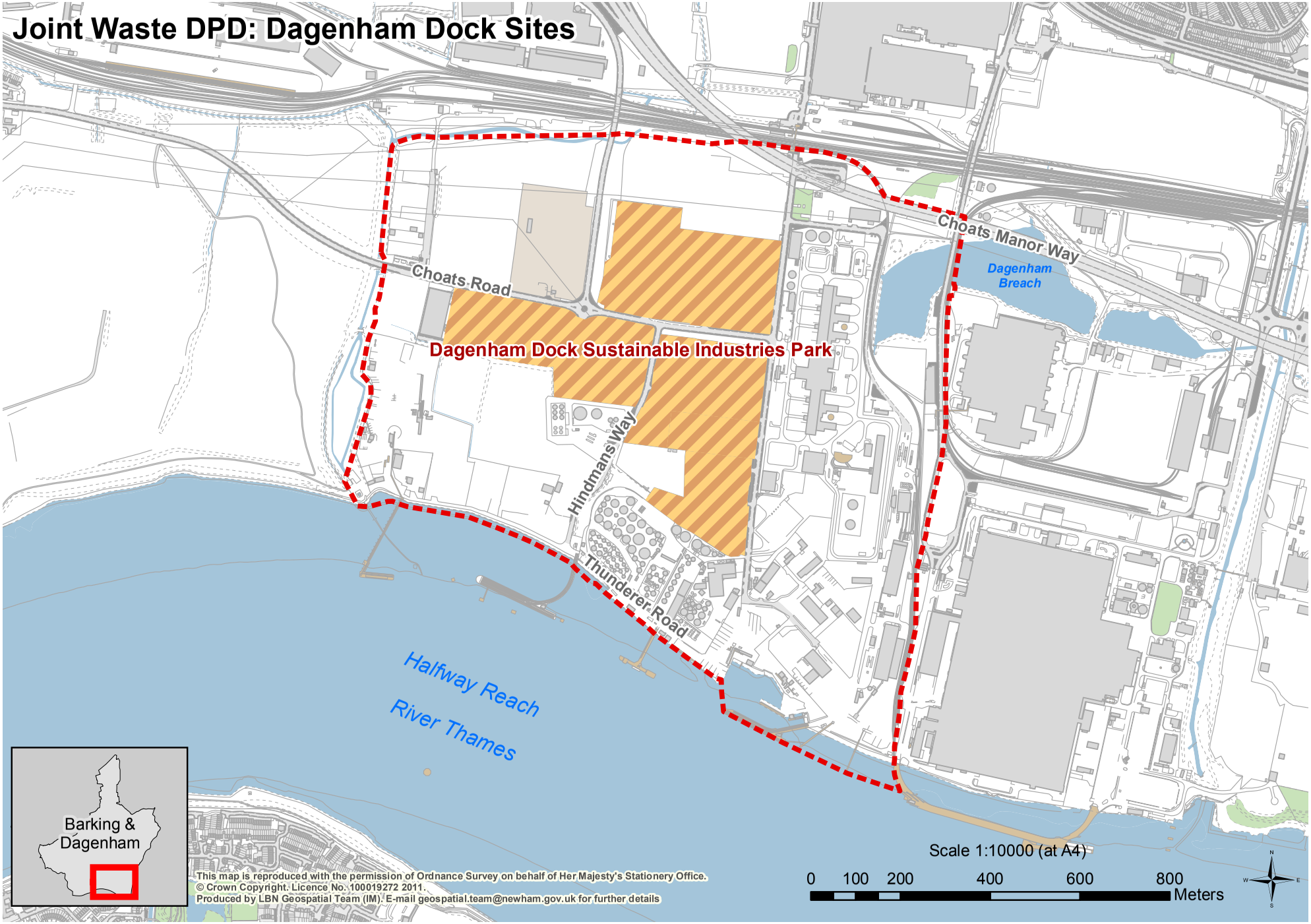
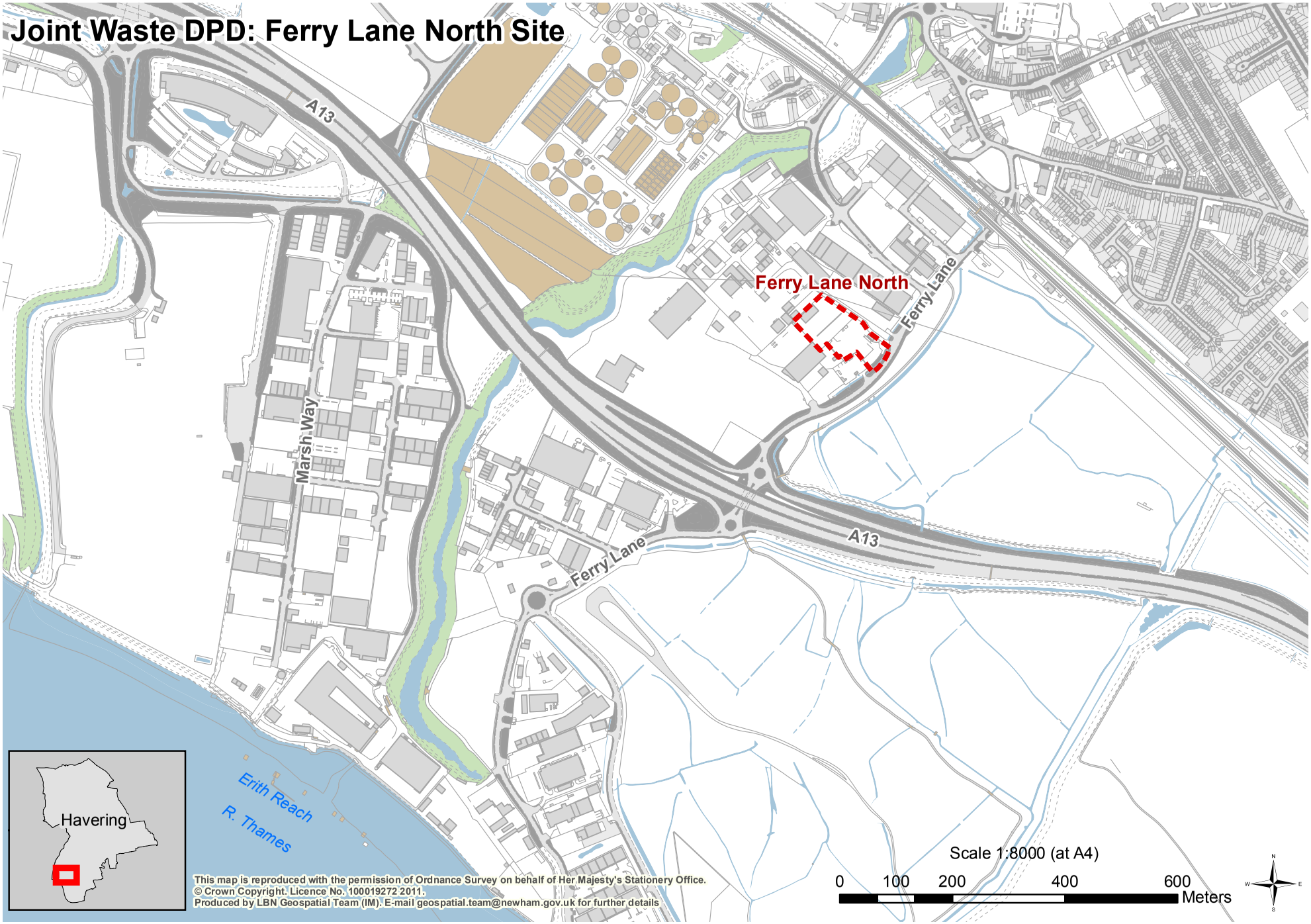
Scale 1:5000 (at A4)
0 50 100 200 300 400
Meters

Joint Waste DPD: Dagenham Dock Sites




Joint Waste DPD: Ferry Lane North Site
A13
Ferry Lane North
Ferry Lane
Marsh Way
Ferry Lane
A13
Havering
Erith Reach
R. Thames
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Scale 1:8000 (at A4)
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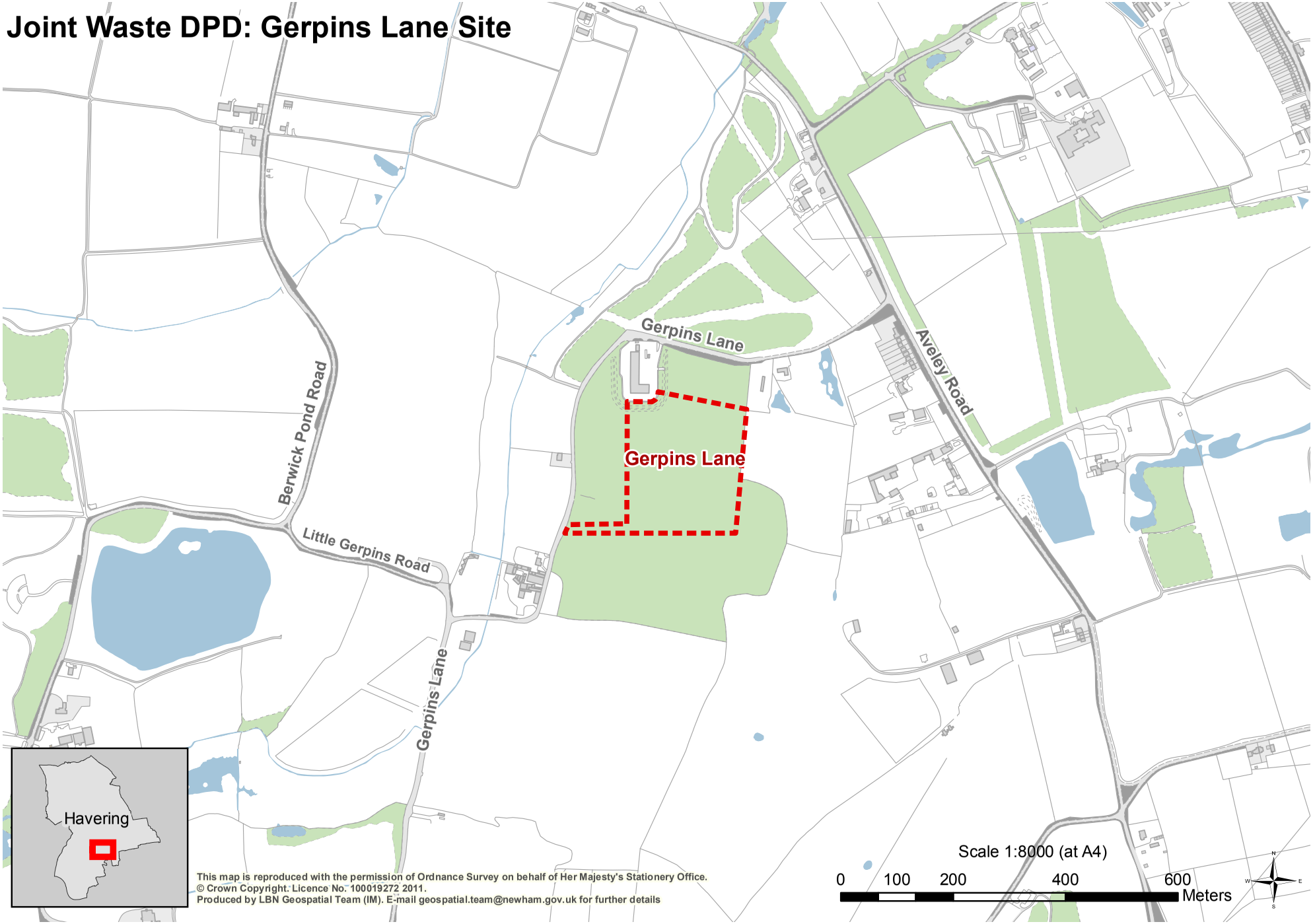
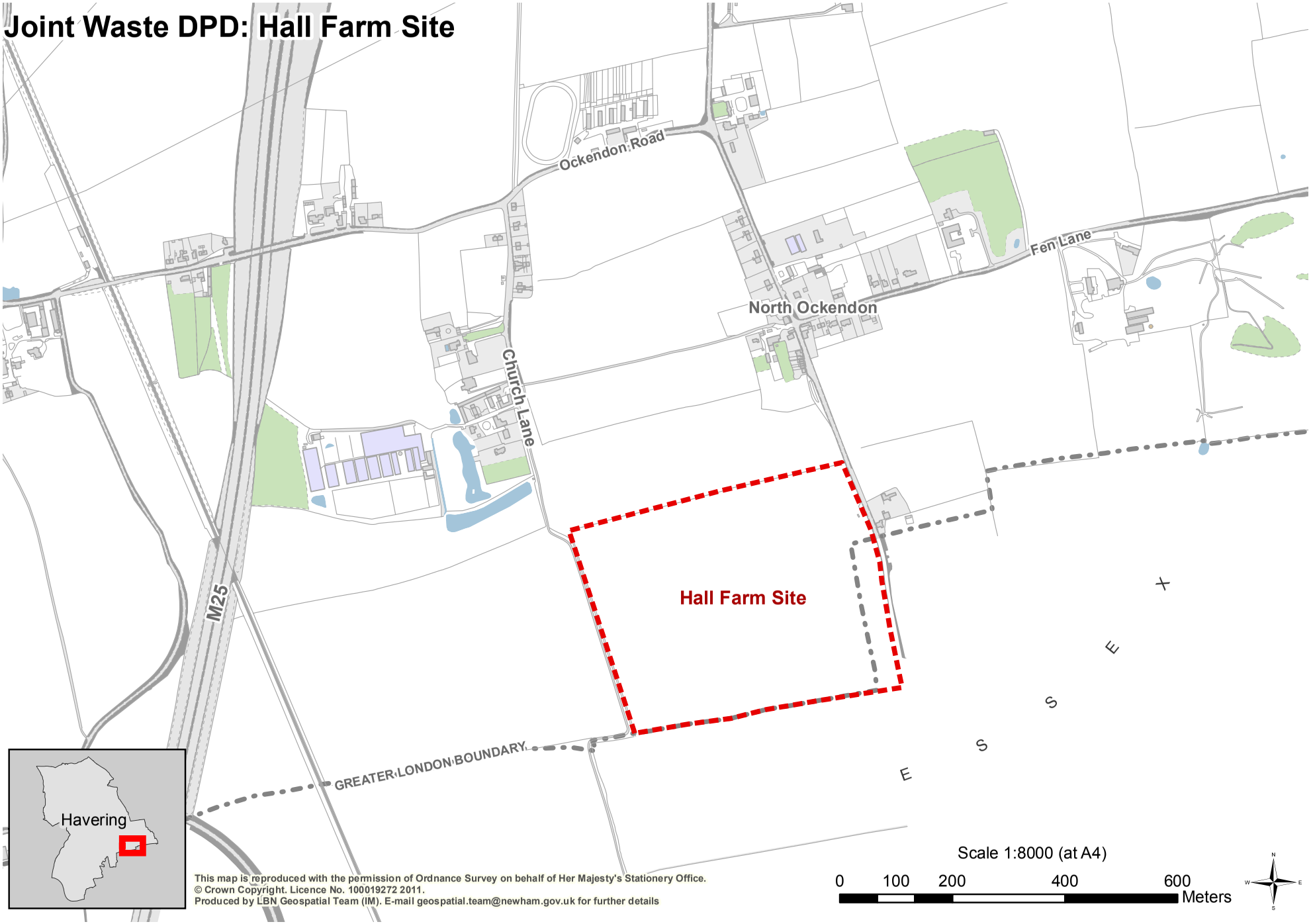
Meters

Joint Waste DPD: Gerpins Lane Site



Joint Waste DPD: Hall Farm Site



Appendix 2: Schedule of saved and superseded UDP policies

In accordance with the 2004 regulations (Reg 13(5) List of Superseded policies), the following schedule provides details of saved and subsequent policies that apply to the development plan documents forming the Local Development Plans for each of the East London Waste Authority Boroughs. (NB - only applies to Barking & Dagenham and Newham)

Saved policy	Superseded by, or continues to be saved until
LB Barking and Dagenham Unitary Development Plan (adopted)	Joint Waste Development Plan Document adoption February 2012
G29 Environment	
G30 Environment	
G31 Environment	
LB Newham Unitary Development Plan (adopted June 2001)	Development Plan Documents: •Core Strategy (Adopted January 2012) •Joint Waste Development Plan Document (adopted February 2012)
EQ54 Promoting Sustainable Waste Management	INF3 identifies the JWDPD Schedule 1 site at Beckton Riverside. JWDPD Policy W2 safeguarding capacity of existing sites listed in Schedule 1; approving applications for strategic waste facilities in Schedule 2 subject to Policy W5.
EQ55 Safeguarding of Suitable Sites	JWDPD Schedule 1 sites INF 3 which also identifies Bywaters MRF, Twelvetrees Cresc, Bow; The Remet Company Ltd, Cody Road, Canning Town; Mayer Parry Recycling Limited, Bidder Street, Canning Town. JWDPD Schedule 2 sites namely a 7ha site at Beckton Riverside for a 'medium sized waste management site' to manage the additional level of waste apportioned to Newham in the London Plan.
EQ56 Criteria for Assessing Waste Management Facilities	JWDPD Policy W5 Permissions for waste related development only given where they can demonstrate that impacts are minimised.
EQ57 Special, Hazardous, Chemical and Radioactive Wastes and Prescribed Processes	INF3 JWDPD Policy W5 (i)
EQ58 Waste and Waste Disposal: Reclamation of Land	JWDPD Policy W4 which also identifies a suitable landfill site.
EQ60 Aggregates Recycling	INF3 reference to waste hierarchy JWDPD Policy W1 (iv) requires reuse of secondary aggregates.
EQ61 Recycling	Policy W1

For further information please refer to your Council's website:

www.barking-dagenham.gov.uk

www.havering.gov.uk

www.newham.gov.uk

www.redbridge.gov.uk