



London Employment Sites Database 2017

Final Report

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GLA London Employment Sites Database 2017

A report by **CAG Consultants**

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To contact CAG Consultants:

CAG CONSULTANTS

150 Minories

London EC3N 1LS

Tel 020 8555 6126

Fax 020 7900 1868

hq@cagconsult.co.uk

www.cagconsultants.co.uk

For direct enquiries about this report:

Dave Lawrence

Partner

CAG Consultants

Tel 07971 684378

Email dl@cagconsult.co.uk

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1 Introduction

1.1 The London Employment Sites Database

CAG Consultants were commissioned by the Greater London Authority (GLA) to produce the London Employment Sites Database (LESD) for 2016 and 2017. The LESD is a database that records recently completed employment developments and those in the pipeline in London. This is the Technical Report for the 2017 LESD update.

The LESD brings together information from numerous sources into one comprehensive database in a standardised and user friendly format. Some of the major information sources include the London Development Database, Core Strategies/Local Plans, the industry press such as Property Week and consultations with London local authorities.

The database is site specific and for each site it provides information on:

- the precise location of the development site;
- the scale of completed/ proposed/ planned development by employment use (floorspace; site size to be developed, estimated employment capacity); and
- the timescale of the development.

The LESD is an important planning policy tool that informs key strategic policies including the London Plan, the London Office Policy Review and the Mayor's Transport Strategy. The output of the LESD is one of the key inputs to the GLA's Borough employment projections for London. It is also a tool for analysing the balance between supply and demand of floorspace for employment at the borough level and informs estimates of future employment capacity in London's Opportunity Areas.

This Technical Report presents the method used to compile the database and the sources and assumptions behind it. It also summarises the principal results of the database. The following chapters present:

- the method and data sources used to construct LESD(2017);
- the employment density and plot ratio assumptions used to derive employment capacity estimates;
- analysis of office space lost through permitted development rights (PDR);
- summary results of the LESD(2017); and
- estimates of the potential additional capacity from intensification of existing office stock.

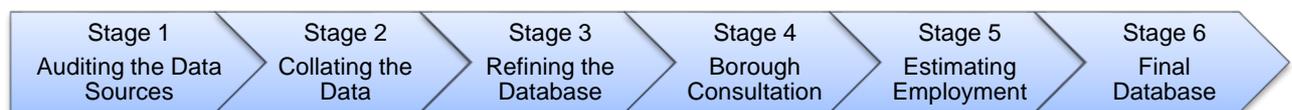
2 Method

2.1 Approach

This chapter sets out the method used to produce the London Employment Sites Database. The method, which has been developed and evolved over successive iterations¹, ensures there is a clear and transparent audit trail; that the data is verified and cross-checked against information from numerous sources and that the final database is robust.

LESD(2017) builds upon and updates LESD(2016). The method and stages of work are summarised in Figure 2.1 below. Below the Figure we expand on the principal elements of the method at each stage.

Figure 2.1 - LESD Production Method



Stage 1: Auditing the data sources

LESD(2017) draws on two initial sources:

- LESD(2016)² – which pulled together data from a number of sources
- the London Development Database (LDD) from the GLA;

These two primary information sources are combined to produce the initial draft database. In addition, secondary data sources, such as property press publications like Property Week and CoStar are reviewed for recent data on major schemes.

Stage 2: Compiling the data

In Stage 2 data is extracted from the different data sources and compiled into a single database with associated GIS data. The database combines comprehensive information from each data source regarding the identity of a site, location, existing use, proposed use and potential employment capacity. This data is then presented in a standardised format.

¹ London Employment Sites Database 2012, <https://lep.london/sites/default/files/documents/publication/London%20Employment%20Sites%20Database%202012%20Final%20Report%20%28March%202013%29.pdf>

London Employment Sites Database 2009,

https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/tech-paper1-final.pdf

London Employment Sites Database 2006.

https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/archives/mayor-economic_unit-docs-ep-technical-paper-2.pdf

² London Employment Sites Database 2016 https://www.london.gov.uk/sites/default/files/lesd_final_report_may-2016.pdf

Table 2.1 sets out the principal data fields used in the LESD.

Table 2.1 LESD Data Fields

Development Details		Geographic Fields	
Unique ID		Town Centre	
Data Source		London Transportation Study (LTS) zone	
Borough		Public Transport Accessibility Level (PTAL)	
Planning Authority		Opportunity Area (OA)	
Site Name		Area of Intensification (AOI)	
Site Address		Ward	
Post Code		Central Activities Zone (CAZ)	
Easting			
Northing			
Site/Project Status			
Completion date			
Floorspace (Sq m)		Employment³	
A1 ⁴ Floorspace		A1 Jobs	
A2 Floorspace		A2 Jobs	
A3 Floorspace		A3 Jobs	
A4 Floorspace		A4 Jobs	
A5 Floorspace		A5 Jobs	
B1 Floorspace		B1 Jobs	
B2 Floorspace		B2 Jobs	
B8 Floorspace		B8 Jobs	
C1 Hotel Bedrooms		C1 Jobs	
C2 Floorspace		C2 Jobs	
D1 Floorspace		D1 Jobs	
D2 Floorspace		D2 Jobs	
SG Floorspace		SG Jobs	
Total Floorspace		Total Jobs	
Site Area			
Land Use			

To ensure that we have a clear and transparent process, we use a strict system of monitoring what goes in, what stays in and what is left out. Each site is given a unique ID number when it is identified from the various sources. This ID number system will remain the same regardless of how many sites are removed due to reasons such as overlaps, duplicates, completed sites etc. Accompanying the ID number is a source name and source reference.

By the end of stage 2 we have the raw London Employment Sites Database.

³ The employment estimate is generally derived from floorspace data by application of employment density ratios. Detail on the employment density ratios used and their sources is set out in the next chapter

⁴ These codes refer to the Town and Country Planning Use Classes Order. See Appendix 1.

Stage 3: Refining the data

The raw database of potential sites is then refined through GIS to identify and remove non-employment and duplicate sites, deal with overlapping sites and expired sites.

Refining the Database follows a sequential process:

- **Removal of non-employment sites** - All sites that do not contain an employment element are excluded from the database. Where there is a mixed residential scheme with an element of employment, these sites are retained in the main database. At this stage all employment uses are included.
- **Deletion of Small Sites** - The standard thresholds of 1,000 sq m for A and B uses, 5,000 sq m for C and D uses or 0.25 ha site area are used as minimum site sizes. Developments below these thresholds are generally excluded from the database although smaller sites are included in the LESD where information is available, especially where there is a concentration of small sites below the standard threshold.
- **Net Change in Floorspace** - The database aims to capture net change in floorspace. In practice this information is not always available. Where we are not able to do this, we record whether the estimate is net, gross or unknown. This enables the data to be subsequently interrogated further, or a set of rules established as to how the data should be treated in employment capacity estimates.
- **Transfer the Database to GIS** - Each site in the raw database is geocoded using either postcode data or Easting and Northing references. Where available digitised boundaries are included. Every site that does not have a polygon has an arbitrary circular polygon created based on the site size specified in the original data: this allows us to better detect overlapping sites and duplicates.
- **Identify and Remove Duplicate Sites** - Using GIS, the polygons are layered to identify overlaps between two or more sites. A query is performed within the GIS to determine which sites share the same overlap and by how much. This process is used to identify duplicate sites. When a duplicate is removed, all the information for that site is supplemented and any missing values populated.
- **Identify Overlapping Sites** - Some sites may not be duplicates but are overlapping. For example a site identified by LDD may overlap a site identified by NLUD. In such cases a decision needs to be made as to whether one site supersedes the other, or whether two non-overlapping parcels should be retained.

The end of stage 3 results in the first draft of the LESD(2017) which is sent to the Boroughs for consultation.

Stage 4: Borough Consultations

Each Borough is consulted on the Draft LESD for their Borough. The consultation process also includes the London Legacy Development Corporation and the Old Oak and Park Royal Development Corporation as the responsible planning authorities for their respective areas. This provides an opportunity to review the sites data and, importantly, to quality check the information gathered and to understand the local realities regarding probabilities of sites coming forward, expected change of uses, new employment sites coming forward and the strategic planning context. In 2016, the consultation

process included a face to face meeting with each Borough to review and amend the site information and gather information for new sites.

As only a year had elapsed since the 2016 update, a lighter touch consultation process was used for LESD(2017). Each Borough was sent a copy of the Draft Database for their Borough plus an accompanying map of sites by email. Boroughs were asked to check this for errors, omissions and amendments. This version of the database included an employment capacity estimates for each site (see below).

On completion of the Borough validation, the individual Borough databases are merged into a single London wide database.

Stage 5: Estimating employment

The principal output of the LESD is an estimate of the employment capacity of each site. Where available from a specific development proposal we use the estimate provided, subject to tests for plausibility against benchmark data.

In most cases the estimate is derived from floorspace data, by application of employment density ratios. Detail on the employment density ratios used and their sources is set out in the next chapter.

Where only a site area is available, and floorspace data is not available, we apply assumptions based on plot ratios. This applies primarily to the longer-term development proposals such as Local Plan site allocations. In the absence of any further local intelligence we also apply a standard set of assumptions with regard to the mix of uses on each site.

Detail on the plot ratios used and assumptions on employment mix are set out in the next chapter.

The assumptions on employment densities and plot ratios are provided in the form of a look-up table in order that alternative assumptions and sensitivity tests can be readily applied.

Stage 6 Final Database

The final stage is the production of the Final LESD in an excel spreadsheet complete with accompanying technical report. The database comes complete with full functionality, look-up tables for sensitivity testing and pre-set tables of results.

Planning Geographies

The database is geo-coded with a number of additional fields to enable policy analysis at a variety of spatial levels. This includes:

- Town Centre boundaries
- LTS zones – transport zones used for TfL's transport models
- PTAL scores – public transport accessibility measures
- Opportunity Areas
- Areas of Intensification
- Ward
- Central Activities Zone (CAZ)

As the LESD contains geographically specific point data, analysis by any other required geography can be readily added.

3 Database Assumptions

3.1 Introduction

Some of the uses of the LESD require estimates of potential additional employment capacity in future years. But this information is not directly available and hence a series of assumptions underpin the output of the LESD. These assumptions relate to employment density ratios for different use types, plot ratios, development mix, and timescales at which future developments will be occupied.

We set out below the assumptions used for each of these factors and the sources underpinning those assumptions. There are two principal measures of floorspace referenced in this section. Gross Internal Area (GIA) refers to the entire area inside the external walls of a building and includes corridors, lifts, plant rooms, service accommodation. Net Internal Area (NIA) refers to the net lettable or 'usable' area of offices and retail units⁵.

3.2 Employment Densities

LESD(2016) reviewed the principal sources and trends in employment density ratios to inform the assumptions adopted for LESD(2016). For this update, we reviewed whether any further research had been undertaken or published over the preceding 12 months which might add to this analysis but did not find any such research. Hence the same employment density assumptions have been maintained for LESD(2017).

The LESD(2016) research findings and assumptions are reproduced below for ease of reference.

London Office Floorspace Projections 2014

The London Office Floorspace Projections 2014⁶ recommended use of an employment density ratio based on a research study published by the British Council for Offices (BCO 2013). This remains the latest large scale survey data of which we are aware. The BCO study comprised a sample of 2,485,484 sq m Net Internal Area (NIA) across 381 properties, across the country, making it one of the most extensive studies of occupancy densities undertaken.

The overall finding was a mean density of 10.9 sq m per desk across the UK, with 38% of the sample falling within the 8-10 sq m range; and 58% falling within the 8-12 sq m range.

Within the overall 10.9 sq m mean for the UK, the London average density was found to be lower at 11.3 sq m per desk. However, it is important to stress that the sample includes older properties as well as new. As the purpose of the London Office Floorspace Projections was to understand the demand for new space generated by employment change, the study adopted the higher density figure of 10.9 sq m per desk to reflect the greater efficiency of new buildings. One caveat to note is that whilst this is appropriate for the majority of new floorspace which will be large floorplate central London offices, the BCO sample was biased towards such types of property and the higher density may not hold for smaller premises. However this in turn may be offset by a trend to higher densities as we note below.

⁵ For further explanation see Employment Density Guide 3rd Edition – Homes & Communities Agency (2015) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/484133/employment_density_guide_3rd_edition.pdf

⁶ London Office Floorspace Projections – PBA (2014) <https://www.london.gov.uk/file/18777/download?token=9lnaCBWw>

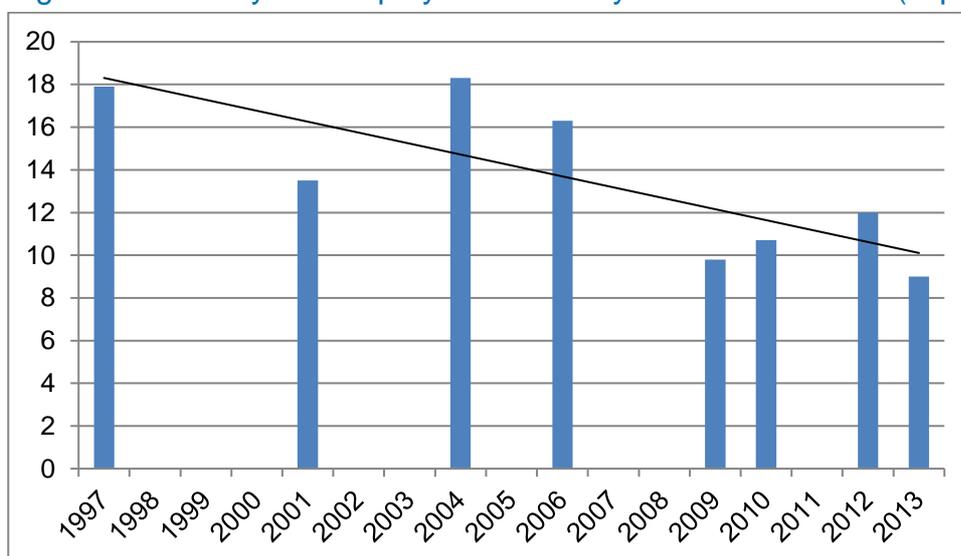
The BCO study uses the metric of 'Floorspace per Desk'. For the purposes of the London Office Floorspace Projections and for the LESD, our interest is in floorspace per worker. The benchmark ratio used for converting to workers is 1.2 - i.e. 1.2 workers per desk⁷. Applied to 10.9 sq m per desk this gives an overall ratio of 9.0 sq m Net Internal Area (NIA) per worker.

In planning, floorspace is commonly measured by Gross Internal Area (GIA). NIA is usually estimated at around 80% of GIA⁸. This then provides a ratio of 11.3 sq m GIA per employee. This is an average density ratio and past evidence has found that densities are lower in older stock and higher in modern stock, configured for current occupational requirements.

There was an increase in density between BCO(2009) and BCO(2013), as average floorspace per desk fell from 11.8 sq m (NIA) in 2009 to 10.9 sq m (NIA) in 2013. Evidence from past surveys has shown the trend in declining floorspace to worker ratios and this is illustrated in Figure 3.1.

However, there is growing evidence that the rate of increase in densities is levelling out. This is to be expected, given the physical limitations of buildings.

Figure 3.1 Surveys of Employment Density Ratios over Time (Sq m per worker NIA)



Note: Bars are for years at which survey data is available. Sources from Table 3.2.

The source of the surveys illustrated in Figure 3.1 is shown in Table 3.1. Different surveys have used different units of measure so we have standardised to a single metric of floorspace per worker (NIA).

⁷ See London Office Policy Review 2012 Figure 5.3 and para 5.5.9. 1.2 workers per desk was adopted as the most typical benchmark. There are instances of higher utilisation ratios being applied but these are limited to specific types of occupier.

⁸ LOPR 2012 noted "As already stated, property agents' rule of thumb conversion is that the NIA is typically 15 to 20 % smaller than the GIA. We confirm this using evidence from EGI for developments under construction. EGI identifies a total of 71 sites and provides both net and gross floorspace. This evidence shows a net-to-gross ratio of 79%." The City of London Office Evidence paper March 2011 found a slightly lower net to gross ratio of 73%.

Table 3.1 Surveys of Office Employment Density Ratios

Survey	Date	Unit of Measure	GIA	NIA	Revised unit of measure	Estimate per worker NIA
British Council for Offices (BCO)	2013	Sq m/desk	-	10.9	Sq m/worker	9.0
National Audit Office (NAO)	2012	Sq m/FTE	-	13.2	Sq m/worker	12.0
Homes and Communities Agency (HCA)	2010	Sq m/FTE	-	11.9	Sq m/worker	10.7
British Council for Offices (BCO)	2009	Sq m/desk	-	11.8	Sq m/worker	9.8
Roger Tym & Partners/Ramidus	2006	Sq m/worker	-	16.2	Sq m/worker	16.2
DTZ	2004	Sq m/worker	-	18.3	Sq m/worker	18.3
English Partnerships (EP)	2001	Sq m/desk	19	16.2	Sq m/worker	13.5
London and South East Regional Planning Conference (SERPLAN)	1997	Sq m/worker	-	17.9	Sq m/worker	17.9

The LESD capacity estimates are only applied to the employment potential of new floorspace. It is also possible that additional capacity can be created through more intensive use of existing stock. This is considered further in Chapter 6.

HCA Employment Density Guidance 3rd Edition (2015)

In November 2015 the HCA published the 3rd Edition of its Employment Density Guidance. This Guidance has been widely adopted in much public policy and appraisal work. It presents density ratios across a large range of employment uses types.

Unfortunately as with the 2nd Edition the recommended employment density ratios are not directly sourced from surveys. Guidance on regional variation on employment density ratios for different parts of the UK is not provided, and past surveys have shown this to be a factor.

The density ratios in the HCA Guidance⁹ are expressed in terms of sq m per Full Time Equivalent Employee (FTE). To convert from FTE to floorspace per Employee will depend on which sector is being assessed. The figure below shows the percentage of part-time employment by sector for London.

⁹ This convention was adopted in the 2nd Edition and carried on in the 3rd Edition. The Density Matrix in the 3rd Edition does not explicitly label all the ratios as being in term of FTEs but this approach is used elsewhere in the Guidance

Figure 3.2 Percentage of Part-Time Employees by Sector London (2014)



Source: BRES (2014 Employee data)¹⁰

The HCA ratios for office employment are expressed in terms of FTE per NIA. So for Professional Services the recommended density is 12 sq m NIA per FTE. This would equate to 13.5 sq m GIA per employee.

The suggested ratios for the major employment categories from the HCA Guidance 3rd Edition are summarised in the Table below. We have also added assumptions to convert from NIA per FTE to GIA per Employee.

Table 3.2 Employment Density Ratio – HCA Guidance

Use Class ¹¹	Activity	sq m per FTE	Measure	GIA	% Part-Time	sq m per Employee GIA
B1a	Professional Services	12	NIA	15.0	20%	13.5
B1a	Finance & Insurance	10	NIA	12.5	10%	11.9
B1b	R&D	50	NIA	62.5	10%	59.4
B1c	Light Manufacturing	47	NIA	58.8	10%	55.8
B2	Industrial & Mfr	36	GIA	36	10%	34.2
B8	Final Mile	70	GEA	70	20%	63.0
A1	High Street	17.5	NIA	21.9	40%	17.5
A2	Finance & Professional	16	NIA	20.0	40%	16.0
A3	Restaurants & Cafes	17.5	NIA	21.9	40%	17.5
C1	Budget	5	Beds/FTE	5	40%	4.0
C1	Mid Scale	3	Beds/FTE	3	40%	2.4
C1	Upscale	2	Beds/FTE	2	40%	1.6
C1	Luxury	1	Beds/FTE	1	40%	0.8
D2	Fitness Centre	65	GIA	65	20%	58.5

Source: HCA Employment Density Guidance 3rd Edition

¹⁰ Extracted from Nomis 2nd February 2016 (This has not been update to maintain consistency with the 2016 definitions though we would not anticipate much change in these percentages in one year)

¹¹ See Appendix 1 for Use Class definitions

For B2 employment 36 sq m GIA per FTE is within the range previously adopted for the 2012 LESD study.

For B8 we have set out the 'Final Mile' warehouse product. Even this is a lower density ratio than has been historically observed in London. We are not aware of any recent survey evidence but suspect that most warehouse activity in London has a higher value added and higher labour component.

The A use classes have a higher density in the HCA Guidance than previously adopted in LESD(2012) but are consistent with the reduction seen in floorspace per worker ratios within the office sector.

For D class uses the HCA Guidance has a wide range dependent on type. From the perspective of the LESD it is the large institutional buildings that are of most interest and there is no guidance on these.

Assumptions Adopted for LESD(2016) and LESD(2017)

For the purposes of the principal applications of the LESD, offices are the predominant interest in terms of employment capacity. For all boroughs we use the assumption of 11.3 sq m GIA per worker, inclusive of a desk sharing ratio of 1.2, based on the BCO survey. This is in line with the assumptions adopted in the London Office Floorspace Projections (2014)¹².

For A class employment we adopt the HCA density ratios.

Evidence from the latest GLA Industrial Land Survey suggests that industrial land is currently being occupied at lower employment density ratios than previously adopted for LESD(2012). But as the objective is to assess employment capacity we believe that actual occupation is less important than potential occupation. Industrial land can be occupied more intensively than it is as present, as previous survey evidence has demonstrated. We therefore maintain industrial employment density ratios similar to those adopted for LESD(2012), but have standardised these across London as a whole.

The density assumptions adopted for industrial land have no impact on the GLA's employment projections as, consistent with the approach of previous capacity calculations, industrial land is excluded from the capacity calculations that are used for the GLA's employment projections¹³.

For C and D use classes we are guided by the HCA density ratios, although actual employment density can range widely depending on the use. We therefore try to gather local intelligence wherever possible to inform the employment estimate for a given development.

The employment density assumptions are supplied as a look-up table to enable sensitivity testing. This could, for example, be used to apply different density assumptions to different policy areas. Floorspace per worker is the product of the variables 'floorspace per desk' and 'desks per worker'. Either or both of these components can be varied to undertake further sensitivity testing.

The default assumptions adopted for LESD(2016) are summarised in Table 3.3 below. These are still current and have also been used for LESD(2017).

¹² Also used in the London Office Policy Review (2017)

¹³ See Technical Paper https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/working-paper-18-final.pdf

Table 3.3 Default Employment Density Assumptions (sq m GIA per worker) by Use Class

	CAZ	Inner	Outer
A1	17.5	17.5	17.5
A2	16	16	16
A3	17.5	17.5	17.5
A4	17.5	17.5	17.5
A5	17.5	17.5	17.5
B1	11.3	11.3	11.3
B2	36	36	36
B8	36	36	36
C1 Beds	2.4	4	4
C2	45	45	45
D1	45	45	45
D2	60	60	60
SG	60	60	60

Source: CAG

3.3 Plot Ratios and Development Mix

Plot Ratios

Where we do not have information about the proposed floorspace to be developed on a particular site, we use standard plot ratios to estimate the floorspace. A plot ratio is a measure of the total quantity of floorspace developed on a given site area. This might be expressed in terms of, say, sq m per hectare (ha) or as a ratio of floorspace to site area (both measured in sq m). For example 5,000 sq m of floorspace developed on a site of 0.5 ha would have a plot ratio of 10,000 sq m per ha, or 1 expressed as a ratio in terms of sq m.

The 2009 LESD undertook analysis of plot ratios using LDD data which was used to inform the plot ratio assumption adopted in LESD(2012). This is published in Appendix 1 to the 2009 Technical Report¹⁴.

We have analysed current LDD data based on new build developments where non-residential site areas are available. The results are summarised in Table 3.4 below. For the purpose of this analysis Central Boroughs have been defined as City and Westminster. There are not sufficient observations to meaningfully split the B2 data by Inner and Outer averages.

As this analysis is based on Borough-level data, the Inner average will include both CAZ and non CAZ developments. We would therefore expect it to over-estimate the ratio for the non-CAZ Inner London area.

Table 3.4 LDD Plot Ratios. Median Average (Sq m per Ha)

	Central	Inner	Outer	London
B1	65,100	25,200	10,700	23,200
B2				5,600
B8		10,000	6,500	6,700

Source: LDD/CAG

¹⁴ London Employment Sites Database (2009) – Roger Tym & Partners

Work for the GLA on Industrial Land Use¹⁵ found a plot ratio of 65% of industrial uses and 95% for non-industrial uses giving an overall average of 69%. The plot ratio findings for industrial uses are similar to those in Table 3.4 above and consistent with those used in LESD(2012) for Inner London. This may imply that intensity of land use in Outer London is converging to the Inner London characteristics.

The plot ratio analysis is broadly in line with the plot ratios applied in LESD(2012) and thus the same ratios have been maintained with the exception of the B2, B8 and 'Other' ratios for Outer London. These have been increased from 3,800 sq m per ha to 6,500, as shown in Table 3.5 below, because the analysis presented in Table 3.4 suggests some increased intensification of land use.

The plot ratios adopted as the default assumptions for LESD(2017) are summarised in Table 3.5 below.

Table 3.5 Plot Ratio Assumptions (Sq m per Ha)

	CAZ	Inner	Outer
B1	77,000	18,500	9,000
B2	9,000	6,500	6,500
B8	9,000	6,500	6,500
Other	9,000	6,500	6,500

Plot ratios have tended to be relatively stable over time for given use types and character areas. The principal scope for increasing plot ratios is through increasing densification of existing areas, which means changing the characteristics of an area as well as making more efficient use of individual sites.

The appropriate plot ratios for different uses types and areas might be something for the GLA to consider developing guidance on to ensure intensification of land use. This could be based on area types and typologies like the Residential Density Matrix published in the London Plan.

Development Mix

The plot ratio assumptions set out above assume, as a minimum, that there is some information on the development type proposed – e.g. offices, industrial, retail etc. Where there is no information as to the proposed development mix - and the site is allocated or proposed as Mixed Use - then a prior set of assumptions are required.

With Mixed Use schemes we try to extract as much information as possible from the local authority about the anticipated or preferred distribution of activity by use type, as any assumptions are potentially subject to a wide margin of error

Where we do not have more detailed information for the site, a 2-stage process is adopted. First we estimate the proportion of a Mixed Use site allocated to employment uses. Using evidence from the London Development Database, LESD(2012) found that:

- in CAZ and Inner London, on average 12% of a Mixed Use site area goes to employment uses;
- in Outer London a slightly larger proportion of the Mixed Use site (15%) is allocated to employment uses.

Since 2012 the demand pressures for residential development over employment uses has intensified further. We would therefore expect a fall in the proportion of Mixed Use sites being given over to employment uses.

¹⁵ London Industrial Land Supply and Economy Study (2015) – AECOM
https://www.london.gov.uk/sites/default/files/industria_land_supply_and_economy2015.pdf

For the proportion of the site then left for employment, we then need to estimate the distribution of the site between uses. Research for LESD(2009)¹⁶ found that for CAZ and Inner London 63% of the non-residential development was offices, and for Outer London the proportion was 41% for offices. A-classes accounted for 18% in CAZ and Inner London and 15% in Outer London. Industrial development accounted for 4% in CAZ and Inner London and 6% in Outer London. 'Other' uses accounted for 15% in CAZ and Inner London and 38% in Outer London.

Based on this previous analysis and observation of trends in mixed-use development since that date, we have adopted the following default assumptions for Mixed Use sites for LESD(2017), in the absence of any further site specific other information.

Table 3.6 Site Mix Assumptions for Mixed Use Sites

	CAZ	Inner	Outer
% Employment	10%	10%	10%
<i>of which:</i>			
B1	50%	50%	50%
B2	5%	5%	5%
A1	25%	25%	25%
Other	20%	20%	20%

Source: CAG

The assumptions on plot ratios and development mix are tested through the Borough consultation process. We apply the standard default assumptions in the absence of any information other about a site. The Borough then has the opportunity to see and comment on the resulting employment capacity estimates and as a result these can be varied if the local intelligence suggests they are not producing an appropriate employment estimate for that site.

3.4 Forecast Completion Year

The principal uses of the LESD are to inform the GLA's employment projections and to inform TfL's transport models. Both these models produce forecasts to five-year planning intervals.

In the absence of any better estimates from the local authorities or other sources on completion dates, the occupancy dates are estimated based on the planning status. Table 3.7 sets out the assumptions used for LESD(2017).

Table 3.7 Date at which Development assumed Occupied

Planning Status	Forecast Year for Inclusion in Capacity
Completed at 2014 or later	2016
Started	2021
Full/Detailed Planning Permission	2021
Outline Planning Permission	2026
Allocated in Local Plan	2031
Sites with no planning status	2036

Source: CAG

¹⁶ London Employment Sites Database (2009) – Roger Tym & Partners

4 Impact of Permitted Development Rights and the Potential for Intensification

4.1 Permitted Development Rights

In May 2013, the Government amended the General Permitted Development Order (GPDO) to allow the conversion of B1(a) offices to C3 dwellings subject to 'prior approval'. The underlying motive was to encourage residential development particularly in those areas suffering from structural vacancy in office stock.

These amendments to the GPDO were initially time-limited, for three years, up to the end of May 2016. Following a consultation exercise, 33 areas within 17 Local Planning Authorities (LPAs) were made exempt from Permitted Development Rights (PDR). In London this included areas within CAZ, Tech City, North of Isle of Dogs, the Royals Enterprise Zone and the Royal Borough of Kensington and Chelsea.

Changes of use allowed by the amendment had originally been required to be completed by 30th May 2016. However the Government made PDR permanent from April 2016. Following this change, schemes may be started up to three years following consent, enabling offices to be demolished and replaced by new-build residential.

The Government also confirmed that planning authorities can retain control over the planning process through the application of an Article 4 direction, subject to caveats. An Article 4 Direction is an order made by a local planning authority to restrict and remove certain permitted development rights. A number of London Boroughs have, or are looking to, implement Article 4 directions in part of their Borough to mitigate potential losses of commercial floorspace. But, despite this, the expectation is that the introduction of these Permitted Development Rights will result in a loss of office stock to residential use.

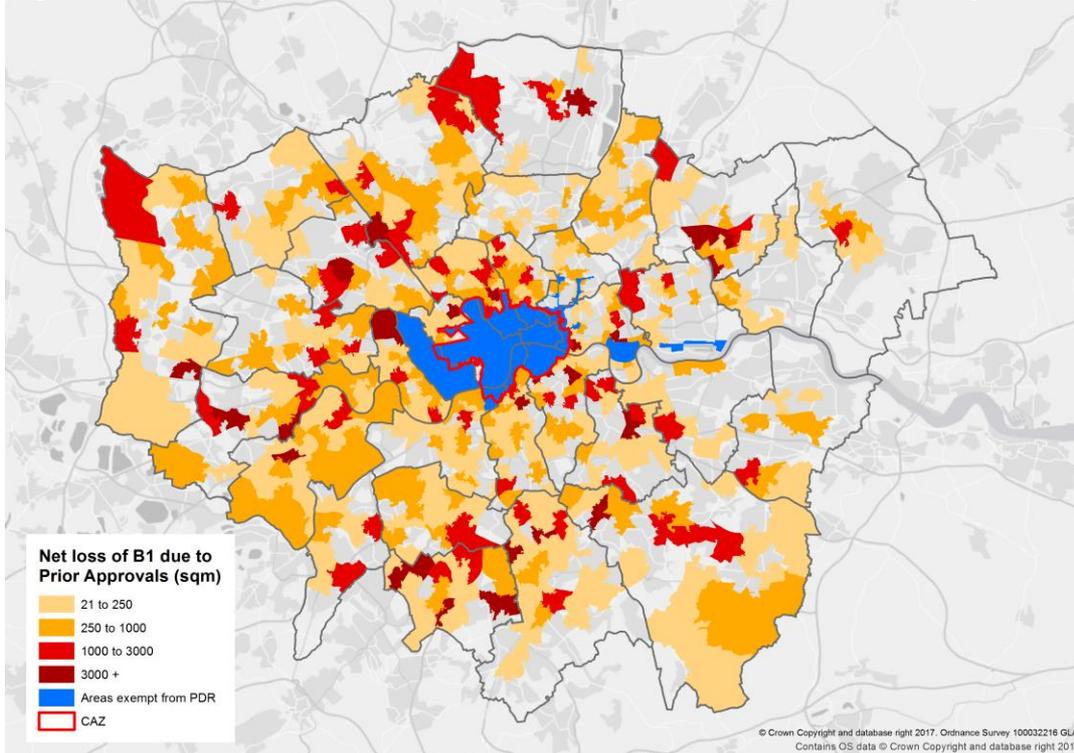
4.2 Impact on London's Office Space

The impact of PDR on London's office stock has been analysed in the 2017 London Office Policy Review¹⁷ – LOPR(2017). The principal findings from that report about the impact of PDR are summarised below.

Figure 4.1 shows the distribution of B1 office floorspace potentially lost through prior approvals for change of use from office to residential space. The pale yellow indicates lower levels of office floorspace loss through prior approvals and the deep brown and red areas show where the highest levels of floorspace loss have been granted. Two features stand out: (a) close to the CAZ boundary there are distinct clusters in Camden and Islington and further hotspots on the South Bank in Southwark and Lambeth; and (b) further out there are clusters in several Outer London town centres including Acton, Bromley, Croydon, Harrow-on-the Hill, Ilford, Lewisham, Richmond, Sidcup and Sutton, and there is an unmistakable westward bias in the distribution. Although there are hotspots to the East and South East, we again see PDR going where the values are highest.

¹⁷ London Office Policy Review 2017 – Ramidus

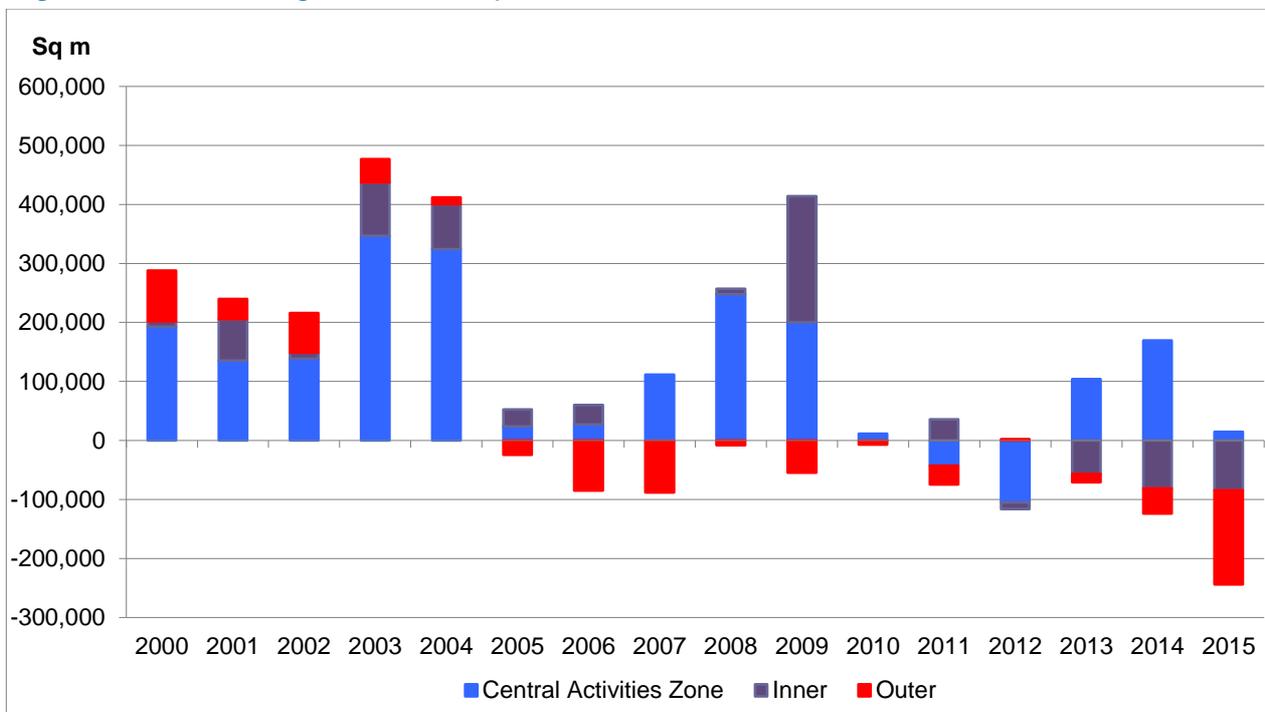
Figure 4.1 Prior approvals under PDR, May 2013 to March 2016, by MSOA



Source: GLA

Figure 4.2 shows net change in B1 office space for CAZ, Inner and Outer London. As can be seen for Inner and Outer London, introduction of PDR has resulted in a net loss of B1 floorspace. For Outer London this is not a new phenomenon as losses of B1 floorspace pre-dated PDR.

Figure 4.2 Net change in B1, completions, 2000-15

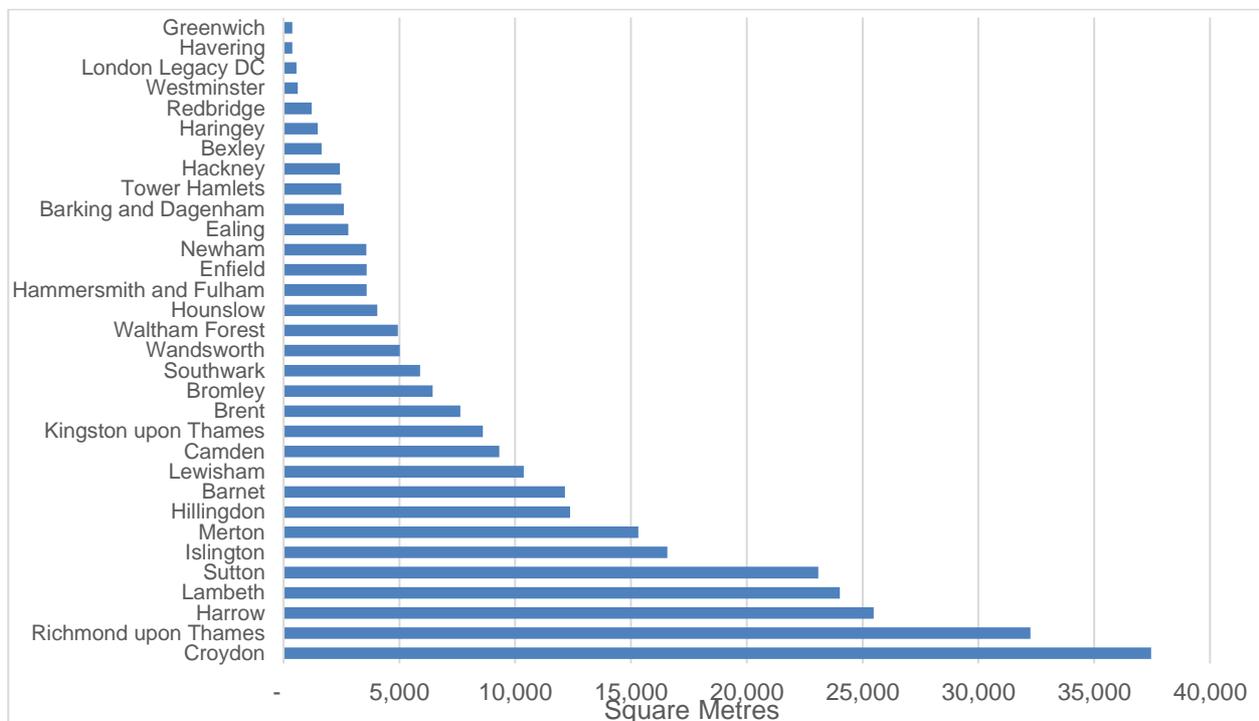


Source: London Development Database

Figure 4.3 shows the loss of office floorspace due to permitted development that occurred over the three-year period April 2013 – April 2016. As can be seen the largest losses were experienced in the

outer London Boroughs of Croydon Richmond and Harrow which between them lost nearly 100,000 sq m of office floorspace to PDR. Barnet, Hillingdon, Merton and Sutton also each lost in excess of 10,000 sq m each. Losses were not restricted to outer London with Islington losing 17,000 sqm of floorspace and Lambeth losing 24,000 sq m .

Figure 4.3 Office floorspace lost to residential in permitted development completions, FY2013-FY2015



Source: London Development Database, LOPR(2017)

One of the intentions of the PDR scheme was to bring vacant office buildings back in to productive use. But the LOPR report estimated that just over half of floorspace in schemes with PDR approvals was non-vacant. This would potentially result in the displacement of 37,000 jobs, the overwhelming majority of which are in Outer London.

Table 4.1 PDR and occupancy status with potential jobs displaced (approvals), FY2013-FY2015

	Space lost/ potentially lost to PDR (sq m)	Non-vacant floorspace where known	% non-vacant where known	Jobs disrupted
Inner London	478,938	62,727	52	6,274
Outer London	1,144,342	302,801	56	30,279
London	1,623,280	365,528	55	36,553

Source: London Development Database, LOPR(2017)

But the relationship between office capacity and jobs is no longer a straightforward one. Loss of office capacity does not translate into an equivalent loss of jobs in office sectors.

4.3 The Potential for Intensification

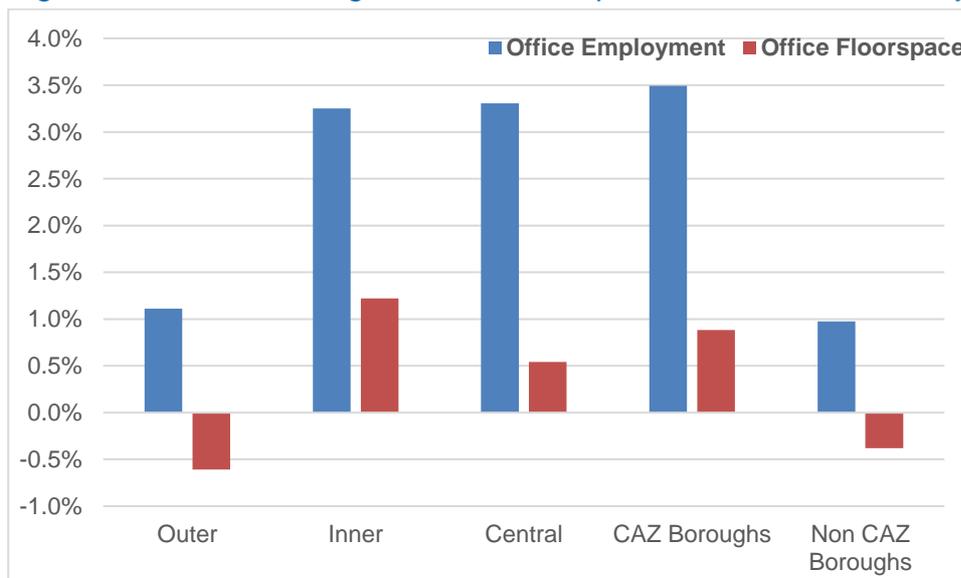
One potential response to a tightening of supply is that the existing stock of employment space will be used more intensively. This point is examined in more detail with regard to office employment in the London Office Policy Review 2017 and we summarise some of the key findings below.

Office Employment and Office Floorspace

Employment in office sectors has grown much more rapidly than office stock in recent years. This would tend to suggest that the office stock in London is being used much more intensively, through new working practices such as hot-desking and remote working. Alternatively, there is some other change in the relationship between what have traditionally been office based employment sectors and their tendency to occupy office accommodation.

A different spatial pattern is also apparent in London with regard to this relationship between jobs and floorspace. As Figure 6.1 illustrates, for Outer London, there has been a fall in office floorspace but an increase in employment in those sectors which would traditionally be thought of as occupying office floorspace. However, in Central London the increasing intensity at which offices are being occupied becomes apparent with growth in office employment far outstripping the rate of growth in office floorspace.

Figure 4.4 Annual change in office floorspace 2001-15 and office jobs¹⁸ 2004-15



Source: VOA, BRES, CAG

Should this trend continue then the amount of office floorspace capacity that London needs to accommodate its employment growth will not be as large as in the past.

¹⁸ Using definition of office jobs set out in London Office Policy Review (2017)

5 Results

5.1 Employment Capacity

This Chapter presents a series of summary tables setting out the results of the LESD(2017).¹⁹

Total Employment

Table 5.1 summarises the results for all employment use classes by Borough. Development capacity to accommodate an additional 903,000 jobs has been identified for the period up to 2041. Just over half of this identified capacity could come forward by 2021 so it is likely that further capacity will be identified over the longer term.

The Boroughs with the largest identified capacity are Tower Hamlets, Newham and City of London with capacity ranging from 114,000-133,000 jobs each. The capacity identified for the City is more near term and more advanced in the planning pipeline. Given the development cycles in the City we would anticipate additional development for 2031 and beyond to be identified at a later date.

Some of the capacity identified for Newham is longer term and there is a higher degree of uncertainty that it will come forward.

Camden and Hammersmith & Fulham have identified capacity for respectively 74,000 jobs and 72,000 jobs, whilst Southwark has the next largest capacity at 46,000 jobs. In the case of Hammersmith & Fulham the majority of this is dependent on the Old Oak Common site being developed in the longer term as a major office employment location.

Non Industrial Employment

If B2 and B8 development proposals are excluded, then for non-industrial employment, development capacity to accommodate an additional 899,000 jobs has been identified for the period up to 2041. This is shown in Table 5.2. The overall capacity and distribution of capacity is not very different to that for all employment. Of the relatively low number of schemes that do come forward for industrial development, most will be redevelopment on existing industrial sites and hence frequently will not result in any net addition to employment capacity.

Office Employment

The largest single component of capacity for additional employment is in the B1 office use class. Development capacity to accommodate an additional 674,000 jobs in office employment has been identified for the period up to 2041 (Table 5.3). 35% of this capacity is in the City and Tower Hamlets.

¹⁹ This is total jobs consistent with the Workforce jobs definition used for the GLA's employment projections

Table 5.1 Additional Employment Capacity by Borough and Planning Authority – All Use Classes

	2016	2021	2026	2031	2036	2041	Total
Barking and Dagenham	800	4,800	2,800	200			8,500
Barnet	300	13,500	2,700	4,700	4,500		25,800
Bexley	700	4,900	2,000		11,800		19,400
Brent	4,400		4,700	15,500	3,800		28,400
<i>Brent</i>	4,400		4,700	3,400	3,800		16,300
<i>OPDC</i>				12,100			12,100
Bromley	300	1,000	2,000	900	2,500		6,600
Camden	3,300	16,300	30,400	24,300			74,300
City of London	21,900	72,900	19,400				114,300
Croydon	-500	12,200	-100				11,600
Ealing	600	-1,000	7,400	1,000	3,500		11,500
<i>Ealing</i>	700	-800	4,800	1,000	2,400		8,100
<i>OPDC</i>	-100	-200	2,600	0	1,100		3,400
Enfield	1,800	4,800	1,000	1,900	300		9,800
Greenwich	3,100	7,100	1,600	3,700	9,200		24,800
Hackney	1,000	26,000	15,700	100	100		43,000
<i>Hackney</i>	1,000	21,300	13,800	100	100		36,300
<i>LLDC</i>		4,800	1,900				6,600
Hammersmith and	2,600	14,300	9,400	300	22,500	23,000	72,100
<i>Hammersmith and</i>	2,600	14,300	1,500	300	-2,900		15,800
<i>OPDC</i>			7,900		25,400	23,000	56,300
Haringey	-600	2,100	4,000		2,600		8,100
Harrow		900	1,500	300			2,800
Havering	1,600	6,200	1,000		3,500		12,300
Hillingdon	100	9,600	700	1,100			11,500
Hounslow	20,000	8,500	600				29,100
Islington	2,700	7,800	10,200		3,400		24,100
Kensington and Chelsea	-2,800	1,300	900		100		-400
Kingston upon Thames	-700	1,500	3,300	800	300		5,200
Lambeth	1,600	7,000			-400		8,200
Lewisham	1,900	700	2,400	2,200	600		7,900
Merton	900	400			400		1,600
Newham	8,600	47,400	30,300	23,800	9,200		119,300
<i>LLDC</i>	5,000	9,500	13,200	8,800	9,200		45,800
<i>Newham</i>	3,600	37,900	17,100	15,000			73,500
Redbridge	100	-400	800	200			800
Richmond upon Thames		700		2,700	100		3,500
Southwark	5,600	4,400	28,400	7,100	600		46,200
Sutton	200	3,500	100	300			4,100
Tower Hamlets	10,600	96,300	26,000	-100			132,800
<i>LLDC</i>	4,600	1,000	400	0			6,000
<i>Tower Hamlets</i>	5,900	95,300	25,500	-100			126,700
Waltham Forest	800	1,200	300		500		2,800
<i>LLDC</i>							0
<i>Waltham Forest</i>	800	1,200	300		500		2,800
Wandsworth	2,900	-1,400	-4,100	21,500	2,200		21,100
Westminster	7,800	-900	2,400	2,400			11,600
London	101,800	373,600	207,900	115,000	81,300	23,000	902,600
<i>OPDC</i>	-100	-200	10,500	12,100	26,500	23,000	71,800
<i>LLDC</i>	9,600	15,300	15,500	8,800	9,200		58,400

Source: LESD(2017). Totals may not sum due to rounding

Table 5.2 Additional Non-Industrial Employment Capacity by Borough and Planning Authority

	2016	2021	2026	2031	2036	2041	Total
Barking and Dagenham	300	2,400	2,800	200			5,700
Barnet	400	11,700	2,600	4,700	4,500		24,000
Bexley	700	1,700	7,100		10,500		20,000
Brent	5,200	-200	4,700	14,200	3,800		27,700
<i>Brent LPA</i>	5,200	-200	4,700	3,400	3,800		16,900
<i>OPDC</i>	0	0	0	10,800			10,800
Bromley	-100	100	2,000	300	2,200		4,500
Camden	3,400	16,400	30,400	25,400			75,600
City of London	21,900	72,900	19,400				114,300
Croydon	-400	12,300	-100				11,800
Ealing	700	-100	7,300	1,000	3,500		12,400
<i>Ealing LPA</i>	700	200	4,700	1,000	2,400		9,000
<i>OPDC</i>		-300	2,600		1,100		3,400
Enfield	2,200	3,700	900	1,900	300		8,900
Greenwich	3,700	6,700	1,600	3,700	9,200		25,000
Hackney	1,400	25,300	15,800	100	100		42,700
<i>Hackney LPA</i>	1,400	21,500	13,900	100	100		37,100
<i>LLDC</i>		3,800	1,900				5,600
Hammersmith and Fulham	2,500	15,000	9,800	300	22,500	23,000	73,000
<i>Hammersmith & Fulham LPA</i>	2,500	15,000	1,900	300	-2,900		16,800
<i>OPDC</i>			7,900		25,400	23,000	56,300
Haringey	-600	2,100	3,900		2,300		7,700
Harrow		1,500	1,500	300			3,300
Havering	500	5,700	900		3,300		10,400
Hillingdon	100	8,500	700	1,000			10,400
Hounslow	19,600	9,400	600				29,700
Islington	2,700	8,300	9,900		900		21,800
Kensington and Chelsea	-2,400	1,500	900		100		100
Kingston upon Thames	-800	1,400	3,300	800	300		5,000
Lambeth	1,800	6,700			-700		7,900
Lewisham	2,200	1,100	2,900	2,200	600		9,100
Merton	800	200			400		1,400
Newham	7,900	47,000	30,300	22,300	9,200		116,800
<i>Newham LPA</i>	5,000	9,600	13,200	8,800	9,200		45,900
<i>LLDC</i>	2,900	37,400	17,100	13,500			70,900
Redbridge	100	-400	800	200			800
Richmond upon Thames		700		2,700	100		3,500
Southwark	5,800	5,500	28,400	6,600	600		47,000
Sutton	-200	3,300	1,500	300			4,900
Tower Hamlets	12,800	97,100	25,900	-100			135,700
<i>Tower Hamlets LPA</i>	4,900	1,500	400				6,800
<i>LLDC</i>	7,900	95,600	25,500	-100			128,900
Waltham Forest	800	1,500	300		500		3,100
<i>Waltham Forest LPA</i>							0
<i>LLDC</i>	800	1,500	300		500		3,100
Wandsworth	4,000	-1,100	-3,900	21,300	2,600		22,900
Westminster	7,600	-700	2,400	2,400			11,800
London	104,800	367,200	214,600	112,100	76,900	23,000	898,600
<i>OPDC</i>				12,100	36,700	23,000	71,900
<i>LLDC</i>	6,300	30,700	11,100	8,800	9,200		66,300

Source: LESD(2017). Totals may not sum due to rounding

Table 5.3 Additional Office Employment Capacity by Borough and Planning Authority

	2016	2021	2026	2031	2036	2041	Total
Barking and Dagenham	100	500	1,000	100			1,700
Barnet	-500	4,800	2,300	4,700	4,500		15,800
Bexley	300	500	200		2,000		3,100
Brent	2,000	-1,800	3,300	4,500	2,700		10,700
<i>Brent</i>	2,000	-1,800	3,300	2,400	2,700		8,700
<i>OPDC</i>				2,000			2,000
Bromley	400		200	300	1,700		2,600
Camden	100	14,400	27,700	24,300			66,500
City of London	21,100	71,400	18,900				111,400
Croydon	-700	9,800	-3,400				5,700
Ealing	500	-3,000	5,900	700	1,400		5,400
<i>Ealing</i>	500	-2,700	3,600	700	300		2,500
<i>OPDC</i>	-100	-400	2,300		1,100		3,000
Enfield	1,800	2,300	700	1,400	200		6,500
Greenwich	1,100	5,000	500	3,200	5,300		15,000
Hackney	900	22,300	14,800	100	100		38,100
<i>Hackney</i>	900	17,800	13,400	100	100		32,200
<i>LLDC</i>	0	4,500	1,400				5,900
Hammersmith and Fulham	1,400	8,200	8,700		21,100	22,200	61,600
<i>Hammersmith and Fulham</i>	1,400	8,200	1,700		-3,000		8,300
<i>OPDC</i>			6,900		24,100	22,200	53,300
Haringey	-800	700	2,400		600		2,900
Harrow		300	500	100			900
Havering		700	100		3,300		4,100
Hillingdon	1,100	5,700	300	800			7,900
Hounslow	18,600	6,100	400				25,200
Islington	2,400	5,100	9,400		900		17,800
Kensington and Chelsea	-3,300	3,800	900		100		1,600
Kingston upon Thames	-1,000	400	2,900		200		2,500
Lambeth	100	4,600			-1,000		3,700
Lewisham	300	-700	1,500	1,100	500		2,700
Merton	300	-1,000			300		-500
Newham	5,800	29,500	28,000	11,900	9,200		84,400
<i>LLDC</i>	4,100	9,300	12,000	8,800	9,200		43,500
<i>Newham</i>	1,700	20,100	16,000	3,100			40,900
Redbridge	100	-200	200	200			400
Richmond upon Thames	-100	500		1,200	100		1,700
Southwark	3,800	2,400	20,300	2,900	500		29,900
Sutton	-400	2,800	1,100				3,400
Tower Hamlets	9,600	87,700	24,600	-100			121,700
<i>LLDC</i>	4,700	800	100				5,600
<i>Tower Hamlets</i>	4,800	87,000	24,500	-100			116,100
Waltham Forest	300	-100	200		400		800
<i>LLDC</i>							0
<i>Waltham Forest</i>	300	-100	200		400		800
Wandsworth	1,600	-2,500	-4,400	15,600	2,200		12,600
Westminster	6,900	-4,800	2,400	2,300			6,800
London	73,600	275,500	171,500	75,000	56,600	22,200	674,400
<i>OPDC</i>		-400	9,200	2,000	25,200	22,200	58,300
<i>LLDC</i>	6,300	30,700	11,100	8,800	9,200		66,300

Source: LESD(2017). Totals may not sum due to rounding

5.2 Opportunity Areas and Areas of Intensification

Data from the LESD is used to inform estimates of the employment potential of London's Opportunity Areas and Areas of Intensification. Table 5.4 sets out the capacity identified by the LESD for each of these areas and compares it against the employment capacity estimates set out for each Opportunity Area in the 2016 London Plan.

According to LESD(2017) the employment capacity associated with the Opportunity Areas and Areas of Intensification is 686,000 jobs. This is 76% of the total employment capacity in LESD(2017) for London as a whole.

This total is 19% higher than the total employment capacity estimate set out in the 2016 London Plan (or 18% if the higher figure for Euston is used²⁰).

There are a small number of Opportunity Areas where new aspirations to deliver high quantities of employment-generating development have come through since the figures published in the London Plan were prepared. The biggest single example is the Royal Docks and Beckton Waterfront where current aspirations for the OA are significantly higher than the 2016 London Plan figure. The LESD(2017) jobs capacity figure is also more than 10,000 higher than the London Plan 2016 figure for each of Bexley Riverside, Canada Water, Kings Cross St. Pancras, London Riverside and Lower Lea Valley.

Identified employment capacity from LESD(2017) is substantially lower than the 2016 London Plan Figure for two Opportunity Areas. In the City Fringe/Tech City identified capacity in LESD(2017) is 190,000 lower than the 2016 London Plan figure. This is explained partly because the 2016 London Plan capacity estimate included sites within the City of London (which now lie outside the Opportunity Area) and the new LESD(2017) figure is based upon the adopted OAPF area. The LESD(2017) capacity estimate is also 19,000 below the 2016 London Plan figure in the London Bridge, Borough & Bankside OA. But here the 2016 London Plan figure is probably now out of date as much employment creating development has been completed in this area in recent years and is therefore not included in LESD projections.

²⁰ A range was presented for Euston dependent on which configuration was used for the station development

Table 5.4 Opportunity Area Employment Capacity Estimates

Opportunity Area	LESD(2017)	2016 London Plan Employment Capacity
Bexley Riverside	19,300	7,000
Bromley	1,900	2,000
Canada Water	20,600	2,000
Charlton Riverside	800	1,000
City Fringe/ Tech City	50,800	70,000
Colindale/Burnt Oak	2,300	2,000
Cricklewood/Brent Cross	26,200	20,000
Croydon	10,500	7,500
Deptford Creek/Greenwich Riverside	3,100	4,000
Earls Court	4,900	9,500
Elephant and Castle	10,300	5,000
Euston	16,200	7,700 ²¹
Greenwich Peninsular	15,000	7,000
Harrow & Wealdstone	1,300	3,000
Heathrow	11,000	12,000
Ilford	300	800
Isle of Dogs	108,100	110,000
Kensal Canalside	900	2,000
King's Cross - St Pancras	48,300	25,000
Lewisham, Catford & New Cross	3,700	6,000
London Bridge, Borough & Bankside	5,500	25,000
London Riverside	29,100	16,000
Lower Lea Valley	66,800	50,000
Old Kent Road	5,300	1,000
Old Oak Common	60,100	55,000
Paddington	13,200	5,000
Park Royal	12,900	10,000
Royal Docks & Beckton Waterfront	55,300	6,000
Southall Hinterland	300	3,000
Thamesmead & Abbey Wood	3,400	4,000
Tottenham Court Road	6,200	5,000
Upper Lea Valley	13,400	15,000
Vauxhall, Nine Elms & Battersea	18,500	25,000
Victoria	4,400	4,000
Waterloo	6,000	15,000
Wembley	13,500	11,000
White City	2,300	10,000
Woolwich	2,600	5,000
Areas of Intensification		
Farringdon/Smithfield	5,000	2,500
Haringey Heartlands/Wood Green	2,500	2,000
Holborn	700	2,000
Kidbrooke	1,700	400
Mill Hill East	900	500
South Wimbledon/Colliers Wood	200	500
West Hampstead Interchange	500	100
Total	685,800	576,500

Source: LESD(2017)

²¹ Or a higher figure of 14,100 depending on station configuration

6 Comparison with Demand Projections

6.1 Introduction

This chapter compares the total potential employment capacity identified by the LESD against the projected future employment growth for London by GLA Economics. This is presented in Table 6.1 below.

Table 6.1 Estimated Change in Employment 2016-41 and Identified Capacity

	All Employment	Capacity	As % Capacity	Office Employment	Office Capacity	As % Capacity
Barking and Dagenham	1,400	8,500	16%	1,200	1,700	71%
Barnet	26,900	25,800	104%	10,900	15,800	69%
Bexley	10,900	19,400	56%	3,400	3,100	110%
Brent	13,500	28,400	48%	5,700	10,700	53%
Bromley	34,100	6,600	517%	10,000	2,600	385%
Camden	68,000	74,300	92%	47,000	66,500	71%
City of London	96,000	114,300	84%	85,100	111,400	76%
Croydon	2,100	11,600	18%	3,000	5,700	53%
Ealing	11,700	11,500	102%	9,500	5,400	176%
Enfield	8,500	9,800	87%	3,600	6,500	55%
Greenwich	10,700	24,800	43%	2,500	15,000	17%
Hackney	34,100	43,000	79%	16,500	38,100	43%
Hammersmith and Fulham	73,900	72,100	102%	32,600	61,600	53%
Haringey	10,900	8,100	135%	4,500	2,900	155%
Harrow	4,300	2,800	154%	3,800	900	422%
Havering	11,200	12,300	91%	2,700	4,100	66%
Hillingdon	80,000	11,500	696%	25,500	7,900	323%
Hounslow	30,600	29,100	105%	19,500	25,200	77%
Islington	46,300	24,100	192%	30,600	17,800	172%
Kensington and Chelsea	10,000	-400	-2500%	7,700	1,600	481%
Kingston upon Thames	2,000	5,200	38%	2,000	2,500	80%
Lambeth	34,800	8,200	424%	13,500	3,700	365%
Lewisham	10,100	7,900	128%	2,600	2,700	96%
Merton	25,000	1,600	1563%	9,400	-500	-1880%
Newham	72,900	119,300	61%	14,900	84,400	18%
Redbridge	26,500	800	3313%	7,100	400	1775%
Richmond upon Thames	32,100	3,500	917%	13,600	1,700	800%
Southwark	65,800	46,200	142%	41,500	29,900	139%
Sutton	6,000	4,100	146%	2,900	3,400	85%
Tower Hamlets	166,400	132,800	125%	97,900	121,700	80%
Waltham Forest	21,400	2,800	764%	4,000	800	500%
Wandsworth	22,300	21,100	106%	9,600	12,600	76%
Westminster	98,800	11,600	852%	75,100	6,800	1104%
London	1,169,400	902,600	130%	619,300	674,400	92%

Source: GLA Economics 2016, LOPR 2017, LESD 2017

Office Employment

In term of office employment, the position at the London level looks fairly well balanced. In the period 2016-41 there is projected growth of 619,000²² office jobs with identified capacity to accommodate 674,000 jobs. There are however some potential imbalances both temporally and spatially. There are some sites that potentially offer large capacity in the future but which may take many years to be developed. Notable among these are Old Oak Common in Hammersmith & Fulham and the Royal Docks in Newham. In both these boroughs the potential capacity is well in the excess of the currently projected demand.

In Westminster by contrast there appears to be a big shortfall in capacity to accommodate projected demand. Why this might be and how this apparent shortfall can be resolved can be explained in the following way:

- Until recently Westminster had operated a relatively restrictive policy towards large increases in office capacity. Hence there has not been much of a build-up in the development pipeline.
- The last few years have seen a large number of conversions of office stock to residential development thus diminishing the stock.
- But despite this diminution in the office stock Westminster has continued to experience strong growth in office based sectors thus implying a more intensive use of stock or change in working practices.
- If growth in demand cannot be accommodated within Westminster itself then there is surplus capacity elsewhere in CAZ and Northern Isle of Dogs that could accommodate it. Or it could potentially be accommodated in new satellite centres such as Stratford the Royal Docks or Old Oak Common.

Non-Office Employment

If we look at total employment then the projected growth in jobs appears to outweigh the currently identified capacity to accommodate the growth. This implies there is not sufficient capacity identified to accommodate the projected growth in non-office employment.

But this should not necessarily be a cause for concern. Much of the growth in non-office employment will come in sectors such as health, education, retail, and other services. We would not expect capacity to accommodate these jobs to be showing up in the LESD for a number of reasons:

- Scale – the threshold for the LESD is set to capture larger developments such as new hospitals or universities, but it does not capture every health centre or primary school where much of this growth in employment is likely to occur.
- Timing – much of the growth in these sectors will be incremental and it would not be appropriate to start planning future capacity for twenty years hence now.
- Accommodation – some jobs do not require accommodation. Thus, for example, a sector such as home care which is projected to grow will not require a corresponding growth in non-residential development to accommodate it.

²² London Office Policy Review 2017 - Ramidus

Thus whilst the situation needs to be continually monitored to ensure there is sufficient capacity to accommodate the range of employment needs of the London economy, at the level of London as a whole there is no suggestion that London cannot accommodate its projected employment growth.

Appendix 1

Land Use Classifications

A1 Shops - Shops, retail warehouses, hairdressers, undertakers, travel and ticket agencies, post offices, pet shops, sandwich bars, showrooms, domestic hire shops, dry cleaners, funeral directors and internet cafes.

A2 Financial and professional services - Financial services such as banks and building societies, professional services (other than health and medical services) and including estate and employment agencies. It does not include betting offices or pay day loan shops - these are now classed as "sui generis" uses (see below).

A3 Restaurants and cafés - For the sale of food and drink for consumption on the premises - restaurants, snack bars and cafes.

A4 Drinking establishments - Public houses, wine bars or other drinking establishments (but not night clubs).

A5 Hot food takeaways - For the sale of hot food for consumption off the premises.

B1 Business - Offices (other than those that fall within A2), research and development of products and processes, light industry appropriate in a residential area.

B2 General industrial - Use for industrial process other than one falling within class B1 (excluding incineration purposes, chemical treatment or landfill or hazardous waste).

B8 Storage or distribution - This class includes open air storage.

C1 Hotels - Hotels, boarding and guest houses where no significant element of care is provided (excludes hostels).

C2 Residential institutions - Residential care homes, hospitals, nursing homes, boarding schools, residential colleges and training centres.

C2A Secure Residential Institution - Use for a provision of secure residential accommodation, including use as a prison, young offenders institution, detention centre, secure training centre, custody centre, short term holding centre, secure hospital, secure local authority accommodation or use as a military barracks.

C3 Dwellinghouses -

C4 Houses in multiple occupation - small shared houses occupied by between three and six unrelated individuals, as their only or main residence, who share basic amenities such as a kitchen or bathroom.

D1 Non-residential institutions - Clinics, health centres, crèches, day nurseries, day centres, schools, art galleries (other than for sale or hire), museums, libraries, halls, places of worship, church halls, law court. Non residential education and training centres.

D2 Assembly and leisure - Cinemas, music and concert halls, bingo and dance halls (but not night clubs), swimming baths, skating rinks, gymnasiums or area for indoor or outdoor sports and recreations (except for motor sports, or where firearms are used).

Sui Generis - Certain uses do not fall within any use class and are considered 'sui generis'. Such uses include: betting offices/shops, pay day loan shops, theatres, larger houses in multiple occupation, hostels providing no significant element of care, scrap yards. Petrol filling stations and shops selling and/or displaying motor vehicles. Retail warehouse clubs, nightclubs, launderettes, taxi businesses, amusement centres and casinos.