

# Employment Review

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*Final Report*

**Epping Forest District Council**

December 2017

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# 1 Introduction

HJA was appointed by Epping Forest District Council (EFDC) to undertake an Employment Review for the District. This evidence is to be used to inform the allocation of employment sites (specifically B Use Class) within the emerging Epping Forest District Local Plan.

This Employment Review draws on a number of studies, in particular:

- *West Essex and East Hertfordshire Assessment of Employment Needs*<sup>1</sup> (hereafter referred to as ‘the 2017 FEMA study’) which provides a sub-regional demand focused analysis; and
- *Epping Forest District Local Plan Employment Land Supply Assessment*<sup>2</sup> (hereafter referred to as ‘the Arup supply report’ which provides analysis of District level supply side matters.

This report provides additional District level commercial market analysis, drawing heavily on evidence gathered from local commercial market stakeholders. This report also seeks to bring together the evidence from across the three streams of work. Headline summaries of the 2017 FEMA study and Arup supply report are included, however, for full detail the original reports should be referenced.

## 1.1 Background and Context

Given the range of relevant documents, both current and historic, each is noted below.

### 1.1.1 2015 FEMA Study<sup>3</sup>

HJA was commissioned<sup>4</sup> in 2015 to provide economic evidence to inform the development of objectively assessed housing need (OAHN) across the West Essex and East Herts Housing Market Area (HMA). The 2015 FEMA study included analysis to determine an appropriate functional economic market area (FEMA) and consideration of future employment growth scenarios. The outputs of the 2015 FEMA study were used to inform the OAHN figures set out in the 2015 Strategic Housing Market Assessment (SHMA) prepared by Opinion Research Services (ORS). The conclusion of the study was that the four West Essex and East Herts Councils formed the core of a FEMA and should plan on the basis of 1,890 jobs per annum over the plan period 2011-33. A figure of 400-455 jobs per annum (c10,000 over the plan period) was identified for Epping Forest District. The 2015 FEMA study did not consider the land and property implications of these growth scenarios.

### 1.1.2 2015 EFDC Study<sup>5</sup>

Concurrent with the 2015 FEMA study, HJA was appointed by EFDC to prepare economic and employment evidence to support both the preparation of the emerging Local Plan and the Council’s Economic Development Strategy. The 2015 EFDC study considered the recent and historic performance of the District economy, it drew on the 2015 FEMA study to inform the assessment of future growth prospects for the District, and considered the implications for employment (primarily

<sup>1</sup> HJA (2017) West Essex and East Hertfordshire Assessment of Employment Needs

<sup>2</sup> Arup (2017) Epping Forest District Local Plan Employment Land Supply Assessment

<sup>3</sup> HJA (2015) Economic Evidence to Support the Development of the OAHN for West Essex and East Herts

<sup>4</sup> Jointly commissioned by East Herts Council, Epping Forest District Council, Harlow Council and Uttlesford District Council

<sup>5</sup> HJA (2015) Economic and Employment Evidence to Support the Local Plan and Economic Development Strategy

B Use Class) sites and premises. The 2015 EFDC study also provided a partial update to the supply side analysis set out in the 2010 Employment Land Review alongside an updated commercial market review. The conclusion of the study was that the potential growth of c10,000 jobs over the plan period gave rise to an estimated requirement for circa 27.5 – 31.4 hectares of B Use Class sites across the District (2011-33).

### **1.1.3 2017 FEMA Study<sup>1</sup>**

In 2017 HJA was appointed to provide an update to the 2015 FEMA study and extend its scope. In addition to an update on potential growth scenarios across the West Essex and East Herts area the work considered the future employment (B Use Class) sites and premises implications of those growth scenarios. A headline summary of the 2017 FEMA study is set out in Chapter 3 of this report, as it forms an important component of the evidence of future requirements for the District.

### **1.1.4 Arup Supply Report**

This constitutes a comprehensive update and replacement of the previous Employment Land Review<sup>6</sup> prepared by Atkins in 2010. Arup has completed an extensive review of existing B Use Class employment sites and premises as well as appraisals of future opportunity sites within the District. A headline summary of the Arup supply report is set out at Chapter 5 of this report.

## **1.2 Study Objectives**

The project brief set out three core requirements for this Employment Review:

- To produce updated quantitative assessment of employment needs for the Epping Forest District;
- To conduct an appraisal of the local commercial property market and digest new employment land supply intelligence to incorporate into the Review; and
- To provide clear and unambiguous recommendations to inform the future spatial strategy for employment in Epping Forest District.

The first requirement above flows directly from the 2017 FEMA study which is summarised in chapter 3.

## **1.3 Structure of the Report**

The remainder of this report is set out as follows:

Chapter 2 sets out a summary of the national policy and guidance relevant to the study and identifies how this has been addressed.

Chapter 3 sets out a summary of the 2017 FEMA study, which provides an assessment of quantitative demand requirements for the FEMA and the District.

Chapter 4 sets out further District level commercial property market evidence, which draws on consultation with a number of local stakeholders coupled with supporting data analysis.

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<sup>6</sup> Atkins (2010) Epping Forest District and Brentwood Borough Employment Land Review

Chapter 5 sets out a summary of the 2017 Arup supply report, which considers both the existing and future potential supply of employment sites and premises across the District.

Chapter 6 sets out recommendations for future spatial strategy for employment, drawing on the range of evidence set out in the preceding chapters and supporting documents.

## 2 Policy and Guidance

This chapter sets out a summary of the relevant policy and guidance. It is a core requirement of the brief for the Employment Review that it is undertaken in line with national planning policy and guidance. The two most relevant documents are the *National Planning Policy Framework (NPPF)*<sup>7</sup> and *Planning Practice Guidance (PPG)* relating to Housing and Economic Development Needs Assessments<sup>8</sup>.

### 2.1 National Planning Policy Framework (NPPF)

The NPPF notes that *“the purpose of the planning system is to contribute to the achievement of sustainable development) (paragraph 6). Sustainable development comprises three dimensions: economic, social and environmental. In fulfilling its economic role, the planning system needs to ensure “that sufficient land of the right type is available in the right places and at the right time to support growth and innovation” (paragraph 7).*

The NPPF notes that *“every effort should be made to objectively identify and then meet the...business...needs of an area, and respond positively to wider opportunities for growth” as a result “Plans should take account of market signals... and set out a clear strategy for allocating sufficient land which is suitable for development in their area, taking account of the needs of... business communities” (paragraph 17).*

Paragraphs 18-22 of the NPPF deal specifically with building a strong, competitive economy. This notes that *“Planning should operate to encourage and not act as an impediment to sustainable growth” (paragraph 19), “local planning authorities should plan proactively to meet the development needs of business and support an economy fit for the 21<sup>st</sup> century” (paragraph 20), and*

*“In drawing up Local Plans, local planning authorities should:*

- *Set out a clear economic vision and strategy for their area which positively and proactively encourages sustainable economic growth;*
- *Set criteria or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period;*
- *Support existing business sectors, taking account of where they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in the area. Policies should be flexible enough to accommodate needs not anticipated in the plan and to allow a rapid response to change in economic circumstances;*
- *Plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high technology industries;*
- *Identify priority areas for economic regeneration, infrastructure provision and environmental enhancement; and*
- *Facilitate flexible working practices such as the integration of residential and commercial uses within the same unit.” (paragraph 21)*

<sup>7</sup> DCLG (2012) National Planning Policy Framework

<sup>8</sup> DCLG (2015) Planning Practice Guidance [Section reference ID 2a, found at: <https://www.gov.uk/guidance/housing-and-economic-development-needs-assessments> (last accessed 25/10/17)]

The NPPF also notes that *“Planning policies should aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities.”*(paragraph 37). Specifically in drawing up Local Plans the NPPF states that *“Local Plans should be aspirational but realistic”* (paragraph 154). The NPPF also sets out the Duty to Cooperate and the need for cross-boundary, collaborative working.

The above principles and guidance underpin the approach employed, ensuring a positive view of future growth potential, unencumbered by constraint but grounded in reality. The approach not only deals with the need to enable growth in the economy but facilitate the upgrading of existing stocks to ensure a supply of employment premises fit for the 21<sup>st</sup> century. The 2017 FEMA study coupled with local commercial market intelligence and consultation ensures a robust evidence base.

## 2.2 Planning Practice Guidance (PPG)

Planning Practice Guidance (PPG) provides further advice on undertaking economic development needs assessments (section reference ID 2a). The entire section is of relevance and has informed this Review, the 2017 FEMA study and the Arup supply report. The purpose of the guidance is to support the objective assessment and evidencing of need.

This includes the following specific guidance:

*“The primary objective of identifying need is to identify the future quantity of land or floorspace required for economic development uses including both the quantitative and qualitative needs for new development; and provide a breakdown of that analysis in terms of quality and location, and to provide an indication of gaps in current land supply”.* (PPG ID 2a-002)

*“Plan makers should not apply constraints to the overall assessment of need, such as limitation imposed by the supply of land for new development, historic under performance, viability, infrastructure or environmental constraints.”* (PPG ID 2a-004)

*“Local planning authorities should assess their development needs working with the other local authorities in the relevant housing market area or functional economic market area in line with the duty to cooperate. This is because such needs are rarely constrained precisely by local authority administrative boundaries.”* (PPG ID 2a-007). The paragraph goes on to indicate the need for a range of stakeholders to also be engaged in the process from the earliest stage, including the preparation of evidence.

*“Needs should be assessed in relation to the relevant functional area ie functional economic area in relation to economic uses...Establishing the assessment area may identify smaller sub-markets with specific features”.* (PPG ID 2a-008)

*“In understanding the current market...plan makers should consider:*

- *The recent pattern of employment land supply and loss to other uses*
- *Market intelligence*
- *Market signals*
- *Public information on employment land and premises required*
- *Information held by other public bodies*

- *The existing stock of employment land*
- *The locational and premises requirements of particular types of business*
- *Identification of oversupply and evidence of market failure” (PPG ID 2a-030)*

*“Local authorities should develop an idea of future needs based on a range of data which is current and robust (PPG ID 2a-032)*

*Plan makers should consider:*

- *Sectoral and employment forecasts and projections (labour demand)*
- *Demographically derived assessments of future employment needs (labour supply)*
- *Analyses based on past take-up of employment land and property and/or future property market requirements*
- *Consultation with relevant organisations, studies of business trends, and monitoring of business, economy and employment statistics”*

The approach adopted to this Review fulfils the requirements of PPG. The 2017 FEMA study sets out a detailed quantitative assessment of future requirements in line with the guidance. This has been supplemented with local consultation and market intelligence to ensure qualitative issues are taken into account. The FEMA studies directly address the need to work across boundaries, with local intelligence ensuring District level commercial market dynamics are recognised and inform strategy.



### 3 West Essex and East Herts Future Requirements Study

This chapter is based on the Executive Summary of the 2017 FEMA study<sup>1</sup>. Additional text has been added to highlight the implications for Epping Forest District. This report was very recently published and forms a central element of the employment evidence base for the District. For further detail the full report should be referenced. The FEMA analysis was intended to provide a strategic overarching evidence base. It did not include consultation with local commercial market stakeholders. Chapter 4 therefore provides additional local information.

#### 3.1 Introduction

Hardisty Jones Associates Ltd (HJA) was appointed by Epping Forest District Council (EFDC), East Herts Council (EHC), Uttlesford District Council (UDC) and Harlow Council (HC) to provide an assessment of employment needs for the functional economic market area (FEMA) with the intention of informing future planning for strategic employment matters across the area.

The four councils were at different stages of preparation of their respective new Local Plans but working jointly through the obligations of the Duty to Cooperate to consider strategic cross-boundary matters. This joint working was administered through the Cooperation for Sustainable Development Board.

The four core objectives for the study were to:

1. Conduct an appraisal of the East of England Forecasting Model (EEFM) 2016 to ascertain whether it was a sound foundation upon which to formulate an up-to-date assessment of employment needs for the FEMA.
2. Produce an up-to-date business as usual/ 'policy-off' quantitative assessment of employment needs in the FEMA using the updated EEFM 2016 and other inputs as deemed relevant.
3. Explore an appropriate and agreed number of 'policy-on' employment need scenarios. In determining these, referring to the 2015 evidence produced by HJA<sup>3</sup>, as well as drawing on the emerging Local Plans and knowledge of nominated Planning Officers within the FEMA and recent economic and housing growth evidence for the sub-region or smaller geographies within. It was recognised that an on-going consultative approach was required to secure agreement to the scenario which was to become the basis on which the four local authorities planned for employment growth.
4. Based on the preferred scenario, translate the assessment of employment need into the land requirement for B Class Uses across the FEMA having regard to the current supply position, local economic strategy, historic take-up and market demand.

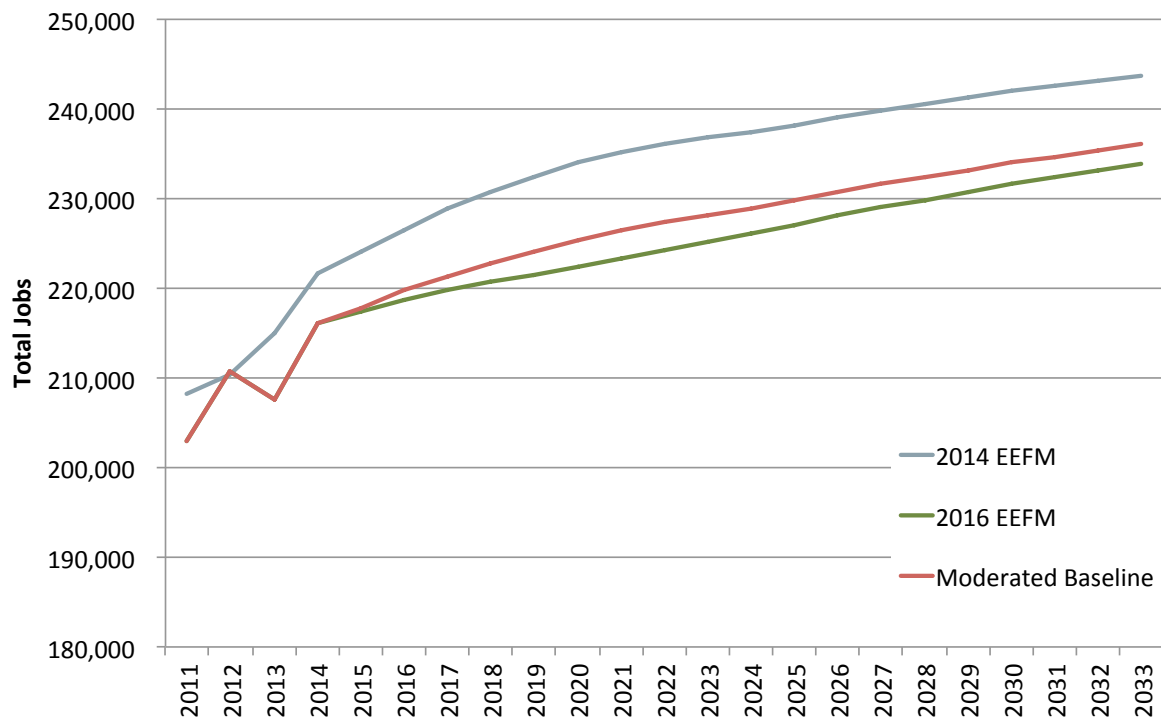
The study was undertaken in compliance with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).

#### 3.2 Baseline Forecasts

The EEFM provides consistent economic forecasts for the whole of the East of England region and selected other areas. The EEFM was originally developed by Oxford Economics with its first release in 2007 and regular updates to 2014. The latest 2016 release has been prepared by Cambridge Econometrics after a retendering of the contract.

HJA reviewed the latest 2016 EEFM and identified a number of substantive changes in the results within the West Essex and East Herts FEMA when compared to the 2014 EEFM. In particular, the spatial distribution of forecast employment growth was very different. There were also substantial adjustments to sector growth forecasts. Following detailed review, it was agreed by the four districts that the spatial distribution of future employment change within the 2016 EEFM was inconsistent with the evidence and a moderated baseline should be constructed. This reapportioned forecast employment growth across the FEMA in line with the 2014 EEFM. Some moderation of sectoral growth patterns was also undertaken. The conclusion of this process is a moderated baseline of 33,100 additional jobs across the FEMA over the period 2011-33. Figure 3.1 shows the trajectory of the moderated baseline in comparison to the 2014 and 2016 EEFM editions.

**Figure 3.1 Moderated Baseline Total FEMA Jobs 2011-33**



Source: HJA based on EEFM

Table 3.1 shows the forecast employment change by district under the moderated baseline scenario. This forecasts growth of 9,800 jobs across the Epping Forest District over the period 2011-33, this is broadly similar with the conclusions of the 2015 FEMA study.

**Table 3.1 Moderated Baseline – Employment (Jobs) Change by District**

	East Herts	Epping Forest District	Harlow	Uttlesford	FEMA
<b>2011-16</b>	3,700	3,000	5,000	5,000	16,800
<b>2016-21</b>	2,300	2,500	700	1,300	6,700
<b>2021-26</b>	1,600	1,900	400	400	4,300
<b>2026-33</b>	1,800	2,400	600	500	5,300
<b>2011-33</b>	<b>9,400</b>	<b>9,800</b>	<b>6,700</b>	<b>7,200</b>	<b>33,100</b>

Source: HJA based on EEFM

### 3.3 Alternative Scenarios

A review of evidence was undertaken to ascertain whether alternative scenarios should be considered.

Analysis of the projected labour supply, emerging from the July 2017 Strategic Housing Market Assessment OAN Update for West Essex and East Herts<sup>9</sup> indicates a level of workforce growth far beyond that required to meet the demands of the moderated baseline. To maintain a balanced labour market, with an appropriate level of unemployment and commuting patterns in line with 2011 rates, would necessitate a further 20,000 jobs over and above the moderated baseline. On this basis it is appropriate to consider whether higher employment growth scenarios could be developed.

Four major drivers of additional job growth within the FEMA, over and above the moderated baseline were identified from the evidence review:

- The relocation of Public Health England to Harlow, creating an additional 3,250 jobs in the area above the moderated baseline.
- The planned growth of London Stansted Airport, creating an additional 6,750 jobs in the area above the moderated baseline.
- The economic development efforts at Harlow, including the Enterprise Zone, creating an additional 2,500 jobs in the area above the moderated baseline.
- The service sector employment implications of higher population projections, creating an additional 5,400 jobs in the area above the moderated baseline.

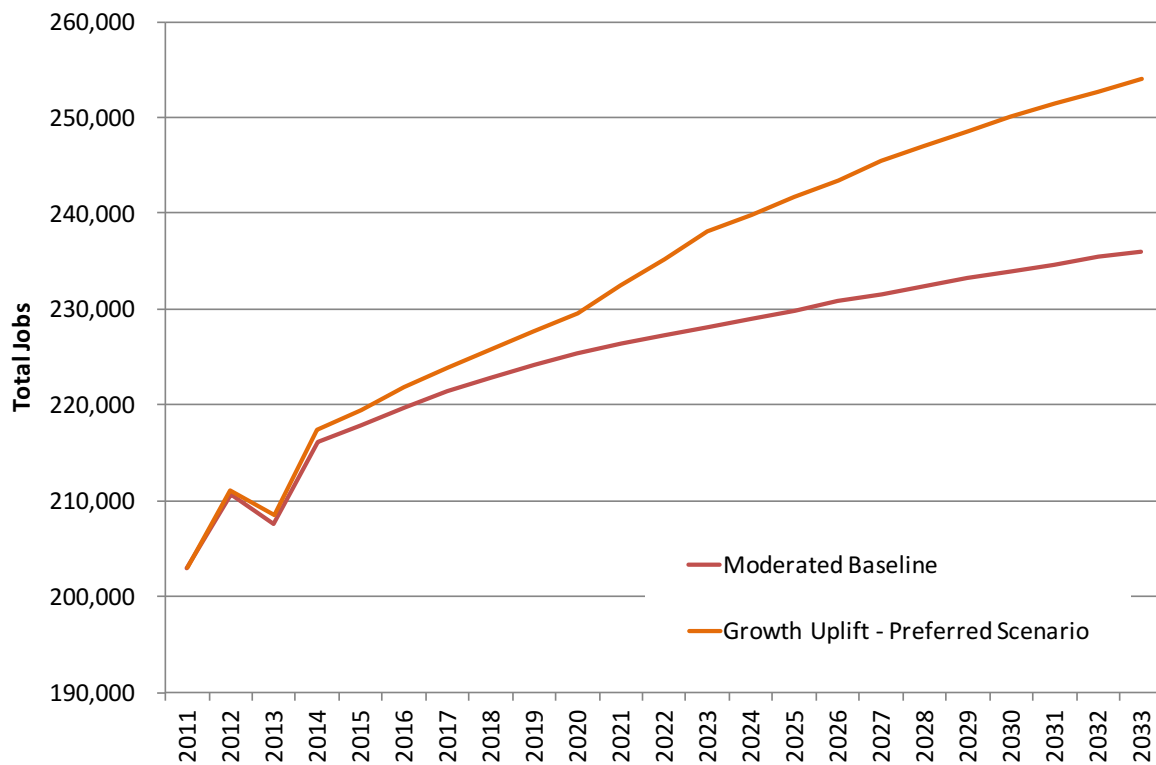
In aggregate the four growth drivers were identified as having the potential to deliver 17,900 jobs in addition to the moderated baseline. A preferred scenario was developed and agreed including these four drivers, delivering a total jobs growth of 51,000 over the period 2011-33. This is illustrated in figure 3.2 and table 3.2.

The preferred scenario remains 2,100 jobs below the level required to balance the labour market. However, given that there are some uncertainties associated with jobs forecasting and the long-term nature of Local Plans, such a scale of additional provision over the FEMA area up to 2033 does not represent any significant short-term difficulties for emerging Local Plans. In reality the additional provision may be accommodated through increased job densities and / or windfall development. The FEMA authorities are committed to working together to ensure that this additional provision will be accommodated.

Table 3.2 sets out the district level position. This shows an increase in the total jobs growth forecasted for Epping Forest District to 10,800. This is 1,000 jobs above the moderated baseline scenario and higher than the level forecast within the 2015 FEMA study. However, the majority of additional job growth within the preferred scenario is focused at Uttlesford and Harlow, as a result of known major investments.

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<sup>9</sup> ORS (2017) West Essex and East Hertfordshire Strategic Housing Market Assessment, Establishing the Full Objectively Assessed Need

**Figure 3.2 Preferred Scenario Total FEMA Jobs 2011-33**

Source: HJA

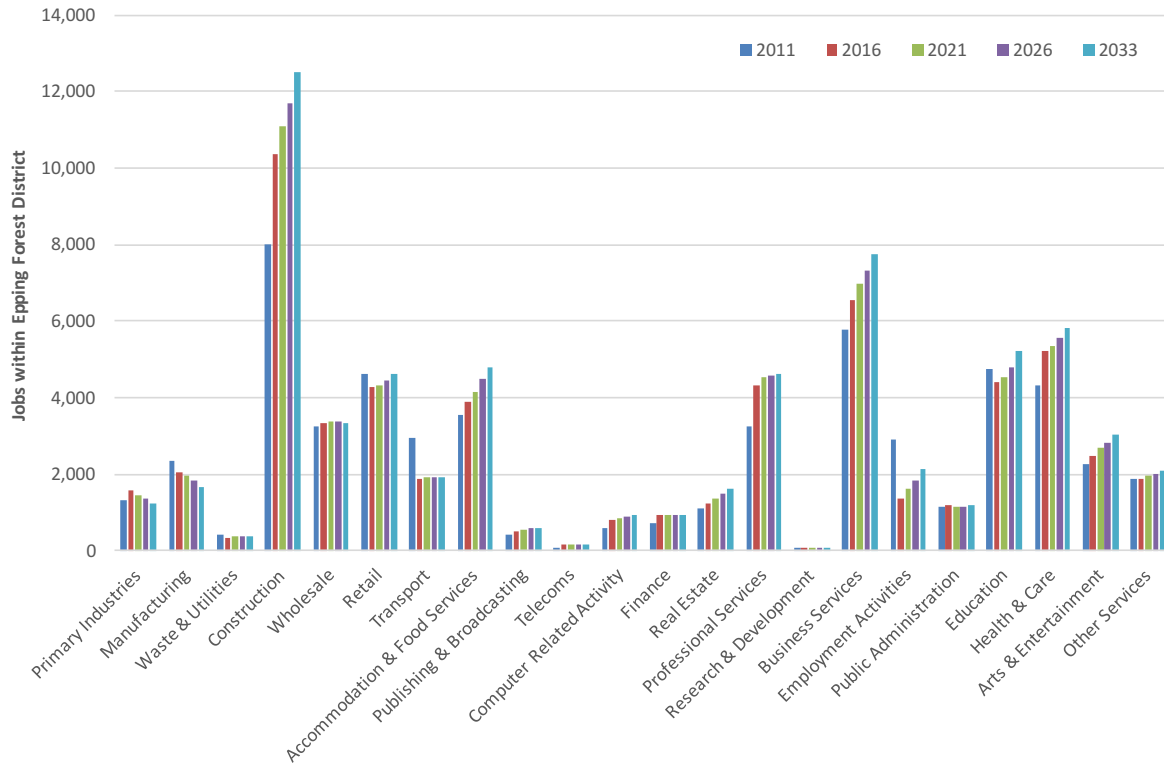
**Table 3.2 Preferred Scenario – Employment (Jobs) Change by District**

	East Herts	Epping Forest District	Harlow	Uttlesford	FEMA
<b>2011-16</b>	3,600	2,900	4,900	7,400	18,900
<b>2016-21</b>	2,300	2,500	2,100	3,700	10,600
<b>2021-26</b>	2,200	2,300	3,500	3,000	10,900
<b>2026-33</b>	2,700	3,000	2,900	1,900	10,600
<b>2011-33</b>	<b>10,800</b>	<b>10,800</b>	<b>13,400</b>	<b>16,000</b>	<b>51,000</b>

Source: HJA (figures may not sum due to rounding).

Figure 3.3 illustrates the forecast change in jobs by sector within the economy over the period 2011-33. This highlights the strength of the construction sector in Epping Forest District which has experienced significant growth in the period 2011-16 in jobs terms and is forecast to continue to grow. From 2016 onwards there is forecast jobs growth in the majority of sectors, with the exception of primary industries and manufacturing, alongside broadly flat expectations for the waste and utilities, transport, finance and public administration sectors.

**Figure 3.3 Forecast Jobs Change by Sector 2011-33 in Epping Forest District**



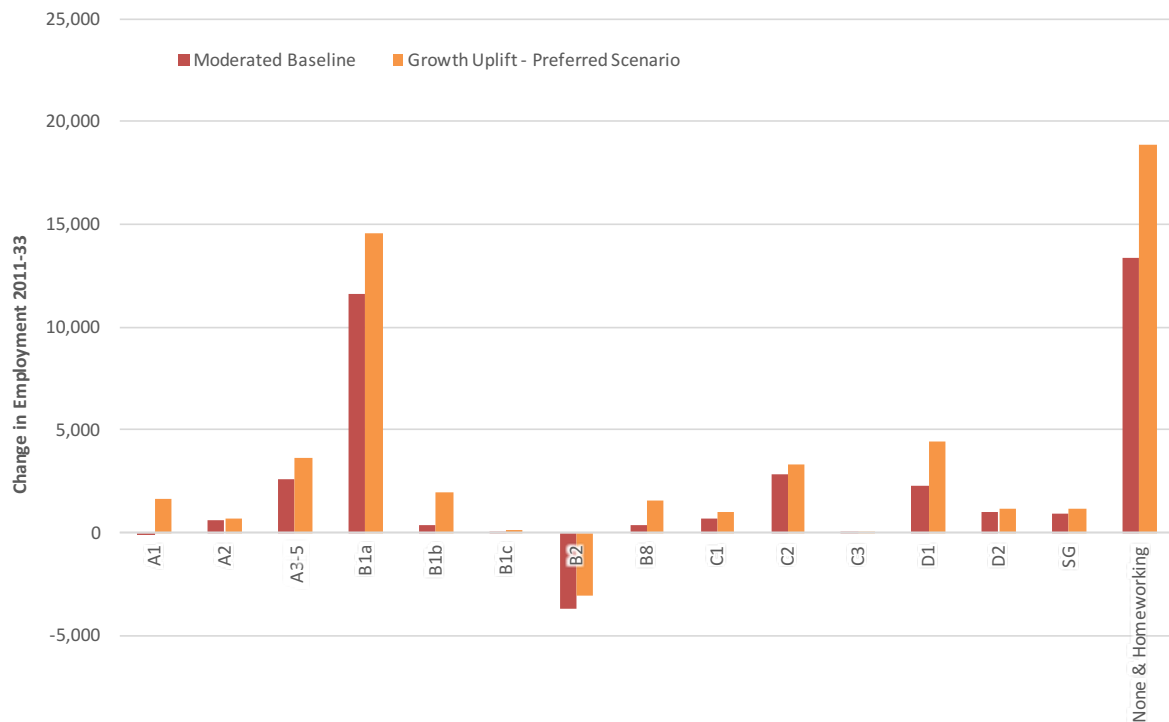
Source: HJA

### 3.4 Employment Land Implications

An assessment of the future B Use Class employment sites and premises requirements was undertaken. This included a consideration of the changes required to accommodate the forecast growth in the economy under the preferred scenario, as well as provision to ensure the ongoing strength of the existing economy. The analysis of future requirements considered the 2016-33 period<sup>10</sup>.

Analysis of forecast employment indicated a substantial proportion of forecast job growth would lie outside the B Use Class. The largest requirement falls within the ‘none and homeworking’ category, encompassing both home based working and peripatetic employment. There is also forecast job growth across the A, B, C, D and Sui Generis Use Classes. Within the B Use Class the greatest growth in jobs falls within the B1a office Use Class. There is also growth in B1b, B1c and B8 requirements. Employment within the B2 Use Class is forecast to decline. Figure 3.4 illustrates the distribution of jobs change across Use Classes over the full plan period for the FEMA.

<sup>10</sup> On the basis that the period 2011-16 has been completed. The 2011-16 period also includes the recovery from the post 2008 economic downturn, with capacity in the economy (including the labour market and commercial floorspace) being used up. At 2016 the economy was at a more neutral position.

**Figure 3.4 Employment Change by Use Class 2011-33**

Source: HJA

Table 3.3 summarises the assessment of future B Use Class floorspace requirements for the preferred scenario across the FEMA. This is subdivided into office and industrial (including logistics and distribution) classifications.

Within the office sector there is forecast to be a requirement for 77,800 sq m of new floorspace to accommodate expansion of the economy. In addition, a further 83,500 sq m of office floorspace will be required to ensure a healthy stock of premises to accommodate the existing economy. In total, a requirement for 161,300 sq m is identified. The analysis has identified that around half of this can be delivered through the reuse of previously developed employment sites. After taking this into account, and making an adjustment for choice and flexibility, the remaining requirement is 86,800 sq m. This will require approximately 9-22 hectares of land over the period 2016-33, depending on the density of development. The lower figure relates to higher density town centre type development. The higher figure relates to lower density business park type development.

Within the industrial sector there is a forecast requirement for 92,800 sq m to meet the expansion of the economy. The greatest driver in this sector will be replacement provision, to ensure modern stocks to meet the needs of the existing economy. This will create a requirement for 412,200 sq m. In combination, a total requirement of 505,000 sq m is forecast. Around half of this can be met through the redevelopment of previously used employment sites. The remainder, with an allowance for choice and flexibility is estimated at 261,500 sq m. This will require approximately 65 hectares of land over the period 2016-33.

**Table 3.3 Preferred Scenario - Total Estimated Future Sites and Premises Requirements (sq m GEA unless stated) – FEMA 2016-33**

	Office	Industrial
<b>Replacement Provision (A)</b>	83,500	412,200
<b>Net Additional Requirement (B)</b>	77,800	92,800
<b>Gross Requirement (C=A+B)</b>	161,300	505,000
<b>Delivered on Existing Employment Sites (D)</b>	82,400	267,300
<b>Net Requirement (E=C-D)</b>	78,900	237,700
<b>Flexibility Allowance (F)</b>	7,900	23,800
<b>Total Requirement (G=E+F)</b>	86,800	261,500
<b>Average Annual Requirement</b>	5,106	15,382
<b>Total Land Requirement</b>	<b>9 – 22 ha</b>	<b>65 ha</b>
<b>Average Annual Land Requirement</b>	0.5 - 1.3 ha	3.8 ha

Source: HJA (*figures may not sum due to rounding*).

As noted in section 3.3, there remains a small shortfall in forecast jobs to balance the labour market and maintain 2011 commuting rates. It is estimated, in line with the core analysis, that without any increase in densities a further 6,400 sq m of office floorspace and 8,700 sq m industrial floorspace will be required within the FEMA area to accommodate the shortfall. This will require a further 2.8 – 3.8 hectares of land in addition to the requirements set out in table 3.3. The unallocated figure will need to be accommodated within the FEMA through agreement between the districts.

Table 3.4 sets out the breakdown by district. This indicates a requirement of 2-5 ha for offices and 14 ha for industrial uses across Epping Forest District. This is lower than the figures set out within 2015 EFDC study<sup>5</sup>. Firstly, the 2015 analysis considered the full period 2011-33, as a result there is not direct alignment between the two studies. Secondly, there has been some refinement in the quantitative methodology employed. Thirdly, the underlying data and economic scenarios have been updated.

**Table 3.4 Total Estimated Future Sites and Premises Requirements (ha unless stated) 2016-33**

	Office	Industrial
<b>East Herts</b>	3-7	13
<b>Epping Forest District</b>	2-5	14
<b>Harlow</b>	2-4	16
<b>Uttlesford</b>	2-5	22
<b>Additional Provision to Balance Labour Market</b>	1-2	2
<b>West Essex and East Herts FEMA</b>	<b>10-24</b>	<b>68</b>

Source: HJA (*figures may not sum due to rounding*).

Table 3.5 sets out more detailed analysis for the Epping Forest District position.

**Table 3.5 Preferred Scenario - Total Estimated Future Sites and Premises Requirements (sq m GEA unless stated) – Epping Forest District 2016-33**

	Office	Industrial
Replacement Provision (A)	18,900	84,700
Net Additional Requirement (B)	14,000	1,000
Gross Requirement (C=A+B)	32,900	85,700
Delivered on Existing Employment Sites <sup>11</sup> (D)	13,200	34,300
Net Requirement (E=C-D)	19,700	51,400
Flexibility Allowance (F)	2,000	5,100
Total Requirement (G=E+F)	21,700	56,500
Average Annual Requirement	1,280	3,320
Total Land Requirement (ha)	2 - 5	14
Average Annual Land Requirement (ha)	0.1 - 0.3	0.8

Source: HJA (figures may not sum due to rounding).

Table 3.6 shows the estimated requirement through the plan period. This assumes replacement demand is spread evenly across time. In reality the demand and supply of sites and premises is likely to be far more lumpy and driven by broader commercial market conditions. The figures should therefore be viewed as an indicative guide. Overall they show a broadly even requirement throughout the plan period, reflecting the spread of replacement demand.

**Table 3.6 Preferred Scenario – Total Estimated Future Sites and Premises Requirements by 5-year Period**

	2016-21	2021-26	2026-33	2016-33
Office Floorspace (sq m)	7,400	6,000	8,300	21,700
Office Land (ha)	0.7 – 1.9	0.6 – 1.5	0.8 – 2.1	2 - 5
Industrial Floorspace (sq m)	18,800	16,000	21,700	56,500
Industrial Land (ha)	5	4	5	14

Source: HJA (figures may not sum due to rounding).

<sup>11</sup> In Epping Forest District recent development patterns since 2011 indicate 40% of gross development has been achieved through the redevelopment of previously developed employment land. This is slightly higher than the long-term average (34%). In absolute terms the pattern is reversed. Over the long-term an average of 6,580 sq m per annum of gross development on previously developed employment land has been achieved. This has fallen to below 5,000 sq m in recent years, reflecting the lower overall levels of development activity which are consistent across the FEMA. A figure of 40% was adopted for the forecast analysis over the period 2016-33. In absolute terms this equates to 2,790 sq m per annum, below historic rates of site re-use.



## 4 Commercial Market Review

This chapter draws on a series of consultations with key local stakeholders as well as supporting evidence where relevant. A list of consultees is set out at Appendix 1.

### 4.1 The Functional Economic Geography of the District

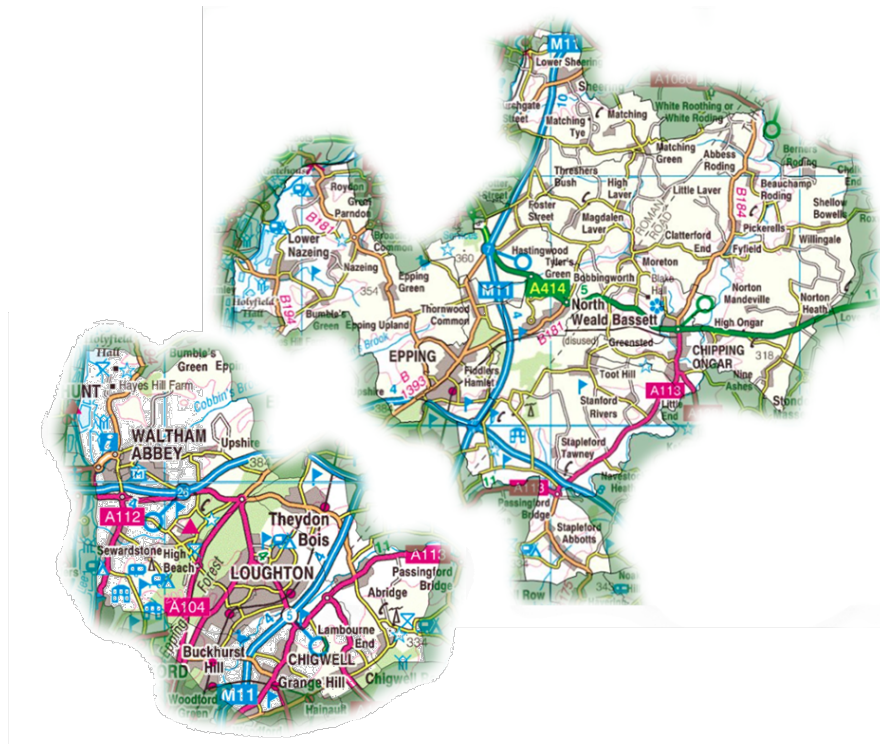
#### 4.1.1 Functional Economic Market Area (FEMA)

The District falls within a FEMA that extends across the West Essex and East Herts area. FEMA's typically have very fuzzy boundaries and retain linkages with areas outside the core. For Epping Forest District this includes strong links to the north London fringe and to central London as well as with neighbouring areas along the M25. Further details on defining the FEMA are set out in 2015 FEMA<sup>3</sup> and EFDC<sup>5</sup> studies.

#### 4.1.2 Sub Areas

The District has two broad sub-markets in terms of employment property, within and outside the M25<sup>12</sup>. However, the distinction is not seen as strong by all consultees. This dividing line is evidenced in the way commercial agents structure their businesses and is also reflected in the different characterisation of the areas. Within the M25 (e.g. Loughton and Debden and including Waltham Abbey) is more urban and densely populated and has strong links to London via the Central Line. Outside the M25 is characterised by smaller towns and more rural employment sites. This concept of two market areas is consistent with the findings of the 2015 EFDC study as shown in figure 4.1.

Figure 4.1 Sub Areas



<sup>12</sup> Some consultees suggested the area around the M25 could be its own sub-market area but this was not generally indicated.

Consultees were asked about 'hot spots' and 'not spots'. The general view was of strong demand throughout the District, particularly for sites that are accessible to the core transport infrastructure (M11, M25 and Central Line). Loughton and Waltham Abbey were identified as particular hot spots (M25 zone).

The District abuts Harlow. However, there is no indication that the employment offer of the District is currently serving the Harlow market. It was reported that because of existing congestion issues in and around Harlow that Epping Forest District is potentially a more attractive location if sites were made available. In shaping policy it will be important to consider how any allocations might impact on FEMA wide economic development aspiration focused around Harlow and the potential implications of M11 Junction 7a proposals which could address congestion issues.

The broad spatial distribution of activity is not perceived to have changed much over the last 15-20 years. When asked about potential for change in the future, the major opportunity is identified as North Weald Airfield. It was considered that the extension of the Central Line to this location would be very significant.

#### **4.1.3 Existing Assets and Drivers**

Accessibility is a key asset with the M11, M25 and Central Line all identified as critical transport infrastructure that makes the District an attractive economic location. As a result the District has strong links to London, Stansted and other important locations. Coupled with lower costs than London locations this is a key asset for the District. Increasing congestion could weaken this existing strength, although it was accepted this is not unique to the District. It was noted that as a result of congestion semi-rural locations with seemingly weak accessibility had become more attractive.

A supportive attitude within EFDC economic development team was also cited by consultees. The Council's economic development team is seen as pro-development for employment and supportive of developers. However, it was perceived that EFDC planning and the Parish Councils can be less supportive.

The area offers a high quality of life and is therefore an attractive place to live, work and do business. It was reported by multiple consultees that the market for start-up businesses is strong, reflected in high levels of take up of facilities such as the Essex Technology and Innovation Centre in Ongar. The recent expansion at the Centre was reported to have been taken up almost immediately. Other providers of similar space reported high take up. These start ups are reported to be predominantly driven by those living in the area, with congestion a deterrent to traveling further than is necessary.

Other comments were made about non B Use Class economic drivers, particularly around the ageing population and the implications for care and other domestic service sectors.

#### **4.1.4 Future Assets and Drivers**

When asked about future drivers, the influence of London, with businesses being pushed out of the capital, is expected to fuel continued demand in the District given its close proximity. This is being heightened by the de-industrialisation of north and east London as residential development reduces employment supply. Smaller distribution sites (less than 50,000 sq ft) that can serve London are

expected to become a feature of demand. These will be attracted to the edge of London locations within and around the M25.

The relocation of PHE to Harlow is also seen as a potential future driver. This could further bolster existing activity in the life sciences sector within Epping Forest District and tie in with the ambitions of the London Stansted Cambridge Corridor (LSCC). Repeatedly the logistics and life sciences sectors were cited as key opportunity sectors alongside new start businesses.

Overall there was a sentiment that the District could perform more strongly over the next 15-20 years than the last 15-20 years if the right enabling is put in place, including employment sites. However, there is concern that the focus is upon solving the housing crisis at the expense of delivering employment space and as a result additional employment land is not being released. New allocations are therefore required to facilitate new development. Those with good access to the M11, M25 or Central Line were indicated as the most attractive in market terms.

## 4.2 Property Market Dynamics

### 4.2.1 Rental Levels and Land Values

Consultees were asked for information on rental and land values. The commercial market across Epping Forest District is not subject to widespread analysis by major commercial agents with in-house research teams. However, Glenny<sup>13</sup> provides analysis of the Essex commercial market, this has been used to benchmark consultee comments.

The qualitative view provided by consultees is that prices are generally rising as supply is reduced for both offices and industrial. This is corroborated by the Glenny research.

#### Offices

Glenny analysis shows Grade A office rents across Essex rose over the period 2012-2015 before levelling off, however secondary rents are continuing to rise. Office availability across Essex has been falling since 2013, particularly for second hand stock. Office take up across the county fell back in 2016 after two strong years above trend. This is largely due to larger requirements being met or withdrawn. However, a strong up-turn in smaller requirements is noted, increasing by 56% over the last 6 months to March 2017.

Consultees reported the following rental values for Epping Forest District:

- Typically £12 – £15 psf in Epping falling to £10 psf in rural areas. This is broadly in alignment with secondary rental values or lower grade office centres within the Glenny analysis (areas such as Brentwood or Chelmsford command higher Grade A rents).
- Essex Technology and Innovation Centre, Ongar (managed workspace) typically £22 psf including some utilities.
- Small business units at Cr@te Loughton and Grangewood House typically £48 – £54 psf (based on £900 – £1,200 per month for 200 – 300 sq ft unit) all inclusive.

<sup>13</sup> Glenny (2017) Databook Q1 2017 [found at <http://www.glenny.co.uk/wp-content/uploads/2017/05/databook.pdf>, (last accessed 26/10/17)]

## Industrial

Glenny analysis again shows steady rises in rents and capital values for industrial stock based on their county wide monitoring. Industrial take up was very high in the second half of 2016 at almost double the ten-year trend. This may have included some recovery from a dip in the first half of the year. First quarter 2017 has seen a fall back towards trend. Very strong performance in 2016 was fuelled by some very large deals, including with one deal with Amazon at London Distribution Park (Tilbury) accounting for 60% of take up. Second hand availability has fallen consistently since 2013 with Grade A availability increasing since 2014-15. Total levels of availability within the industrial sector appear to be fairly flat across the county over the last 3 years but the mix of secondary and Grade A has shifted substantially towards grade A. It is reported that a lot of the grade A availability is in larger units above 50,000s q ft.

Consultees reported the following rental values for Epping Forest District:

- Typically £6 – £10 psf with figures of £12 – £15 psf achieved on smaller unit sizes
- This broadly aligns with Glenny analysis indicating prime rents as £8.75 – £9.50 across the survey areas, compared to £7.50 – £8.25 for secondary stock.

### 4.2.2 Land Values

Two recent deals were cited for £2.5m per acre at Waltham Abbey and £5m per acre at Loughton.

### 4.2.3 Grow On Space

Research for Essex County Council<sup>14</sup> found a shortage of grow on space<sup>15</sup> across the county. This found a one-year supply of industrial grow on space and 2.5-year supply for office grow on space. In addition what was available was generally Grade B with little new space being built. The study identified market failure relating to the delivery of grow on space. It is not an attractive proposition for developers given the high risks associated with smaller, younger businesses looking for short and flexible tenancies. This is exacerbated by a shortage of land and far higher and more attractive values for other development types, notably housing.

### 4.2.4 Development Activity

HJA has analysed planning permissions data held by EFDC. This covers the period 2006/07 – 2014/15.

Planning permissions data differs from completions<sup>16</sup> data but is the best available indicator of levels of activity. A random sample of 25 permitted applications over the period 2007-15 was tested for implementation. This found that ten applications had definitely been implemented. The remainder were unknown. None were known to not have been implemented. On this basis the figures should be viewed as a maximum potential level of activity and in all likelihood an over estimate. The data

<sup>14</sup> SQW and BBP Regeneration (2016) Grow-On Space Feasibility Study

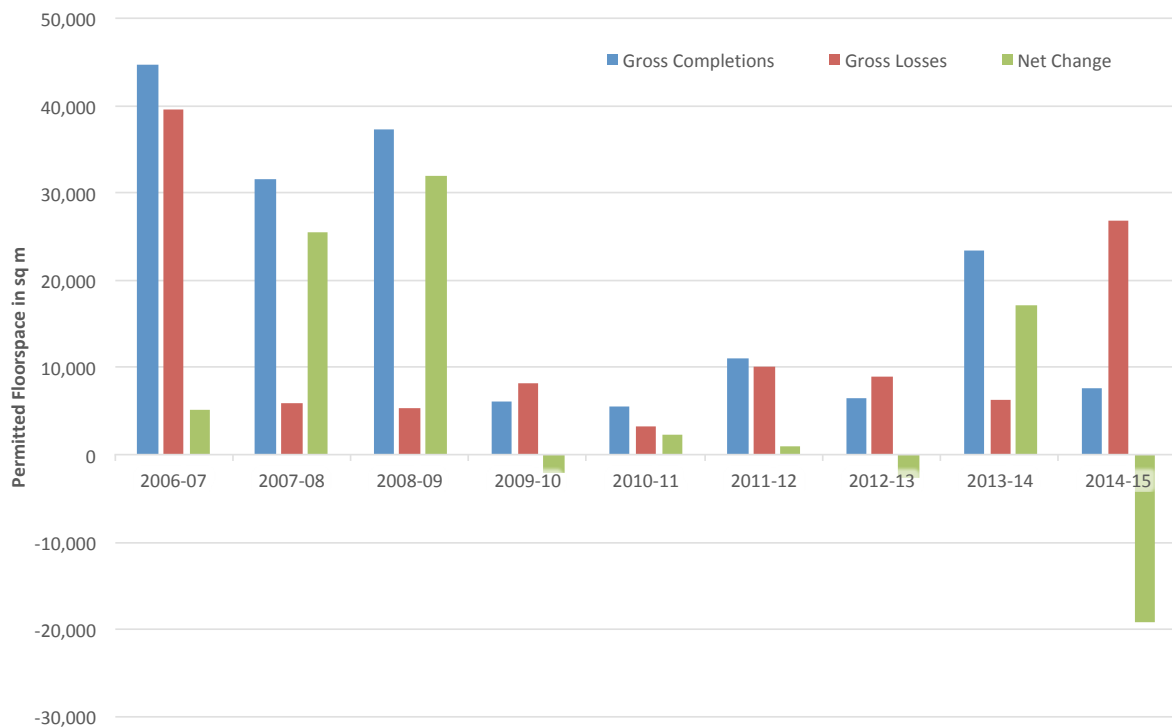
<sup>15</sup> Grow on space is defined as that required by businesses of around 10+ employees, in-between the facilities offered by incubators or enterprise centres and moving into stand alone offices of factory/workspace units.

<sup>16</sup> Completions data identifies that which has been built. The planning permissions data used for this analysis only indicates whether permission has been granted. On this basis it should be interpreted as an absolute maximum.

recording method can also lead to overstatement of scale in some instances<sup>17</sup>. This exacerbates the risk of overstatement of activity.

Figure 4.2 illustrates historic planning permissions. This highlights a number of issues. Firstly the erratic and lumpy nature of the market, with very uneven data; secondly, the significant weakening of the market from 2009-10 onwards; thirdly, significant gross levels of activity (gains and losses) that are often masked if only net figures are considered; and fourthly, significant permitted losses of B Use Class floorspace in 2014-15.

**Figure 4.2 Historic B Use Class Planning Permissions 2006/07 – 2014/15**



Source: HJA based on data provided by EFDC

Table 4.1 sets out the figures in more detail. Over the long-term period the average annual permitted gross gains are 19,270 sq m per annum. When considering the shorter-term trend from 2011/12 onwards this is reduced to 12,100. When considering permitted net change, over the long term the data suggests a gain of 6,560 sq m per annum. Over the shorter term this actually indicates a net loss of 930 sq m per annum. This is particularly influenced by significant permissions for losses in the year 2014-15.

<sup>17</sup> The data does not separate Use Classes. As a result, some schemes included B and non B Use Classes and the quantum of each is not clearly demarcated. This leads to the reported figures overstating B Use Class permissions.

**Table 4.1 Historic B Use Class Planning Permissions**

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Gross Gains	44,616	31,520	37,279	6,039	5,526	11,075	6,386	23,447	7,555
Gross Losses	39,476	5,979	5,246	8,201	3,304	10,155	8,984	6,253	26,779
<b>Net Change</b>	<b>5,140</b>	<b>25,541</b>	<b>32,032</b>	<b>-2,162</b>	<b>2,221</b>	<b>920</b>	<b>-2,598</b>	<b>17,194</b>	<b>-19,224</b>

Source: HJA based on data provided by EFDC

#### 4.2.5 Barriers to Development

The largest barriers are considered to be:

- Poor availability of development sites, which is exacerbated by...
- Strong demand for residential development forcing up land values, which means...
- Land values are generally too high for viable employment development.

It was reported that sites that do not have any prospect of residential development are the sites that work. This is in keeping with comments made to HJA in other parts of the UK.

The Green Belt further hampers the situation in the District, reducing the number of potential opportunity sites. Other issues include a lack of parking and adjacent residential development constraining employment sites.

#### 4.2.6 Opportunities for Development

It was indicated that EFDC has the potential to do more with its own portfolio of sites to enable employment development. This includes improving what in some cases are now tired industrial premises. It was reported that this will require a shift in EFDCs approach from viewing its property portfolio as a short-term cash generator to a core driver of economic development in the District.

North Weald Airfield was repeatedly highlighted as a key opportunity site with the potential to become an important employment location in its own right, particularly if the correct supporting infrastructure could be provided (including extension of the Central Line).

#### 4.2.7 Permitted Development Rights (PDRs)

Consultees were asked about the impacts of PDRs on the office sector specifically. It was reported that the effects of PDRs could be weaker now than they were a few years ago. It was noted that one positive is that it has pushed office occupiers towards established employment areas, leading to greater concentrations of activity and 'buzz'. It was also reported that PDRs have also meant some tenants are using industrial premises primarily for office uses as they are cheaper than purpose built offices.

UK wide the availability of commercial property in 2014 was reported to have been declining at its fastest rate since 1998 since the introduction of PDRs<sup>18</sup>. However, there are also positives reported where poorer quality stock is lost and rising rental values make new development more viable.

The Arup supply report indicates some 158,580 sq m of B1a offices across the District. Analysis of PDR approvals indicates in excess of 6,000 sq m<sup>19</sup> of B1a floorspace subject to PDRs up to June 2016<sup>20</sup>. This broadly equates to around 1% - 1.5% of office stocks per annum at risk. It is estimated around half of this has been implemented by July 2017, equivalent to around 0.6% of office stocks per annum being lost. Of the 20 schemes listed two had been refused, 11 had not been implemented and seven were either implemented or in the process of being implemented. If this trend continues there will be a gradual erosion of total office stocks.

### 4.3 Existing Stocks

#### 4.3.1 Quality

Consultees reported a general shortage of stock, particularly of a good quality, across the District. It was reported that a significant proportion is 'tired'. It was also noted that many existing employment sites don't offer the range of support/complementary facilities that are attractive to modern occupiers and workers e.g. cafes and leisure facilities.

It was stated that office stocks are getting poorer over time and rental levels do not enable investment to take place. At the same time development activity is low so there is insufficient upgrading of the supply overall. It was reported that there will not be meaningful new development until rents rise.

Industrial stock was indicated to have a significant proportion that is poor quality, especially that owned by EFDC. Consultees consider there to be a lot of older stock and not a lot of modern supply. This again flows from limited large-scale development in the last 20 years other than infill schemes. It was noted that this ageing of the industrial stock with insufficient investment is not unique to the District but a general issue across the UK. It was highlighted that more modern supply can drag up rental values, but with limited new development this has not taken place across Epping Forest District.

It should be noted that the Arup supply report categorised only c9% of total employment floorspace as poor and c30% as fair. The majority c61% is recorded as good. This may indicate relatively negative perceptions among the stakeholders interviewed.

#### 4.3.2 Need and Opportunity for Replacement and Regeneration

There was a general view across stakeholders of a need to upgrade the overall stock of employment premises across the District. This need is anticipated to increase as the stock base becomes increasingly unsuitable. There is also a view that new legislation on minimum energy efficiency standards in April 2018 will force landlords to invest. Areas such as Loughton, Debden and Waltham

<sup>18</sup> RICS (2014) UK Commercial Market Survey, Q2

<sup>19</sup> Of 20 schemes listed nine did not include data on the quantum of floorspace at risk.

<sup>20</sup> Data since June 2016 is incomplete and does not provide floorspace figures. Of five further schemes listed since that point four are indicated as either implemented or in the process of being implemented.



Abbey were specifically cited. Consultees reported the potential for much greater intensification of sites in Loughton, transforming the area from an industrial area to a business area.

The challenges of regenerating when stock is occupied were noted. It was suggested that this will require proactive approaches including new supply to allow older redundant stocks to be vacated, and possibly the use of CPO powers to secure existing sites for redevelopment. However, such an approach will involve risk.

#### 4.3.3 Particular Gaps in Supply

Consultees reported a general shortage of supply. The following were reported as particular gaps in the portfolio of supply:

- Units of 1,000 sq ft and below
- Industrial freehold units of 1,000 – 5,000 sq ft
- Move on/grow on space
- Large<sup>21</sup> office developments beyond Loughton and Debden
- 10,000 – 40,000 sq ft distribution warehouses
- Freehold units
- Live-work space

Glenny analysis across the county reports that the majority of office requirements are for 0-5,000 sq ft, representing almost half (47%) of total requirements by floorspace, compared to 17% of availability. 17% of demand is for 5,000 – 10,000 sq ft compared to 8% of availability. 36% is 10,000 – 25,000 sq ft compared to 42% of supply. 33% of supply is greater than 25,000 sq ft against no requirements. This would suggest a general gap around smaller scale office space.

Within the industrial sector Glenny reports that requirements across the size spectrum but with evidence of over supply of larger stock. 47% of demand is reported for units greater than 50,000 sq ft compared to 57% of total availability. There is stronger demand for units less than 25,000 sq ft (particularly 5,000 – 10,000 sq ft). It is reported that the demand for larger units (greater than 25,000 sq ft) is where there has been a dip in activity. This would corroborate the views shared by consultees.

The general trend towards smaller size fits with the strong start up culture that is reported in the District.

#### 4.3.4 Over-supply

Consultees were asked whether there were particular property types that are in over-supply. None were reported, although it was indicated that there is relatively low demand for large industrial premises. The area is reported to have a very low void rate overall. It was noted that the loss of offices through PDR has reduced any over-supply that may have been present previously.

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<sup>21</sup> This was not quantified in terms of floorspace but was noted as 'for more than 10 people' which may be large for Epping Forest District but within the broader commercial market would be deemed as fairly small.



## 4.4 Headline Trends

In addition to the locally specific information set out in this chapter, Appendix 2 sets out a summary of overarching employment property trends across the office, manufacturing and distribution & logistics sectors. The key messages emerging from this analysis relevant to Epping Forest District are:

### Offices

- Nationally there has been a trend towards office concentrations within urban cores. However, demand continues in more peripheral and out of town locations.
- Businesses are paying greater attention to the wellbeing of their staff meaning proximity to services and amenities is increasingly important.
- Despite reductions in average office floorspace per employee and the increase in flexible working practices there continues to be strong demand for offices to aid employee interaction.
- Whilst office densification is on the increase this doesn't necessarily mean smaller floorplates. Smaller workspaces are in many cases offset by meeting spaces or other on-site facilities. Densification is thought likely to plateau.
- Flexibility of covenant is important for emerging businesses.

### Industrial

- Technological advancements and the growth of new industries and sectors generate different property needs to traditional occupiers. This can generate an increasing mismatch between supply and demand with many older sites becoming economically and functionally obsolete.
- Market conditions can lead to very low rents on older floorspace. Such subdued values resulting from the age and condition of the stock discourage speculative development.
- There will continue to be a demand for appropriate facilities which meet changing modern operational requirements.
- There is a general consensus that the manufacturing and industrial property market will trend towards smaller local and urban sites.
- Advancements in automation and robotics will also reduce the footprints of sites.
- Increasing supply chain integration will impact on the property market, leading to clustered hubs.
- The trend is towards premises that are attractive places in which to work and which include more space for customers, clients and other bodies rather than production space.

### Distribution & Logistics

- Demand is expected to increase as a result of increasing use of ecommerce.
- The demand for large regional distribution centres will be maintained alongside the development of smaller local units located on urban peripheries that will meet the growing demands of online consumers.
- The use of Unmanned Aerial Vehicles (UAVs) has the potential to significantly impact last mile distribution but is still in its infancy.

## 5 Supply Assessment

This chapter provides a headline summary of the Arup supply report<sup>2</sup>. This includes consideration of both the current supply of employment sites and premises and the assessment of potential future development sites. For further detail the full report should be referenced.

The review identified and assessed in detail 75 employment sites across the district<sup>22</sup>. 65 were existing employment areas and 10 were new sites which have not been previously developed.

### 5.1 Current Supply of Employment Sites and Premises

#### 5.1.1 Supply by Use Class

Table 5.1 provides a schedule of B Use Class land and floorspace across the 60 existing employment sites in the District (excluding the five sites which are wholly vacant or derelict). A total of 160 ha is identified, on which some 676,400 sq m of built floorspace is accommodated. B8 storage and distribution activities comprise the largest share of both land and floorspace, accounting for around half of the total. B1a office activities account for around a little over 20% of land and floorspace with B1c light industrial accounting for a little under 20% of floorspace. B1b research and development hardly features and B2 general industrial accounts for around 10% of existing supply. This reflects the industrial profile of the District with less than 4% of employment within the manufacturing sector compared to an average of 8% across the East of England and Great Britain (Business Register and Employment Survey, 2015).

**Table 5.1 Employment Land and Floorspace by Use Class**

B Use Class	Employment land (ha)	Floorspace (sqm)	% of total land	% of total floorspace
B1(a)	33.81	158,580	21%	23%
B1(b)	0.61	479	0%	0%
B1(c)	20.42	130,727	13%	19%
B2	17.53	67,899	11%	10%
B8	87.76	318,723	55%	47%
<b>Total</b>	<b>160.13</b>	<b>676,408</b>	<b>100%</b>	<b>100%</b>

Source: Arup (Table 7)

#### 5.1.2 Supply by Location

The Arup supply report provides analysis of existing supply by Parish. Table 5.2 below presents the same data across the two sub-areas identified at figure 4.1 of this report.

<sup>22</sup> Sites were deemed eligible for assessment if they included a minimum of 0.2 ha of B Use Class development,

Of the 65 existing employment sites assessed by Arup 50 (77%) lie within the north and east sub-area, with the remaining 15 in the south and west. In land terms the spatial distribution is quite different, with 54% (88ha) of floorspace in the north and east, and 46% (76ha) in the south and west sub-area<sup>23</sup>. This results from a much larger average site size in the south and west sub-area. In floorspace terms the south and west area dominates with 59% of total floorspace in the district. The dominance is particularly notable for B1a and B1c floorspace.

**Table 5.2 Employment Land and Floorspace by Use Class and Sub-Area**

<b>B Use Class</b>	<b>North and East</b>		<b>South and West</b>		<b>Total</b>
B1(a)	46,264	29%	112,316	71%	158,580
B1(b)	479	100%		0%	479
B1(c)	16,577	13%	114,150	87%	130,727
B2	42,375	62%	25,525	38%	67,899
B8	169,823	53%	148,900	47%	318,723
<b>Total Floorspace</b>	<b>275,517</b>	<b>41%</b>	<b>400,891</b>	<b>59%</b>	<b>676,408</b>
<b>Total Hectares</b>	<b>88</b>	<b>54%</b>	<b>76</b>	<b>46%</b>	<b>164</b>
<b>Total No. Sites</b>	<b>50</b>	<b>77%</b>	<b>15</b>	<b>23%</b>	<b>65</b>

Source: HJA based on Arup Analysis

### 5.1.3 Supply by Quality and Condition

Table 5.3 sets out the results of the assessment of the condition of employment floorspace. More than 60% is rated as good, 30% as fair and less than 10% as poor. The majority of B1a, B1c and B8 premises, which account for nearly 90% of total floorspace is rated good.

When considered by sub-area, 70% of the 60,340 sq m of floorspace identified as poor quality is located in the north and east sub area.

<sup>23</sup> Table 5.1 (based on Table 7 of the Arup supply report) relates to only 60 of the 65 sites. It excludes five sites which are wholly derelict or vacant. As a result the total quoted land areas in this paragraph differ from the total shown in Table 5.1.

**Table 5.3 Employment Land and Floorspace by Quality and Condition**

<b>B Use Class</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Total Floorspace (Sq m)</b>
B1(a)	57%	42%	1%	158,580
B1(b)	0%	36%	64%	479
B1(c)	89%	10%	1%	130,727
B2	41%	52%	7%	67,899
B8	59%	28%	16%	318,723
<b>Total</b>	<b>61%</b>	<b>30%</b>	<b>9%</b>	<b>676,408</b>
<i>North and West</i>	<b>49%</b>	<b>32%</b>	<b>70%</b>	<b>275,517</b>
<i>South and East</i>	<b>51%</b>	<b>68%</b>	<b>30%</b>	<b>40,891</b>

Source: Arup (Table 9) and HJA

#### **5.1.4 Vacancy**

The assessment of existing supply identified some 23,923 sq m of vacancy. This is below the benchmark of 5%-8% of stock anticipated for frictional vacancy. This suggests very high levels of occupancy across the District which limits the capacity for the market to operate effectively in terms of growth and movement. Only 20% of sites are reported to have vacant premises

#### **5.1.5 Losses of Employment Sites and Premises**

The Arup assessment considered recent and potential future losses of employment sites based on implemented and extant planning permissions.

Over the last seven years the assessment identified the loss of more than 24.2 ha of employment land on nine sites across the District, equivalent to 3.5 ha per annum.

A further eight sites were identified as at risk of losing employment land in the future as a result of prior approvals and planning permissions. This could total a loss of 11.6 ha or 23,000 sq m of floorspace.

## **5.2 Future Potential Employment Development Sites**

The Arup assessment sought to identify derelict land, underutilised land and potential extensions to existing employment sites. This identified nine potential expansion sites of 50 ha offering potential for around 220,000 sq m of new employment floorspace. 87% of this potential expansion land is in the north and east sub-area. In addition, eight sites with potential for regeneration and intensification equivalent to more than 21,000 sq m were identified. 93% of the land and 72% of the floorspace is located within the north and east sub-area. The data show far greater potential in the north and east sub-area.

A further 10 sites with potential for 67 ha of new employment development were initially identified by Arup. These were assessed to have potential to deliver more than 310,000 sq m of new employment development in aggregate. This includes five sites in each sub-area. In land area terms 62% (42ha) is located within the north and west sub-area, with the remaining 38% (26ha) in the south and west sub-area.

In combination a total of 27 opportunity sites totalling approximately 132 ha was identified. Table 5.4 indicates the spread of opportunity by Use Class based on the primary development scenario assessed by Arup. This shows that under the primary development scenario there is a significant potential supply of B1a/b and B8 floorspace but limited opportunity for B1c/B2 accommodation.

18 of the 19 new or expansion sites are located within the Green Belt.

**Table 5.4 Opportunities for Growth (Floorspace sq m)**

<b>Category</b>	<b>B1a/b</b>	<b>B1c/B2</b>	<b>B8</b>	<b>Total</b>
Regeneration land development capacity (primary use)	7,029	0	1,240	8,269
Intensification land development capacity (primary use)	0	840	12,000	12,840
Expansion land development capacity (primary use)	9,840	0	209,920	219,760
Potential for development land capacity (primary use)	126,300	0	185,360	311,660
<b>Total</b>	<b>143,169</b>	<b>840</b>	<b>408,520</b>	<b>552,529</b>
<b>Percentage</b>	<b>26%</b>	<b>&lt;1%</b>	<b>74%</b>	<b>100%</b>

Source: Arup (Table 13)

Further employment land opportunities, in addition to those described above, have been identified through the proposals set out by site promoters of the draft strategic allocations within the Local Plan. This includes 12 - 15 hectares at Latton Priory and unspecified quantum at West Summers, West Katherines and East of Harlow.

It is not suggested that all the above sites be proposed for allocation, but they comprise a portfolio of potential opportunity sites, subject to further deliverability assessment and site selection.

## 6 Future Spatial Strategy Recommendations

This chapter brings together the analysis from both the demand and supply side to shape recommendations to help EFDC shape its future spatial strategy for employment land provision in the emerging Epping Forest District Local Plan.

### 6.1 Demand Summary

The FEMA level assessment of future requirements has identified potential for jobs growth of c10,800 within the Epping Forest District across the entire 2011-33 plan period. This included strong growth in jobs over the 2011-16 period, absorbing capacity in the labour market. The overall rate of jobs growth is forecast to be more modest over the remainder of the plan period in the District as a result of underlying economic expectations and a sub-regional policy focus to concentrate growth at Harlow.

Employment growth across the District (and the FEMA) will be spread across all Use Classes as well as a substantial proportion not requiring sites or premises. In terms of the requirement for B Use Class employment sites and premises a requirement for approximately 2 – 5 hectares of office sites and 14 hectares of industrial (manufacturing and logistics) sites has been identified. This relates to the 2016-33 period. Requirements are shown to be fairly evenly spread across the plan period, although in reality the delivery of new floorspace is anticipated to be 'lumpy' and non linear.

Monitoring data relating to recent history is based on planning permissions rather than floorspace or land completions, this is likely to overstate actual development activity. The available data indicates lower levels of activity since 2009-10, with net losses of B Use Class floorspace permitted in the 2011/12 – 2014/15 period. Prior to the economic downturn levels of permissions were much greater for both gains and losses of B Use Class floorspace. Discussion with local business and commercial property market stakeholders indicates two sub markets within the District, the first relates to the area within and around the M25, broadly the southwest of the District which forms part of the outer London fringe and is characterised as more urban. The second relates to the area outside the M25 which is characterised as more rural with smaller towns. Strong demand and a shortage of supply is reported across the district, particularly for locations with strong access to key transport infrastructure routes, M25, M11 and Central Line. This is supported by wider evidence of rising rental levels. Consultees reported low void rates which is in keeping with the findings of the Arup supply report.

Key drivers relate to the accessibility of the District, and there are strong anecdotal indications of demand arising from businesses displaced out of London and serving London markets. This makes strong access back to the capital a key feature of requirements. A strong start-up market is also reported, driving requirements for both start up and grow on space. Both general and local trends are pointing towards strong demand for smaller premises, rather than significantly large footplates in either the office or industrial sectors.

The greatest barriers relate to site availability and viability, both are exacerbated by strong residential values. There is a clear sentiment across consultees that there is a need for deliverable employment sites to meet demand. However, delivering the floorspace on such sites will be

challenging. There is also a need to drive regeneration and redevelopment of poorer quality industrial areas and there is some evidence of this having taken place.

## 6.2 Supply Summary

The Arup supply report has set out a profile of existing supply and future potential employment opportunity. A total of 160 ha of employment sites is currently in use with very low vacancy reported (3.5%). B8 storage and distribution uses account for more than half of supply, B1a offices for just over 20% and B1c light industrial for just under 20%. B2 general industrial premises account for less than 10% of existing supply.

The assessment of quality found the majority (61%) rated good and 30% fair. Only a small proportion (9%) is reported as poor. This does not fully accord with the views of commercial market stakeholders who indicated a need to upgrade stocks to meet modern occupier requirements. This also included a need to ensure sites include the appropriate mix of support and complementary services attractive to modern occupiers and workers.

Assessment of recent and extant planning permissions indicated losses of around 3.4ha per annum of employment land over the last seven years.

77% of existing employment sites are located in the north and west sub-area, however, only 54% of the total site area is located in the north and west.

19 potential expansion or new employment sites have been identified, alongside four draft strategic allocations which could provide employment capacity. In total these sites comprise more than 130 hectares, well in excess of future requirements. These are primarily suited to B1a office and B8 storage and distribution uses, with limited potential for B1c/B2 light and general industrial uses. These are concentrated in the north and west sub-area, to a much greater extent than existing supply by land area. 18 of the 19 potential expansion or new employment sites are located within the Greenbelt.

## 6.3 Recommendations

Drawing together the demand and supply evidence the following recommendations for future spatial strategy emerge:

- Constraints, particularly the Green Belt and development viability, place a priority on the protection, intensification and refurbishment/redevelopment of existing sites where possible. EFDC should consider what it can do with sites in its own ownership to facilitate upgrading of supply to meet modern occupier requirements. The Arup supply report suggests limited scope for intensification or regeneration of existing sites with the potential to realise around 21,000 sq m within eight existing employment sites. More broadly, Arup's site research concludes existing employment sites are well used and should be designated in the emerging Local Plan to enhance their protection.
- In line with the NPPF there is a need to ensure sufficient flexibility in any strategy to respond to unforeseen demands. This will mean offering range and choice in terms of typology, location, mix and timing of allocated supply.

- The analysis indicates a requirement in the first five years 2016-21 of 6-7ha, however, this is based on replacement requirements being evenly distributed through the plan period. In reality the pattern of activity will be far more lumpy and may require further strengthening of the development market before significant new development comes forward. Particularly given current viability challenges.
- Future spatial strategy needs to recognise the two broad market areas within the District and allocate within each of these. The supply assessment indicates much greater potential within the north and west sub-area, particularly when compared to the distribution of existing employment land.
- The evidence is clear that strong accessibility is the critical driver, including access into London markets. Locations with strong access to the M25, M11 and Central Line should be a priority.
- The existing typology of the District commercial employment market is around B1a, B1c and B8 premises. The District is not a strong manufacturing location. The B1a Use Class is forecast to experience the greatest net additional employment growth. Notwithstanding, the need to maintain modern stocks will drive replacement demand. As a result there is a need for flexibility in provision and a spread of industrial sites that suit both B8 and B1c/B2 activities. The supply assessment indicated a strong offer of sites suited to B8 with limited capacity for B1c/B2 which will need to be addressed.
- Sites will need to be suited to meeting a trend towards smaller premises, including a strong start up and grow on market.
- There is no evidence that the District currently serves a wider Harlow market area and no evidence emerged from the 2015 or 2017 FEMA studies indicating that there is a need to meet Harlow requirements or serve the Harlow market. There is therefore no clear requirement for the spatial strategy to address this.



## Appendix 1: Consultees

The following individuals were interviewed:

- Richard Bailey, Essex CC
- Simon Beeton, Derrick Wade Waters
- Robert Edge, Invest in Essex
- Roger Hayward, Fenn Wright
- Karim Pabanai, Epping Forest District Council (Estates)
- Grant Richardson, GT Comms
- Adam Walker, Grangewood
- Kirstine Watkins, Mullucks Wells

Written representation was made by Epping Forest Chamber of Commerce

A workshop was held with the following attendees (in addition to relevant EFDC Officers and Members):

- Robert Edge, Invest in Essex
- Stuart Hardisty, HJA
- Tricia Moxey, Epping Forest Chamber of Commerce
- John Price, Epping Forest Chamber of Commerce
- Grant Richardson, GT Comms
- Adam Walker, Grangewood
- Kirstine Watkins, Mullucks Wells

## Appendix 2: Headline Market Trends

The following analysis provides a summary of latest research on changing property market trends within the core employment property sectors.

### Offices

Office space in the UK market can be categorised as urban core<sup>24</sup>, peripheral<sup>25</sup>, and out-of-town<sup>26</sup>. Current and future trends in these categories are discussed below, followed by concluding comments.

#### Urban Core

Developments in recent years have seen a market shift towards urban core office space. Jones Lang LaSalle (2013) suggest six drivers of this trend: demographics; immigration and globalisation; working practices; sustainability; policy; and transport improvements. A discussion of these drivers is presented below.

#### Demographics

With movement of labour now more prevalent than ever, businesses are paying closer attention to the wellbeing of their staff in order to retain their most talented employees. Given the shift in lifestyle preferences towards a desire for proximity to services, amenities, and leisure facilities, urban living has become more attractive (especially to young people). Similarly, international talent is most likely to be concentrated in urban areas. Many businesses have taken the opportunity to relocate to city-centres in order to compete for the top talent in their sector (NLP, 2015).

#### Working practices

Reduced desk space requirements have facilitated a move towards urban core office space, brought about by technological advancements (improved broadband connectivity and smaller personal computers), and a rise in hot-desking and remote working as established and accepted norms in professional sectors (NLP, 2015). Up to 14% of the UK's working population work from home, with this proportion growing at a rate of 1.2% p.a., with the proportion increasing to 17% of workers in the South West (ONS, 2014). The rise in self-employed workers in professional sectors has also contributed to a reduction in overall office space requirements.

Average office density increased from 15 sq m per employee to 10 sq m between 2005-2015 (LSH, 2015), with densities of up to 8 sq m nowadays becoming commonplace in many offices (Dady, 2016). Along with reducing workspace requirements, this can be attributed to the trend towards city-centre relocation, alongside the fact that office-based job growth has outpaced growth in office floorspace over the same period (NLP, 2015), both of which have made higher office densities a necessity. It is expected that this recent increase in densities will plateau, as densities can only increase so far (BCO, 2013). BCO research data suggests that this levelling-out is already beginning to happen. If this is true, this would reduce the need to future-proof developments against further increases in densities. The BCO also reported anecdotal evidence to suggest that in some instances,

<sup>24</sup> Central office market areas with high levels of employment density.

<sup>25</sup> Edge of town and suburban employment centres, offices interspersed with residential areas.

<sup>26</sup> Large out-of-town business parks and science parks located on the edge of urban settlements.

densities will continue to rise. This could be made possible by improving design standards as a response to a push towards reducing construction costs and environmental concerns.

### **Sustainability**

The move towards more sustainable living means that the walking, cycling, and public transportation opportunities provided by urban core locations plays a role in office developments. Continual improvements in city-centre public transport infrastructure, such as tram lines, train lines, and bus routes are making city-centres more accessible. This, combined with a decline in car ownership, has contributed to the shift towards urban core office markets (NLP, 2015).

### **Policy**

Policy initiatives such as Enterprise Zones, City Deals, and Town Centres First have contributed to the shift towards urban core office space.

Permitted Development Rights (PDRs) allow the change of office space to residential use without the need for full planning permission. PDRs have the potential to lead to a deficit in office space and increase pressure on office markets. The availability of commercial property has been declining at its fastest rate since 1998 since the introduction of PDRs (RICS, 2014). However, in some locations, the policy is allowing the removal of poor quality office space, which is increasing rental values and making new development more viable.

Policies influenced by agglomeration theory are also encouraging a shift towards urban core office space. This theory suggests that businesses benefit from being co-located with similar firms, not only because of the concentration of labour which results, but also due to the sharing of ideas, best practice, and associated supply chain advantages (JLL, 2013).

### **Potential problems**

Developable land is harder to come by in city-centres due to the interrelated effects of constrained planning regulation, high development costs, and higher physical constraint due to existing infrastructure and buildings (JLL, 2013). There is also a risk that concentration in urban core areas will create a rent bubble.

### **Periphery**

Good access to the urban core provided via improving public transport links make periphery locations a promising alternative to urban core areas. The strengthening of urban core areas as business centres, and the inevitable rising rents in those areas, will ensure a market for periphery office spaces. With better land availability, the increasing popularity of mixed-use developments makes periphery office space a viable option. This land availability also provides increased opportunities for 'future proofing' developments, ensuring flexibility to change capacity in order to meet the needs of a changing economy, and capitalise on city-centre spillover (JLL, 2014b). There is predicted to be an improved performance from peripheral office markets over the next five years, with higher yields encouraging investment at a comparative discount compared to urban core areas.

### **Out-of-town**

Despite the trend towards urban core relocation, occupier demand for out-of-town office space has remained steady, and there is no evidence of a decline in demand for business park space (JLL,

2014b). They offer the large, flexible floorplates that more central locations can't always provide, and space to expand, which is also more problematic in urban centres. Their connectivity to motorways and airports are also attractive, particularly for sales firms (JLL, 2014b).

However, due to a lack of proximity to urban areas, out-of-town markets are finding it increasingly challenging to attract occupiers by providing the working environment that a changing workforce is looking for. As an investment opportunity, new out-of-town office developments on greenfield land are seen as too expensive. High upfront infrastructure costs and tighter car parking restrictions mean that new out-of-town office developments are on the wane (Dady, 2016). The Town Centres First policy has also made obtaining planning consent for out-of-town schemes more difficult.

The general trend for out-of-town office space is moving towards recycling and retrofitting existing business parks, moving away from campus-style buildings to increased densities, multi-letting, and vibrant public spaces in an attempt to mirror urban conditions.

### **Conclusions**

Despite the reduction in average office space per employee, and the increase in flexible working, business behaviour still reflects the importance of office space in encouraging interaction, networking and collaboration (NLP, 2015). Prevailing market conditions generally support the UK's office market, due to the importance of the services sector to economic growth and its contribution to job creation (LSH, 2016).

Furthermore, even though office densification is on the increase, this doesn't necessarily lead to smaller overall floorplates. Smaller workspaces are in many cases offset by meeting spaces and on-site provision of cafés, gyms, crèches and other facilities.

Sectoral growth will also play an important role in the provision of office space. Employment growth in the UK is primarily driven by the knowledge economy, with differing office space needs from sector to sector. Media and technology companies tend to value combinations of dedicated workspaces and collaborative areas, whereas many businesses in professional services sectors prefer a more traditional, formal workspaces with large floorplates (NLP, 2015).

Flexibility of covenant will be important for emerging businesses, whilst established firms can commit to the long-term covenants desired by investors.

Essentially, demand for office space in the UK is not in decline, but there is an ongoing shift in the areas that businesses are choosing to locate themselves, and the way they choose to use that space.

## Industrial & Manufacturing

*“The general trend is towards smaller, manageable, clean, well-organised, highly flexible factories that contain updated but traditional technologies that can be quickly ramped up to meet volume and changing market requirements. Customer focus and personalisation of product is recognised as being of increasing importance and it is clear that in the longer term there will be a need for centralised mass production facilities and localised facilities to personalise the product.”*

*The factory of the future, Office for Science*

### General Outlook for the UK Manufacturing Sector

Over the last 30 years, the manufacturing sector in the UK has been in relative decline. During this period, output in the manufacturing sector has grown more slowly than output in the services sector. The number of people employed in manufacturing has also fallen steadily as productivity per employee has increased (PwC, 2009). Britain’s negative balance of trade (more goods imported than exported) has had a negative impact on the sector, and is unsustainable if UK manufacturing is to succeed in the future.

With the population of the UK as a proportion of global population falling, and emerging economies claiming an increasingly proportionate share of global markets, Britain’s relative economic influence will continue to adjust accordingly.

This adjustment process will be aided by the repatriation of production from low cost locations as the UK becomes a more cost-competitive location for manufacturing. This will encourage further investment in onshore manufacturing capital.

The UK’s cost-competitiveness will also be impacted by the conflicting demands presented by the global supply chain. On the one hand, some businesses desire a global supply chain to support their international operations. Meanwhile, there is an emerging move towards clustered local supply chains which support the sharing of resources (including knowledge). This latter trend, combined with higher labour costs and rising transport costs, will encourage the onshore sourcing of components and resources. This move towards more localised supply chains will make it increasingly possible for the UK to compete on the grounds of cost, quality, delivery speed, and customisation, which are becoming increasingly important (GoS, 2013a).

In order to thrive in these new market conditions, the British manufacturing sector must capitalise on its areas of competitive advantage and continue to establish itself as a ‘niche player’ (PwC, 2009). The strongest manufacturing industries in the UK are aerospace, automotive, and pharmaceuticals (GoS, 2013b).

Although it is predicted that manufacturing employment in the UK will decline by around 170,000 to 2020, there will be 800,000 jobs to fill in the same period as people leave manufacturing through retirement and career changes (GoS, 2013b). Furthermore, the historic fall in employment has been offset by significant productivity gains in UK manufacturing.

## Technological Advancements

Technological advancements have changed, and will continue to influence, the way the manufacturing industry behaves. Increased connectivity is making it possible to reduce costs and boost productivity through the development of 'smart factories'<sup>27</sup>. Similar to the office property market, connectivity is making remote operations more possible in manufacturing (Pinsent Masons, 2015). The resultant decentralisation of manufacturing premises is discussed in the next section.

Connectivity is also facilitating the production of connected goods. Although it is difficult to know what direct impact this will have on property requirements, an increase in the need for data storage to meet the functional requirements of connected products means a continued increase in the data storage property market will be necessary. One specific product set which could have a significant impact on the UK manufacturing sector is that of connected and autonomous vehicles. The further rollout of this technology could create an additional 320,000 jobs in the UK (GoS, 2013b), with an inevitable impact on the manufacturing and industrial property market.

The prevalence of 3D printing will continue to change the face of manufacturing. The number of 3D printers sold will reach 2.3 million by 2018 (Pinsent Masons, 2015), with the global market for 3D printed products growing from £2bn to £70bn per year by 2020 (Pinsent Masons, 2015).

## Possible Impacts on the Manufacturing and Industrial Property Market

The above market trends and technological advancements have implications for the manufacturing and industrial property market. These ongoing changes are resulting in new industries which have different property needs to traditional occupiers. As a result, there will be an increasing mismatch between supply and demand of premises, with many older sites becoming economically and functionally obsolete (DTZ, 2009). Market conditions are already such that rents for floorspace in older, more general industrial estates have fallen as low as £1 per sq ft. These subdued values are a result of the age and condition of stock, as well as the extent of vacant premises, which discourages further speculative development of non-specialist sites. However, it seems that whatever the overall prospects for UK manufacturing, there will continue to be a demand for appropriate facilities which meet changing modern operational requirements.

The trend towards localised operations will be facilitated by the technological advancements that are emerging. The factories of the future will be more varied and more distributed than those of today. There is general consensus that the manufacturing and industrial property market will trend towards smaller local and urban sites, with mobile and domestic 'factories' becoming more prevalent as well. This will allow for increasing supply chain integration, which will also impact the manufacturing property market. Products dependent on process-driven innovation benefit from the co-location of different parts of their production systems, which may lead to clustered hubs. Although large sites are set to become less prevalent, there is scope for a 'hub and satellite' model, with large, centralised premises supplementing a proliferation of smaller, decentralised ones (GoS, 2013a).

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<sup>27</sup> 'Smart factories' have the potential to boost UK manufacturing productivity by up to 30% (Pinsent Masons, 2015).

The trend towards smaller premises will be further prompted by a drive towards sustainability, with the need to make efficient use of land becoming ever more important. Advancements in automation and robotics will also reduce the footprint of sites (GoS, 2013a).

The need for these smaller decentralised sites to be flexible and reconfigurable may require a re-categorisation of land use. Businesses are likely to desire less space for production and more space for offering access to customers, clients, suppliers, universities, and other bodies i.e. non-industrial uses. This trend will create a demand for premises that are attractive places in which to work.

## Distribution & Logistics

Recent research suggests there are some emerging trends in the distribution and logistics market that will influence the property market over the coming years. This report discusses those trends and their likely impacts.

### Increased Online Retailing

The UK is the global leader for online consumer spending, with around 15% of sales made via the Internet (Colliers, 2015). It is expected this figure will rise to 20-25% by 2020 (Page, 2013). This continued rise in retail demand has fuelled growth in large distribution centres, a trend which is set to continue as ecommerce increases its market share. Increasingly, companies that have a good approach to ecommerce are receiving better covenant strength in their lease arrangements, with investors keen to support property ventures in the online retailing market.

Online grocery shopping in particular is set to be the primary driver of an increased demand for logistics assets and infrastructure. Despite the UK's mature online retail market, online grocery shopping accounts for only 4.4% of total grocery spending (JLL, 2014a). This is set to change as retailers increase their provision of online grocery shopping and adapt their distribution models in the face of rising demand. The traditional model of in-store picking is becoming unsustainable due to its increasing disruptiveness, with supermarkets utilising 'dark stores'<sup>28</sup>, instead. This growth will generate new requirements for logistics facilities.

### Changing Supply Chain Models

The increase in online retail will change the supply chain models adopted in the distribution and logistics market. The market is changing from a 'business-to-business' model to a 'business-to-customer' one.

Businesses are focusing more on 'first-mile' and 'last-mile' logistics<sup>29</sup>, as distribution is becoming more complex under this new 'business-to-customer' model.

Strategic Rail Freight Interchanges (SRFIs) are a response to changing 'first-mile' demands. SRFIs create direct employment opportunities, reduce the need for HGV transport<sup>30</sup>, and play an important role in serving regional markets. They create increased on-site land requirements, and differing off-site infrastructure requirements (DfT, 2011).

One trend which will change property requirements in the near future is the increased prevalence of 'click-and-collect' services. This model is a response to changing 'last-mile' logistical demands. It reduces distribution costs for retailers, and is often seen as more convenient for the customer as items can be collected at their discretion. Whether businesses choose collection in-store or at a dedicated location (e.g. Amazon Locker), this model will require more floorspace closer to the customer.

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<sup>28</sup> Distribution warehouses closed to the public which focus on online orders only

<sup>29</sup> As a rule, the shipment of a good begins with the so-called 'first-mile' and ends with the 'last-mile'.

<sup>30</sup> And consequently reduce the impact of HGV logistics on an already congested road network.



Another 'last-mile' distribution model being explored by retailers is the use of drones, or Unmanned Aerial Vehicles (UAVs). Current usage of this technology is still in its infancy, but there are reasons to believe it will become more prevalent. With fuel prices posing one of the biggest future threats to the logistics industry, UAVs may provide cost savings in the long term. UAV distribution could also provide relief for urban traffic networks, reducing congestion whilst maintaining delivery times. However, in the near future it is unlikely that UAVs will be used for anything more than small package distribution (Marsh, 2015).

### **Possible Impacts on the Distribution and Logistics Property Market**

The above shifts in supply chain models will have an impact on the land and property requirements of the distribution and logistics sector.

The changes in 'last-mile' logistics will almost certainly place increased demand for smaller, localised distribution centres either on the periphery of towns and cities, or located within urban areas, especially in and around London (Colliers, 2015). Demand for more traditional, large distribution centres with a regional focus will be maintained in order to support a network of smaller, local units. As access to land in and around UK cities tightens, 'skyscraper sheds' may become more common. Multi-storey warehouses already exist in land-scarce locations such as Hong Kong, Singapore, and Japan<sup>31</sup>. In metropolitan centres with premium land costs and availability, such developments will enable logistics firms to locate themselves closer to where the majority of online consumers reside, reducing the time, cost, and carbon footprint of their distribution networks.

If UAV distribution becomes popularised, this will further necessitate a move towards smaller, localised distribution centres which can service urban areas.

For out-of-town office space that cannot be developed for residential use under Permitted Development Rights, subject to gaining planning permission there may be scope for such units to serve a more localised approach to distribution.

### **Conclusions**

Distribution and logistics make up a large proportion of transport greenhouse gas emissions. Significant reductions in emissions will be required to meet the UK's climate change targets and carbon budgets (DfT, 2011). Despite this pressure on the industry, it looks set to experience growth over the coming years as a result of increasing ecommerce sales and the demand this will create for new supply chain models. In particular, the need for large, regional distribution centres will be maintained in order to support the development of smaller, local units located on urban peripheries that will meet the growing demands of online consumers.

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<sup>31</sup> Research suggests that plot ratios of 80%-950% have been achieved in Asian multi-storey warehouse developments (CBRE, 2016). This figure should be treated with caution as GFA is measured differently around the world. Furthermore, UK parking requirements would likely restrict the achievable GFA.