# South Oxfordshire Employment Land Review Addendum

# Final Report

South Oxfordshire District Council

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LICHFIELDS

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# 1.0 Introduction

1.1 South Oxfordshire District Council ('the Council') commissioned Lichfields to produce an Addendum to the Council's 2015 Employment Land Review (ELR)[1]. The objective of the Addendum is to provide the Council with a long term assessment of the need for business space and employment land in the District, covering the emerging Local Plan period from 2011-2033.

## Background

### Existing Evidence: 2015 Employment Land Review

1.2 An Employment Land Review (ELR) was produced in 2015 for the Council by URS to provide the evidence base needed to support the review of policies and preparation of the Local Plan. The ELR forecasts employment floorspace and land needs in the District, covering a study period from 2014 to 2031 across three different scenarios of labour demand (baseline, alternative population-based and planned economic growth). Each scenario is modelled using employment projections provided by Cambridge Economics (CE).

1.3 Employment floorspace and land requirements in the 2015 ELR are forecast by calculating compound aggregate growth rates (CAGRs) for each employment growth scenario provided by CE. Valuation Office Agency (VOA) office and industrial figures on current floorspace supply in South Oxfordshire are then multiplied by the CAGRs on an annual basis from 2014-2031 to calculate additional floorspace 'demand'[2]. These floorspace figures are then converted using plot ratios to calculate employment land requirements. The results are shown below in Table 1.1.

Table 1.1 Estimated Net Employment Land Requirements, 2014-2031 (2015 ELR)

| Land Use | ELR Scenario | | |
|---|---|---|---|
| | Baseline | Alternative Population | Planned Economic Growth |
| Office | 5.6 | 6.1 | 6.9 |
| Industrial | 10.5 | 14.7 | 17.7 |
| **Total Net Land Requirement 2014-2031** | **16.1** | **20.8** | **24.6** |

Source: URS, South Oxfordshire Employment Land Review (2015)

1.4 The 2015 ELR does not forecast needs for the new emerging Local Plan time period (2011-2033) and therefore requirements need to be updated to enable the Council to form appropriate employment policies in the new Local Plan. Furthermore, it does not consider employment land needs associated with projected growth in South Oxfordshire's labour supply (resident workforce), which the Planning Practice Guidance (PPG) recommends as one of the ways plan makers should assess future employment land needs (Paragraph 032).

1.5 This Addendum is therefore intended to provide an updated view of the scale and type of employment space that should be planned for over the new Local Plan period. It utilises the same CE employment projections as the 2015 ELR, but applies these to the longer time period associated with the new South Oxfordshire Local Plan, providing a clear overview of the various assumptions and methodologies that have been applied to arrive at overall requirements. It also considers a labour supply based scenario of future economic growth in the District.

[1] South Oxfordshire District Council, (2015); Employment Land Review.
[2] Valuation Office Agency (VOA), (2012); Business Floorspace (Experimental Statistics).

## Scope of Study

1.6 The assessment is based on a range of scenarios for how South Oxfordshire's economy could change in the future, with the employment space and land implications of the following B class uses considered in this Addendum study:

- **B1 Business:** offices (B1a), research & development (B1b) and light industrial (B1c).
- **B2 General Industrial:** typically comprising factory and manufacturing space.
- **B8 Storage and Distribution:** warehouses, wholesale and distribution.

1.7 The demand for B class employment floorspace and land in South Oxfordshire is considered in this study, with references to "employment space" referring to both elements. In addition, the term "industrial space" encompasses both manufacturing (B1c/B2) and distribution (B8) uses for the purposes of this study.

1.8 An important consideration for any technical work of this type is that the study is inevitably a point-in-time assessment. The study post-dates the outcome of the UK referendum on membership of the European Union (EU) in June 2016, but does not give specific consideration for how the timing and basis for the UK's future exit from the EU could impact national or local economic change given current uncertainty regarding these arrangements. The Addendum study draws on input data that was compiled a number of years ago to inform evidence base studies such as the Oxfordshire Strategic Housing Market Assessment (SHMA, 2014) and the South Oxfordshire Employment Land Review (2015). It may therefore be necessary to undertake selective updates to the study once greater economic certainty and clarity is available through econometric forecasts and other indicators.

1.9 The study has used the latest available data and other evidence available at the time of drafting, while the accuracy of third party data has not been checked or verified by Lichfields.

## Structure of Report

1.10 This report is structured as follows:

- **Section 2.0** provides an analysis of South Oxfordshire's future B Class employment space requirements in quantitative terms, drawing upon employment projections and housing requirements.
- **Section 3.0** provides a summary of the main findings of the Addendum report.

# 2.0 Employment Space Requirements

2.1 This section considers future employment space needs for South Oxfordshire by drawing on several methodologies that are guided by the PPG. These scenarios are used to inform the assessment of the District's future employment land needs for office, manufacturing and distribution floorspace and land over the emerging Local Plan period from 2011-2033.

## Methodology

2.2 The NPPF requires local authorities to *"set out a clear economic vision and strategy for their area which positively and proactively encourages sustainable economic growth"* (para 21)[4]. Considering this in evidence base terms, this should be underpinned by *"a clear understanding of business needs within the economic markets operating in and across their area"* (para 160).

2.3 Within this context, a number of potential future economic scenarios have been developed in this Addendum study to provide a framework for considering future economic growth needs and B class employment space requirements in South Oxfordshire from 2011 to 2033. In line with the PPG, these future scenarios draw upon:

1 Projections of employment growth in the main B class sectors **(labour demand)** derived from economic forecasts produced by CE for the latest Oxfordshire Strategic Housing Market Assessment (SHMA, 2014)[5] and also used in the 2015 ELR; and

2 Estimating future growth of **local labour supply** drawing upon population projections used by GL Hearn in the Oxfordshire SHMA (2014).

2.4 These approaches have limitations and consideration needs to be given as to how appropriate each is to the circumstances in South Oxfordshire. It should also be noted that the ultimate judgement as to the level of need that South Oxfordshire should plan for is not purely quantitative, and that there will be a number of qualitative factors not covered in this addendum to consider. These factors will influence the employment space requirements that will need to be planned for, and should be considered alongside the following modelled scenarios.

2.5 The Addendum does not include a past take-up based scenario of future needs due to the lack of comprehensive and robust monitoring data available on B class development in the District in recent years.

## A. Labour Demand

### Scenario 1: Projected Job Growth

2.6 Forecasts of employment growth for South Oxfordshire used in the Oxfordshire SHMA (2014) have been obtained from CE. These forecasts are provided for three scenarios: baseline; alternative population based; and planned economic growth. These forecasts were also used in the 2015 ELR.

2.7 The baseline economic forecasts provided by CE provide a 'business as usual' view on South Oxfordshire's future economic growth prospects, assuming that historic growth relationships in the District relative to the county continue in the future. The alternative population based forecasts take into account a projected uplift in population growth, and stronger growth in

[4] Department of Communities and Local Government, (2012); National Planning Policy Framework.
[5] GL Hearn, Oxfordshire Strategic Housing Market Assessment, 2014.

employment based upon changing population dynamics. The planned economic growth scenario builds upon the alternative population based scenario and takes into account additional factors that may stimulate a higher level of growth. Examples of local factors influencing the scenario include: growth in advanced manufacturing; expansion of sectors such as retail and distribution; and growth in space sciences and satellite technologies. Further information about each of the three scenarios is provided in the 2014 Oxfordshire SHMA.

2.8 It is important to note that there are inherent limitations to the use of economic forecasts of this type, particularly within the context of recent economic and political changes. National macroeconomic assumptions are taken as the starting point and then modelled down to the regional and local levels by reference to the existing economic profile and sectoral composition of an area. Local level data is less comprehensive and reliable than at national and regional levels which can affect how the modelling is calibrated. Similarly, top-down forecasts are less likely to take account of specific local factors that might influence employment growth. However forecasts are seen as a valuable input to indicate the broad scale and direction of future economic growth within different sectors, which helps assess the future land requirements of a local area.

2.9 Population projections are just one of several inputs used to produce economic forecasts both in terms of future changes in working-age population (i.e. which directly impacts on the demand for jobs) and total population (i.e. which create demand for consumption activities). It is important to note that population projections are frequently revised, as are assumptions around future working-age populations, economic activity rates and national changes to the pension age.

### B Use Class Sectors

2.10 To calculate B class space requirements, the CE employment forecasts are firstly apportioned to office (B1a/B1b), manufacturing (B1c/B2) and distribution (B8) use classes based on typical activity. Further detail of the methodology for this land use apportioning is presented in Appendix 1:

2.11 As the CE employment forecasts end at 2031 (i.e. two years before the end of the emerging Local Plan period), the CAGR for the period between 2011 and 2031 has been applied to pro rata the employment forecasts up to 2033. The results for the baseline, alternative population based and planned economic growth scenarios are presented below in Table 2.1, Table 2.2 and Table 2.3. A breakdown of the forecast data by scenario is included at Appendix 2.

Table 2.1 South Oxfordshire Baseline Employment Change

| Use | Number of Jobs | | Absolute Change 2011-2033 |
|---|---|---|---|
| | 2011 | 2033 | |
| Offices (B1a/B1b) | 19,969 | 23,332 | 3,363 |
| Manufacturing (B1c/B2) | 6,648 | 6,695 | 47 |
| Distribution (B8) | 3,602 | 4,233 | 631 |
| **Total B Class Jobs** | **30,218** | **34,261** | **4,042** |
| **Total Jobs** | **65,079** | **73,467** | **8,388** |

Source: Cambridge Econometrics (January 2014) / Lichfields

Note figures may not sum due to rounding.

Table 2.2 South Oxfordshire Alternative Population Based Employment Change

| Use | Number of Jobs | | Absolute Change 2011-2033 |
|---|---|---|---|
| | 2011 | 2033 | |
| Offices (B1a/B1b) | 19,969 | 23,535 | 3,566 |
| Manufacturing (B1c/B2) | 6,648 | 6,805 | 157 |
| Distribution (B8) | 3,602 | 4,352 | 750 |
| **Total B Class Jobs** | **30,218** | **34,692** | **4,473** |
| **Total Jobs** | **65,079** | **74,946** | **9,867** |

Source: Cambridge Econometrics (January 2014) / Lichfields

Note figures may not sum due to rounding.

Table 2.3 South Oxfordshire Planned Economic Growth Employment Change

| Use | Number of Jobs | | Absolute Change 2011-2033 |
|---|---|---|---|
| | 2011 | 2033 | |
| Offices (B1a/B1b) | 19,969 | 24,781 | 4,812 |
| Manufacturing (B1c/B2) | 6,648 | 7,129 | 482 |
| Distribution (B8) | 3,602 | 4,535 | 933 |
| **Total B Class Jobs** | **30,218** | **36,445** | **6,227** |
| **Total Jobs** | **65,079** | **77,482** | **12,403** |

Source: Cambridge Econometrics (January 2014) / Lichfields

Note figures may not sum due to rounding.

2.18 The total number of jobs in South Oxfordshire is forecast to increase between a range of 8,388 and 12,403 jobs between 2011 and 2033. Of these, between 4,042 and 6,227 jobs are estimated to occupy sectors typically using B class floorspace. The main driver of B class job growth is expected to be those sectors that typically occupy offices; these contribute the following proportions to each scenario: baseline 83.2%; alternative population based 79.7%; and planned economic growth 77.3%.

2.19 Table 2.4 provides a summary of B class job growth for each scenario covering the same study period as the 2015 ELR (i.e. 2014 to 2031) for comparison purposes. This shows that the Addendum apportioning process results in a lower scale of B class job growth for the period than the 2015 ELR in all three scenarios.

Table 2.4 South Oxfordshire B Class Jobs Change by Scenario, 2014-2031

| Scenario | Employment Land Review (2015) | Employment Land Review Addendum (2017) | Difference |
|---|---|---|---|
| Baseline | 3,365 | 2,039 | -1,326 |
| Alternative Population Based | 3,844 | 2,411 | -1,433 |
| Planned Economic Growth | 4,401 | 3,890 | -511 |

Source: URS, South Oxfordshire Employment Land Review (2015) / Cambridge Econometrics / Lichfields

Note figures may not sum due to rounding.

2.20 The 2015 ELR apportions the CE employment forecasts into industrial and office uses/sectors, and provides a simple breakdown of the methodology in Appendix B of the report. The breakdown does not appear to divide industrial uses into manufacturing (B1c/B2) and distribution (B8) sub-components or provide detail on how the 45 sectors provided by the CE forecasts have been grouped by URS into 12 'wider sectors'.

## Job Density Ratios

2.21 The B class part of these employment growth forecasts have been converted to net employment floorspace requirements by applying the latest published density figures for employment space, which take account of recent trends in occupancy for the different B class uses. The following average ratios have been applied to the job forecasts presented above:

- **Offices:** 1 job per 12.5 sq.m for general office space;
- **Industrial:** 1 job per 43 sq.m as an average across B1c and B2 uses; and
- **Warehousing:** 1 job per 65 sq.m for general, smaller scale warehousing (assumed to account for 50% of warehousing stock in South Oxfordshire) and 1 job per 74sq.m for large scale, lower density units (i.e. assumed to account for 50% of total stock).

2.22 These assumptions are broadly based on latest Homes & Communities Agency (HCA) guidance on job density ratios produced in 2015[7]. The guidance takes account of recent trends in terms of changing utilisation of employment space, with the key change being the more efficient use of office floorspace due to the higher frequency of flexible working and hot-desking. This has resulted in a reduction in the amount of floorspace per office worker assumed compared to earlier guidance.

2.23 An allowance of 10% is added to all floorspace requirements to reflect normal levels of market vacancy in employment space.

2.24 This approach differs to the 2015 ELR where employment densities were not used to calculate net floorspace requirements. The ELR instead multiplies business floorspace figures published by the VOA on an annual basis from 2014-2031 using CAGRs calculated from the CE employment forecasts. The VOA data is limited to just 'industrial' and 'office' categories so cannot be accurately broken down into more specific B1a, B1b, B1c, B2 and B8 use classes. It is therefore not comparable with the methodology described above and applied for the purposes of the analysis within this Addendum.

## Net Floorspace Requirements

2.25 The resulting outputs from applying the job density ratios to the three employment forecast scenarios are presented below in Table 2.5. The total requirements range from 96,760sq.m to 160,285sq.m to 2033 depending upon the employment forecast; office and distribution uses act as the main drivers of demand. This is due to the high number of office jobs forecast to be generated in the local economy and the relatively large floorspace area required for each distribution job.

Table 2.5 Net B Class Floorspace Change in South Oxfordshire 2011-2033

| Use | Floorspace (sq.m) | | |
|---|---|---|---|
| | Baseline | Alternative Population Based | Planned Economic Growth |
| Offices (B1a/B1b) | 46,248 | 49,031 | 66,165 |
| Manufacturing (B1c/B2) | 2,237 | 7,427 | 22,787 |
| Distribution (B8) | 48,275 | 57,372 | 71,333 |
| **Total** | **96,760** | **113,830** | **160,285** |

Source: Lichfields

Note figures may not sum due to rounding.

[7] Homes and Communities Agency (HCA), (2015); Employment Densities Guide.

2.26 Table 2.6 provides a summary of net B class employment floorspace requirements for each scenario covering the same study period as the 2015 ELR (i.e. 2014 to 2031) for comparison purposes. B class floorspace requirements are higher in the 2015 ELR, except in the planned economic growth scenario where this Addendum generates a higher overall B class floorspace requirement.

Table 2.6 Net B Class Floorspace Change in South Oxfordshire 2014-2031

| Scenario | Floorspace (sq.m) | | |
|---|---|---|---|
| | Employment Land Review (2015) | Employment Land Review Addendum (2017) | Difference |
| Baseline | 52,200 | 47,986 | -4,214 |
| Alternative Population Based | 66,500 | 60,482 | -6,018 |
| Planned Economic Growth | 79,500 | 96,864 | 17,364 |

Source: URS, South Oxfordshire Employment Land Review (2015) / Cambridge Econometrics / Lichfields
Note figures may not sum due to rounding.

2.27 The difference between the two sets of figures can partly be explained by the different time periods associated with the analysis; the 2015 ELR covers a study period from 2014 to 2031 (17 years), while this Addendum covers a longer 22 year study period to align with the new Local Plan period (2011 to 2033). It can also be explained by the particularly strong rate of employment growth recorded between 2011 and 2014 (i.e. in the period between the two study start years) according to the CE data which has a disproportionally significant impact upon implied job growth over the 22 year period covered by this Addendum analysis. Notwithstanding these factors, because of the finer-grained approach that has been adopted to derive net floorspace figures as noted at para 2.24 above, this results in lower floorspace estimates for two of the three scenarios considered.

## B. Future Labour Supply

2.28 The second scenario considers floorspace requirements based upon future labour force change. It is important to take into account how many jobs, and hence how much employment space, would be necessary to broadly match forecast growth of the resident workforce in South Oxfordshire. In contrast to the labour demand approach, this approach focuses on the future supply of labour rather than the demand for labour. It then estimates the amount of new jobs needed to match the future supply of working-age population, and how much employment space would be needed to accommodate these B class jobs.

2.29 The 2015 ELR does not include a labour supply based scenario, so it is not possible to provide any comparison.

### Scenario 2: Labour Supply

2.30 A labour supply based scenario has been considered for South Oxfordshire based on population projections and other demographic assumptions that were used to inform the Oxfordshire SHMA (2014). This relates to the level of overall housing need identified by the SHMA for South Oxfordshire, equivalent to 775 additional dwellings per year[8] between 2011 and 2031. Information on employed resident population growth associated with this overall housing need

[8] 775 dwellings per annum represents the 'Midpoint of Range' figure which has subsequently been incorporated into the emerging Local Plan for South Oxfordshire.

has been supplied by the SHMA authors (GL Hearn) and implies an increase in employed residents in South Oxfordshire of 16,067 between 2011 and 2033[9].

2.31 An adjustment for commuting patterns has been made by Lichfields to estimate the increase in workplace employment, based on the latest 2011 Census travel-to-work data. These commuting trends are assumed to remain the same for the entirety of the plan period to 2033, meaning that the District is assumed to continue to operate as a net exporter of labour.

2.32 Table 2.7 summarises the resident and workplace labour supply resulting from this scenario. The number of workplace jobs required to support the increase in employed persons in the District assumes that one additional job would be required for each additional worker, whilst the proportion employed in B class sectors takes into account the existing and forecast share of B class jobs to total jobs in the District (taken from the CE 'baseline' employment forecast).

Table 2.7 Forecast Labour Supply Job Requirements in South Oxfordshire 2011 - 2033

| Indicator | Change |
|---|---|
| Resident Labour Supply | 16,067 |
| Workplace Labour Supply | 14,185 |
| Office Jobs (B1a/B1b) | 5,166 |
| Manufacturing Jobs (B1c/B2) | 610 |
| Distribution Jobs (B8) | 958 |
| **All B Class Jobs** | **6,734** |

Source: GL Hearn, Oxfordshire Strategic Housing Market Assessment (2014) / Lichfields
Note figures may not sum due to rounding.

2.33 This analysis results in a requirement for 6,734B class jobs over the 22 year study period to 2033, equivalent to an increase of 306 additional B class jobs per annum on average. Office uses are expected to act as the main driver of B class job growth.

2.34 These job numbers can then be translated into estimated requirements for B class employment space by applying the same standard employment densities used in the labour demand approach, and adding a 10% vacancy allowance. Overall future employment floorspace requirements based on meeting the job needs of local resident workers would require 173,085sq.m of B class employment floorspace in the District by 2033 (Table 2.8)

Table 2.8 Net Employment Floorspace Required from Labour Supply Growth 2011-2033

| Use | Floorspace Requirement (sq.m) |
|---|---|
| Offices (B1a/B1b) | 71,038 |
| Manufacturing (B1c/B2) | 28,843 |
| Distribution (B8) | 73,204 |
| **Total** | **173,085** |

Source: Lichfields
Note figures may not sum due to rounding.

2.35 This labour supply based estimate produces a positive requirement that is higher than those generated in the labour demand scenario.

[9] Note the SHMA population projections run to 2031, so to reach 2033 the CAGR for the period between 2011 and 2031 has been used to uplift the number of employed residents between 2031 and 2033.

## Summary of Net Employment Space Requirements

2.36 Drawing upon the results from each of the future growth scenarios for South Oxfordshire, the net B class employment floorspace requirements for the District over the period from 2011 to 2033 reflect a range of future economic scenarios, as summarised in Table 2.9.

Table 2.9 Net Floorspace Requirements by Scenario 2011-2033

| Scenario | | Floorspace Requirement (sq.m) | | | |
|---|---|---|---|---|---|
| | | Office (B1a/B1b) | Manufacturing (B1c/B2) | Distribution (B8) | Total |
| Labour Demand | Baseline | 46,248 | 2,237 | 48,275 | **96,760** |
| | Alternative Population Based | 49,031 | 7,427 | 57,372 | **113,830** |
| | Planned Economic Growth | 66,165 | 22,787 | 71,333 | **160,285** |
| Labour Supply | | 71,038 | 28,843 | 73,204 | **173,085** |

Source: Lichfields

Note figures may not sum due to rounding.

2.37 The net B class employment floorspace requirements for South Oxfordshire represent the minimum recommended amount of floorspace that should be planned for in the District from 2011 to 2033. The Council will need to take a view on the extent to which additional space should be planned for over and above the net requirements in order to allow for such factors as delays to development sites coming forward, an allowance for replacement of ongoing losses of employment space, and other relevant factors in the local market.

## Net Land Requirements

2.1 The final step, for all scenarios, is to translate floorspace into land requirements for office (B1a/B1b), manufacturing (B1c/B2) and distribution (B8) uses. This has been calculated by applying appropriate plot ratio assumptions to the net floorspace estimates presented above using the following assumptions and local adjustment factors to reflect the pattern of development in South Oxfordshire:

- **Manufacturing (B1c/B2) and Distribution (B8)** – a plot ratio of 0.4 is applied so that a 1 ha site would be needed to accommodate a footprint of 4,000sq.m; and
- **Offices (B1a/B1b)** – it was assumed that 25% of new floorspace would be in lower density, business park developments with a plot ratio of 0.4, with 75% in higher density town centre locations at a plot ratio of 2.0. This split is considered to broadly reflect the current position in the District, as set out in the 2015 ELR property market commentary.

2.2 The resulting net employment land requirements are presented below in Table 2.10.

Table 2.10 Net Land Requirements by Scenario 2011-2033

| Scenario | | Land Requirement (ha) | | | |
|---|---|---|---|---|---|
| | | Office (B1a/B1b) | Manufacturing (B1c/B2) | Distribution (B8) | Total |
| Labour Demand | Baseline | 4.6 | 0.6 | 12.1 | **17.3** |
| | Alternative Population Based | 4.9 | 1.9 | 14.3 | **21.1** |
| | Planned Economic Growth | 6.6 | 5.7 | 17.8 | **30.1** |
| Labour Supply | | 7.1 | 7.2 | 18.3 | **32.6** |

Source: Lichfields Note: figures may not sum due to rounding.

2.3 These plot ratios differ to those applied in the 2015 ELR, which uses single plot ratios for 'industrial' and 'office' uses. It does not appear to make specific allowance for the proportion of new office development that is expected to come forward through lower and higher density office developments, each associated with very different plot ratios.

## Planning Requirement

2.4 Whilst the net employment space requirements presented above represent the minimum recommended quantum of employment floorspace to plan for within South Oxfordshire over the study period, the Council will need to take a view on the extent to which additional space should be planned for over and above the net requirements to allow for factors such as delays in development coming forward, for replacing employment space that is lost in future and to take account of other market factors.

2.5 Whilst no specific guidance or recommendations are provided by the PPG, the former South East England Partnership Board (SEEPB) guidance on employment land assessments recommended an allowance that is equivalent to the average time for a site to gain planning permission and be developed, typically about two years. This is equivalent to just under 10% of the total 22 year study period for South Oxfordshire. Table 2.11 provides an illustration of indicative 'gross' land requirements or 'planning requirements' by scenario for South Oxfordshire to 2033 after applying this 10% buffer or margin.

Table 2.11 Indicative Gross Land Requirements by Scenario 2011-2033

| Scenario | | Land Requirement (ha) | | | |
|---|---|---|---|---|---|
| | | Office (B1a/B1b) | Manufacturing (B1c/B2) | Distribution (B8) | Total |
| Labour Demand | Baseline | 5.1 | 0.6 | 13.3 | **19.0** |
| | Alternative Population Based | 5.4 | 2.0 | 15.8 | **23.2** |
| | Planned Economic Growth | 7.3 | 6.3 | 19.6 | **33.2** |
| Labour Supply | | 7.8 | 7.9 | 20.1 | **35.9** |

Source: Lichfields

Note figures may not sum due to rounding.

## Synthesis and Conclusions

2.7 In interpreting the outputs of this section, regard should be had to PPG guidance which states that Local Authorities should develop an idea of future economic needs based on a range of data and forecasts of quantitative and qualitative need. It is also important to recognise that there are inevitable uncertainties and limitations associated with modelling assumptions under the future growth scenarios considered. For example, there are some inherent limitations to the use of local level economic forecasts, particularly in the context of significant recent changes in the economy. Economic forecasts are regularly updated and the resulting employment outputs will change over the plan period.

2.8 Four different scenarios of future employment space requirements have been considered based on a range of lower and higher growth conditions that could arise in the future. For each scenario, total and B class employment is expected to increase in South Oxfordshire over the Local Plan period between 2011 and 2033.

2.9 The overall net floorspace requirements that have been estimated by the scenarios range from 96,760sq.m (under the 'baseline' labour demand scenario) to 173,085sq.m (under the labour

supply scenario) from 2011 to 2033. This implies a need for between 17.3ha and 32.6ha of employment land in net terms. In most cases, the majority of this spatial requirement relates to office (B1a/B1b) and distribution (B8) space.

2.10 Applying a 10% buffer or margin to these net figures – to provide an illustration of indicative gross land requirements – increases this range to between 19.0ha and 35.9ha.

2.11 By way of comparison, the overall employment land requirements identified by the 2015 ELR range between 16.1ha and 24.6ha over the study period 2014 to 2031. There are a number of reasons to account for this variation, including differences in the methodology applied across the two studies, and time period associated with the analysis. The 2015 ELR requirement figures also take some account of existing available supply of employment land in the District, for example by assuming that some vacant employment land will come back into use and help to accommodate planning requirements. This Addendum analysis looks purely at demand, and does not take account of supply factors.

2.12 The economic forecasts provided by CE provide different scenarios of how the District's economy might grow in the future. These take into account historical growth relationships (baseline), potential population dynamics change (alternative population based) and locally significant economic factors (planned economic growth). Each of these employment scenarios indicate that the District will see growth in jobs related to all B use classes, and as a result generate demand for additional employment floorspace and land over the plan period to 2033.

2.13 The labour supply based approach generates the highest overall level of employment growth over the period to 2033 and associated floorspace and land requirements. The demographic projections that form the basis of this scenario reflect a relatively high scale of total population growth over this period and a large expansion in resident labour force. They also reflect working-age and economic activity assumptions applied by the SHMA authors, and also assume current (2011) commuting patterns continue in future.

2.14 In light of the NPPF requirement to plan positively for growth, it is recommended that the Council consider planning to accommodate at least the baseline labour demand based requirement (i.e. 19.0 ha) over the plan period to 2033.

2.15 It should be noted that this ELR Addendum does not model a past take-up based scenario of future economic growth in South Oxfordshire, and this represents one of the methods outlined in the PPG for assessing future employment land needs.

# 3.0 Overall Summary

3.1 This Addendum was commissioned to update the evidence on South Oxfordshire's employment floorspace and land requirements to align with the emerging Local Plan period (2011-2033). The 2015 ELR forecasts needs from 2014 to 2031 and utilises a different methodology for forecasting future needs. Where possible, these methodological differences have been considered and outlined in this Addendum.

3.2 Analysis of CE employment forecasts for the District indicates that employment will grow over the emerging Local Plan period under each scenario (baseline, alternative population based and planned economic growth). B class employment is expected to grow between 4,042 and 6,227 jobs in the labour demand scenario. Employment growth is mainly generated by new office jobs, with some growth in sectors that typically occupy B1c/B2 and B8 class premises. These employment forecasts were also used in the 2014 Oxfordshire SHMA and 2015 South Oxfordshire ELR.

3.3 Under the labour supply scenario, employment growth is forecast to be higher than the labour demand scenario, with an increase of 6,734 B class jobs to 2033. When converted to net floorspace, this results in a requirement for 173,085sq.m of additional floorspace. The labour demand scenario leads to lower net B class floorspace requirements of between 96,760sq.m and 160,285sq.m.

3.4 Indicative 'planning requirements' are calculated by applying a buffer of 10% to the net employment land requirements to take into accounts factors such as delays to sites coming forward and replacing employment floorspace lost in the future. The overall planning requirement for the scenarios ranges from 19.0ha to 35.9ha.

3.5 These are higher than the employment land requirements identified by the 2015 ELR of between 16.1ha and 24.6ha. This variation is caused by a number of factors, including the application of different methodologies, the different time periods associated with analysis, and also reflects the way in which existing vacant employment land is taken into account when finalising planning requirements.

3.6 These requirements provide an indication of the area of the scale and type of additional land that the Council should plan to bring forward in the future. These forecasts should be considered in a wider context, alongside other qualitative factors such as property market signals to come to a well-rounded view of the District's future employment land planning needs for the purposes of the emerging Local Plan.

# Appendix 1: Definition of B Class Sectors

The method for re-categorising employment by sector into B-Class uses is summarised below.

Table A1.1 – CE Sector by B Class Use

| CE Sector | Applicable B Use Class |
|---|---|
| Agriculture, forestry & fishing | - |
| Mining & quarrying | - |
| Food, drink & tobacco | B1c/B2 in full |
| Textiles etc | |
| Wood & paper | |
| Printing & recording | |
| Coke & petroleum | |
| Chemicals | |
| Pharmaceuticals | |
| Non-metallic mineral products | |
| Metals & metal products | |
| Electronics | |
| Electrical equipment | |
| Machinery | |
| Motor vehicles | |
| Other transport equipment | |
| Other manufacturing & repair | |
| Electricity & gas | B1c/B2 in part |
| Water, sewerage & waste | |
| Construction | |
| Motor vehicles trade | B1c/B2 in part, B8 in part |
| Wholesale trade | |
| Retail trade | - |
| Land transport | B8 in part |
| Water transport | - |
| Air transport | - |
| Warehousing & postal | B8 in part |
| Accommodation | - |
| Food & beverage services | - |
| Media | B1a/B1b in full |
| IT services | |
| Financial & insurance | |
| Real estate | |
| Legal & accounting | |
| Head offices & management consultancies | |
| Architectural & engineering services | |
| Other professional services | |
| Business support services | B1a/B1b in part |
| Public Administration & Defence | |
| Education | - |
| Health | - |
| Residential & social | - |
| Arts | - |
| Recreational services | - |
| Other services | - |

# Appendix 2: Cambridge Econometrics Baseline Forecasts (January 2014)

## Baseline Forecasts

Table A2.1 – CE Baseline Employment Forecast – South Oxfordshire

| CE Sector | Number of Jobs | | |
|---|---|---|---|
| | 2011 | 2033 | Absolute Change |
| Agriculture, forestry & fishing | 360 | 584 | 224 |
| Mining & quarrying | 4 | 3 | -1 |
| Food, drink & tobacco | 267 | 121 | -146 |
| Textiles etc | 105 | 38 | -67 |
| Wood & paper | 174 | 197 | 23 |
| Printing & recording | 102 | 110 | 8 |
| Coke & petroleum | - | - | - |
| Chemicals | 342 | 204 | -138 |
| Pharmaceuticals | 10 | 9 | -1 |
| Non-metallic mineral products | 406 | 422 | 16 |
| Metals & metal products | 192 | 219 | 27 |
| Electronics | 1,002 | 873 | -129 |
| Electrical equipment | 43 | 42 | -1 |
| Machinery | 521 | 616 | 95 |
| Motor vehicles | 80 | 46 | -34 |
| Other transport equipment | 101 | 42 | -59 |
| Other manufacturing & repair | 676 | 740 | 64 |
| Electricity & gas | 159 | 157 | -2 |
| Water, sewerage & waste | 498 | 494 | -4 |
| Construction | 4,250 | 4,947 | 697 |
| Motor vehicles trade | 1,160 | 1,100 | -60 |
| Wholesale trade | 2,421 | 3,147 | 726 |
| Retail trade | 5,691 | 6,080 | 389 |
| Land transport | 1,058 | 1,207 | 149 |
| Water transport | 18 | 12 | -6 |
| Air transport | 5 | 6 | 1 |
| Warehousing & postal | 636 | 709 | 73 |
| Accommodation | 1,339 | 1,904 | 565 |
| Food & beverage services | 3,549 | 5,250 | 1,701 |
| Media | 856 | 711 | -145 |
| IT services | 2,111 | 2,600 | 489 |
| Financial & insurance | 1,366 | 1,139 | -227 |
| Real estate | 910 | 1,070 | 160 |
| Legal & accounting | 934 | 1,078 | 144 |
| Head offices & management consultancies | 2,237 | 2,686 | 449 |
| Architectural & engineering services | 2,848 | 2,987 | 139 |
| Other professional services | 7,536 | 9,483 | 1,947 |
| Business support services | 4,271 | 6,314 | 2,043 |
| Public Administration & Defence | 1,831 | 1,154 | -677 |
| Education | 5,809 | 5,732 | -77 |
| Health | 1,696 | 1,827 | 131 |
| Residential & social | 3,119 | 3,174 | 55 |
| Arts | 795 | 928 | 133 |
| Recreational services | 1,711 | 1,224 | -487 |
| Other services | 1,880 | 2,082 | 202 |
| **Total** | **65,079** | **73,467** | **8,388** |

Source: Cambridge Econometrics January 2014

## Alternative Population Based Forecasts

Table A2.2 – CE Alternative Population Based Employment Forecast – South Oxfordshire

| CE Sector | Number of Jobs | | |
|---|---|---|---|
| | 2011 | 2033 | Absolute Change |
| Agriculture, forestry & fishing | 360 | 577 | 217 |
| Mining & quarrying | 4 | 3 | -1 |
| Food, drink & tobacco | 267 | 133 | -134 |
| Textiles etc | 105 | 45 | -60 |
| Wood & paper | 174 | 198 | 24 |
| Printing & recording | 102 | 110 | 8 |
| Coke & petroleum | - | - | - |
| Chemicals | 342 | 217 | -125 |
| Pharmaceuticals | 10 | 9 | -1 |
| Non-metallic mineral products | 406 | 425 | 19 |
| Metals & metal products | 192 | 222 | 30 |
| Electronics | 1,002 | 886 | -116 |
| Electrical equipment | 43 | 43 | 0 |
| Machinery | 521 | 617 | 96 |
| Motor vehicles | 80 | 48 | -32 |
| Other transport equipment | 101 | 53 | -48 |
| Other manufacturing & repair | 676 | 742 | 66 |
| Electricity & gas | 159 | 158 | -1 |
| Water, sewerage & waste | 498 | 498 | 0 |
| Construction | 4,250 | 4,986 | 736 |
| Motor vehicles trade | 1,160 | 1,133 | -27 |
| Wholesale trade | 2,421 | 3,223 | 802 |
| Retail trade | 5,691 | 6,153 | 462 |
| Land transport | 1,058 | 1,211 | 153 |
| Water transport | 18 | 13 | -5 |
| Air transport | 5 | 6 | 1 |
| Warehousing & postal | 636 | 712 | 76 |
| Accommodation | 1,339 | 1,961 | 622 |
| Food & beverage services | 3,549 | 5,378 | 1,829 |
| Media | 856 | 724 | -132 |
| IT services | 2,111 | 2,608 | 497 |
| Financial & insurance | 1,366 | 1,177 | -189 |
| Real estate | 910 | 1,074 | 164 |
| Legal & accounting | 934 | 1,083 | 149 |
| Head offices & management consultancies | 2,237 | 2,685 | 448 |
| Architectural & engineering services | 2,848 | 2,995 | 147 |
| Other professional services | 7,536 | 9,463 | 1,927 |
| Business support services | 4,271 | 6,283 | 2,012 |
| Public Administration & Defence | 1,831 | 1,261 | -570 |
| Education | 5,809 | 5,972 | 163 |
| Health | 1,696 | 1,944 | 248 |
| Residential & social | 3,119 | 3,234 | 115 |
| Arts | 795 | 932 | 137 |
| Recreational services | 1,711 | 1,276 | -435 |
| Other services | 1,880 | 2,098 | 218 |
| **Total** | **65,079** | **74,946** | **9,867** |

Source: Cambridge Econometrics January 2014

## Planned Economic Growth Forecasts

Table A2.3 – CE Planned Economic Growth Employment Forecast – South Oxfordshire

| CE Sector | Number of Jobs | | |
|---|---|---|---|
| | 2011 | 2033 | Absolute Change |
| Agriculture, forestry & fishing | 360 | 586 | 226 |
| Mining & quarrying | 4 | 3 | -1 |
| Food, drink & tobacco | 267 | 125 | -142 |
| Textiles etc | 105 | 42 | -63 |
| Wood & paper | 174 | 207 | 33 |
| Printing & recording | 102 | 112 | 10 |
| Coke & petroleum | - | - | - |
| Chemicals | 342 | 212 | -130 |
| Pharmaceuticals | 10 | 101 | 91 |
| Non-metallic mineral products | 406 | 429 | 23 |
| Metals & metal products | 192 | 237 | 45 |
| Electronics | 1,002 | 990 | -12 |
| Electrical equipment | 43 | 44 | 1 |
| Machinery | 521 | 642 | 121 |
| Motor vehicles | 80 | 47 | -33 |
| Other transport equipment | 101 | 38 | -63 |
| Other manufacturing & repair | 676 | 757 | 81 |
| Electricity & gas | 159 | 158 | -1 |
| Water, sewerage & waste | 498 | 499 | 1 |
| Construction | 4,250 | 5,110 | 860 |
| Motor vehicles trade | 1,160 | 1,151 | -9 |
| Wholesale trade | 2,421 | 3,410 | 989 |
| Retail trade | 5,691 | 6,251 | 560 |
| Land transport | 1,058 | 1,263 | 205 |
| Water transport | 18 | 14 | -4 |
| Air transport | 5 | 6 | 1 |
| Warehousing & postal | 636 | 769 | 133 |
| Accommodation | 1,339 | 2,025 | 686 |
| Food & beverage services | 3,549 | 5,527 | 1,978 |
| Media | 856 | 730 | -126 |
| IT services | 2,111 | 2,800 | 689 |
| Financial & insurance | 1,366 | 1,257 | -109 |
| Real estate | 910 | 1,105 | 195 |
| Legal & accounting | 934 | 1,139 | 205 |
| Head offices & management consultancies | 2,237 | 2,865 | 628 |
| Architectural & engineering services | 2,848 | 3,096 | 248 |
| Other professional services | 7,536 | 10,106 | 2,570 |
| Business support services | 4,271 | 6,724 | 2,453 |
| Public Administration & Defence | 1,831 | 1,249 | -582 |
| Education | 5,809 | 6,050 | 241 |
| Health | 1,696 | 1,966 | 270 |
| Residential & social | 3,119 | 3,257 | 138 |
| Arts | 795 | 943 | 148 |
| Recreational services | 1,711 | 1,286 | -425 |
| Other services | 1,880 | 2,154 | 274 |
| **Total** | **65,079** | **77,482** | **12,403** |

Source: Cambridge Econometrics January 2014