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Employment Land Review
Post EU Referendum Forecasting Analysis

Sunderland City Council

20 February 2017

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Contents

1.0 Introduction

1.1 In March 2016, Sunderland City Council (SCC) published an Employment Land Review (ELR) for the local authority area, undertaken by Lichfields and Lambert Smith Hampton (LSH). The report provided the Council with a detailed assessment of:

- The commercial property markets of Sunderland;
- The current supply of employment land in the city; and
- Future demand for employment land in Sunderland over the period 2015 to 2033.

1.2 Following the completion of the 2016 ELR, Britain voted – on 23rd June, 2016 – to leave the European Union (EU). In response – and to ensure that the evidence base underpinning the city's emerging Local Plan remains as comprehensive and up-to-date as possible - SCC have sought to revisit a number of key technical reports in order to take account of the possible impacts of Brexit.

1.3 Within the context of the above, this report seeks to consider the employment land implications of the post-referendum employment forecasts from Experian, as well as work undertaken to refine the city's Objectively Assessed Housing Need (OAHN) against a backdrop of a forthcoming Brexit.

1.4 As with any report of this type, the exercise is inevitably a point-in-time assessment. Whilst Lichfields has sought to incorporate the latest data available at the time of preparation, it is important to recognise that considerable uncertainty remains regarding the nature of Britain's long term relationship with the EU and the macroeconomic consequences of this.

1.5 The analysis contained within this report in relation to future employment land needs is intended to supplement, rather than supersede, the more detailed evidence-base presented within the 2016 ELR and should be read as an addendum to section 7.0 of the aforementioned document.

1.6 It should, however, be noted that this report does seek to provide a partial update to section 8.0 of the 2016 ELR (Demand-Supply balance) by amending a small number of site-specific recommendations in order to take account of recent changes in circumstance.

Scope of Commission

1.7 The focus of this report is on the employment space needs of the B class sectors outlined below. This reflects the approach adopted within the 2016 ELR:

- B1 Business (offices, research & development, light industry);
- B2 General Industrial; and
- B8 Storage and Distribution (wholesale warehouse and distribution centres).

1.8 The report considered future demand for B class employment land *and* floorspace. References to 'employment space' relate to both land and floorspace across all B class uses, unless otherwise stated. References to 'industrial space' relate to both land and floorspace across manufacturing and distribution uses.

1.9 Whilst the National Planning Policy Framework (NPPF) defines economic development as including a wider range of non-B class uses (such as retail, leisure and community facilities) an assessment of the demand for or provision of such uses is beyond the scope of this study.

1.10 The purpose of this report is, alongside the 2016 ELR, to provide evidence to support the development of SCC's Local Plan. It is not a policy or strategy document per se, but instead provides an evidence-based input in relation to specific planning or economic development policies being developed by the local authority.

2.0 Future Requirements for B Class Employment Space

2.1 This section is intended to be read alongside section 7.0 of the 2016 ELR and, for ease of reference, follows a broadly similar structure. It draws upon several forecasting methodologies, reflecting the requirements of Planning Practice Guidance (PPG), in order to consider future employment land needs in Sunderland.

Methodology

2.2 Paragraph 32 of the *Housing and Economic Development Needs Assessment* section of the PPG advises that *"local authorities should develop an idea of future needs based on a range of data which is current and robust."* In particular, it recommends that Plan makers consider a variety of forecasting techniques:

1 Sectoral employment forecasts and projections (labour demand);

2 Demographically derived assessments of future employment land needs (labour supply);

3 Analysis based on the past take-up of employment land and property and/or future property market requirements; and

4 Consultation with relevant organisations, studies of business trends and monitoring of business, employment and economic statistics.

2.3 Within this context, a number of potential future scenarios are considered within this section in order to provide a framework for assessing future B class employment space requirements in Sunderland over the 18 year period 2015 to 2033. The quantitative forecasting techniques applied clearly align with items 1-3 outlined above:

1 Post-referendum baseline employment forecasts **(labour demand)** produced by Experian Business Strategies in September 2016;

2 High level policy-on employment forecasts **(labour demand)** generated by Lichfields in order to capture the potential impact of the IAMP on the general market for commercial land and premises in Sunderland[1];

3 Consideration of **past take-up of employment land** based upon analysis undertaken by LSH; and

4 Estimated growth in the local **labour supply** – and the jobs and employment space that this could be expected to support – having regard to post-referendum population and housing growth projections developed by Edge Analytics on behalf of SCC.

2.4 All of the approaches outlined above have their own individual strengths and limitations. In order to be robust, however, the city's economic growth potential (and the likely demand for employment space) needs to be assessed under a variety of future scenarios that reflect alternative growth conditions that could arise over the study period. In reconciling the various scenarios, consideration needs to be given, by SCC, to how appropriate each is to the particular circumstances and aspirations of Sunderland.

2.5 The ultimate judgement regarding the level of employment need that SCC should plan for is not, therefore, simply shaped by a consideration of quantitative analysis. Rather, a number of

[1] It should be noted that this scenario takes as its starting point the post-referendum Experian baseline. It also draws upon evidence contained within an updated IAMP Displacement Impact Paper, which takes into account the potential impacts of Brexit and was issued to SCC in October 2016.

qualitative factors must also be taken into account. These factors, which are considered at length within the 2016 ELR, were identified through an analysis of economic and market conditions – as well as through extensive consultation with economic stakeholders, commercial agents and local businesses (item 4 as outlined above). This intelligence has not been updated as part of this report. Clearly, however, the analysis contained within the 2016 ELR has an important role to play in assisting SCC in identifying an appropriate level of employment space to be planned for through the Local Plan.

a. Baseline Employment Forecast

2.6 In September 2016, SCC commissioned Experian Business Strategies to produce a baseline forecast of employment growth in the city over the 18 year period 2015 to 2033. These forecasts – disaggregated by sector – reflect recent trends and economic growth projections at the national and regional level, having regard to the UK's decision to leave the EU. They also take account of how sectors in Sunderland have performed relative to regional growth rates in the past.

2.7 The forecasts are not constrained by land supply. In addition, whilst stated government policy is considered by Experian in order to help frame the future macroeconomic outlook, the forecasts do not take account of any: local policy interventions; planned major developments; or infrastructure changes at the local/regional level.

2.8 Econometric forecasts of this nature tend to be most reliable at the regional and national level and less so when considering individual local economies. Nevertheless, they provide a valuable input in respect of understanding future land needs by indicating the broad scale and direction of economic growth in different sectors.

2.9 The Experian figures forecast an overall growth of 7,200 jobs (net) in Sunderland over the 18 year study period. This is equivalent to 400 additional jobs per annum, on average. Table 2.1 provides a summary of those sectors expected to experience the largest absolute increases and reductions in employment.

Table 2.1 Fastest Growing and Declining Sectors in Sunderland (2015-2033)

Sector	Use Class	Job Change (2015-2033)
Residential Care & Social Work		+2,900
Transport Equipment (Manufacture of)		+2,600
Health		+1,900
Education		+1,400
Finance		+800
Machinery & Equipment (Manufacture of)		+800
Retail		-700
Other Private Services		-700
Wholesale		-800
Metal Products (Manufacture of)		-800

Source: Experian (September 2016) / Lichfields analysis

Key: GREEN = B class sector ORANGE = Part B class sector RED = Non-B class sector

2.10 This analysis indicates that a number of sectors that would generally be expected to give rise to a requirement for B class space (Transport Equipment, Finance and Machinery & Equipment) are forecast by Experian to experience strong employment growth to 2033.

2.11 It should be noted, however, that whilst the baseline scenario assumes that strong employment growth potential exists with respect to Transport Equipment and Machinery & Equipment, this may ultimately be accommodated at the proposed IAMP rather than within the city's general stock of employment land. The implications of this in relation to future employment land need are considered in greater detail in relation to the policy-on job growth forecast.

2.12 The table also shows that a number of sectors where strong growth is forecast are unlikely to generate any significant requirements for B class space. This includes the sectors of: Residential & Social Care; Health; and Education.

2.13 Sectors forecast to experience the largest employment losses over the period to 2033 include: Retail; Other Private Services; Wholesale; and Metal Products. The latter two would typically be associated with a requirement for B class (industrial) space.

2.14 The total employment change in Sunderland – as projected by Experian under the baseline scenario – is shown in Table 2.2. The table includes an estimate of employment change in each of the B class sectors, which reflects an allowance for jobs in other non-B class sectors that generally use office or industrial space (see Appendix 1).

Table 2.2 Baseline Forecast Employment Change in Sunderland (2015-2033)

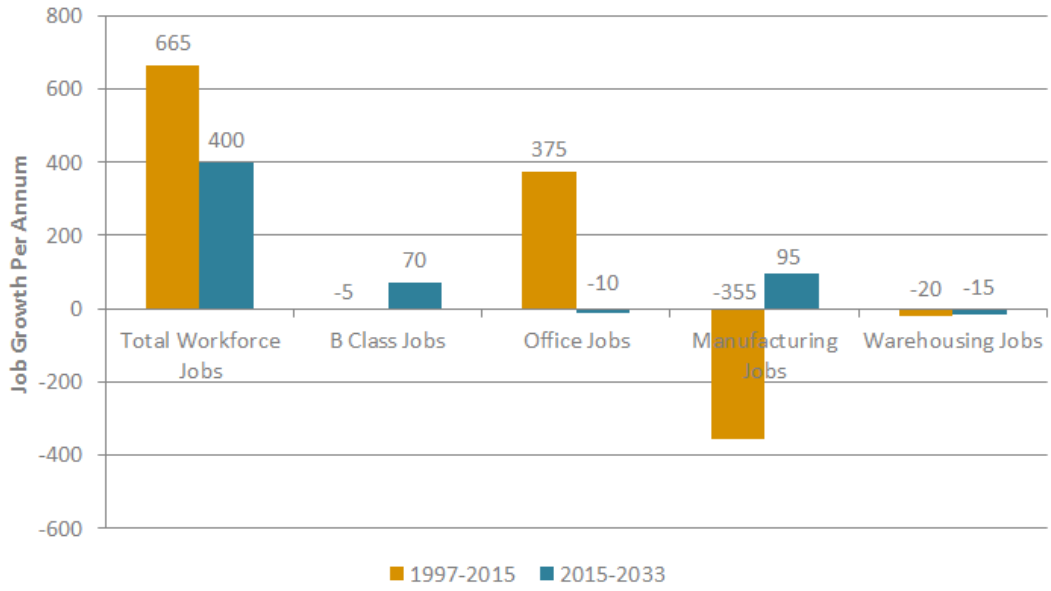
	Jobs (2015)	Jobs (2033)	Change (2015-2033)
Offices (B1a/B1b)	17,990	17,775	-215
Manufacturing (B1c/B2)	24,375	26,085	+1,710
Warehousing/Distribution (B8)	8,190	7,960	-230
Total B Class Jobs	**50,550**	**51,820**	**+1,270**
Total Jobs (All Sectors)	**132,400**	**139,600**	**+7,200**

Source: Experian / Lichfields analysis

2.15 The overall level of employment growth (+7,200) forecast by Experian corresponds to an average of 400 additional jobs per annum. This rate of growth is lower than the rates observed over the period 1997 to 2015 (665 additional jobs per annum).

2.16 Interestingly, however, Experian forecast that the performance of the B class sectors over the Plan period will exceed past trends. Indeed, B class employment is anticipated to increase by 70 additional jobs per annum to 2033. This compares with a marginal contraction of 5 jobs per annum between 1997 and 2015.

Figure 2.1 Annual Job Change Implied by Baseline Forecast vs Past Trends



Source: Experian / Lichfields analysis

2.17 The projected improvement in B class employment performance is anticipated – by Experian – to be driven by improvements in the industrial sectors (principally manufacturing). Having recorded job losses of 375 per annum (across manufacturing and warehousing uses) between 1997 and 2015, industrial jobs are expected to grow by an additional 80 jobs per annum over the Plan period. This represents a positive 'swing' of 455 jobs per annum in comparison with past trends.

2.18 In contrast, the Experian forecasts assume a significant decline in the performance of office-based sectors moving forwards. Over the period 1997 to 2015, office jobs across Sunderland increased by an average of 375 per annum. Looking to 2033, however, Experian forecasts a contraction of 10 jobs per annum.

2.19 The growth in B class employment anticipated under the baseline forecast has been converted into a net future employment space requirement by applying the following average employment densities:

- **Offices:** 1 job per 12.5sq.m, which corresponds to general B1a/b office space;
- **Industrial:** 1 job per 44.75sq.m as an average across B1c and B2 uses; and
- **Warehousing/Distribution:** 1 job per 65sq.m for general, smaller scale warehousing (assumed to account for 65% of future space) and 1 job per 80sq.m for large scale, lower density units (assumed to account for 35% of future space).

2.20 These assumptions differ slightly from those applied in the 2016 ELR. They are based upon the latest HCA guidance on employment densities, which was published in November 2015[2] - by which time Lichfields had already consulted with stakeholders on the emerging land requirements contained within the 2016 ELR. The guidance takes into account recent trends

[2] Based upon the HCA Employment Densities Guide (2015) and converted to Gross External Area and total workforce jobs by Lichfields

relating to the changing use of employment space, with the main change being the more efficient use of office space through practices such as hot-desking and flexible working.

2.21 An allowance of 10% is added to all positive floorspace requirements to reflect normal levels of market vacancy in employment space. Where a reduction in employment is forecast (e.g. offices and warehousing) the associated negative floorspace has been halved. This reflects the fact that whilst there may be ongoing job losses, it does not necessarily and automatically follow that all of the associated existing employment space will be lost.

2.22 Table 2.3 provides a summary of the net floorspace requirements, by use class, generated as a result of the methodology described above.

Table 2.3 Baseline Employment Forecast: Net Employment Space Requirements in Sunderland (2015-2033)

	Floorspace (sqm)
Offices (B1a/B1b)	-1,345
Manufacturing (B1c/B2)	84,245
Warehousing/Distribution (B8)	-7,970
Total	**74,925**

Source: Experian / Lichfields analysis

NB – figures may not sum due to rounding

b. Policy-On Employment Forecast

2.23 In addition to the baseline scenario described above, Lichfields were asked by SCC to consider the job growth and employment space implications of a policy-on scenario. This scenario took, as its starting point, the baseline employment forecasts produced by Experian in September 2016 and added to this dataset an allowance for the potential impact of the proposed IAMP development (as envisaged through the City Deal).

The IAMP Concept

2.24 The development of the International Advanced Manufacturing Park (IAMP) is central to the Sunderland City Deal. The overall vision for the project is to bring forward a large site to the west of Sunderland city centre (to the north of the Nissan car plant) with a focus on advanced manufacturing activity in the automotive and low carbon sectors. The site is expected to comprise of land within the local authority areas of Sunderland and South Tyneside.

2.25 The IAMP Area Action Plan (AAP) Publication Draft was published in August 2016, providing the planning policy context for the delivery of the site. The AAP anticipates that the development will result in the delivery of 260,000sq.m of floorspace on a site of 100ha, with a further 50ha safeguarded for possible future development.

2.26 In addition, it is understood that Government has announced that 25ha of land within the early phases of the IAMP will benefit from Enterprise Zone status.

Developing a Policy-On Forecast

2.27 It is important to note that it *is not* the purpose of this report (or the 2016 ELR) to assess the need for the IAMP, or the case for bringing the site forward for employment uses. The IAMP site is being progressed separately through the Nationally Significant Infrastructure Projects (NSIP) process. A detailed body of site-specific evidence has been compiled to support the preparation of the AAP. This report (and the 2016 ELR) focuses on the demand and supply

balance with respect to the stock of *general* employment land in Sunderland. Both documents assume that the IAMP will progress through the NSIP process as the Council anticipates.

2.28 Similarly, the policy-on scenario considered in the following paragraphs *is not* intended to assess the potential land take associated with the direct employment impacts of the IAMP. Rather, it seeks to understand the implications of the IAMP on the general demand for employment space in the city. The approach applied considers the likely impact of the IAMP with respect to B class employment change within Sunderland (but outwith the IAMP site) before adding this to the baseline employment forecasts considered under the baseline job growth scenario (scenario a). As a consequence, the policy-on employment figures discussed below should not be interpreted as a comprehensive estimate of total future employment growth in the city.

Projected Employment Change

2.29 It is estimated that the proposed IAMP development could create an additional 2,035 B class jobs in Sunderland[3] – over and above the level of growth forecast by the Experian baseline – over the period to 2033[4]. This figure *excludes* the direct jobs to be created at the IAMP site.

2.30 Appendix 2 explains, in detail, the methodology applied in order to calculate the additional B class jobs associated with the IAMP supply chain. In summary, however, the analysis takes account of: the level of direct employment anticipated at the IAMP; the type of activity (by use class) that the site could be expected to accommodate; and the strength of local supply chain linkages.

2.31 In order to avoid any double counting of direct jobs to be supported at the IAMP, projected employment growth in the Machinery & Equipment (+800) and Transport Equipment (+2,600) sectors have been removed from the level of baseline job growth.

2.32 It should also be noted that the level of employment growth projected to occur in these sectors is significantly higher in the September 2016 vintage of the Experian forecasts than in the spring 2015 dataset which underpinned the original ELR. This is particularly true with respect to Transport Equipment, which was previously forecast to *contract* by 120 jobs over the Plan period and is currently expected to *grow* by 2,600.

2.33 Based upon discussions with Experian it is understood that the growth prospects of the sector have been revised upwards having regard to two principal factors:

- Experian taking a more optimistic view regarding the growth prospects of the sector at the UK level; and
- An assumed increase in the share of UK growth to be captured by Sunderland[5].

2.34 Analysis of the IAMP proposals indicates that the manufacturing sector is expected to drive the creation of the additional 2,035 B class jobs in Sunderland. The anticipated distribution by use class is summarised below:

- Manufacturing (B1c/B2): 1,195 additional jobs.

[3] See Appendix 2 for detailed workings.
[4] It is acknowledged that the anticipated phasing of the IAMP project covers a period to 2026/27. To ensure consistency with the study period being considered within the ELR, however, this has been extended to 2033. No additional growth in the IAMP supply chain has been assumed beyond 2026/27, however.
[5] The historic data underpinning the spring 2015 forecast revealed that the Transport Equipment sector in Sunderland had outpaced the UK average by a considerable margin and Experian took a view that this would show signs of moderation moving forwards. However, the data available as of September 2016 showed that Sunderland has continued to surge ahead of UK wide trends. The continued robust growth at the local level, relative to UK trends, has prompted an upgrade in Experian's forecasts regarding the proportion of future UK growth to be captured within Sunderland.

- Offices (B1a/b): 585 additional jobs; and
- Warehousing/distribution (B8): 255 additional jobs.

2.35 Taking into account the anticipated supply chain impacts associated with the IAMP, as well as the underlying employment growth assumed within the baseline forecast (less Transport Equipment and Machinery & Equipment) it is anticipated that a contraction of 100 B class jobs could be anticipated under the policy-on scenario over the period 2015 to 2033. This is summarised in Table 2.4.

Table 2.4 Policy-On Employment Change by Use Class (2015-2033)

	Baseline Job Change (2015-33)[6]	IAMP Supply Chain Jobs	Policy-On Job Change (2015-2033)
Offices (B1a/B1b)	-215	+585	+370
Manufacturing (B1c/B2)	-1,690	+1,195	-495
Warehousing/Distribution (B8)	-230	+255	+25
Total B Class Jobs	**-2,135**	**+2,035**	**-100**

Source: Experian / Lichfields analysis

NB – figures may not sum due to rounding

2.36 Somewhat counter-intuitively, projected job growth under the Policy-On scenario is *lower* than under the Experian baseline. This is due to the removal of employment in the Transport Equipment and Machinery & Equipment sectors, as previously discussed.

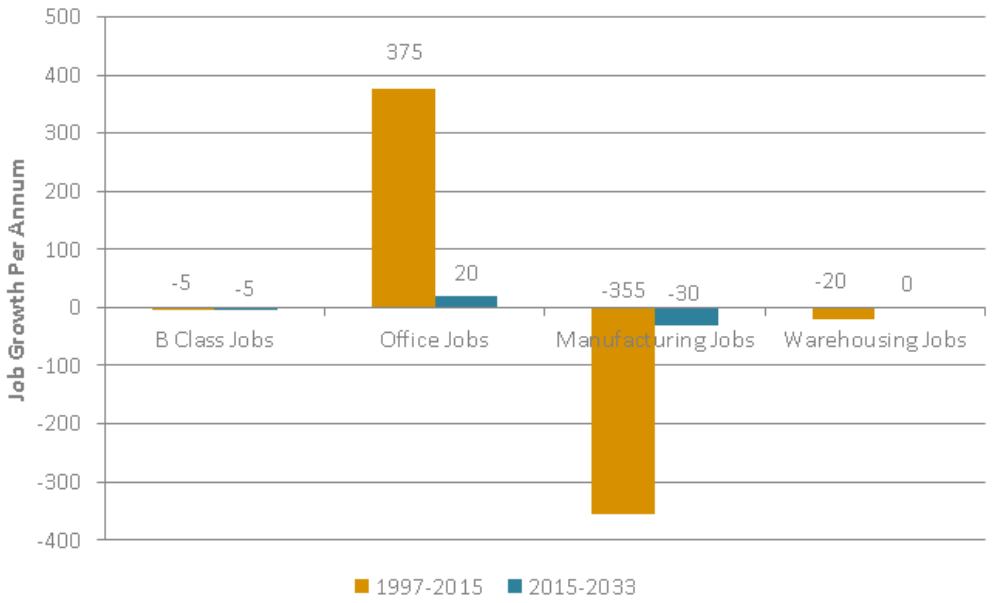
2.37 It should, however, be noted that the Policy-On scenario – and specifically the development of IAMP – is vitally important to Sunderland harnessing the opportunity which exists in relation to automotive and advanced manufacturing. Indeed, whilst the Experian baseline forecast assumes strong employment growth across both sectors, it is likely that much of this can only be achieved through the delivery of IAMP. This is because the city's current portfolio of employment land does not contain enough sites that meet the occupier requirements – in terms of scale and location – that IAMP is intended to directly address. As referenced at Paragraph 2.29, the Policy-On scenario does not take account of the direct B class jobs that could be accommodated on the IAMP site. Making an allowance for the direct job creation potential associated with the proposed development would suggest that, in reality, the Policy-On scenario provides the opportunity to deliver higher levels of *total* employment growth than the baseline position.

2.38 Figure 2.2 compares the Policy-On employment projections against past trends. From this it can be seen that the projected contraction of 100 B class jobs translates to approximately a decline of 5 jobs per annum. This aligns with the change in B class employment observed between 1997 and 2015.

2.39 It can be seen from the graph, however, that the sectoral structure of future employment growth is forecast to be markedly different from past trends. Growth in the office sector, for instance, is expected to be considerably slower (20 jobs per annum) than past trends (375 jobs per annum). In contrast, the industrial sectors are projected to outperform past trends with respect to job change. Industrial employment contracted by an average of 375 jobs per annum between 1997 and 2015. Over the period 2015 to 2033, the sector is forecast to decline at a far slower rate, with an average contraction of just 30 jobs per annum.

[6] Excluding employment in Transport Equipment and Machinery & Equipment

Figure 2.2 Annual Job Growth Implied by Policy-On Forecast vs Past Trends



Source: Experian / Lichfields analysis

2.40 The change in B class employment anticipated under the policy-on scenario has been converted into net future employment space requirements using the same methodological approach outlined in relation to the baseline scenario. The resulting figures are summarised in Table 2.5.

Table 2.5 Policy-On Employment Forecast: Net Employment Space Requirements in Sunderland (2015-2033)

	Floorspace (sq.m)
Offices (B1a/B1b)	5,090
Manufacturing (B1c/B2)	-11,075
Warehousing/Distribution (B8)	1,930
Total	**-4,055**

Source: Lichfield analysis

c. Past Take-Up Rates

2.41 Because they reflect demonstrable market demand, as well as development patterns 'on the ground,' long term take-up rates can – in some instances – provide a reasonable basis for estimating future land needs. Completions data spanning a period of approximately 10 years or more should help to even out demand fluctuations over a business cycle. As such, they would ordinarily provide a reasonable starting point for estimating future needs in the event that supply has not been unduly constrained over the period.

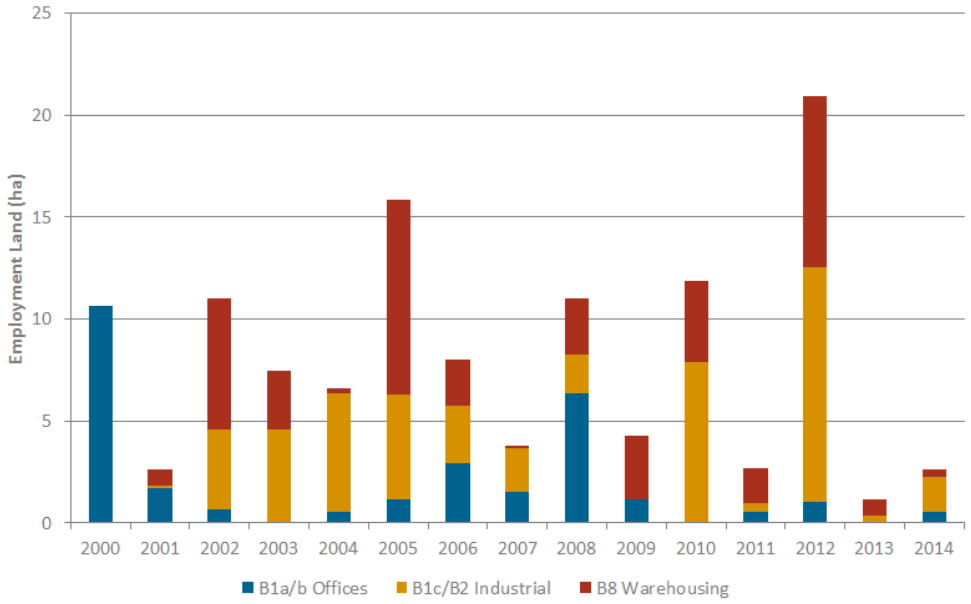
Gross Completions

2.42 The gross amount of land developed for B class employment uses in Sunderland over the period 2000 to 2014 (inclusive) is shown in Figure 2.3. This shows that 120.53ha of B class land was developed in the city over the 15 year period – equivalent to an average take-up rate of 8.04ha per annum.

2.43 Most of the new space delivered (76%) has been for industrial uses, with a more modest provision of office space, as summarised below:

- Manufacturing (B1c/B2): total take-up of 48.24ha (equivalent to 3.22ha per annum);
- Warehousing/distribution (B8): total take-up of 43.5ha (equivalent to 2.90ha per annum); and
- Offices (B1a/b): total take-up of 28.79ha (equivalent to 1.92ha per annum).

Figure 2.3 Gross Employment Land Take-Up by Use Class



Source: LSH / Lichfields analysis

2.44 As shown in Figure 2.3, the annual level of employment land delivered in the city has fluctuated considerably during the period, from a low of 1.17ha in 2013 to a high of 20.91ha in 2012. Interestingly, however, assessing average annual take-up rates over 5, 10 and 15 year time frames indicates little change in underlying levels of demand, with figures of 7.86ha, 8.22ha and 8.04ha recorded respectively. This would appear to suggest that demand for employment land in Sunderland has held up relatively well despite the recession and its legacy impacts.

2.45 Notwithstanding the above, Figure 2.3 does appear to suggest that take-up has become more 'lumpy' since the economic downturn of 2008/09, with more pronounced differences observed between peaks and troughs in market activity.

Net Completions

2.46 The employment forecasts considered elsewhere in this section express growth in net terms. In contrast, the take-up figures summarised above relate to gross development rates (as they include all instances of employment space delivery, without offsetting this against the redevelopment or recycling of employment sites). In order to ensure that all scenarios are considered on a consistent basis, therefore, it is necessary to remove any losses of employment land and assess the net take-up of employment space in Sunderland.

2.47 Based upon information provided to Lichfields by SCC, it is understood that a total of 49.14ha of employment land was lost to non-B class uses across Sunderland over the 10 year period 2005 to 2014 (inclusive). This corresponds to an average annual loss of 4.91ha per annum.

2.48 An analysis of the data shows that more than 80% (40.32ha) of all the B class land lost over the period was developed for residential use. Much of the remaining 8.82ha was accounted for by retail and leisure uses.

2.49 Net take-up rates are calculated by subtracting losses from gross take-up. During the 10 year period from 2005 to 2014 gross take-up averaged 8.22ha per annum and losses averaged 4.91ha per annum. This would suggest that the net delivery of employment land in Sunderland has averaged 3.31ha per annum over the past 10 years.

2.50 Based upon losses data provided by SCC, it is estimated that the net take-up derived above is broken down by use class as follows:

- Warehousing/distribution (B8): 1.68ha[7] per annum;
- Offices (B1a/b): 1.06ha[8] per annum; and
- Manufacturing (B1c/B2): 0.58ha[9] per annum.

2.51 All data regarding take-up and losses was provided to Lichfields on the basis of land take. Net take-up figures have subsequently been converted into floorspace figures – by Lichfields – using the same plot ratios outlined earlier in this section. This conversion exercise has been undertaken simply to ensure that the employment space estimates generated under the past take-up scenario are directly comparable with those derived using the labour demand and labour supply techniques considered elsewhere in this section.

2.52 The outputs of this exercise are summarised in Table 2.6.

Table 2.6 Past Take-Up of Employment Floorspace in Sunderland (2005 to 2014 inclusive)

	Average Annual Net Completions (sq.m.)
Offices (B1a/B1b)	4,240
Manufacturing (B1c/B2)	2,310
Warehousing/Distribution (B8)	6,685
Total	**13,235**

Source: SCC / LSH / Lichfields analysis

NB – figures may not sum due to rounding

Future Net Floorspace Requirement

2.53 One view of future growth in Sunderland could therefore be to simply assume that past development rates continue into the future. If it were assumed that past net completion rates were to continue over the 18 year study period, this would equate to an overall increase of 238,285sq.m of employment space, comprising of:

- 76,320sq.m of office (B1a/b) space;
- 41,615sq.m of manufacturing (B1c/B2) space; and
- 120,350sq.m of distribution and warehousing (B8) space.

d. Labour Supply Scenario

2.54 A labour supply scenario – underpinned by updated demographic modelling produced by Edge Analytics – has also been considered. It is understood that the demographic modelling provided to Lichfields relates to the Edge Analytics scenario that will underpin SCC's Objectively Assessed Housing Need.[10] It should, however, be noted that the data provided to Lichfields does not take

[7] Gross take-up (10 year period) of 3.32ha *less* losses of 1.64ha = 1.68ha
[8] Gross take-up (10 year period) of 1.53ha *less* losses of 0.47ha = 1.06ha
[9] Gross take-up (10 year period) of 3.38ha *less* losses of 2.80ha = 0.58ha
[10] The labour supply estimates are based upon Edge Analytics' 'Jobs-Led Experian Sens A (HH-14)' scenario

into account the household growth associated with the proposed delivery of IAMP or any uplift to adjust for market signals.

2.55 The demographic modelling estimates that Sunderland's total population will increase from 277,150 in 2015 to 293,666 in 2033. This represents an increase of 15,516 residents.

2.56 Having regard to likely changes in the age profile of the population and economic activity rates, Edge Analytics anticipate that the number of Sunderland residents in employment will increase by 5,491 (from 124,327 in 2015 to 129,817 in 2033) under such a scenario. Adjusting the figures to reflect Sunderland's position as a net importer of labour, it is anticipated that this would see the number of jobs in Sunderland rise by 5,700[11].

2.57 The assumptions provided to Lichfields, by Edge Analytics, have been used to estimate the level of employment space that this population change could be expected to support.

2.58 This approach reflects the most recent population projection work commissioned by SCC and provides a demographic-driven assessment of future labour supply[12]. The scenario presented by Lichfields does not consider the housing implications associated with this level of population growth.

2.59 Table 2.7 summarises the workplace labour supply in Sunderland that is anticipated under this scenario. This corresponds to an increase of 5,700 over the period 2015 to 2033. From this figure, the corresponding number of B class jobs was estimated. The methodology applied by Lichfields assumes that one additional job would be required for each additional worker, whilst also taking account of the structural change forecast under the baseline scenario in order to disaggregate the employment figures by use class.

Table 2.7 Forecast Labour Supply and Job Requirements (2015-2033)

	Total Change (2015–2033)	Average Per Annum (2015-2033)
Workplace Labour Supply	+5,700	+315
Office Jobs (B1a/b)	*-405*	*-20*
Manufacturing Jobs (B1c/B2)	*+1,385*	*+75*
Warehousing/Distribution Jobs (B8)	*-285*	*-15*
All B Class Jobs	**+695**	**+40**

Source: Edge Analytics / Lichfields analysis

2.60 This implies a need for 5,700 new jobs in Sunderland over the study period, which is equivalent to 315 new jobs per annum. The number of B class jobs is also forecast to increase, by 695 jobs (or 40 new jobs per annum).

2.61 It can be seen that B class growth is anticipated to be driven by the manufacturing sector, with contractions in employment forecast to occur in warehousing and office-based sectors. In broad terms, this reflects the structural pattern of demand projected under the baseline scenario.

2.62 The change in B class employment projected under the labour supply scenario can be translated into an estimated requirement for B class employment space. This is done by applying the same employment densities used in the labour demand scenarios considered above and adding a 10%

[11] This has been derived by applying a commuting ratio of 0.9633 (consistent with the POPGROUP modelling outputs) to data for 2015 and 2033.

[12] It should, however, be noted that Edge Analytics and SCC Officers advise that this level of population growth is fully aligned to meet the level of jobs growth projected within the Experian baseline forecast. The level of employment growth generated by Edge Analytics, however, differs from the 7,200 jobs forecast by Experian – this is due to the use of different job measures within the POPGROUP and Experian modelling frameworks

vacancy allowance to any positive requirements. Where a reduction in jobs is forecast for a particular use, the associated negative floorspace figure is halved.

2.63 In order to meet the needs of local workers and in-commuters (as projected under the Jobs-Led Experian Sens A (HH-14) scenario) Sunderland is forecast to require an additional 55,550sq.m of B class employment space between 2015 and 2033 (Table 2.8).

Table 2.8 Net Employment Floorspace Requirement from Labour Supply Growth (2015-2033)

	Floorspace (sq.m)
Offices (B1a/B1b)	-2,515
Manufacturing (B1c/B2)	68,165
Warehousing/Distribution (B8)	-10,095
Total	**55,550**

Source: Lichfields analysis

2.64 This labour supply-based estimate provides a benchmark for comparison against those scenarios based upon the demand for labour (i.e. the baseline and policy-on employment forecasts) and the demand for employment space (i.e. past take-up rates).

Net Employment Space Requirements

2.65 Table 2.9 draws together the preceding analysis. It provides a summary of net floorspace requirements to 2033, as identified under each of the scenarios considered above.

Table 2.9 Net Floorspace Requirements in Sunderland by Scenario to 2033 (sq.m)

	a. Baseline Job Growth	b. Policy on Job Growth	c. Past Take-Up Rates	d. Labour Supply
Offices (B1a/B1b)	-1,345	5,090	76,320	-2,515
Manufacturing (B1c/B2)	84,245	-11,075	41,615	68,165
Warehousing/ Distribution (B8)	-7,970	1,930	120,350	-10,095
Total	74,925	-4,055	238,285	55,550

Source: Lichfields analysis

2.66 The forecast net space requirements range from a need for -4,055sq.m of space under the Policy-On scenario to an additional 238,285sq.m on the basis of past take-up rates.

Net to Gross Adjustments

Safety Margin

2.67 In order to estimate the overall level of employment space that should be planned for in allocating sites – and to give some flexibility in provision – it is common practice to add an allowance as a safety margin. This margin is a contingency factor, providing an additional land buffer to allow for: delays in some sites coming forward; uncertainties in the forecasting process; and to ensure that a reasonable choice of sites is offered to developers and occupiers.

2.68 For the purposes of this exercise, a safety margin equivalent to three years of net take-up has been applied. This is considered appropriate, taking into account: the current scale of supply (in purely quantitative terms); the role and function of Sunderland as a key employment location within the North East Combined Authority context; and the presence of several distinct market areas within the local authority area.

2.69 On the basis of the above, the margins set out in Table 2.10 have been added to the net space requirements for the relevant B class uses.

Table 2.10 Safety Margin Allowances by Use Class

	Average Annual Net Take-Up (sq.m)	Safety Margin Added (sq.m
Offices (B1a/B1b)	4,240	12,720
Manufacturing (B1c/B2)	2,310	6,935
Warehousing/ Distribution (B8)	6,685	20,060
Total	13,240	39,715

Source: Lichfields Analysis

NB Figures may not sum due to rounding

Replacement of Losses

2.70 In converting net requirements for employment space into gross requirements (i.e. the amount of space to be planned for and retained/allocated by SCC) an allowance is also typically made for some replacement of losses of existing employment space that may be developed over the Plan period for other (non B class) uses. This allowance seeks to ensure that sufficient space is re-provided to account for the employment space that is anticipated to be lost in future. It is intended to provide some protection against the continued erosion of employment space throughout the city.

2.71 49.14ha of employment land in Sunderland was lost to non B class uses over the 10 year period 2005 to 2014 (inclusive). A continuation of this trend – with no allowance made for the replacement of land – would significantly reduce the available supply of land. This, in turn, would risk acting as a severe constraint to future growth in the study area.

2.72 Notwithstanding the above, it is acknowledged that not all losses need necessarily be replaced. Some losses will, for instance, reflect an element of restructuring in the local economy. As a result, it is necessary to have regard to locally specific factors in arriving at a judgement regarding the rate of replacement to be applied.

2.73 Mindful of the factors outlined below, it is considered that allowing for the replacement of losses at 66% of past trends is appropriate:

- Historic losses have not simply been characterised by the piecemeal development of small infill parcels of land on industrial estates, but also the loss of some comparatively large sites. Five developments of 4ha or more were recorded over the period 2005 to 2014. The loss of comparatively large sites has a potentially greater impact on the demand-supply balance at the market area level;
- Losses have been observed throughout the local authority area, rather than being focused in a particular market area[13]. In addition, losses have been most pronounced in Washington, where market interest has traditionally been strongest and where the demand-supply balance is understood to be particularly tight; and
- The rate of losses appears to have increased significantly in recent years. Data for a 10 year period has been provided to Lichfields. Recorded losses averaged 1.52ha during the first 5 years, rising to 8.30ha during the final 5 years. Whilst an analysis of current pipeline losses does not suggest that this higher rate of losses is likely to be sustained over the plan period (and a longer time series is generally preferable in order to smooth out any short term

[13] 24.9ha in Washington, 12.96ha in Coalfield and 11.26ha in North and South Sunderland (viewed by commercial markets as a single location)

fluctuations) there is a clear risk – given the current trajectory of recorded losses – that applying too great a discount factor to the 10 year average could result in a shortfall of land over the Plan period.

2.74 Losses across Sunderland have averaged 4.91ha per annum over a 10 year period. This corresponds to approximately 19,655sq.m of floorspace per annum (on the basis of a plot ratio of 0.4).[14]Including an allowance for losses at 66% of past rates therefore equates to some 12,975sq.m per annum (in total and disaggregated by use class according to past rates of activity) over the period 2015 to 2033.

Gross Employment Space Requirements

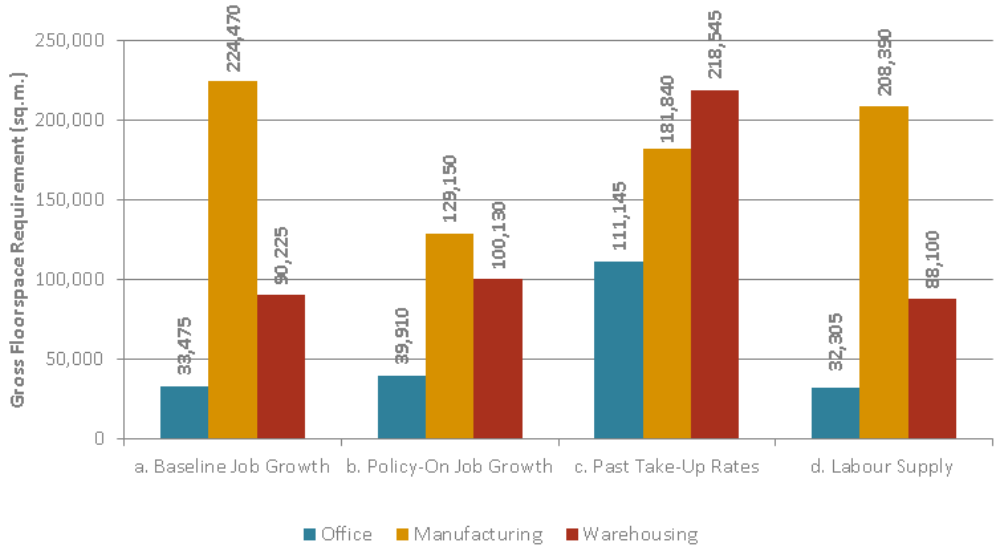
2.75 Gross employment space requirements have been calculated by adding a safety margin and an allowance for the replacement of losses (at 66% of past trends) to the net employment space requirements outlined in Table 2.9. The resultant estimates of gross floorspace need (by use class) are set out in Table 2.11 and Figure 2.4.

Table 2.11 Gross Floorspace Requirements by Scenario, 2015-2033 (sq.m)

	a. Baseline Job Growth	b. Policy-On Job Growth	c. Past Take-Up Rates	d. Labour Supply
Offices (B1a/B1b)	33,475	39,910	111,145	32,305
Manufacturing (B1c/B2)	224,470	129,150	181,840	208,390
Warehousing/ Distribution (B8)	90,225	100,130	218,545	88,100
Total	348,175	269,190	511,530	328,795

Source: Lichfields Analysis

Figure 2.4 Gross Floorspace Requirements by Scenario, 2015-2033 (sq.m)



Source: Lichfields analysis

[14] 4.914ha equates to a total area of 49,140sq.m. Applying a plot ratio of 0.4 (49,140*0.4) would indicate that this is likely to correspond to 19,655sq.m of employment floorspace.

2.76 The total floorspace requirements generated using the methodology outlined in the preceding paragraphs vary from 269,190sq.m (on the basis of the policy-on scenario) to 511,530sq.m (on the basis of a scenario predicated on past take-up rates). The lowest requirement corresponds to 53% of the requirement identified at the upper end of the range.

2.77 Looking at the requirements in more detail, it can be seen that the scale of difference – between the upper and lower bounds of the range identified – varies with respect to each individual use class:

- Office floorspace requirements vary from 32,305sq.m (under the labour supply scenario) to 111,145sq.m (under the past take-up scenario). The lowest requirement generated corresponds to 29% of the requirement identified at the upper end of the range;
- Manufacturing floorspace requirements vary from 129,150sq.m (under the policy-on scenario) to 224,470sq.m (under the baseline job growth scenario). The lowest requirement generated corresponds to 58% of the requirement identified at the upper end of the range; and
- Warehousing floorspace requirements vary from 88,100sq.m (under the labour supply scenario) to 218,545sq.m (under the past take-up scenario). The lowest requirement generated corresponds to 40% of the requirement identified at the upper end of the range.

Estimated Land Requirement

2.78 The gross floorspace requirements (derived above) have been translated – through the application of the following plot ratio assumptions – into gross land requirements:

- **Industrial:** a plot ratio of 0.4 was applied, so that a 1ha site would be needed to accommodate 4,000sq.m of employment floorspace; and
- **Offices:** it was assumed that 35% of new floorspace would be provided in higher density, city centre-style developments with an average plot ratio of 2.0, with 65% of space provided on lower density developments with a plot ratio of 0.4 (typically observed on business park environments). These assumptions were defined in consultation with LSH, having regard to: past trends; the availability of land on city centre sites such as Vaux and Farringdon Row; and a variety of qualitative considerations[15].

2.79 The resultant gross land requirements are set out (by use class) in Table 2.12 and Figure 2.5.

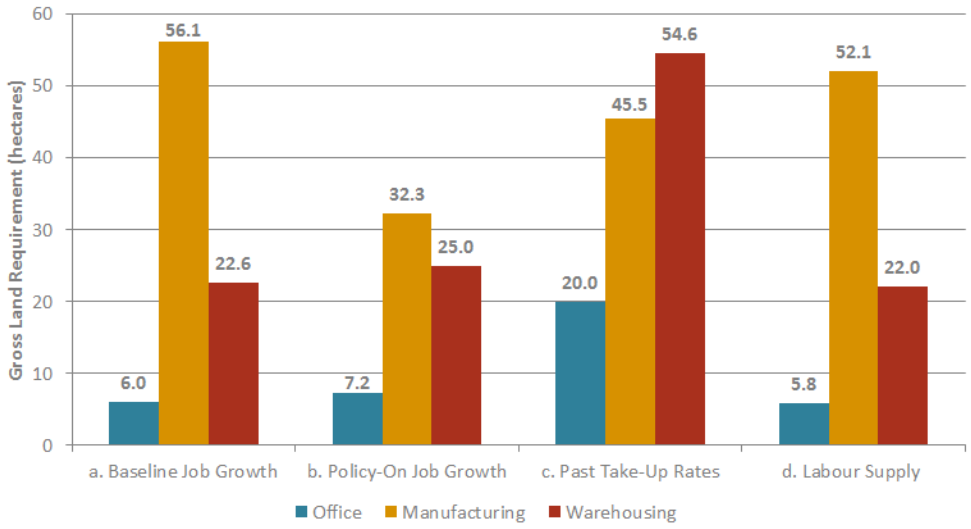
Table 2.12 Gross Land Requirement by Scenario, 2015-2033 (hectares)

	a. Baseline Job Growth	b. Policy-On Job Growth	c. Past Take-Up Rates	d. Labour Supply
Offices (B1a/B1b)	6.0	7.2	20.0	5.8
Manufacturing (B1c/B2)	56.1	32.3	45.5	52.1
Warehousing/ Distribution (B8)	22.6	25.0	54.6	22.0
Total	84.7	64.5	120.1	79.9

Source: Lichfields analysis

[15] It was agreed with LSH that it would be reasonable to assume that 10% of all ***land*** developed for offices would be in city centre locations. Taking into account the higher density of development assumed in city centre locations, this is estimated to correspond to 35% of ***floorspace***.

Figure 2.5 Gross Land Requirement by Scenario, 2015-2033 (hectares)



Source: Lichfields analysis

Sensitivity Testing: Gross Take-Up Data

Total Gross Take-Up

2.80 The past take-up scenario considered above uses – as its starting point – an estimate of net floorspace delivery rates. This is then adjusted (through the application of a safety margin and an allowance for loss replacement) to derive an estimate of future gross land needs. This approach is considered to be more consistent with the methodology applied in estimating future need under the labour demand (job growth) and labour supply scenarios.

2.81 An alternative approach to estimating future land needs using past take-up, however, would be to simply annualise past (gross) land take and project this forward over the study period. Analysis presented within the 2016 ELR demonstrates that take-up in Sunderland has remained remarkably consistent over short, medium and long-term time horizons. Indeed, analysis undertaken by LSH identifies the following rates of development:

- Short Term (5 years) 7.86ha p.a.;
- Medium Term (10 years) 8.22ha p.a.; and
- Long Term (15 years) 8.04ha p.a.

2.82 On the basis of the three alternative take-up rates outlined above, it is estimated that a continuation of historic rates of development could give rise to a need for between 141ha and 148ha of employment land over the period 2015 to 2033.

Gross Take-Up (Excluding Automotive Demand)

2.83 The take-up data (both net and gross) considered above in order to inform the assessment of future demand includes a number of developments in Sunderland that are related to the automotive manufacturing sector. Mindful of the development proposals at the IAMP, it is therefore instructive to consider the implications for the general employment land market in Sunderland of any future demand from the automotive sector being drawn to the IAMP (as opposed to the general stock of employment land).

2.84 It is important to note that the potential implications of the IAMP giving rise to a net reduction in demand for general commercial land and premises in Sunderland are presented below *in the*

interests of completeness only. This should not be interpreted as an indication or acknowledgement that such a scenario is considered to be likely to occur. Indeed, it is noted that the analysis compiled by external consultants in relation to the IAMP proposals indicates that the development could be expected to have a positive net effect on the demand for commercial land and premises in the city. Whilst it would appear reasonable to assume that future automotive development would gravitate towards the IAMP site itself, it must be recognised that there is a risk that investor enquiries from the sector may remain unsatisfied without the development of the IAMP site. The International Advanced Manufacturing Park Area Action Plan Commercial and Employment Technical Background Report (2016) states that:

"Evidence from Sunderland and South Tyneside Councils regarding recent investor enquiries is that the current land supply for large scale industrial development is insufficient to meet market demand. This is largely attributable to the lack of suitable large sites capable of being developed."

2.85 In addition, analysis commissioned by SCC assumes that any displacement within the local economy as a result of IAMP would be more than offset by increased activity in the associated supply chain:

"The scale of displacement within the automotive sector is likely to be limited since the majority of other major existing and planned employment locations do not have an automotive focus…Economic multiplier effects are expected to outweigh displacement effects when the full impacts of the IAMP are fully realised."[16]

2.86 One way in which to assess the potential impact of IAMP-related displacement being greater than anticipated is to consider the extent to which automotive development has contributed towards the demand for space in the local market.

2.87 As outlined in section 6.0 of the 2016 ELR, 120.53ha of employment land has been developed in Sunderland over the last 15 years. This is equivalent to 8.04ha per annum on average.

2.88 Analysis by LSH – presented within the 2016 ELR and reproduced in this document without any further update or interrogation – sought to identify those instances of take-up related to the automotive sector. This exercise relied primarily upon LSH's knowledge of the local market. It highlighted the nine developments listed below, accounting for a total of 24.32ha[17]:

- Magna Kensai (3.23ha) 2002;
- Esmar UK (4.58ha) 2003;
- Hankyu Cargo (2.58ha) 2003;
- Easter (2.24ha) 2006;
- Washington Business Centre (1.05ha) 2012;
- Vantec (8.38ha) 2012;
- Extension to TRW (1.09ha) 2014;
- Expert Tooling & Automation (0.63ha) 2014; and

[16] *International Advanced Manufacturing Park – Impact Analyses, Topic Paper: Employment Land*, Arup (2015)

[17] It is recognised that one cannot entirely dismiss the prospect of some additional, minor developments having been omitted from the list in error. This reflects the difficulty in accurately identifying the core business activity of the relevant occupier(s) for all commercial premises delivered over a 15 year period. Nevertheless, the level of data underpinning the exercise is considered to be appropriate and proportionate to inform the sensitivity testing process.

- Future Technology Centre (0.54ha) 2014.

2.89 Removing the developments listed above from an analysis of past take-up – in order to estimate the level of non-automotive demand for employment space in the city – would leave 96.21ha of land developed over a period of 15 years. This translates to an average of 6.41ha per annum. Projecting this level of demand forward over the 18 year period 2015 to 2033 would yield a requirement for 115.38ha of employment land.

2.90 In the event that all future demand for employment space from the automotive sector is accommodated by the proposed IAMP development – and assuming that this is not offset by any wider multiplier benefits – the analysis presented above would appear to indicate that the underlying demand for space within Sunderland is likely to remain healthy.

Summary

2.91 It is not the purpose of this document to identify a range that supersedes the 95ha to 115ha of future employment land requirements recommended within the 2016 ELR. Rather, this document is intended to provide an additional, supplementary layer of analysis to assist SCC in understanding the employment land implications of the latest post-referendum job growth and labour supply forecasts.

2.92 In comparison with the 2016 ELR, the analysis presented in the preceding paragraphs would appear to suggest:

- A lower level of general employment need under the Policy-On scenario;
- A marginally higher level of general employment need under the Baseline Job Growth and Labour Supply scenarios; and
- An unchanged requirement on the basis of past take-up.

2.93 The fall in employment land needs associated with the updated Policy-On scenario serves to drag down the overall range of requirements identified in this exercise relative to the outputs of the 2016 ELR. This downward pressure would suggest that – based upon the data available at the present time – Sunderland City Council may wish to consider planning for a level of demand towards the lower end of the previously derived range of 95ha-115ha.

2.94 It is important to note, however, that the post-referendum datasets underpinning this document represent a point in time assessment and that significant uncertainty remains regarding the likely terms of Brexit and the economic implications of this. As a consequence, the updated job forecasts from Experian should not be interpreted as the definitive position regarding the overall size and sector make-up of Sunderland's economy in a post-Brexit world. It therefore follows that a similar note of caution applies with respect to the land requirements derived from the updated datasets.

2.95 Having regard to the above, there would be merit in SCC giving consideration to commissioning further forecasts from Experian at a later date, as greater clarity regarding the terms of any Brexit deal emerges and begins to work its way through Experian's forecasting methodology.

3.0 Demand Supply Balance

3.1 This section provides a partial update to section 8.0 of the 2016 ELR, assessing future land needs against available supply in order to consider whether the city has sufficient land to meet demand to 2033. The level of supply suitable for retention has been refreshed, through a small number of site-specific recommendations in order to take account of recent changes in circumstance.

3.2 It should be noted, however, that it is beyond the remit of this exercise to identify a revised future employment land requirement for Sunderland. As such, the analysis below is presented having regard to a projected future need for between 95ha and 115ha of general employment land, as derived in the 2016 ELR.

Implied Supply

3.3 It is estimated that Sunderland has 130.87ha of employment land that is available to the general market. When considered against a future need for 95ha to 115ha of general employment land over the period to 2033, this would appear to suggest an oversupply of between 16ha and 36ha.

3.4 It is important to recognise that such analysis fails to reflect the fact that geographically some of Sunderland's local market areas suffer from significant shortages of employment land, whilst others appear to have too much relative to the scale of demand. This is demonstrated by Table 3.1, which compares the current supply of land against historic gross take-up rates in order to measure the implied supply for each market area.

Table 3.1 Analysis of Implied Supply by Market Area

Sub-Area	Available Land (ha)			Average Take-Up (2000-14) (ha p.a)	Implied Supply (years)
	Employment	Mixed-Use	Total		
Washington	46.80	0.00	46.80	5.46	8
Sunderland North	2.00	1.50	3.50	0.49	7
Sunderland South	45.31	6.92	52.23	0.97	53
Former Coalfield	28.34	0.00	28.34	1.12	25
Total	**122.44**	**8.42**	**130.87**	**8.04**	**16**

Source: LSH analysis

3.5 From the table, it can be seen that the supply of employment land is particularly tight in Washington and Sunderland North. In contrast, both Sunderland South and the Former Coalfield areas would appear to contain too much land at present. As identified within the 2016 ELR, commercial agents and occupiers do not generally distinguish between Sunderland North and Sunderland South – instead viewing the two locations as part of a single 'Sunderland City' market area. Adjusting the analysis in order to reflect this (by aggregating the data for Sunderland North and Sunderland South) would indicate the existence of an oversupply across this wider location.

3.6 Mindful of the spatial imbalances outlined above, the 2016 ELR sought to give some consideration to the balance between demand and supply within each market area of Sunderland.

Demand by Market Area

3.7 In accordance with the approach adopted within the 2016 ELR, demand at the local authority level has been disaggregated to the market area level in accordance with the spatial distribution of past take-up.

3.8 The limitations of this approach are acknowledged. However, discussions with LSH indicate that the take-up data collated as part of the 2016 ELR is considered to provide an accurate representation of the relative strength of demand in different parts of the city. In addition, this established pattern of demand is not expected to alter dramatically over the Plan period (unless shortages of employment land in locations such as Washington are not addressed, thereby constraining development activity).

3.9 The estimates of demand by market area, derived by applying the process described above to a requirement for between 95ha and 115ha, are shown in Table 3.2. It should be noted that these figures are presented as indicative estimates only. The final decision regarding the level of employment land demand to be planned for over the period to 2033 is to be taken by SCC, having regard to both this document and the 2016 ELR, as well as any other relevant considerations.

Table 3.2 Indicative Estimates of Demand by Market Area (2015-2033)

Sub-Area	Take-Up (2000-14)		Estimated Demand (ha)	
	Annual Average (ha)	% share	Lower Bound	Upper Bound
Washington	5.46	68	65ha	78ha
Sunderland North	0.49	6	6ha	7ha
Sunderland South	0.97	12	11ha	14ha
Former Coalfield	1.12	14	13ha	16ha
Total	**8.04**	**100**	**95ha**	**115ha**

Source: LSH and Lichfields analysis

3.10 From the table, it can be seen that the majority of demand over the period to 2033 is expected to be observed in Washington. Indeed, indicative estimates suggest that the need for general employment land in Washington could be in the order of 65ha to 78ha.

Demand-Supply Balance by Market Area

3.11 Table 3.3 draws together the indicative demand forecasts with an estimate of supply within each market area. Using this analysis, it is possible to get a clearer picture of the likely scale of under or oversupply within each location, relative to anticipated demand.

Table 3.3 Analysis of Indicative Demand and Supply by Market Area

Sub-Area	Total Supply (ha)	Estimated Demand (ha)		Indicative Over (Under) Supply (ha)
		Lower Bound	Upper Bound	
Washington	46.80	65ha	78ha	(18.20ha) to (31.20ha)
Sunderland North	3.50	6ha	7ha	(2.50ha) to (3.50ha)
Sunderland South	52.23	11ha	14ha	38.23ha to 41.23ha
Former Coalfield	28.34	13ha	16ha	12.34ha to 15.34ha
Total	**130.87**	**95ha**	**115ha**	**15.87ha to 35.87ha**

Source: Lichfields analysis

3.12 From the table, it can clearly be seen that the current supply of employment land in Washington is likely to be insufficient to meet future demand in the area. Indeed, the undersupply in this area could be in the order of 18.2ha to 31.2ha. Conversely, both Sunderland South and the Former Coalfield area appear to have too much land relative to demand. In order to bring demand and supply into alignment in the latter, it will be necessary to de-allocate between 12.34ha and 15.34ha of existing employment land.

3.13 The situation with respect to Sunderland South is more complex. At present the area would appear to have an oversupply of between 38.23ha and 41.23ha. However, it is understood that the market does not differentiate between Sunderland North and Sunderland South, viewing both as part of a wider 'Sunderland City' market. Even taking into account the modest undersupply of land Sunderland North, it would appear that a need for de-allocations exists (in Sunderland South) in order to balance demand and supply across the 'Sunderland City' market.

Potential for Release of Sites

Candidate Sites for Removal

3.14 The analysis presented in Table 3.3 suggests the existence of an oversupply of employment land (in quantitative terms) at the local authority level, as well as within the Sunderland South and Former Coalfield sub-areas. Within this context, it is clearly worthwhile identifying those sites that are considered unlikely to make a meaningful contribution to the city's economic aspirations.

3.15 Lichfields and LSH have identified 15 sites, accounting for 30.95ha of available employment land (net) that should be considered by SCC for potential removal from the city's forward supply. The sites – and the rationale underpinning their identification as candidates for removal from the supply – are considered, for each sub-area in turn, later in this section.

3.16 It is important to note that the recommendations have been shaped by an appreciation of the need to protect the diversity and quality of offer within the portfolio – as well as an acknowledgement that sites which may score poorly can often still serve an important role within the local economy. In identifying candidates for removal from the supply, therefore, Lichfields and LSH have not simply sought to focus on those sites with the lowest site assessment scores.

Further Policy Considerations

3.17 It is not the purpose of this report to identify a revised future employment land requirement for Sunderland. This is to be determined by SCC Officers, having regard to various evidence based documents, including this report and the 2016 ELR. Clearly, until the overall scale of demand to be planned for has been determined by SCC through the Local Plan process, it is not possible to accurately quantify the precise scale of oversupply in the city.

3.18 It therefore follows that it is beyond the remit of this document to identify a final recommended portfolio of sites for allocation within the Local Plan. Indeed, even allowing for the removal of the 15 sites referred to above, there may be a need for SCC to further rationalise the city's employment land supply. The scale of such need will be influenced by the final level of demand endorsed by the Council.

3.19 To assist SCC Officers in this process, this report identifies a number of sites that *could* provide further opportunities to reduce the supply of land. These opportunities largely fall into three categories and are presented for further consideration by the Council:

- 1) Sites that the Council may wish to consider re-allocating for alternative (non-B class) uses;
- 2) Sites where the Council may wish to reduce the overall quantum of employment land, by including an element of B class development as part of a wider mixed-use allocation; and
- 3) Sites where the Council may wish to consider revising the site boundary in order to allocate a smaller area of land for B class development.

3.20 It should be noted that the ultimate judgement for the inclusion or exclusion of a site from the employment land supply is a matter for the Local Planning Authority, taking into account a range of factors – including ones that may be outwith the ambit of this document. In this sense, the conclusion within this report on a particular site may not be the only consideration for how it is addressed in Sunderland's Local Plan. This holds true for both: sites recommended for removal; and sites identified for further consideration in finalising employment land policies.

Washington

3.21 The site assessment exercise undertaken as part of the 2016 ELR identified 46.80ha of employment land available in Washington. When considered against an indicative requirement for between 65ha and 78ha over the period 2015 to 2033, this highlights a potential shortfall of land in Washington.

3.22 Notwithstanding the above, the following sites are recommended for removal from the city's future portfolio of employment land on the basis of particular qualitative considerations:

- **Former Armstrong House – ELR58** (0.89ha): vacant former office premises, with the site visit undertaken by LSH indicating that the building has been heavily vandalised. It is understood that planning consent for the development of a foodstore on the site was granted in September 2015; and
- **Silverstone Road, Sulgrave – ELR73** (0.49ha): a wooded site that has been allocated and marketed for office development over an extended period of time, without attracting any significant interest.

3.23 Removing the sites would reduce the supply of available land in Washington to 45.42ha. This is significantly lower than an indicative requirement for between 65ha and 78ha of employment land over the period 2015 to 2033 and would appear to suggest a need for SCC to consider additional allocations to serve the Washington market.

Sunderland North

3.24 The site assessment exercise undertaken as part of the 2016 ELR identified 3.50ha of available employment land in Sunderland North. Whilst this is insufficient to meet an indicative requirement for 6ha to 7ha over the period 2015 to 2033, it is important to recognise that any possible 'shortfall' is more than offset by the excess supply within Sunderland South.

3.25 No employment sites are recommended for removal from the city's future portfolio of land.

Further Policy Considerations

3.26 Notwithstanding the above, it is suggested that Council Officers may wish to give consideration to adopting a more flexible approach to future development on **Sunderland Enterprise Park East**. This 0.60ha site, formerly the Austin Pickersgill offices, has now been demolished to slab. The site assessment exercise concluded that the site performs poorly with respect to: site characteristics and physical constraints; barriers to development; and sequential status. In addition, it is understood that hotel development has been proposed on the site in the past.

Taking all of the above into account, it is suggested that SCC consider the merits of re-allocating the site as a mixed-use development opportunity.

Sunderland South

3.27 The site assessment exercise undertaken as part of this ELR identified 52.23ha of available employment land in Sunderland South. This would appear to represent an oversupply when considered against an indicative requirement for between 11ha and 14ha over the period 2015-2033.

3.28 Within this context, the following sites are recommended for removal from the city's future portfolio of employment land:

- **West of Petrol Filling Station, Pallion New Road – ELR3** (0.24ha): it is understood that the road widening proposed as part of the Sunderland Strategic Transport Corridor will take in this parcel of land. As a result, the site will no longer be available for employment development;
- **Lisburn Terrace adjoining Former Corning Site – ELR3** (0.60ha): the site is currently occupied by dilapidated workshops that have reached the end of their useful life and is located between new housing development and an existing bingo hall. Mindful of the oversupply of employment land in Sunderland South, it is recommended that the site is removed from the city's future supply;
- **West of Luxembourg Road (1) – ELR19** (0.62ha): the site is located adjacent to allotments and is understood to be landlocked, making the delivery of the site challenging; and
- **Sea View/Stockton Road, Ryhope – ELR27** (16.37ha): this is a major, long-standing allocation that has remained undeveloped in its entirety. It is understood that, in part, the lack of activity is a result of the landowner's reluctance to sell the site. An outline planning application has been submitted for residential development on the site. Taking this into account – and recognising the oversupply of employment land in Sunderland South, it is considered difficult to accept that there is a reasonable prospect of the site coming forward for employment uses over the Plan period.

3.29 Removing these sites would reduce the supply of available land in Sunderland South to 34.40ha. This remains far higher than the indicative requirement for the area. It is acknowledged that a modest undersupply of land exists in Sunderland North and that sites in Sunderland South could help to address this, given that the market does not distinguish between the two locations. Nevertheless, it is considered that additional reductions in the supply of land in Sunderland South are required. Further opportunities to rationalise the portfolio of land in the area are presented – for consideration by SCC Officers – in the following paragraphs.

Further Policy Considerations

3.30 Having regard to the oversupply of land in Sunderland South, it is suggested that SCC Officers give further consideration to the future role of – and policy approach to be applied to – the following sites:

- **Former Purdy House, Wellmere Road – ELR 17** (3.32ha): it is understood that this site has stood vacant for a number of years. Lichfields is advised by SCC Officers that a timber yard is looking to take up the frontage of the site. This would leave the land to the rear landlocked, making delivery of the site challenging as a consequence. It may therefore be appropriate for SCC to consider re-allocating the site in full or in part (subject to the use class definition applied to the timber yard);

- **Former Corning Warehouse, Deptford Terrace – ELR 15** (2.50ha): SCC Officers have indicated that some uncertainty currently exists with respect to the future use of this site, whilst LSH have advised that viability issues may make its redevelopment for employment use difficult. As a consequence, and recognising the wider imbalance between demand and supply in South Sunderland, it may be appropriate for SCC to consider a mixed-use allocation on this site to provide greater flexibility moving forwards;
- **Russell St / West Wear St – ELR8** (0.47ha): the site is located in a mixed-use area, where industrial uses are likely to be inappropriate and where there is little need for further land to be identified for office development. It is suggested that SCC gives consideration to allowing the site to come forward without a B class employment component;
- **West of Silksworth Way, Silksworth Rd – ELR7** (0.75ha): the site is located in an area characterised by a mix of commercial uses and where the demand for office premises is considered to be weak. Based upon the above, and recognising the oversupply of employment land in Sunderland South, it is suggested that SCC gives consideration to allowing the site to come forward without a B class employment component;
- **East of North Moor Lane – ELR7** (0.50ha): the site is located in an area characterised by a mix of commercial uses and where the demand for office premises is considered to be weak. Based upon the above, and recognising the oversupply of employment land in Sunderland South, it is suggested that SCC gives consideration to allowing the site to come forward without a B class employment component;
- **East of Woodbine Terrace (3) – ELR4** (0.71ha): it is understood that the wider Pallion Riverside area is earmarked for mixed-use regeneration in the medium to long term. It is therefore suggested that SCC gives consideration to re-allocating this site for mixed-use development;
- **North of Woodbine Terrace (1) – ELR4** (1.73ha): it is understood that the wider Pallion Riverside area is earmarked for mixed-use regeneration in the medium to long term. It is therefore suggested that SCC gives consideration to re-allocating this site for mixed-use development;
- **South East Corner of Pennywell Ind Est – ELR18** (1.51ha): part of this cleared, former factory site has already been developed for non-B class commercial uses and it is understood that there are proposals for further commercial development on the remainder of the site. Taking this into account and mindful of the current oversupply in Sunderland South, it is suggested that SCC gives consideration to re-allocating this as a mixed-use site, in order to provide a more flexible approach to its future development;
- **East of Gasometers Depot, Spelter Works Rd (2) – ELR16** (1.90ha): the southern part of the Hendon employment area is characterised by large cleared sites, some of which are contiguous. At the southernmost end, planning consent has previously been granted for residential development. Having regard to the oversupply of land in Sunderland South, it is recommended that SCC gives consideration to whether further land in this area should be identified for housing development. Alternatively, SCC could allocate some or all of the sites as mixed-use sites. This will provide the necessary flexibility to ensure that any subsequent masterplan work remains unfettered by unduly restrictive planning designations; and
- **Gasometers (3) – ELR16** (2.19ha): the southern part of the Hendon employment area is characterised by large cleared sites, some of which are contiguous. At the southernmost end, planning consent has previously been granted for residential development. Having regard to the oversupply of land in Sunderland South, it is recommended that SCC gives consideration to whether further land in this area should be identified for housing development. Alternatively, SCC could allocate some or all of the sites as mixed-use sites.

This will provide the necessary flexibility to ensure that any subsequent masterplan work remains unfettered by unduly restrictive planning designations.

3.31 The analysis presented above would appear to suggest that – subject to further consideration by SCC Officers – scope exists to further reduce the supply of employment land in Sunderland South.

3.32 In addition, it should be noted that the 2016 ELR suggested the need for greater clarity in relation to two further sites (Barrack Street (3) and Disused Hendon Railway Sidings, Moor Terrace) and the extent to which they are required to support the future operational requirements of the Port. It is understood that subsequent discussions between SCC and the Port of Sunderland have indicated that the Port expect to require this land over the Plan period and it is therefore recommended that this is retained for the time being. It is considered unlikely that these sites will be attractive to the general market. As such, SCC should continue to monitor these sites closely and give consideration to de-allocating at a later date if it becomes clear that they are not required by the Port.

Former Coalfield

3.33 The site assessment exercise undertaken as part of the 2016 ELR identified 28.34ha of available employment land in the Former Coalfield area. This would appear to represent an oversupply when considered against an indicative requirement for between 13ha and 16ha between 2015 and 2033.

3.34 Within this context, the following sites are recommended for removal from the city's future portfolio of employment land:

- **Market Place, Allotments (3) – ELR87** (0.53ha): a small site situated below the level of the adjacent road. It is understood that the abnormal costs of delivery associated with the site and its location are likely to be high relative to its size, giving rise to some concerns regarding the deliverability of the land;
- **Market Place, Northern Extension (1) – ELR87** (1.41ha): the site is only accessible through neighbouring residential areas, which is expected to make the land unattractive to the market. Taking this into account – and recognising the need for de-allocations in the Former Coalfield area in order to address the existing over-supply – it is recommended that the site is removed from Sunderland's future portfolio of employment land;
- **Philadelphia, North of Gatehouse – ELR84** (0.77ha): part of a larger, multi-let complex with low occupancy rates. It is understood that the comprehensive redevelopment of the complex is proposed, which will result in this site no longer being available for employment development;
- **Philadelphia, South of Gatehouse – ELR84** (0.94ha): part of a larger, multi-let complex with low occupancy rates. It is understood that the comprehensive redevelopment of the complex is proposed, which will result in this site no longer being available for employment development;
- **New Lambton, East of Main Waste Transfer Station (6) – ELR85** (2.34ha): located within a poor quality industrial area, which largely comprises of very poor quality scrapyards and disused compounds. The Council's Site Status Report states that this parcel of land is *"about to be sold as part of a residential scheme for the whole estate"*. Within the SHLAA, the site is classified as being developable (for housing) within 6 to 10 years. It is therefore considered that it cannot be relied upon as part of the city's forward supply of employment land;

- **New Lambton, Former Main Waste Transfer Station (5) – ELR85** (0.56ha): located within a poor quality industrial area, which largely comprises of very poor quality scrapyards and disused compounds. The Council's Site Status Report states that this parcel of land is *"about to be sold as part of a residential scheme for the whole estate"*. Within the SHLAA, the site is classified as being developable (for housing) within 6 to 10 years. It is therefore considered that it cannot be relied upon as part of the city's forward supply of employment land;
- **New Lambton, Small Scrap Yard (4) – ELR85** (0.13ha): located within a poor quality industrial area, which largely comprises of very poor quality scrapyards and disused compounds. The Council's Site Status Report states that this parcel of land is *"about to be sold as part of a residential scheme for the whole estate"*. Within the SHLAA, the site is classified as being developable (for housing) within 6 to 10 years. It is therefore considered that it cannot be relied upon as part of the city's forward supply of employment land;
- **New Lambton, East of TKTCosyfoam (3) – ELR85** (0.50ha): located within a poor quality industrial area, which largely comprises of very poor quality scrapyards and disused compounds. The Council's Site Status Report states that this parcel of land is *"about to be sold as part of a residential scheme for the whole estate"*. Within the SHLAA, the site is classified as being developable (for housing) within 6 to 10 years. It is therefore considered that it cannot be relied upon as part of the city's forward supply of employment land; and
- **Sedgeletch, North of Blackthorn Way (1) – ELR 77** (4.56ha): Lichfields is advised by SCC Officers that this site has been assessed favourably (available in 1-5 years) within the Council's 2016 Strategic Housing Land Availability Assessment and an outline application has recently been submitted for up to 138 new homes (16/01687/OUT). LSH advise that the potential loss of this parcel of land would still leave a number of small plots in Fencehouses (on the Sedgeletch and Dubmire Industrial Estates) which would be capable of meeting local demand, whilst sites capable of satisfying larger requirements would remain at Rainton Bridge.

3.35 Removing these sites would reduce the supply of available employment land in the Former Coalfield area to 16.60ha. This is slightly higher than the upper bound of the indicative requirement for the area. Mindful of this, SCC Officers may wish to explore opportunities for further reductions in supply – albeit on a modest scale – particularly if the Council ultimately decides to plan for a level of demand towards the bottom end of the 95ha to 115ha range identified in the 2016 ELR.

Further Policy Considerations

3.36 It is suggested that Council Officers may wish to give consideration to reducing the quantum of land allocated for B class employment uses at **East of Cherry Way (1)**. Drawing upon the marketing particulars for the site, LSH estimate that the site currently comprises of 2.27ha of available land. Cognisant of the site's irregular shape, LSH have advised that it is unlikely that the site would be developed in its entirety. Taking this into account, and having regard to paragraph 3.35, it is considered unlikely that all of the land available would be required to meet Sunderland's future growth needs. It is therefore suggested that SCC may wish to consider the merits of de-allocating the rear of the site and removing this from the city's future portfolio of employment land.

Summary of Recommendations

3.37 Table 3.4 considers the impact of removing from the supply of employment land those sites identified for de-allocation. It is important to recognise that, in some instances, the adjusted supply estimates presented within the table will not – and should not – correspond with the

supply of employment land to be taken forward and allocated by SCC in the emerging Local Plan. Indeed, the preceding paragraphs identify a series of policy choices that require further consideration by SCC in finalising the city's future supply of employment land. To ensure that this document does not pre-empt the outcome of these considerations, their potential impact has not been accounted for within Table 3.4.

3.38 It can be seen from the table that removing those sites identified for de-allocation would give rise to an adjusted supply of 99.92ha across the local authority area. This aligns with the lower end of the range of projected future need identified within the 2016 ELR (95ha to 115ha). It should be noted, however, that some spatial imbalances persist at the market area level. As a consequence, once the preferred level of demand at the local authority level has been confirmed SCC Officers should consider whether opportunities exist to ensure a better alignment between demand and supply at the market area level. In particular, interventions are likely to be required in order to:

- Reduce the supply of available land in Sunderland South; and
- Increase the supply of available land in Washington.

Table 3.4 Summary of Recommendation

	Washington	Sunderland North	Sunderland South	Former Coalfield	Total
Current Supply of Land	46.80ha	3.50ha	52.23ha	28.34ha	130.87ha
Less Suggested De-Allocations	1.38ha	-	17.83ha	11.74ha	30.95ha
Adjusted Supply	45.42ha	3.50ha	34.40ha	16.60ha	99.92ha
Indicative Estimate of Demand	65ha to 78ha	6ha to 7ha	11ha to 14ha	13ha to 16ha	95ha to 115ha

Source: Lichfields analysis

Appendix 1: Defining B Class Sectors

The method for re-categorising the Experian employment forecasts by sector into B class uses is summarised overleaf.

Figures marked with an * have been derived using an analysis of data from the Business Register and Employment Survey in order to ensure that the analysis reflects the structure of the local economy.

Experian Sector	Proportion of Jobs by Use Class		
	B1a/b Office	B1c/B2 Industrial	B8 Warehousing
Agriculture, Forestry & Fishing	Non-B Class		
Extraction & Mining	Non-B Class		
Food, Drink & Tobacco	0%	100%	0%
Textiles & Clothing	0%	100%	0%
Wood & Paper	0%	100%	0%
Printing and Recorded Media	0%	100%	0%
Fuel Refining	0%	100%	0%
Chemicals	0%	100%	0%
Pharmaceuticals	0%	100%	0%
Non-Metallic Products	0%	100%	0%
Metal Products	0%	100%	0%
Computer & Electronic Products	0%	100%	0%
Machinery & Equipment	0%	100%	0%
Transport Equipment	0%	100%	0%
Other Manufacturing	0%	100%	0%
Utilities	0%	8%*	0%
Construction of Buildings	Non-B Class		
Civil Engineering	Non-B Class		
Specialised Construction Activities	0%	41%*	0%
Wholesale	0%	27%*	73%*
Retail	Non-B Class		
Accommodation & Food Services	Non-B Class		
Land Transport, Storage & Post	0%	0%	71%*
Air & Water Transport	Non-B Class		
Recreation	Non-B Class		
Media Activities	100%	0%	0%
Telecoms	100%	0%	0%
Computing & Information Services	100%	0%	0%
Finance	100%	0%	0%
Insurance & Pensions	100%	0%	0%
Real Estate	100%	0%	0%
Professional Services	100%	0%	0%
Administrative & Supportive Services	25%*	0%	0%
Other Private Services	Non-B Class		
Public Administration & Defence	10%	0%	0%
Education	Non-B Class		
Health	Non-B Class		
Residential Care & Social Work	Non-B Class		

1.0 Appendix 2: Methodology Note (Policy-On Employment Forecast)

1.1 This Note provides a summary of the methodology applied in developing a policy-on employment forecast in order to inform a Post-EU Referendum Update to the Sunderland Employment Land Review (ELR). It should be noted that the analysis seeks to estimate projected growth in B class employment only within Sunderland. This reflects the fact that the purpose of the ELR is to assess the demand for and supply of B class employment space in the local authority area. As such, the figures should not be interpreted as a comprehensive estimate of employment growth in the city.

1.2 Furthermore, it should also be noted that the methodology detailed in this note draws heavily upon the assumptions that underpin the comprehensive body of evidence commissioned by Sunderland City Council to inform the development of the IAMP proposals. Lichfields has not sought to verify or challenge these assumptions. As such, any queries relating to the analysis taken from the IAMP Strategic Business Case or the various IAMP Impact Papers should be directed to the authors of the source documents referenced within this note.

1.3 In general, high level terms, the methodology applied by Lichfields in deriving a policy-on forecast seeks to understand the supply chain jobs that will be supported in Sunderland by the IAMP proposals. These jobs have then been added to the baseline employment growth forecast by Experian. In order to estimate the supply chain impacts, it is first necessary to quantify the level of net direct employment to be supported at the IAMP site.

1.4 It is important to acknowledge, however, that the direct employment impacts of the IAMP have been stripped out of the employment figures used to model the need for employment land under the policy-on scenario. This is because an assessment of the need for the IAMP, and the potential land take associated with the direct employment to be supported on the site, is beyond the scope of this ELR. The IAMP site is being progressed separately through the NSIP process with a detailed body of site-specific evidence being compiled to support the application.

IAMP: Gross Direct Employment

1.5 It is understood that the IAMP is anticipated to accommodate 5,228 gross direct B class jobs[1] once the site is fully developed out and operational, comprising of[2]:

[1] It is understood that a further 323 non-B class are anticipated (as set out in paragraph 3.1.1 of the *Impact Study – International Advanced Manufacturing Park, Impact Paper Update 2016: Displacement).* The non-B class jobs have not been considered as part of this exercise however, which is focussed on understanding the city's future need for B class space

[2] Source: Table 3.3 of *Impact Study – International Advanced Manufacturing Park, Impact Paper: Displacement*

- 1,397 office jobs (27%); and
- 3,831 industrial and warehousing jobs (73%).

1.6 The figures presented above are understood[3] to relate to full-time equivalent (FTE) jobs, rather than headcount jobs. In addition, they cover the IAMP site in its entirety, which is anticipated to include land within the local authorities of Sunderland and South Tyneside. For the purposes of constructing a policy-on scenario, it is necessary to isolate those direct jobs to be accommodated on land within Sunderland.

1.7 In accordance with the approach adopted in undertaking the 2016 ELR, it has been assumed that approximately 60% of the total IAMP site would be situated within the Sunderland local authority area. This is consistent with the analysis contained within the IAMP Area Action Plan (AAP). It is important to note, however, that this proportionate split has simply been applied as a working assumption to inform the development of the policy-on scenario. It is not intended to pre-empt or prejudice the planning process as it relates to the IAMP.

1.8 Cognisant of the above, it is considered reasonable to assume that approximately 60% of the direct jobs to be accommodated at the IAMP would be located within Sunderland. **The gross direct impact of the IAMP within Sunderland is therefore estimated to be in the order of 3,137 B class FTE jobs[4].**

IAMP: Net Direct Impacts

1.9 In translating gross employment impacts into net figures, the IAMP impact paper on displacement applies adjustments to take account of: leakage; and displacement. These are considered in turn below. Where necessary, the assumptions have been refreshed by Lichfields to ensure consistency with the Council's latest evidence-base position in relation to the IAMP.

Leakage

1.10 Leakage refers to the proportion of employment at the IAMP that could be expected to be taken up by individuals who reside beyond the area of impact (defined as the NELEP area). A 5% allowance for leakage is applied within the IAMP impact paper on displacement[5].

1.11 It is wholly appropriate to take leakage into account in assessing the net additional economic impact of the proposals. For the purposes of this exercise, however, it is not considered necessary or appropriate to include an allowance

[3] Based upon discussions with Edge Economics
[4] 5228 * 60% = 3,137
[5] This is consistent with paragraph 3.12 of the *Impact Study – International Advanced Manufacturing Park, Impact Paper Update 2016: Displacement*

for leakage. The policy-on scenario is intended to understand the number of jobs to be created in Sunderland – and to translate this into an employment space requirement – rather than the extent to which these jobs will be occupied by local residents. At a simplistic level, a manufacturing business seeking to expand or locate in Sunderland will require employment premises in the city, irrespective of how many members of staff choose to live in Gateshead, South Tyneside, Durham and beyond.

1.12 Taking into account the above, no adjustment for leakage has been applied by Lichfields. This is not, however, considered to be inconsistent with the work underpinning the IAMP impact paper with respect to displacement.

Displacement

1.13 Displacement refers to the proportion of outputs accounted for by reduced outputs elsewhere in the area of impact. The IAMP impact paper on employment land provides a detailed assessment of the total displacement impacts of the development proposals, disaggregating the impacts by local authority area. The analysis indicates that displacement effects will be concentrated within the local authorities of Sunderland and South Tyneside.

1.14 By assessing a central scenario and a worst case scenario, the impact paper concludes that between 186 and 373 FTE jobs could be displaced within Sunderland as a result of the IAMP development[6].

1.15 Adopting the level of displacement assumed under the worst case scenario would suggest that **the net direct impact of the IAMP within Sunderland could be in the order of 2,764 FTE jobs**[7]. The analysis undertaken by Lichfields has applied the worst case estimate of displacement in order to minimise the risk of over-estimating the impact of the IAMP on the demand for general employment space in the city.

IAMP: Multiplier Impacts

1.16 The multiplier impacts refer to the additional 'spin-off' jobs generated across the wider economy by a development. Multiplier impacts can be quantified through the application of:

- A 'Type I' multiplier, capturing the indirect effects of development (i.e. the impact of increased demand within the supply chain) ; or
- A 'Type II' multiplier, capturing the indirect and induced effects of development (i.e. the impact of increased demand within the supply chain, as well as the impact of increased wage spending by direct and indirect employees).

[6] Source: Table 3 of *Impact Study – International Advanced Manufacturing Park, Impact Paper: Employment Land.* It is understood, from discussions with SCC officers, that this has not been updated subsequently

[7] 3,137 – 373 = 2,764

1.17 In this particular instance, a Type I multiplier has been applied by Lichfields. This is considered to be the most appropriate approach – given that the focus of this exercise is to identify the impact of the IAMP on the demand for general B class employment space in Sunderland – as it helps to isolate the indirect (supply chain) impacts of the development proposals. The approach is underpinned by an assumption that:

- Changes in indirect (supply chain) employment levels will likely be the key determinant of future demand for B class space in Sunderland. Indirect jobs are likely to be generated in a range of firms including (but not limited to) part manufacturers and logistics and distribution businesses, as well as business service functions; and
- Changes in induced employment levels will have little bearing on the demand for B class space in Sunderland. Induced employment effects will primarily be observed in the service sector, linked to increased wage spending by direct and indirect employees at the IAMP.

1.18 The IAMP impact paper on displacement[8] suggests that, at the NELEP area, the IAMP could be expected to give rise to an employment multiplier effect of 2.0.

1.19 During discussions with the consultancy practice responsible for the economic analysis contained within the IAMP displacement impact paper, it was suggested that in the order of 70% of the multiplier effects are likely to be observed at the Sunderland local authority level. This has been sensitivity tested by Lichfields and is considered to be appropriate[9].

1.20 The multiplier effect of 2.0 identified within the IAMP displacement paper is understood to comprise of two component parts:

- The direct impact: equivalent to 1.0; and
- The indirect impact (or multiplier effect): equivalent to 1.0.

1.21 Clearly, the direct impacts remain fixed regardless of the geography at which the proposals are being considered. In converting a multiplier figure from the LEP-level to the local authority level, therefore, it is only necessary to apply the appropriate discount factor to that part of the multiplier that is used to calculate the indirect impacts.

1.22 Having regard to the above, a multiplier of 1.7 has been derived in order to estimate the impacts of the IAMP at the Sunderland local authority level. This multiplier figure comprises of:

- The direct impact: equivalent to 1.0; and

[8] Source: Page 17 of *Impact Study – International Advanced Manufacturing Park, Impact Paper: Displacement.* It should be noted that paragraph 3.1.4 of the updated displacement analysis concludes that this assumption remains valid.

[9] English Partnerships' *Additionality Guide: Third Edition* includes indicative local and regional multipliers for B1, B2 and B8 activities. This suggests that impacts at the local authority area might be expected to equate to 65% of the regional figure.

- The indirect impact (or multiplier effect): equivalent to 0.7[10].

1.23 Applying a multiplier of 1.7 to the 2,764 net direct FTEs to be created at the IAMP (within Sunderland) would suggest that the development proposals could be anticipated to support the creation of a further **1,935 indirect FTE jobs in the local authority area**[11].

Policy-On: B Class Employment

Disaggregation by B Use Class

1.24 It has been assumed that the 1,935 indirect FTE jobs derived above will all fall within the B class sectors. In order to model the future need for employment land in Sunderland, however, it is necessary to disaggregate this figure to the core B class uses of: office (B1a/b); manufacturing (B1c/B2); and warehousing/distribution (B8).

1.25 Table 3.3 of the IAMP impact paper on displacement indicates that on-site employment is expected to be disaggregated as follows:

- Office jobs: 27%; and
- Industrial (B2/B8) jobs: 73%

1.26 In the absence of a detailed breakdown of the IAMP's anticipated supply chain, the headline supply chain impacts derived above have been been disaggregated in accordance with the proportionate distribution of direct jobs. On this basis, it is estimated that the 1,935 indirect FTE jobs will comprise of:

- 522 office (B1) jobs; and
- 1,413 industrial (B2/B8) jobs.

1.27 Clearly, further analysis is required in order to separate out B2 and B8 employment. The evidence compiled in relation to the IAMP by the Council's appointed consultancy team does not provide any further disaggregation in relation to employment. Table 1 of the *Sunderland and South Tyneside Strategic Employment Study (2013)* does, however, provide a more detailed breakdown of the distribution of employment space. The table indicates that, under the moderate or central scenario, automotive and advanced manufacturing activities might be expected to account for 83% of space, whilst distribution activities might be expected to account for 17%. This is shown in Table 1:

[10] 1.0 * 70% = 0.7
[11] 2,764 * 0.7 = 1,935

Table 1 Employment Space Requirements by Sector (Moderate Scenario)

	Land (ha)	% Share
Automotive	105.5	74%
Advanced Manufacturing/Engineering	13.4	9%
Distribution	23.5	17%
Total IAMP Requirement	**142.4**	**100%**

Source: Sunderland and South Tyneside Strategic Employment Study, PwC (2013)

1.28 In the absence of a more detailed breakdown of employment, the proportionate split by use class derived above has been adopted as a proxy measure. It is recognised that there are limitations to this approach. In particular, it is unlikely that plot ratios and employment densities will remain constant across the three sectors outlined above. However, it is an approach that is grounded in an appreciation of the broad balance between manufacturing and distribution activity anticipated at the IAMP.

1.29 Applying the proportionate split derived above to the 1,413 indirect FTE jobs forecast to be generated in the manufacturing and distribution sectors would imply the following breakdown:

- 1,173 manufacturing (B2) jobs; and
- 240 distribution (B8) jobs.

1.30 In summary, therefore, it is anticipated that the 1,935 indirect FTE jobs to be created by the IAMP within Sunderland will be distributed as shown below:

- 522 office (B1) jobs;
- 1,173 manufacturing (B2) jobs; and
- 240 distribution (B8) jobs.

Converting FTE Jobs to Headcount Jobs

1.31 It should be noted that, within the baseline economic forecast commissioned from Experian (September 2016), employment figures are presented on the basis of headcount (rather than FTE) jobs. To ensure that a consistent approach is applied to forecasting throughout the ELR, Lichfields has converted the 1,935 indirect FTE jobs derived above into a headcount employment figure.

1.32 Recognising that the ratio of full-time (FT) to part-time (PT) employment often differs by sector, the conversion exercise has been undertaken for each of the B class uses individually. The analysis has drawn upon data from the Business Register and Employment Survey (BRES). This has enabled Lichfields to identify those sectors (by SIC code) that might be expected to occupy B1, B2

and B8 space at the IAMP and to quantify the FT:PT split of employment in each sector at the local authority level.

1.33 Applying the approach outlined above, and assuming that one full-time position is equivalent to two part-time positions, it is estimated that:

- Offices[12]: 522 FTE jobs could be expected to correspond to 585 headcount jobs[13];
- Manufacturing[14]: 1,173 FTE jobs could be expected to correspond to 1,195 headcount jobs[15]; and
- Distribution[16]: 240 FTE jobs could be expected to correspond to 255 headcount jobs[17].

Estimating Total B Class Employment Growth

1.34 Based upon the methodology outlined above, it is estimated that the IAMP proposals could be expected, through the supply chain, to support the creation of 2,035 (headcount) B class jobs in the wider Sunderland economy (excluding the direct impacts to be supported on the site itself). Whilst this is an important consideration in constructing a policy-on employment forecast, it does not reflect the additional growth in the B class economy that might be expected to be delivered independently of the IAMP.

1.35 In order to understand the full extent of potential B class employment change under the policy-on scenario, therefore, Lichfields has added the indirect jobs associated with the IAMP to the baseline employment forecast provided by Experian.

1.36 It should be noted, however, that employment growth in the Machinery & Equipment (+800) and Transport Equipment (+2,600) sectors has been removed from the calculations in order to avoid any double counting of direct jobs to be supported at the IAMP.

1.37 This indicates that B class employment within Sunderland (excluding the direct employment impacts of the IAMP) could be anticipated to decrease by 100 jobs over the period 2015-2033. This is summarised in Table 2.

1.38 Somewhat counter-intuitively, projected job growth under the Policy-On scenario is lower than under the Experian baseline. This is due to the removal of employment in the Transport Equipment and Machinery & Equipment sectors in modelling the former.

[12] Defined for the purposes of this exercise as comprising of SIC codes 64, 65, 66, 68, 69, 70 and 73
[13] Based upon an FT:PT employment ratio of 79:21
[14] Defined for the purposes of this exercise as comprising of SIC codes 26, 27, 28, 29 and 30
[15] Based upon an FT:PT employment ratio of 96:4
[16] Defined for the purposes of this exercise as comprising of SIC codes 494 and 521
[17] Based upon an FT:PT employment ratio of 87:13

1.39 The Policy-On scenario – and specifically the development of the IAMP – is vitally important to Sunderland harnessing the opportunity which exists in relation to automotive and advanced manufacturing. Indeed, whilst the Experian baseline scenario assumes strong employment growth across both sectors, it is likely that much of this can only be achieved through the delivery of the IAMP. This is because the City's current portfolio of employment land does not contain enough sites that meet the occupier requirements – in terms of scale and location – that the IAMP is intended to respond to. In reality, therefore, the Policy-On scenario can be expected to deliver higher levels of total employment growth than the baseline position.

Table 2 Policy-On Employment Forecasts (2015-2033)

	Baseline Job Change (2015-33)[18]	IAMP Supply Chain Jobs[19]	Policy-On Job Change (2015-2033)
Offices (B1a/B1b)	-215	+585	+370
Manufacturing (B1c/B2)	-1,690	+1,195	-495
Warehousing/Distribution (B8)	-230	+255	+25
Total B Class Jobs	**-2,135**	**+2,035**	**-100**

Source: Lichfields analysis

[18] Excluding employment in Transport Equipment and Machinery & Equipment

[19] It is acknowledged that the phasing of the IAMP project (2018/19 to 2026/27) differs from the study period of 2015 to 2033 (which is also reflected in the baseline forecast). For the purposes of this forecasting exercise, no additional growth in the IAMP supply chain beyond 2026/27 has been assumed.

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