YOUR LONDON AIRPORT
Gatwick

Our northern runway: making best use of Gatwick

Preliminary Environmental Information Report
Appendix 16.6.2: Assessment of Population and Housing Effects
September 2021

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Executive Summary

This report assesses the population and housing effects of the operational employment generated by the Project. In particular, it looks at whether the future supply of labour generated by current and potential future plans for housing supply would be sufficient to accommodate the additional employment generated by the Project in its operational phase.

Approach

Economic forecasts provided by Cambridge Econometrics (CE) have been applied to generate an estimate of the underlying level of employment growth in the labour catchment area (plus contiguous local authorities in the same Housing Market Areas) around Gatwick. This comprises 17 local authority areas, covering much of Sussex and parts of Surrey, plus Croydon in Greater London[1]. Across this study area, CE forecasts a total of 1.31m jobs by 2038. Employment estimates produced by Oxera/ICF suggest the operational phase of the Project would result in a further c.16,000 workers (direct, indirect and catalytic) across the study area by 2038.

Demographic projections[2] and economic activity rate forecasts[3] have been applied within the industry-standard PopGroup model (software that produces demographic, housing and labour supply forecasts) to estimate the number of economically active people living in the area based on the number of homes planned for the study area in existing local plans. Where the plan period or housing trajectory expires before 2038 (most areas now have plans covering the period to 2031) average completion rates from that trajectory are extrapolated for the remainder of the period to 2038. Whilst this is an assumption, it is still a prudent one because, generally, the rates of housing growth are lower than those produced by the Government's standard methodology for calculating housing need (c.17,000 dwellings per year compared with c.10,000 per year in plans) which would apply to new local plans that are produced over coming years. The current labour force ratio (ie commuting ratio) has been applied to estimate the number of jobs that would be supported by the resident population (ie assuming the current balance of people commuting in and out of the area).

This approach enables a comparison to be made between labour demand (needed to support a given level of job growth) and labour supply (generated by a given level of housing growth), thereby identifying any shortfalls that may need to be 'made good' by changes in commuting or additional housing provision.

Outputs

In headline terms, current local plans provide for sufficient labour supply across the study area to meet CE estimates of future job growth and with sufficient 'surplus' to match the additional labour demand (direct, indirect and catalytic) generated by the Project. This is because the modelled labour demand to 2038 generated by CE forecasts (with direct, indirect and catalytic additional workers associated with the Project) is 86,000 whereas the labour supply likely to be generated by housing growth in existing local plans is c.120,000-166,000 (depending on the headship rate assumptions applied). Because this assessment of the employment impact of the Project is likely to be an over-estimate[4] and housing growth generated through new local plans coming through the system in the near future would almost certainly be higher, it is possible to conclude that there would be a sufficient surplus of labour in the study area to support employment growth associated with the Project.

To assess whether there are likely to be any localised 'pinch points', Table ES1 below summarises the position for each local authority in the study area for the key design years of 2024, 2029, 2032 and 2038. This shows that current local plan housing land supply trajectories are likely to support substantial surpluses of labour supply against CE forecasts even with the addition of the Project jobs in all but one authority by 2029 – the period where there can be high levels of confidence over housebuilding trajectories. Potential shortfalls are identified in Eastbourne, Epsom & Ewell and Chichester over the longer term, albeit these shortfalls are offset by surpluses in each authority's respective housing market area. Beyond 2030, when housing trajectories in the analysis are more likely to be extrapolated, the surplus is maintained across most authorities; in areas which may see a slight shortfall by 2038 this is also offset by surpluses in adjacent authorities which are in the same housing market area. For example, a potential shortfall in Chichester would be more than offset by authorities in the Coastal West Sussex housing market area, eg Arun, and a shortfall in Epsom and Ewell is offset by other parts of North West Surrey, eg Elmbridge and Mole Valley. In the long term (ie by 2038), it is reasonable to assume that current local plans would be reviewed and where necessary updated to reflect the Government's standard methodology for calculating housing need, which is likely to result in an increase in the rate of housing provision compared to current plans.

Table ES1: Summary of surplus/shortfall in labour supply by local authority - Cambridge Econometrics forecast (with additional Project jobs) compared with current housing trajectory

	2024	2029	2032	2038
Adur	2,545	2,706	1,497	1,935
Arun	5,911	11,535	11,981	16,797
Brighton and Hove	7,949	10,340	8,557	5,694
Chichester	2,382	2,051	187	-1,151
Crawley	5,781	5,198	2,939	2,564
Croydon	13,833	11,036	9,592	10,700
Eastbourne	208	-220	-750	-1,498
Elmbridge	1,639	931	739	554
Epsom & Ewell	493	176	95	-833
Horsham	5,058	6,014	3,815	6,778
Lewes	1,576	1,744	1,349	1,349
Mid Sussex	6,223	9,888	10,231	15,303
Mole Valley	2,515	3,520	3,660	4,532
Reigate and Banstead	3,398	3,114	2,975	3,618
Tandridge	1,792	1,770	1,643	1,782
Wealden	5,508	7,294	7,894	9,630
Worthing	1,638	2,452	1,902	3,056
Total	**68,449**	**79,549**	**68,305**	**80,811**

Source: Lichfields analysis

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[1] It should be noted that this report covers fewer authorities – 17 – than other geographies referred to elsewhere, such as the 'Five Authorities Area'.
[2] Based on official projections published by the Office for National Statistics (ONS)

[3] Based on labour market participation rates published by the Office for Budget Responsibility (OBR)
[4] It is assumed that all additional workers generated by the Project would be additional to the area, ie would need to be housed. In reality Oxera expect that some of these additional workers

would be those already living in the area, and the additional labour supply would be created due to reductions in unemployment, increases in economic activity and changes in commuting patterns

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1 Introduction

1.1.1 This report has been prepared by Lichfields on behalf of Gatwick Airport Limited (GAL) drawing on economic model inputs from Cambridge Econometrics and Oxera/ICF. It explores the specific issue of population and housing and the potential effects of the Northern Runway Project (referred to within this report as 'the Project').

1.1.2 The issue of population (and housing) was proposed to be scoped out of Environmental Impact Assessment (EIA) in the EIA Scoping Report, with paragraph 7.10.24 stating that:

"The Project does not propose any residential development and therefore it is not anticipated that it would directly give rise to population effects either during construction or operation, in terms of changing population levels within the assessment areas. Future labour demand will be distributed across a wide labour catchment area so no significant impacts on population levels or housing and community infrastructure needs are expected."

1.1.3 However, at ID 4.10.1 of its Scoping Opinion response, the Inspectorate advised that:

"The Scoping Report states that no residential development is proposed, therefore it is not anticipated that there would be any changes to population levels within the assessment area. It further states that future labour demand would be distributed across a wide labour catchment so no significant effects on population levels or housing and community infrastructure needs are expected. The Inspectorate does not consider that sufficient information has been provided to demonstrate that an increase in worker numbers, during both construction and operation, would not affect the demand for housing and community infrastructure. The Inspectorate therefore does not agree that effects on population (including impacts on the housing supply) can be scoped out of the assessment."

1.1.4 This report provides the background analysis to demonstrate that the Project would not have significant effects on population levels and housing during the operational phase.

1.2 Context

Study area

1.2.1 The study area covered by this report is shown in Diagram 1.2.1 and comprises a total of 17 local authorities surrounding Gatwick Airport. The study area used in this report is slightly larger than the Labour Market Area[5] and is significantly smaller than the Five Authorities Area[6] which are the other geographies referred to elsewhere in the Preliminary Environmental Information Report (PEIR). For this reason, figures (for example, job forecasts) for the study area referred to in this report will be slightly higher than comparable figures for the Labour Market Area and significantly lower than comparable figures for the Five Authorities area which may be quoted elsewhere in the PEIR, where the same source is referred to.

1.2.2 The study area used in this report encompasses:

- The 14 local authorities in the labour market area (Croydon, Reigate and Banstead, Tandridge, Mole Valley, Crawley, Horsham, Mid Sussex, Arun, Adur, Worthing, Brighton and Hove, Lewes, Wealden and Eastbourne);
- Elmbridge and Epsom and Ewell because these overlap into Mole Valley's housing market area[7]; and
- Chichester because this overlaps into the Coastal West Sussex housing market area (which covers Arun, Adur, Worthing, Brighton and Hove and Lewes).

1.2.3 Authorities which fall outside Gatwick Airport's labour market area but are in housing market areas which overlap into the labour market area are included because housing market areas are geographical representations of live-work patterns, ie they are typically the areas within which people look for housing when employed in a given area. Any potential housing impacts in Gatwick's labour market area (eg increases in housing demand due to job growth and labour demand) might therefore be expected to have a 'ripple out' relationship with these authorities (despite these authorities not being in Gatwick's labour market area).

Diagram 1.2.1: Study area
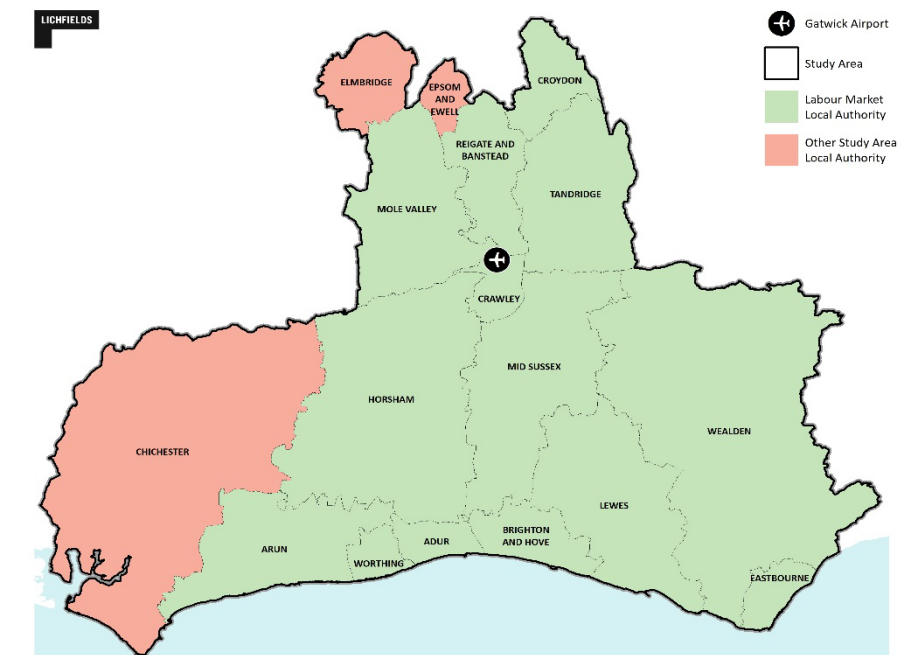
Source: Lichfields

Methodology

1.2.4 The assessment of future population, housing and job growth in this report uses industry-standard toolkit PopGroup. PopGroup is a family of demographic models (developed by University of Manchester and owned by the Local Government Association) to develop population, household and labour force forecasts. PopGroup incorporates a cohort component methodology for its population projection model, a headship rate model for its household projection model and an economic activity rate model for its labour-force projection model.

1.2.5 PopGroup is used by a large number of local authorities in the UK and has been subject to extensive enhancement and development over the last ten years. It is widely adopted by those preparing the evidence base for local plans to help establish estimates of housing need. Scenarios run through PopGroup can be either 'demographic-led' or constrained (eg 'housing-led' or 'jobs-led'):

- In demographic-led scenarios, the change in population between each year is calculated based on a starting population and given birth rates, death rates and levels (or

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[5] The basis for the Labour Market Area is set out in the PEIR Chapter 16 para 16.4.8 bullet 3.
[6] The basis for the Five Authorities Area is set out in the PEIR Chapter 16 para 16.4.8 bullet 4.
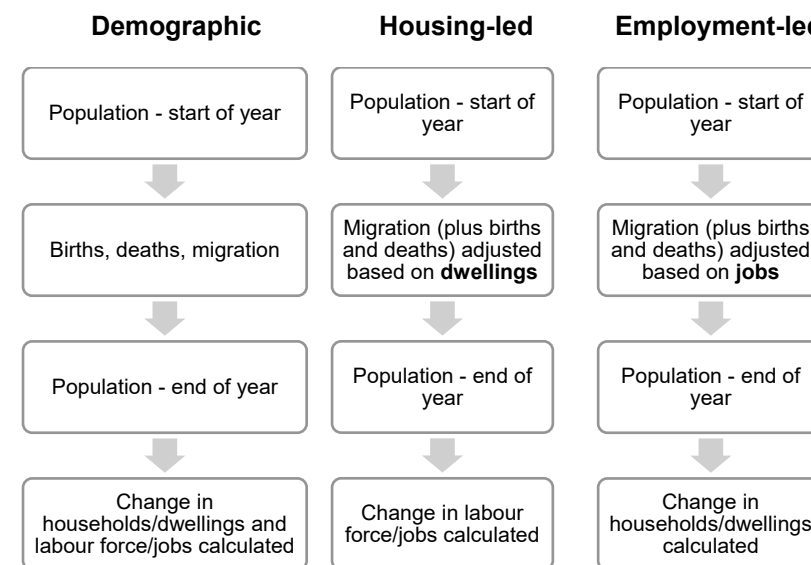
[7] The London Borough of Kingston-upon-Thames also falls within the North East Surrey housing market area but has not been included because it falls outside the five authorities area for which Oxera has produced employment estimates.

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rates) of migration. Based on the population, the number of homes is calculated (using inputs on the number living in communal establishments, household formation rates and dwelling vacancy rates) and the number of jobs is calculated (using inputs on economic activity rates, unemployment and the labour force ratio). Therefore, the number of homes and jobs are outputs, driven by demographic change;

- In 'constrained' scenarios, a given input or 'constraint' (eg number of homes or jobs) is used to 'dictate' population change year on year:

  - For housing-led scenarios, a given change in the number of homes is used to determine how many people can be accommodated (based largely on household formation rates). The number of migrants is adjusted so that (once births/deaths are applied) the population generates the given change in number of homes. This population is then used to determine how many jobs are supported in that area.

  - For employment-led scenarios, a given change in the number of jobs from one year to the next (eg based on a separate economic model or job 'target') is used to determine how many people are needed (based on economic activity rates, unemployment and the labour force ratio). The number of migrants is adjusted so that (once births/deaths are applied) the population is the required size to support the inputted number of jobs. This population is then used to determine how many homes are needed to sustain that estimate of future employment.

1.2.6   These methodologies are illustrated in Diagram 1.2.2.

Diagram 1.2.2: Methodology - Demographic, Housing and Employment scenarios

Demographic	Housing-led	Employment-led
Population - start of year	Population - start of year	Population - start of year
Births, deaths, migration	Migration (plus births and deaths) adjusted based on **dwellings**	Migration (plus births and deaths) adjusted based on **jobs**
Population - end of year	Population - end of year	Population - end of year
Change in households/dwellings and labour force/jobs calculated	Change in labour force/jobs calculated	Change in households/dwellings calculated

Source: Lichfields based on PopGroup

1.2.7   Using PopGroup, scenarios have been generated to explore whether the planned levels of housing provision in the study area would be sufficient to accommodate the anticipated level of employment growth and what, if any, impact would arise from the introduction of the extra employment arising from the operation of the Project.

Report outputs and limitations

1.2.8   Within the main report key metrics and conclusions are given for key years in the project, reflecting the PEIR report. Full outputs for all years are provided as Annexes. The key reporting years are:

- 2019   - the base year (for which the latest population data is available);
- 2024   - commencement of main construction phase;
- 2029   - the first year of opening;
- 2032   - interim assessment year; and
- 2038   - design year.

1.2.9   This report has been prepared specifically in the context of the Project. It is intended to assess whether the impact of additional jobs generated through the operational phase of the Project is

likely to have a significant impact on population growth and housing needs when compared with a range of other 'business as usual' scenarios (eg official population projections, population growth resulting from planned/expected housing growth, underlying job growth) across the study area.

1.2.10   It is based on data which was available at the time of writing (and a fixed set of assumptions, which are detailed in Annex 1 and Annex 2). This is data which would be superseded over time. This data has been obtained by Lichfields from third parties for the purposes of this report, namely from:

- The Office for National Statistics (ONS), which produces the population projections, census data (used here for dwelling vacancy and economic activity), survey data (used for unemployment) and household projections (2016-based onwards);
- The Ministry for Housing, Communities and Local Government (MHCLG), which was responsible for the publication of the household projections up until 2016, when it produced the 2014-based projections. MHCLG also publishes the formula for the 'standard method' for assessing housing needs which is used in this assessment;
- Cambridge Econometrics (CE), which produces the baseline employment forecasts used in this analysis. CE produces its forecasts independently on the basis of wider macroeconomic trends, and updates these quarterly;
- Oxera/ICF, which provided the estimates of future employment associated with Gatwick;
- The Office for Budget Responsibility (OBR), which produces the labour market participation rate projections used in this analysis; and
- Local authorities, for the purposes of establishing the most recent housing trajectory in each area[8].

1.2.11   Inputs and assumptions used in this report are either taken directly from these sources or are derived using data from these sources[9].

1.2.12   The report does not analyse the full range of inputs required when determining local housing needs or requirements at a housing market area or local level (such as market signals, affordable housing or constraints on housing supply), nor does it purport to cover all the scenarios which may need to be considered. It also applies a start date of 2019 and thus does not

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[8] This was based on the most up-to-date trajectory published online by each local authority at the time of writing. Full sources are given in Annex 2.

[9] For example, the labour force ratio, which is calculated using a combination of mid-year population estimates (from ONS), economic activity rates (from OBR), unemployment (from ONS) and jobs (from CE). See Annex 2 for further information.

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attempt to account for any backlog of need which might already exist. For clarity, this report should not be used for the purposes of:

- Establishing or justifying objectively assessed housing need or the appropriate local housing need figure for any local authority or housing market area;
- Establishing or justifying the housing requirement for any local authority or housing market area;
- Plan-making (or any other strategy-making) for any local authority; or
- Determining an appropriate spatial strategy for housing, employment, transport or other infrastructure (other than insofar as it relates to the Project).

1.3 Report structure

1.3.1 The report is structured around the key scenarios generated to inform the analysis:

- **Section 2.0 Demographic scenarios:** this section assesses the amount of housing needed and jobs which could be supported based on official demographic projections;
- **Section 3.0 Employment-led scenarios:** this section assesses how much population growth and housing growth would be needed to support different levels of employment growth;
- **Section 4.0 Housing-led scenarios:** this section reviews how much housing could be expected to come forward across the study area, and how much labour supply this could be expected to generate;
- **Section 5.0 Labour supply analysis:** this section provides further detail for the labour supply outcomes in the study area based on the preceding analysis; and
- **Section 6.0 Conclusions.**

1.3.2 Annexes 1 and 2 of this report contains background details of the assumptions used in the modelling. Annexes 3 and 4 set out detailed outputs. Annex 5 contains Cambridge Econometrics' background paper "UK forecast assumptions (March 2021)" setting out its high-level assumptions underpinning its economic forecasts.

1.3.3 It is important to note, where in-text values are rounded within this document, the exact figures can viewed by referring to the relevant tables.

2 Demographic-led scenarios

2.1.1 In this section of the report the demographic, housing and employment implications of scenarios of future change based on recent sets of official demographic projections are considered. The projections referred to are:

- Sub-National Population Projections (SNPP), produced by the Office for National Statistics (ONS) every two years. The most recent projections are the 2014-based SNPP, 2016-based SNPP and 2018-based SNPP; and
- Sub-National Household Projections (SNHP), also produced every two years. Up until the 2014-based SNHP, these were produced by the Ministry of Housing, Communities and Local Government (MHCLG) (formerly the Department of Communities and Local Government, DCLG). The 2016-based SNHP onwards are produced by ONS.

2.2 Context

2.2.1 As of 2019 the population in the study area amounts to 2.45m; just under 4% of the UK's population. On average, since 2001, the population of the study area has grown by 0.76% per year; faster than the UK which has grown by 0.68% per year (see Table 2.2.1). The study area has an older population than the national average, with a lower proportion of its population under the age of 44 and a higher proportion over the age of 44, as shown in Table 2.2.1.

Table 2.2.1: Headline population indicators - study area and UK

		Study area	UK
Population in 2019		2,451,607	66,796,807
Growth since 2001 (per annum, average)		0.76%	0.68%
Age structure (2019)	0-17	21.0%	21.1%
	18-44	32.0%	34.5%
	45-64	26.9%	25.8%
	65+	20.1%	18.5%

Source: Lichfields analysis using ONS Mid-Year Estimates

2.2.2 In line with wider trends the study area has seen ageing in recent years, with older working age people (age 45-64) and the elderly (over 65s) being the fastest growing groups. There has also been some growth in the number of children (0-17) whilst the number of younger working age people (18-44) has been fairly stable, as shown in Diagram 2.2.1.

Diagram 2.2.1: Population of study area by broad age group
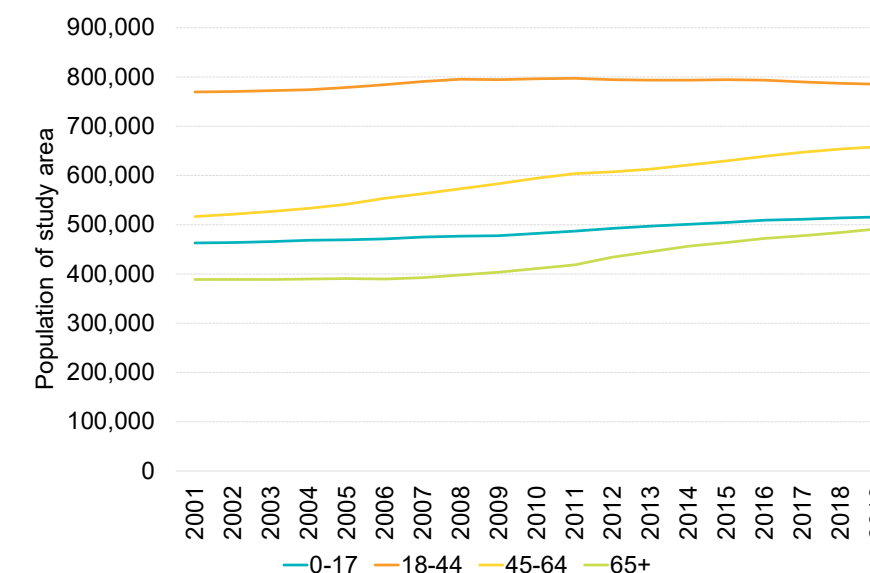
Source: Lichfields analysis using ONS Mid-Year Estimates

2.3 Outputs

Scenario 1 – 2014-based SNPP (ONS), 2014-based SNHP (MHCLG)

2.3.1 The 2014-based Sub-National Population Projections (SNPP) were published by ONS in May 2016, with the household projections (published by MHCLG – DCLG at that time) following in autumn 2016. These projections are not the most recent official population/household projections however they do form the basis of the standard method for calculating local housing need which is set out in the current (MHCLG, 2021) NPPF/PPG, and therefore their implications are considered. These projections have been modelled, re-based to the 2019 Mid-Year Estimates (MYEs), to ensure that the latest demographic information is accounted for. This is the case for all scenarios presented in this report.

2.3.2 Table 2.3.1 summarises the outputs. Across the study area the population is expected to increase by 371,000 in total over the 19 year period (2019-38), yielding growth of 170,000 in the labour supply and supporting 158,000 additional jobs. This population would need an additional 239,000 dwellings, equivalent to 12,600 dwellings per year.

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Table 2.3.1: Summary of outputs - Scenario 1: 2014-based SNPP (re-based to 2019)

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029	
Population	2,451,607	2,562,178	2,661,738	
Dwellings*	1,092,266	1,157,852	1,222,257	
Labour Supply	1,301,547	1,352,454	1,401,089	
Jobs	1,245,003	1,290,600	1,336,500	
	Interim - **2032**	Design - **2038**	2019-38 Change	
			Total	**Annual**
Population	2,716,875	2,822,182	370,575	19,504
Dwellings	1,259,947	1,330,960	238,693	12,563
Labour Supply	1,421,690	1,471,465	169,917	8,943
Jobs	1,355,872	1,402,521	157,519	8,290

Source: Lichfields analysis using PopGroup. *Note: Dwelling estimates in base year vary between scenarios which use different underlying household projections,

2.3.3 Outputs for individual local authorities for 2019 and 2038 are provided in Annex 1.

Scenario 2 – 2016-based SNPP (ONS), 2016-based SNHP (ONS)

2.3.4 In summer 2018 ONS published the 2016-based SNPP and associated household projections. When published, the Government directed authorities not to use these as the basis for the standard method because they suggest a significantly lower level of household growth than previous projections (which the Government believes to be inconsistent with its objective of delivering 300,000 homes per year by the mid-2020s). The PPG goes so far as to clarify that:

"Any method which relies on using household projections more recently published than the 2014-based household projections will not be considered to be following the standard method as set out in paragraph 60 of the National Planning Policy Framework. As explained above, it is not considered that these projections provide an appropriate basis for

use in the standard method." (PPG ID: 2a-015-20190220).

2.3.5 The projections are however continuing to be used by authorities submitting plans under the previous [2012] NPPF and the Government has reiterated that it does not "*doubt the methodological basis of the 2016-based household projections*". Therefore, the implications of these projections have been tested.

2.3.6 Table 2.3.2 shows the outcomes of this scenario. These projections yield lower population growth than the 2014-based SNPP for the study area, with population growth of 262,000 across the study area over the 19-year period. This population would lead to growth in the labour supply of 123,000, in turn supporting 112,000 jobs, and a need for 12,000 dwellings (just over 9,000 per year).

Table 2.3.2: Summary of outputs - Scenario 2: 2016-based SNPP (re-based to 2019)

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029	
Population	2,451,607	2,535,792	2,605,598	
Dwellings	1,067,253	1,113,852	1,160,965	
Labour Supply	1,301,547	1,341,460	1,378,087	
Jobs	1,245,003	1,280,018	1,314,271	
	Interim - **2032**	Design - **2038**	2019-38 Change	
			Total	**Annual**
Population	2,642,664	2,713,202	261,595	13,768
Dwellings	1,187,953	1,239,310	172,057	9,056
Labour Supply	1,391,744	1,424,386	122,838	6,465
Jobs	1,326,853	1,356,818	111,815	5,885

Source: Lichfields analysis using PopGroup

Scenario 3a – 2018-based SNPP (ONS), 2018-based SNHP (ONS)

2.3.7 In summer 2020 ONS published the 2018-based SNPP and associated household projections. These projections indicated lower growth at a national level than both the 2014-based and 2016-based projections as a result of lower international migration assumptions, lower projected fertility rates and lower life expectancy (ie higher death rates). Subsequently, projected

household growth was also lower than the previous two sets of projections.

2.3.8 Whilst these are the most recent official projections, the Planning Practice Guidance continues to direct authorities to use the 2014-based projections for the purposes of the standard method for calculating housing need (as per PPG ID 2a-015, set out above), in part because (as with the 2016-based projections) the 2018-based projections do not align with the objective of delivering 300,000 homes per year. Given the standard method is likely remain in place until Government publishes top-down 'binding' housing requirements for local authorities[10] (which will be in line with its target to deliver 300,000 homes per year) it is highly unlikely that the 2018-based population/household projections will underpin housing requirements in local plans for any parts of the study area.

2.3.9 Notwithstanding, because these are most recent official projections at the time of writing, their outcomes have been tested (however these outcomes should be read in the context set out above regarding their unlikely use in plan-making).

2.3.10 Table 2.3.3 shows outcomes under the 2018-based SNPP scenario (re-based to 2019). It suggests population growth over the study area over the period 2019-38 would be just under 110,000, with labour supply growth of 60,000, supporting 57,000 jobs. There would be a need for 113,000 dwellings, or just under 6,000 per year.

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[10] As indicated in the 'Planning for the future' White Paper (2020) p.23

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Table 2.3.3: Summary of outputs - Scenario 3a: 2018-based SNPP (re-based to 2019)

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029	
Population	2,451,607	2,490,762	2,517,011	
Dwellings	1,067,079	1,097,600	1,128,539	
Labour Supply	1,301,547	1,322,596	1,343,354	
Jobs	1,245,003	1,264,085	1,284,570	
	Interim - 2032	Design - 2038	**2019-38 Change**	
			Total	Annual
Population	2,530,814	2,561,589	109,982	5,789
Dwellings	1,146,188	1,179,933	112,854	5,940
Labour Supply	1,348,408	1,361,592	60,045	3,160
Jobs	1,289,623	1,302,064	57,061	3,003

Source: Lichfields analysis using PopGroup

Scenario 3b – 2018-based SNPP (ONS), headship rate adjustment

2.3.11 It is widely acknowledged that household representatives rates[11] have been falling, particularly for younger people who are struggling to access housing. The previous [2014] PPG stated that when undertaking an objective assessment of housing need, plan-makers should consider whether household formation rates have been supressed historically, and if so, reflect this in the assessment of need. To test the potential effect this could have on housing need, the housing outcomes arising from the assumption that formation rates for people under age 34 return to their 2001 levels[12] have been assessed.

2.3.12 The population, labour supply and job outputs under this scenario are the same as in Scenario 3a because both scenarios are based on the same population; the 2018-based SNPP (re-based to 2018). However, because Scenario 3b includes some uplift in household formation rates, the number of dwellings needed to support this population is higher; a total of 147,000 dwellings over the 19-year period, or 7,700 per annum, as shown in Table 2.3.3. This is an uplift of 30% on the number of homes compared to Scenario 3a.

Table 2.3.4: Summary of dwelling outputs - Scenario 3a – 2018-based SNPP (re-based to 2019), headship rate adjustment

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029	
Dwellings	1,067,079	1,111,674	1,158,102	
	Interim - 2032	Design - 2038	**2019-38 Change**	
			Total	Annual
Dwellings	1,179,078	1,214,196	147,117	7,743

Source: Lichfields analysis using PopGroup

2.4 Summary

2.4.1 For the purposes of this summary (and subsequent summaries), figures in the text are rounded.

2.4.2 Table 2.4.1 and Diagram 2.4.1 summarise the outcomes of the five demographic scenarios for the study area. As expected, the 2014-based SNPP (Scenario 1) projects the highest level of population growth (371,000) and housing need (239,000). The resulting labour force growth of 170,000 would support an estimated 158,000 jobs.

2.4.3 Growth is lower under the 2016-based SNPP (Scenario 2), with population growth of 262,000 over the 19 years to 2038, supporting around 112,000 additional jobs and with a dwelling need of 172,000.

2.4.4 The 2018-based SNPP (Scenario 3a/3b) projects even lower growth than the 2016-based SNPP although it should be noted that neither the 2016-based nor the 2018-based projections will likely form the basis of plan-making in the study area over the long term. The 2018-based SNPP (re-based to 2019) projects growth of 110,000 over the 19 years to 2018, with an estimated dwelling need of between 113,000 and 147,000 (depending on assumptions around headship rates). The 2018-based SNPP is expected to yield labour force growth of 60,000, supporting 57,000 jobs.

Table 2.4.1: Summary of Demographic scenarios – total change across study area – 2019-38

	Scenario 1	Scenario 2	Scenario 23a	Scenario 3b
Population	370,575	261,595	109,982	109,982
Dwellings	238,693	172,057	112,854	147,117
Labour Supply	169,917	122,838	60,045	60,045
Jobs	157,519	111,815	57,061	57,061

Source: Lichfields

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[11] Also known as household formation rates or HFRs or HRRs – this is the proportion of people in a given age group who would form their own household

[12] By 2030, where the 2001 level is above the level projected in 2030 in the official projections.

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Diagram 2.4.1: Summary of Demographic scenarios – total change across study area – 2019-38

Source: Lichfields

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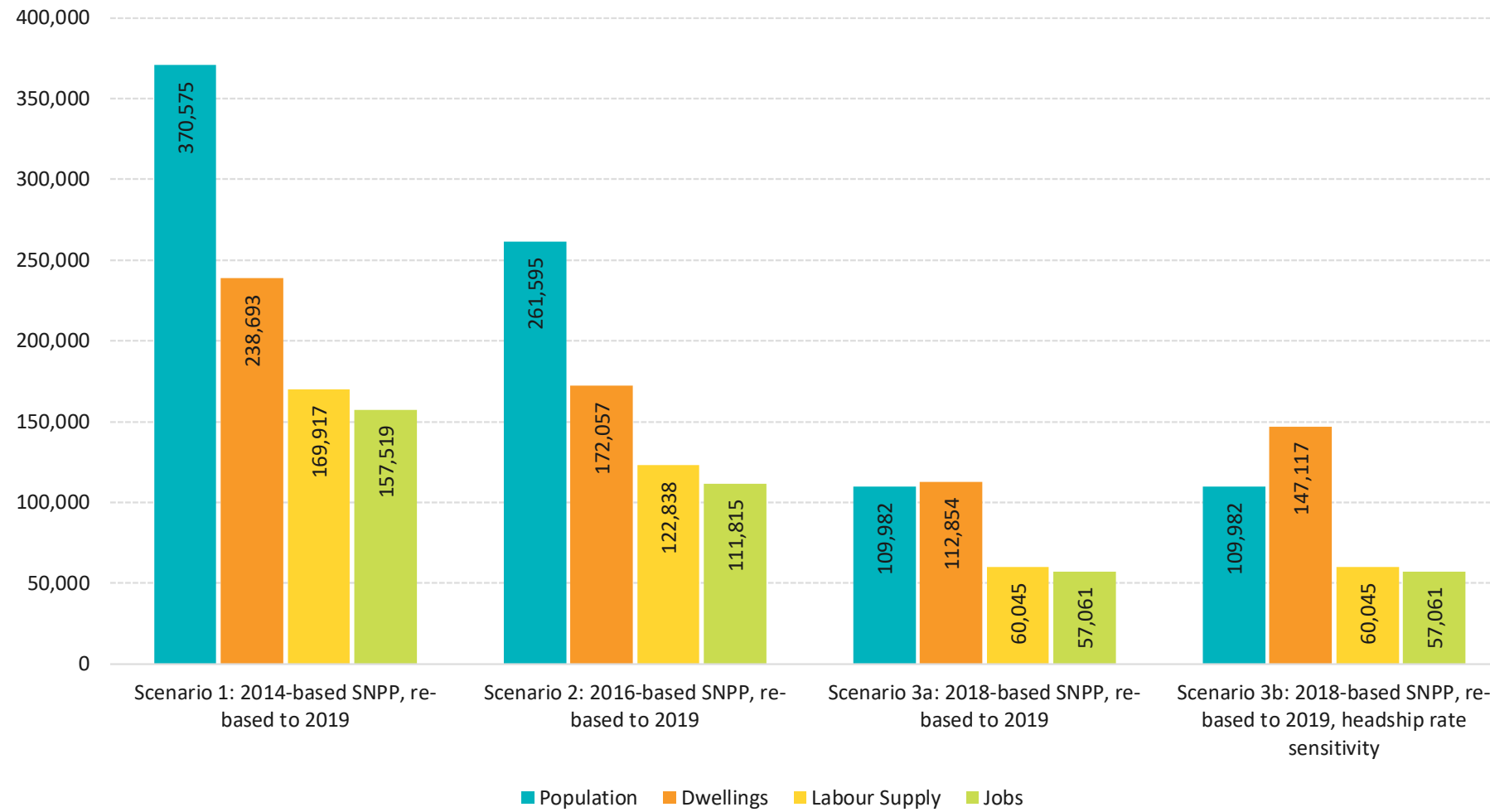
3 Employment-led scenarios

3.1.1 Employment forecasts have been obtained from Cambridge Econometrics (March 2021) ("CE") for the authorities in the study area. CE has confirmed that this March 2021 forecast reflects assumptions about the impact of the Covid-19 pandemic and Brexit on economic growth. Further information on the assumptions underpinning CE's March 2021 can be found at Annex 5.

3.1.2 In addition, economic impact work by Oxera and ICF has assessed the potential employment impact of the Project. These employment estimates cover a total of 37 authorities across Kent, Surrey, Sussex and Greater London – this is a larger area than the study area which is considered in this report, which comprises the 17 authorities shown in Diagram 1.2.1. Table 2.4.1 summarises the total amount of direct, indirect and catalytic employment associated with Gatwick Airport according to Oxera/ICF's estimates, with and without the Project. By 2038, the Project is expected to generate an additional c.20,000 workers (c.3,200 direct, c.6,300 indirect and a further 10,800 catalytic) across the 37 authorities.

3.1.3 Whilst Oxera and ICF have produced employment estimates associated with the Project up to 2047, the assessment of population and housing effects in this report stops at 2038, which is also the design year of the PEIR, because:

- Current official population projections (the 2018-based SNPP) only cover a 25-year horizon, hence end at 2043. Whilst projections can be trended, with increased time horizons there is increasing margin for error – and uncertainty - in population projections;
- Similarly, over such a long time horizon there is significant uncertainty around planned levels of housing provision given authorities typically plan for c.15-20 years' worth of housing (albeit some authorities in the study area have only a five year land supply trajectory, so there is uncertainty around housing provision even in the medium term). This means most authorities in the study area have trajectories which end approximately in 2030; and
- In any event, Oxera's employment estimates indicate that between 2038 and 2047 the impact of the Project will begin to decline, from supporting a net additional 20,288 jobs in 2038 across the 37 authorities (as shown in Table 2.4.1) to 19,018 by 2047. Therefore, if there are no identified population/housing impacts in the period up to 2038 it would

be reasonable to conclude this would not change in the 2038 to 2047 period, when the employment impact is reducing.

Table 2.4.1: Potential employment associated with Gatwick Airport (total across 37 London/South East authorities)

	2029	2032	2038
Direct			
Without Project	27,609	28,074	28,770
With Project	28,596	31,247	31,985
Difference	987	3,172	3,215
Indirect			
Without Project	53,800	54,706	56,074
With Project	55,723	60,788	62,340
Difference	1,923	6,082	6,266
Catalytic			
Without Project	55,257	55,579	57,934
With Project	59,106	67,143	68,742
Difference	3,848	11,564	10,807
Total			
Without Project	**136,667**	**138,359**	**142,778**
With Project	**143,425**	**159,178**	**163,067**
Difference	**6,759**	**20,819**	**20,288**

Source: Oxera/ICF

3.1.4 Looking specifically at additional employment the Project would generate within the **study area** (which covers the 17 authorities shown in Diagram 1.2.1 in Section 1.0), the Oxera/ICF work suggests the Project could lead to an additional c.16,000 workers (direct, indirect and catalytic) in the study area by 2038, as shown in Table 2.4.2.

Table 2.4.2: Summary of additional workers associated with the Project (direct, indirect and catalytic) in the study area (17 authorities) at 2029, 2032 and 2038

	2029	2032	2038
Direct	703	2,260	2,290
Indirect	815	2,578	2,656
Catalytic	3,848	11,564	10,807
Total	**5,366**	**16,402**	**15,753**

Source: Oxera. *Note: Where Oxera has indicated an impact of '<100' jobs, for the purposes of this modelling a figure of 100 jobs is assumed. This represents a 'worst-case scenario' from a labour/housing demand perspective.

3.1.5 Table 2.4.3 shows the breakdown of the additional workers in the study area based on authority of residence; as expected the majority of occupants of the additional jobs would reside in Crawley itself (c.3,800 workers by 2038). The project would be expected to yield the greatest number of additional workers in authorities nearest to Gatwick, notably Mid Sussex and Horsham, as well as the Coastal West Sussex Housing Market Area authorities of Chichester, Worthing and Arun.

Table 2.4.3: Net additional labour (direct, indirect and catalytic) arising from the Project at Gatwick by local authority

	2029	2032	2038
Adur	226	689	652
Arun	478	1,453	1,372
Brighton and Hove	111	353	361
Chichester	578	1,754	1,654
Crawley	1,310	4,002	3,848
Croydon	121	384	393
Eastbourne	30	94	97
Elmbridge	48	153	157
Epsom and Ewell	34	107	110
Horsham	790	2,387	2,265
Lewes	33	106	108
Mid Sussex	806	2,437	2,313
Mole Valley	60	191	196
Reigate and Banstead	151	483	493
Tandridge	54	172	176
Wealden	47	149	153
Worthing	490	1,489	1,406
Study Area total	**5,366**	**16,402**	**15,753**

Source: Oxera

3.1.6 The numbers set out in Table 2.4.2 do not necessarily equate to net additional jobs across the study area because Oxera estimates that some of the jobs arising through the Project would be taken by workers switching job (in other words, a substitution effect). Furthermore, Oxera considers that some of these additional workers would arise through increases in economic activity and reductions in unemployment (in turn, this would mean additional housing was not needed because labour demand would be filled partly by people who are already resident). This is a different approach to the PopGroup model, which fixes assumptions around commuting, unemployment and economic activity and instead flexes the amount of housing (in order to yield

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3.1.7 The assumption has been made that the CE forecasts would include baseline job growth at Gatwick without the Project. This is on the basis that it reflects a trend-based view of the underlying growth of the economy without cognisance of specific changes in infrastructure provision at Gatwick. These are the changes which trigger additional employment growth. Therefore the additional workers expected to arise from the Project as set out above have been added, to the labour supply which is needed to support the CE forecasts. This is likely to be a 'worst-case scenario' from a housing demand perspective because:

- The modelling through PopGroup effectively assumes that all 16,000 additional workers are additional to the area and that commuting, unemployment and economic activity are fixed[13]; and
- Our modelling also does not take into account job 'switching' (ie any substitution effect or 'loss' of jobs in the underlying baseline forecast as a result of growth at Gatwick) which would reduce the net impact of the Project on the total number of jobs in the study area.

3.1.8 If either of the above occurs (eg unemployment reduces, economic activity increases or there is job substitution) then the effect would be a lower labour market demand than is set out below in Scenario 5.

3.2 Context

3.2.1 According to Cambridge Econometrics there are 1.25m jobs in the study area as of 2019. In the last 10 years (2009-19) the number of jobs has grown by 14%; higher than growth seen in the both the 1990s and 2000s (both decades at 2%), as shown in Table 3.2.1 (and Diagram 3.2.1). In the future, Cambridge Econometrics forecasts more modest growth than has been seen recently, at 2% over the 2019-29 period and 3% over the 2029-38 period. In total by 2038 there is anticipated to be 1.31m jobs in the study area; an increase of 63,000 compared to 2019. As shown in Diagram 3.2.1 in the immediate future Cambridge Econometrics forecasts a slight drop in the overall number of jobs in the study area, primarily a reflection of the effects of the Covid-19 pandemic. It is anticipated that by the mid-2020s the number

of jobs will have recovered to the level seen in 2019, with steady growth in the long term thereafter.

Table 3.2.1: Historic trends and job forecasts for the study area

	Jobs (thousands)	10-year rate of growth	10-year growth (absolute)	Annual growth
1989	1,060	~	~	~
1999	1,077	2%	16,808	1,681
2009	1,094	2%	17,334	1,733
2019	1,245	14%	150,860	15,086
2029	1,267	2%	22,012	2,201
2038*	1,308	3%*	40,990*	4,554*

Source: Cambridge Econometrics. *Figures for 2038 refer to 9 year growth to correspond with the design year/end date of the modelling.

Diagram 3.2.1: Historic and Forecast total jobs - Study area (1989 onwards)
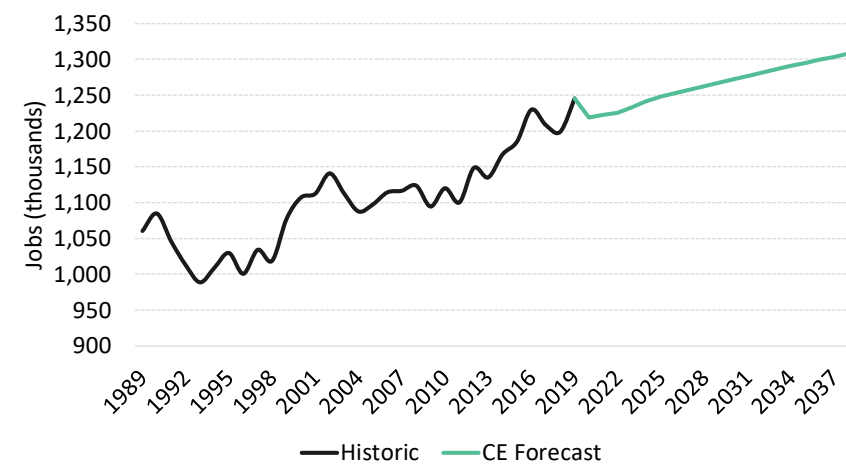
Source: Cambridge Econometrics

3.3 Outputs

Scenario 4a – Cambridge Econometrics Forecast (March 2021)

3.3.1 CE forecast the number of jobs in the study area to rise to 1.31m by 2038. To provide the labour force sufficient to support this forecast of job growth (assuming base year [2019] commuting patterns remain constant) would require population growth of

121,000 over the 19 year period and housing growth of 112,000 (just under 6,000 per annum), as shown in Table 3.3.1.

Table 3.3.1: Summary of outputs - Scenario 4a: Cambridge Econometrics Forecast (March 2021)

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Population	2,451,607	2,453,492	2,486,504
Dwellings	1,067,079	1,080,259	1,112,152
Labour Supply	1,301,547	1,301,600	1,328,423
Jobs	1,245,003	1,241,532	1,267,015

	Interim - 2032	Design - 2038	2019-38 Change	
			Total	Annual
Population	2,515,351	2,572,421	120,814	6,359
Dwellings	1,134,959	1,178,734	111,655	5,877
Labour Supply	1,343,349	1,371,631	70,084	3,689
Jobs	1,281,179	1,308,005	63,002	3,316

Source: Lichfields analysis using PopGroup

3.3.2 Of the demographic scenarios assessed, only Scenario 3 (a/b – the 2018-based SNPP) would not provide sufficient population growth and labour supply to support Cambridge Econometrics' forecast job growth. However, as set out in Section 2.0, these projections are unlikely to underpin any plan-making in the study area; housing requirements will be underpinned by the standard method (which is in turn based on the 2014-based projections) or a future 'top-down' requirement consistent with delivering 300,000 homes per year. Therefore to assess whether future job growth associated with the Project (combined with underlying job growth) is likely to impact upon the demand for housing in the study area, is it more appropriate to compare the labour supply needed to support job growth (based on CE's forecast, with or without the project) with the labour supply generated based on likely levels of housing growth. The population and labour supply impacts associated with various future levels of housing growth are assessed in Section 4.0 of this report and a labour supply comparison of the relevant scenarios in set out in Section 5.0.

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[13] Either at current levels or based on the underlying assumptions which are detailed in Annex 1. The PopGroup model does not flex assumptions around commuting, unemployment and economic activity based on job demand.

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Scenario 4b – Cambridge Econometrics Forecast (March 2021) with headship rate adjustment

3.3.3　When an adjustment to headship rates is taken into account (using the same approach as set out for Scenario 3b) the number of homes needed to support job growth in the CE forecast increases to 147,000 dwellings, or just around 7,700 dwellings per annum across the study area between 2019 and 2038, as shown in Table 3.3.2. This is a c.30% increase on Scenario 4a.

Table 3.3.2: Summary of dwelling outputs - Scenario 4b: Cambridge Econometrics forecast with headship rate adjustment

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Dwellings	1,067,079	1,094,139	1,141,754
	Interim - 2032	Design - 2038	2019-38 Change
			Total	Annual
Dwellings	1,168,338	1,214,004	146,925	7,733

Source: Lichfields analysis using PopGroup

Scenario 5a – Cambridge Econometrics Forecast (March 2021), with the Project

3.3.4　To support the forecast 1.31m jobs in 2038 forecast by CE, an estimated labour supply of 1.37m would be needed (see Table 3.3.1 below). This takes into account unemployment and commuting patterns, which mean the study area is likely to need slightly more growth in workers living locally than jobs.

3.3.5　If the additional workers associated with the Project (15,753 by 2038) were added to this, this would imply the labour supply needs to increase by 15,328, as shown in Table 3.3.3. For the reasons set out above in 3.1.6, this is likely to over-estimate the actual demand for labour associated with the Project, but this is a worst-case scenario from a housing demand perspective.

Table 3.3.3: Labour supply requirements associated with the Project

	Labour supply needed in 2038	Jobs in 2038
CE Forecast	1,371,631	1,308,005
CE Forecast with Project	1,386,959	1,323,758
Difference	+15,328	+15,753

Source: Lichfields based on CE/Oxera

3.3.6　The additional workers which are expected to be generated from the Project would require population growth of 148,000 and 123,000 additional dwellings, or 6,500 dwellings per annum, as shown in Table 3.3.4.

Table 3.3.4: Summary of outputs - Scenario 5a: Cambridge Econometrics Forecast (March 2021) with additional jobs from the Project

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Population	2,451,607	2,453,492	2,494,866
Dwellings	1,067,079	1,080,259	1,115,503
Labour Supply	1,301,547	1,301,600	1,333,646
Jobs	1,245,003	1,241,532	1,272,381
	Interim - 2032	Design - 2038	2019-38 Change
			Total	Annual
Population	2,540,980	2,599,373	147,766	7,777
Dwellings	1,145,260	1,190,322	123,243	6,486
Labour Supply	1,359,311	1,386,959	85,412	4,495
Jobs	1,297,581	1,323,758	78,755	4,145

Source: Lichfields analysis using PopGroup

Scenario 5b – Cambridge Econometrics Forecast (March 2021), with the Project with headship rate adjustment

3.3.7　With an adjustment for headship rates, the number of homes needed to support job growth forecast by Cambridge Econometrics with the additional jobs arising from the Project rises to 8,400 per annum, as shown in Table 3.3.5.

Table 3.3.5: Summary of dwelling outputs - Scenario 5b: Cambridge Econometrics Forecast (March 2021) with additional jobs from the Project with headship rate adjustment

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Dwellings	1,067,079	1,094,139	1,145,263
	Interim - 2032	Design - 2038	2019-38 Change
			Total	Annual
Dwellings	1,179,173	1,225,996	158,917	8,364

Source: Lichfields analysis using PopGroup

3.4　Summary

3.4.1　A summary of the key outputs for the study area are shown in Table 3.4.1 and Diagram 3.4.1. Under the forecast of job growth set out by Cambridge Econometrics, the study area would see an increase of 63,000 jobs in total to 2038, which would require labour force growth of 71,000 and between 112,000 and 147,000 dwellings. The impact assessment prepared by Oxera expects the Project to generate up to 16,000 additional workers (direct, indirect and catalytic), which would (in combination with baseline forecast of growth in the wider economy) require labour force growth of 85,000 and a need for between 123,000 and 159,000 dwellings.

Table 3.4.1: Summary of employment-led scenarios - total change across study area – 2019-38

	Scenario 4a	Scenario 4b	Scenario 5a	Scenario 5b
Population	120,814	120,814	147,766	147,766
Dwellings	111,655	146,925	123,243	158,917
Labour Supply	70,084	70,084	85,412	85,412
Jobs	63,002	63,002	78,755	78,755

Source: Lichfields analysis using PopGroup

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Diagram 3.4.1: Summary of Economic-led scenarios – total change across study area – 2019-38

Source: Lichfields

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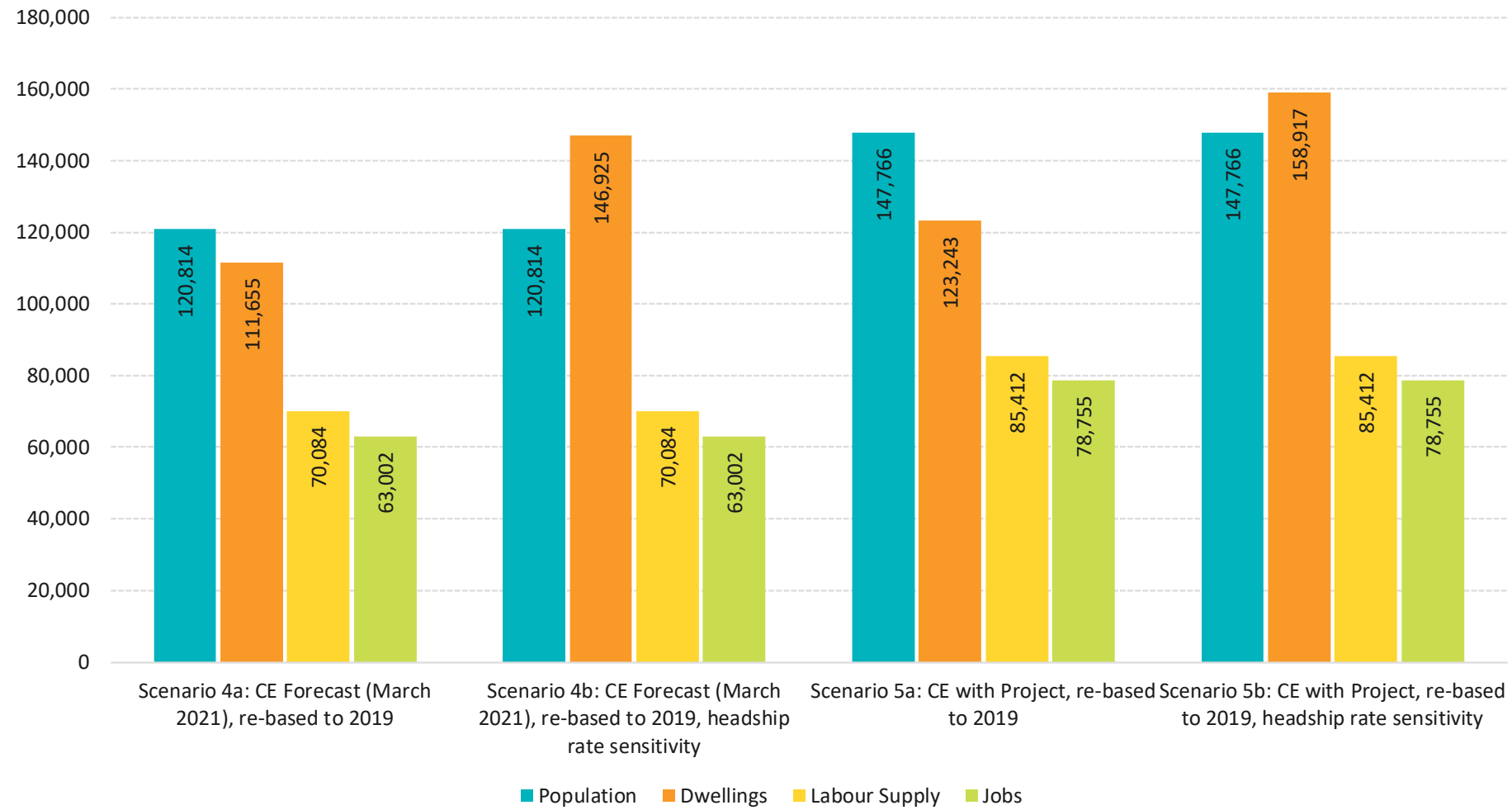
4   Housing-led scenarios

4.1.1   This section assesses the amount of population growth and labour supply that is likely to be generated based on the amount of housing growth which might be expected in the study area to 2038.

4.2   Context

4.2.1   In 2020, there were an estimated 1.08m homes in the study area. Over the last 20 years the number of homes in the study area has increased at a slightly slower rate on average compared to England, albeit has followed national trends as shown in Diagram 4.2.1.

Diagram 4.2.1: Annual change in dwelling stock - England and Study area
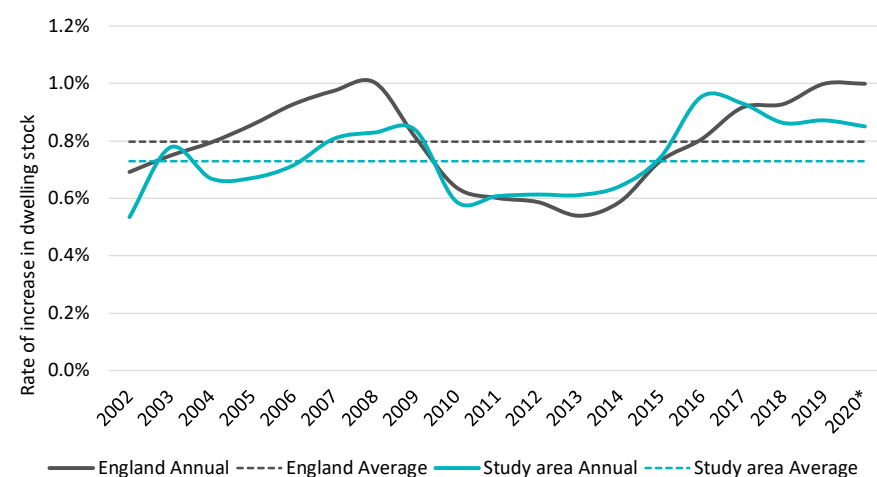
Source: MHCLG Live Table 125/122. *Because MHCLG Live Table 125 (dwelling stock) only gives data up to 2019, an estimate of the 2020 stock has been calculated by adding net completions (from MHCLG Live Table 122) to the 2019 stock.

4.2.2   The year 2019/20 saw just under 9,000 net completions in the study area, which is a slight decrease compared to the post-recession peak of 9,718 in 2015/16, as shown in Table 4.2.1. However, this is still a substantial increase on housing completions seen in the aftermath of the recession, which saw around 6,200 completions in 2011/12.

Table 4.2.1: Annual net completions in the Study area

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19*	2019/20*
Units	6,180	6,582	6,543	7,492	9,718	9,438	9,435	8,885	8,987

Source: Various Annual Monitoring Reports. *Where data for 2018/19 or 2019/20 is missing (eg authorities have not published recent AMRs) MHCLG Live Table 122 is used.

4.3   Future growth

4.3.1   In reality it is impossible to know the future planning landscape for certain or to specify which local authorities will update their plans, when, and for how much housing they will plan. However, it is possible to assess what might be considered the 'best' case and 'worst' case scenarios in terms of plan-making and housing growth, being fairly confident that the true picture would lie somewhere within this range. Under all scenarios the actual number of completions by local authority is applied in 2019/20, with trajectories applying from 2020/21 onwards.

### 'Worst' case scenario

4.3.2   The 'worst' case scenario is based on the most recent housing trajectories for local authorities in the study area, which are primarily based on current plans[14]. Plan coverage in the study area varies; some authorities have up-to-date plans adopted in the last five years whilst others have not adopted a plan since the 2012 NPPF was published.

4.3.3   Whilst many authorities in the study area have trajectories covering the period to 2030, few have trajectories beyond 2030 (and some only have a five-year land supply position statement). To estimate the amount of housing likely to come forward in authorities after the existing trajectory ends, the annual average delivery expected in the trajectory period is trended. For this reason, outputs for the post-2030 period should be treated with some caution, particularly because some authorities which are 'capacity-constrained' (eg Brighton and Hove) might see supply reduce over time as housing land becomes scarcer. However, by this time, many (if not all) local authorities should be preparing or reviewing plans in the context of the Government's standard method for estimating local housing need which would result in:

- The overall assessment of need increasing; and
- Under the provisions of the NPPF 2021, a requirement to address any unmet need in neighbouring authorities, which should mean that unmet needs are picked up elsewhere through higher levels of housing provision in those plans.

4.3.4   Crawley is of key importance for the purposes of this analysis; self-evidently it is the location of Gatwick Airport and houses a high proportion of its workers. It is also constrained in terms of housing land supply by virtue of an administrative boundary drawn tightly around much of its urban area. Its current Local Plan (2015-30) housing requirement is capacity constrained, with the borough offloading some of its housing needs to Horsham and Mid Sussex. In the future it is questionable whether the supply of new housing can continue at current rates; indeed, the current Local Plan expects higher housing growth in the immediate future, with supply tailing off over time, and the emerging Local Plan expects even lower supply in the post-2030 period. Taking a pragmatic approach, for the purposes of this assessment, it is assumed that post-2030 (the end date of Crawley's current plan period/trajectory) Crawley would deliver housing at 220 per annum, which is the amount of housing the Council expects to deliver on average beyond 2030 in its emerging Local Plan Review[15]. This is lower than the average based on its current trajectory[16] but reflects the constrained and under bounded nature of the borough.

4.3.5   The supply of housing across the study area based on the analysis of current trajectories (and assumptions as set out above) is shown in Diagram 4.3.1 (detailed figures are given in Annex 2). On this basis expected housing delivery increases from around 9,000 in 2019/20 to around 14,300 by 2022/23, then fall steadily during the 2020s to a level more in line with that delivered in recent years (c.9,000-10,000 per annum). In total over the 19 years, based on current trajectories and trends it is expected a total of c.191,000 homes would be delivered by 2038.

'Best' case scenario

4.3.6   The NPPF (MHCLG, 2021) sets out that in local authorities where strategic policies are more than five years old (and have not been reviewed and found not to need updating) the standard method should be used for the basis of calculating five-year land supply[17]. This is likely to have the effect of increasing short term

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[14] Housing trajectories in plans which are currently undergoing examination or are in draft plans which have yet to be submitted have not been included on the basis that these might be subject to change prior to adoption, with the exception of Crawley.

[15] See Strategic Policy H1 Housing Provision of the Draft Crawley Borough Local Plan 2021-2037 (Submission publication version January 2021).
[16] Trending the annual average in Crawley's current trajectory from 2020/21 to 2029/30 would give a figure of 390 dwellings per annum.

[17] Paragraph 74, unless these policies have been reviewed and have been found not to require updating.

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delivery in some areas (eg those which are unconstrained[18]) although would have less of an impact in Green Belt/more highly constrained authorities (which might reasonably conclude that paragraph 11b of the NPPF justifies them not having to meet objectively assessed housing need).

4.3.7 Over time authorities will update their plans to account for the standard method, resulting either in an increase in delivery in their area or (where this is not possible, eg due to constraints) this need being addressed in neighbouring authorities (as required by paras 26 and 35 c of the NPPF). As the standard method is gradually rolled out through the planning system it would – for the study area overall – result in increased housing targets overall as it exceeds the current plan requirements across every authority in the study area.

4.3.8 In a 'perfect' system, authorities would have updated their local plan and be able to maintain a five-year land supply against the standard method as soon as their current plan becomes more than five years old[19]. This would be the best-case scenario, although it is unlikely to happen precisely like this because it would require substantial increases in housing delivery to occur very quickly.

4.3.9 Under this 'perfect' standard method scenario, it is expected that housing delivery would increase from around 9,000 in 2019/20 to nearly 18,000 by 2022/23, remaining at around 17,300 over the longer term, as shown in Diagram 4.3.1. This is evidently significantly higher than current delivery – almost double the amount of homes delivered in the last year – albeit given Government objectives to boost housing supply and the area's context (including relatively unaffordable parts of the wider South East) this is to be expected. In total over 20 years it is expected that 320,000 dwellings would be delivered across the study area.

Diagram 4.3.1: Dwellings per annum across study area - Current trajectories and Standard Method
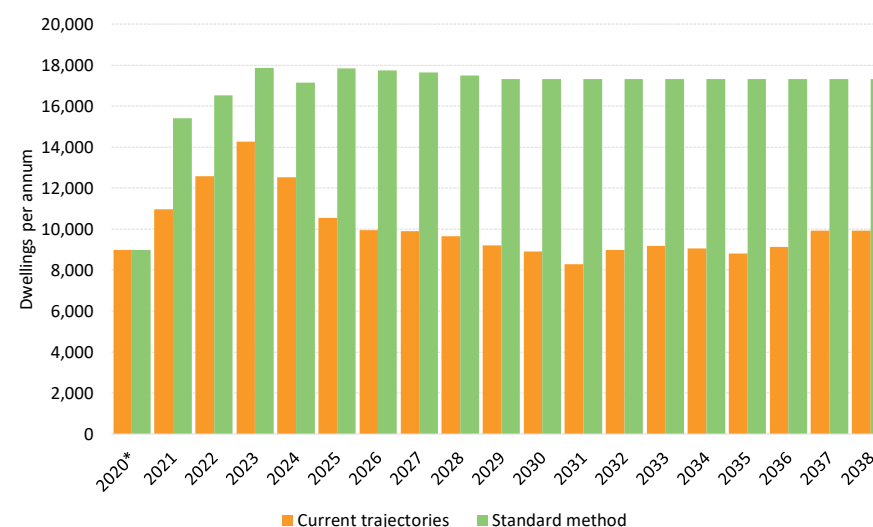
Source: Lichfields analysis. *Figures for 2020 are actual completions based either on authority AMRs or MHCLG Live Table 122 (where AMRs are missing).

4.4 Outputs

Scenario 6a: Current housing trajectories

4.4.1 The delivery of 191,000 homes across the study area over the 2019 to 2038 period could support population growth of 294,000 and labour supply growth of 166,000, in turn supporting 150,000 jobs.

4.4.2 This suggests that the amount of population growth (and labour supply growth) current housing trajectories would be expected to support is greater than the labour supply which would be needed to support the latest CE forecasts of 63,000 increased jobs.

Table 4.4.1: Summary of outputs - Scenario 6a: Current housing trajectories

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Population	2,451,607	2,566,588	2,633,662
Dwellings	1,067,079	1,126,418	1,175,648
Labour Supply	1,301,547	1,370,049	1,413,194
Jobs	1,245,003	1,306,668	1,346,723

	Interim - 2032	Design - 2038	2019-38 Change	
			Total	Annual
Population	2,665,818	2,745,722	294,115	15,480
Dwellings	1,201,843	1,257,923	190,844	10,044
Labour Supply	1,427,616	1,467,770	166,222	8,749
Jobs	1,359,238	1,394,523	149,520	7,869

Source: Lichfields analysis using PopGroup

Scenario 6b: Current housing trajectories, with headship rate adjustment

4.4.3 If there were to be some improvement in household formation amongst younger people, the amount of housing which can be expected based on current trajectories in the study area would support a smaller population overall, and therefore a smaller labour supply (and thus fewer jobs). The delivery of 191,000 homes under this scenario could be expected to yield population growth of 211,000 across the study area, yielding 120,000 in additional labour supply, supporting 106,000 jobs (as shown in Table 4.4.2). Whilst this is lower than under Scenario 6a, it is still greater than the 63,000 additional jobs in the latest CE forecasts.

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[18] Where the increase in housing requirement as a result of the standard method results in less than a five-year land supply, or results in an authority failing the housing delivery test, the presumption in favour of sustainable development would be triggered.

[19] To obtain a view of the true 'best case' scenario in terms of the standard method, no standard method figure has been capped based on the current adopted requirement (which would be the case if an authority updated its housing requirement while its current requirement was less than five years old). The cap is always taken to be 40% above whichever is higher of the current requirement or household projections at that point in the future (which would be the case if the current requirement was more than 5 years old). The assessment also incorporates the 35% cities and urban centres uplift (see PPG ID: 2a-004-20201216) which applies to Brighton and Hove and Croydon.

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Table 4.4.2: Summary of outputs - Scenario 6b: Current housing trajectories with headship rate adjustment

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Population	2,451,607	2,528,846	2,558,728
Dwellings	1,067,079	1,126,423	1,175,660
Labour Supply	1,301,547	1,346,401	1,367,939
Jobs	1,245,003	1,284,750	1,304,592

	Interim - 2032	Design - 2038	2019-38 Change	
			Total	Annual
Population	2,584,863	2,662,954	211,347	11,124
Dwellings	1,201,855	1,257,923	190,844	10,044
Labour Supply	1,380,205	1,421,175	119,627	6,296
Jobs	1,315,135	1,351,243	106,240	5,592

Source: Lichfields analysis using PopGroup. *Note: dwelling figures for interim years differ marginally from Scenario 6a due to rounding. Start/end years and overall growth are the same.

Scenario 7a: Standard method (best case scenario)

4.4.4   As set out above in 4.3.9, if the standard method were implemented 'perfectly' it is expected around 320,000 homes would be delivered in the study area over the next 19 years to 2038. In reality it is unlikely that this would actually be delivered, but it represents a best-case scenario for housing delivery, indicative of the maximum amount of housing that is likely to be delivered in the future in the study area.

4.4.5   As shown in Table 4.4.3 under this scenario there would be estimated population growth of 608,000 and labour supply growth of 349,000, in turn supporting an estimated 323,000 jobs. This is clearly substantially more jobs than CE's latest forecast, including after additional jobs associated with the Project are factored in.

Table 4.4.3: Summary of outputs - Scenario 7a: Standard Method (best case scenario)

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Population	2,451,607	2,609,237	2,775,016
Dwellings	1,067,079	1,143,010	1,231,043
Labour Supply	1,301,547	1,396,941	1,499,635
Jobs	1,245,003	1,332,537	1,428,478

	Interim - 2032	Design - 2038	2019-38 Change	
			Total	Annual
Population	2,869,527	3,059,161	607,554	31,977
Dwellings	1,282,987	1,386,873	319,794	16,831
Labour Supply	1,549,981	1,650,645	349,097	18,374
Jobs	1,475,184	1,568,277	323,274	17,014

Source: Lichfields analysis using PopGroup

Scenario 7b: Standard method (best case scenario), with headship rate adjustment

4.4.6   As set previously set out, if improvement to headship rates materialise, a given level of housing would support a smaller population (and therefore labour supply and jobs) than would otherwise be the case. Under the amount of housing which could come forward in the study area under the standard method scenario (320,000 by 2038) population growth of 509,000 would be expected, yielding labour force growth of 293,000 and supporting 272,000 jobs, as shown in Table 4.4.4.

Table 4.4.4: Summary of outputs - Scenario 7a: Standard Method (best case scenario), with headship rate adjustment

	Base Year - 2019	Start of construction - 2024	First year of opening - 2029
Population	2,451,607	2,570,275	2,692,129
Dwellings	1,067,079	1,143,010	1,231,043
Labour Supply	1,301,547	1,372,484	1,449,311
Jobs	1,245,003	1,309,856	1,381,756

	Interim - 2032	Design - 2038	2019-38 Change	
			Total	Annual
Population	2,776,944	2,960,704	509,097	26,795
Dwellings	1,282,987	1,386,873	319,794	16,831
Labour Supply	1,495,382	1,594,871	293,323	15,438
Jobs	1,424,554	1,516,639	271,636	14,297

Source: Lichfields analysis using PopGroup

4.5   Summary

4.5.1   This section has considered the amount of housing likely to come forward based on current trajectories alone (not taking into account emerging or new plans which might increase delivery or possible increases resulting in a lack of five-year land supply against the standard method) and the amount of housing that would come forward if the standard method for calculating local housing need were implemented 'perfectly'. On this basis it can be concluded that the amount of housing likely to be delivered in the study area over the next 19 years would be somewhere between 191,000 and 320,000 homes. The analysis suggests that both these scenarios would provide a sufficiently large population and labour force to meet the labour force requirements of the most recent CE forecast (which requires an increase in the labour force of 70,000), as shown in Table 4.5.1 and Diagram 4.5.1.

Table 4.5.1: Summary of outputs - Housing-led scenarios - total change across study area – 2019-38

	Scenario 6a	Scenario 6b	Scenario 7a	Scenario 7a
Population	294,115	211,347	607,554	509,097
Dwellings	190,844	190,844	319,794	319,794
Labour Supply	166,222	119,627	349,097	293,323
Jobs	149,520	106,240	323,274	271,636

Source: Lichfields analysis using PopGroup

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Diagram 4.5.1: Summary of Housing-led scenarios - total change across study area – 2019-38

Source: Lichfields analysis using PopGroup

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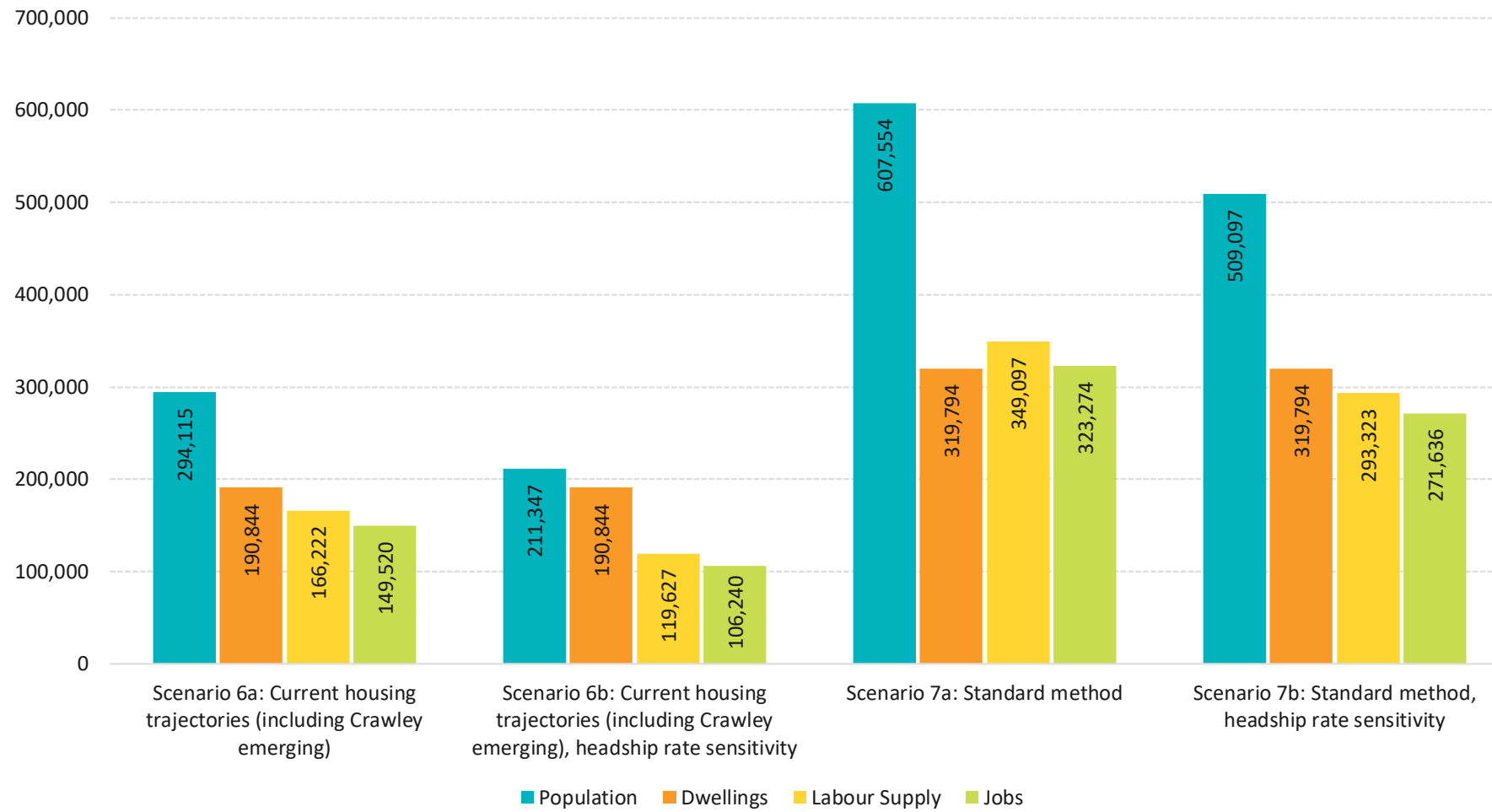
5 Labour supply analysis

5.1.1 The results of the analysis set out in Sections 2.0 – 4.0 show growth in population, housing and jobs in the study area as a whole. This has suggested that:

- Labour supply generated by projected population growth in the 2014-based and 2016-based projections is likely to be higher than the required number of workers needed to fulfil job growth forecast by Cambridge Econometrics with the additional 16,000 workers arising through the Project by 2038. Labour supply generated by the 2018-based projections is likely to be lower than the required number of workers; and

- Labour supply generated by current housing trajectories (and also by the number of homes which might be delivered once the Government's standard method for local housing need is fully implemented) is likely to be higher than the required number of workers needed to fulfil job growth forecast by Cambridge Econometrics with the additional jobs arising through the Project.

5.1.2 However, it is important to consider whether there are any particular local geographies within the study area, or time periods, that could present potential 'pinch-points', ie where there might be a shortage of labour/housing. This is important because whilst Gatwick Airport does draw its workers from a wide catchment area covering multiple housing market areas (HMAs), in reality the majority of jobs are drawn from local authority areas closest to Gatwick (especially Crawley). HMAs represent the geographic extent to which people would search for new housing taking into account factors such as employment opportunities and house prices. It is also important to consider whether there are any particular time periods in which population/housing/jobs are misaligned, which might impact the timing in which housing and other infrastructure needs to come forward.

5.2 'Pinch-point' analysis

Study area

5.2.1 The labour supply that would be needed to support job growth under the Cambridge Econometric forecasts with the additional demand arising from the Project (Scenario 5a) has been compared with the labour supply that is expected to be generated based on current housing trajectories (Scenario 6a). Overall this is likely to be a worst-case scenario comparison because:

- From a labour demand perspective, for the reasons set out in Section 3.0, the assessment of the additional labour demand from the Project is likely to be a worst-case scenario. Lower labour demand than suggested by Scenario 5 would yield a lower housing demand; and
- From a housing delivery perspective, Scenario 6 is likely to be the worst-case scenario because the number of homes which would actually be delivered is likely to exceed that based on current trajectories as the standard method begins to inform plan-making and decision-taking (moving towards Scenario 7). The result of higher housing supply than current trajectories would be a lesser shortfall (or greater surplus) than the analysis below suggests.

5.2.2 Table 5.2.1 summarises the shortfall/surplus in labour supply by local authority in the key monitoring years based on a comparison of Scenarios 5a and 6a. Specific HMAs are then reviewed in further detail below.

Table 5.2.1: Summary of surplus/shortfall in labour supply in key years by local authority - Cambridge Econometrics scenario (with Project) compared with current housing trajectory scenario

	2024	2029	2032	2038
Adur	2,545	2,706	1,497	1,935
Arun	5,911	11,535	11,981	16,797
Brighton and Hove	7,949	10,340	8,557	5,694
Chichester	2,382	2,051	187	-1,151
Crawley	5,781	5,198	2,939	2,564
Croydon	13,833	11,036	9,592	10,700
Eastbourne	208	-220	-750	-1,498
Elmbridge	1,639	931	739	554
Epsom & Ewell	493	176	95	-833
Horsham	5,058	6,014	3,815	6,778
Lewes	1,576	1,744	1,349	1,349
Mid Sussex	6,223	9,888	10,231	15,303
Mole Valley	2,515	3,520	3,660	4,532
Reigate and Banstead	3,398	3,114	2,975	3,618
Tandridge	1,792	1,770	1,643	1,782
Wealden	5,508	7,294	7,894	9,630
Worthing	1,638	2,452	1,902	3,056
Total	**68,449**	**79,549**	**68,305**	**80,811**

Source: Lichfields analysis

5.2.3 Table 5.2.1 shows that current Local Plan housing land supply trajectories would likely support substantive surpluses of labour supply against CE forecasts with Project jobs in all but one authority (Eastbourne) by 2029 (the period where there can be highest levels of confidence over housebuilding trajectories) and this includes in local authority areas closest to Gatwick (Crawley, Horsham, Mid Sussex, Reigate and Banstead). From the 2030s, when housing trajectories in the analysis are more likely to be extrapolated, the surplus is maintained across most authorities. In the long term (ie by 2038), it is reasonable to assume that current Local Plans will be reviewed and where necessary updated to reflect the Government's standard methodology for calculating local housing need which is likely to result in an increase in the rate of housing provision compared to current plans.

5.2.4 Based on the above, the Project employment in those authority areas with the greatest labour supply relationships to Gatwick is likely to be comfortably absorbed by the labour supply growth implicit in current housing trajectories. Indeed, there is likely to be sufficient headroom overall, should job growth be higher or come forward more quickly than anticipated, or if the balance of employment across the authorities differs from the current distribution, for example as a result of Gatwick implementing local recruitment initiatives.

5.2.5 The analysis below considers the issue at the HMA level.

North West Sussex

5.2.6 Whilst Gatwick draws upon labour from a relatively wide catchment area, Crawley itself forms an established HMA with Mid Sussex and Horsham: the 'North West Sussex HMA'. This has been established through the plan-making process in all three authorities, with Mid Sussex and Horsham currently meeting Crawley's unmet housing need.

5.2.7 Diagram 5.2.1 shows the difference between the labour supply needed to support the increase in jobs forecast by CE (with the addition of jobs from the Project) and the labour supply that would likely be generated based on current housing trajectories. It suggests that current trajectories would yield a surplus in labour supply across the 19-year period, particularly so in Mid Sussex. The surplus in Crawley rises to around 5,000 by the mid-2020s, falling to around 3,000 in the longer term. The surplus in Horsham similarly rises to around 5,000 by the 2020s, and rises steadily in the longer term. In Mid Sussex the surplus rises steadily, reaching around 15,000 by 2038. As a whole across the North West Sussex HMA a surplus in workers is expected (against the CE/Project forecast) of c.25,000 by 2038.

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Diagram 5.2.1: Difference in Labour Supply between CE/Project and Current Trajectory scenarios - North West Sussex HMA
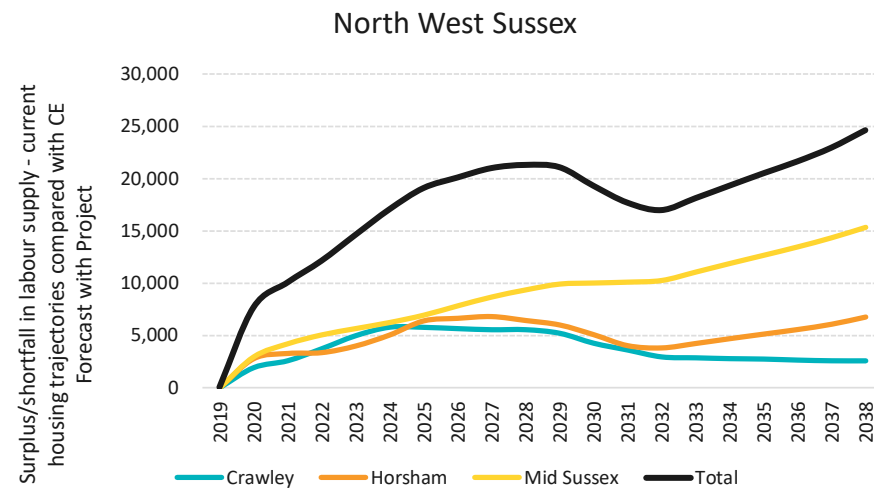
Source: Lichfields analysis

Other HMAs

5.2.8   The picture is similar across virtually all the remaining HMAs, as shown in   Diagram 5.2.2 overleaf. This is with the exception of:

- A shortfall in Epsom and Ewell from around 2034 onwards. However, this shortfall is offset by surpluses in other parts of the HMA, with an overall surplus of around 4,000+ throughout latter years of the period;

- A shortfall in Eastbourne, beginning in the mid-2020s. This is to be expected given Eastbourne is a highly constrained and tightly-bounded authority and therefore has constraints on housing supply. The shortfall in Eastbourne is offset by a surplus in Wealden however, with an overall surplus of around 6,000-8,000 over the period; and

- A shortfall in Chichester towards the end of the projection period, albeit the Coastal West Sussex HMA overall is expected to have a surplus which amounts to around 25,000 to 30,000 over the medium to long term.

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Diagram 5.2.2: Difference in Labour Supply between CE/Project and Current Trajectory scenarios - other HMAs

Croydon and East Surrey

North East Surrey

Coastal West Sussex

Wealden and Eastbourne

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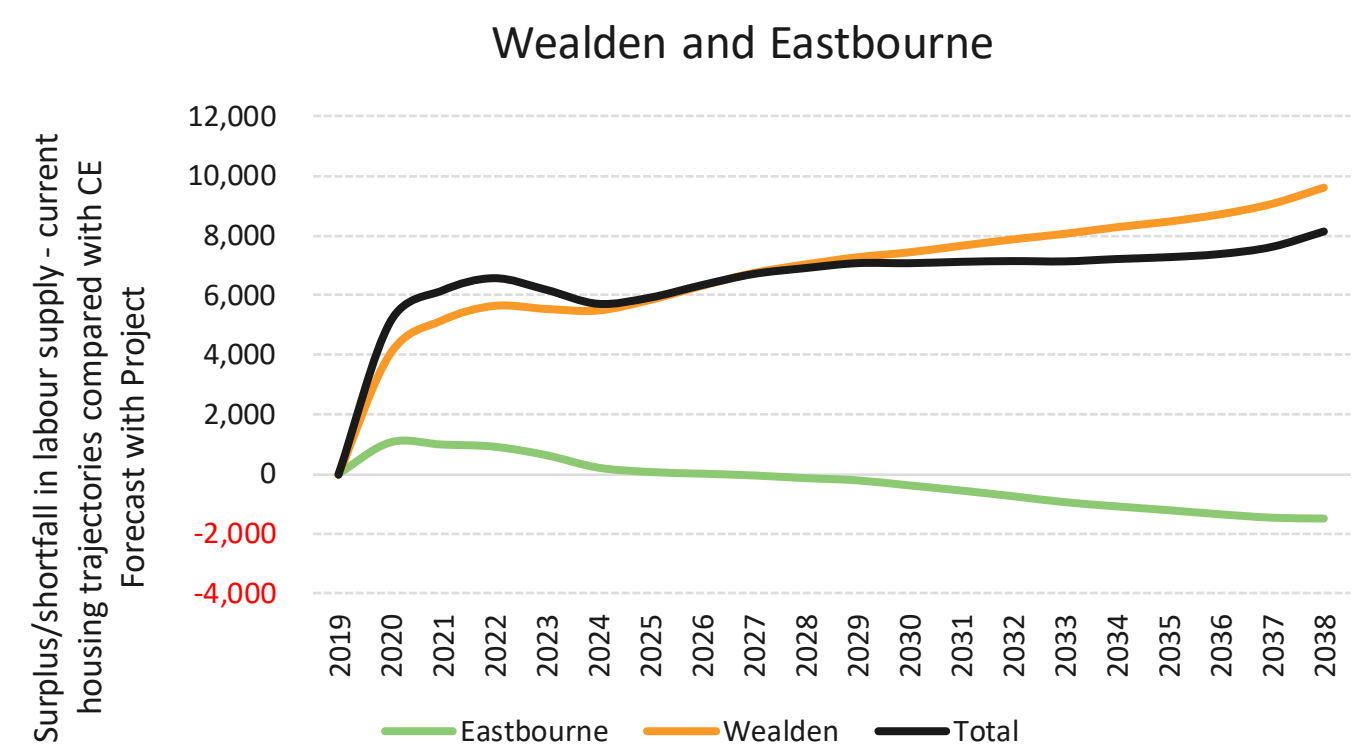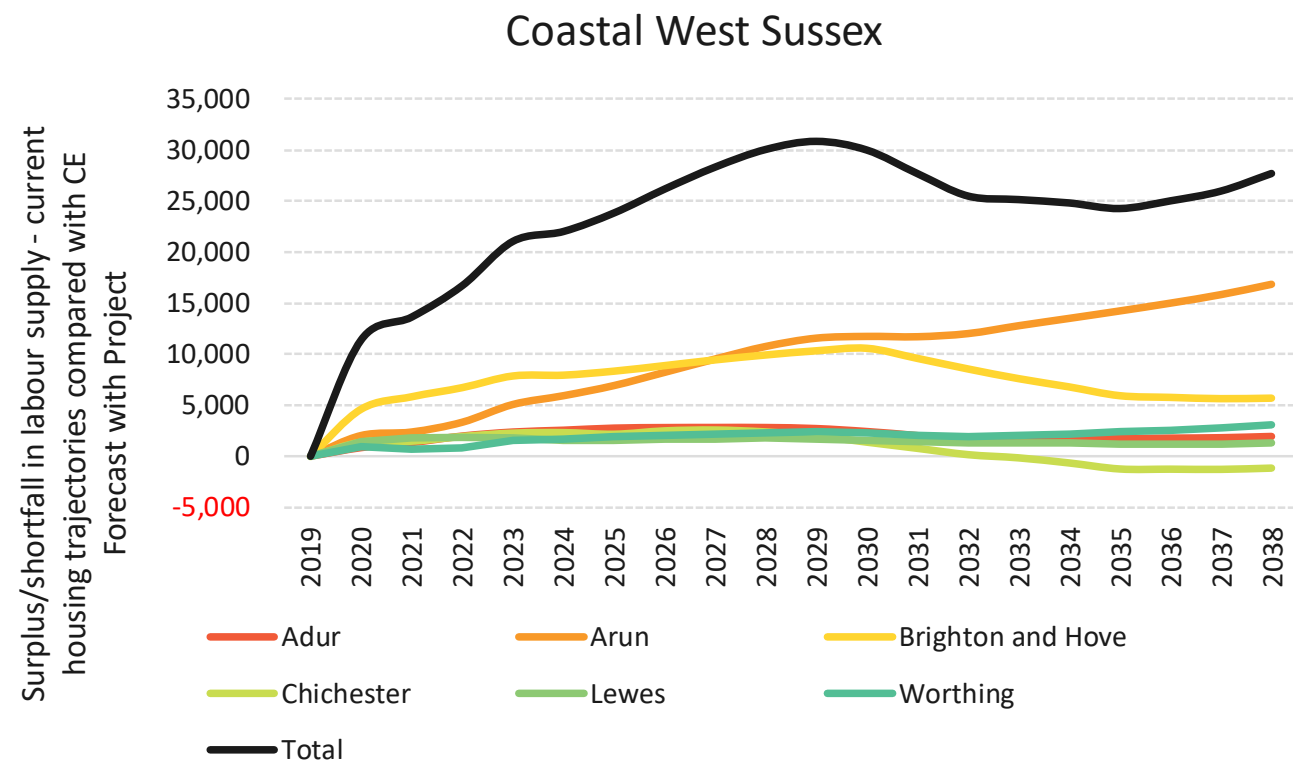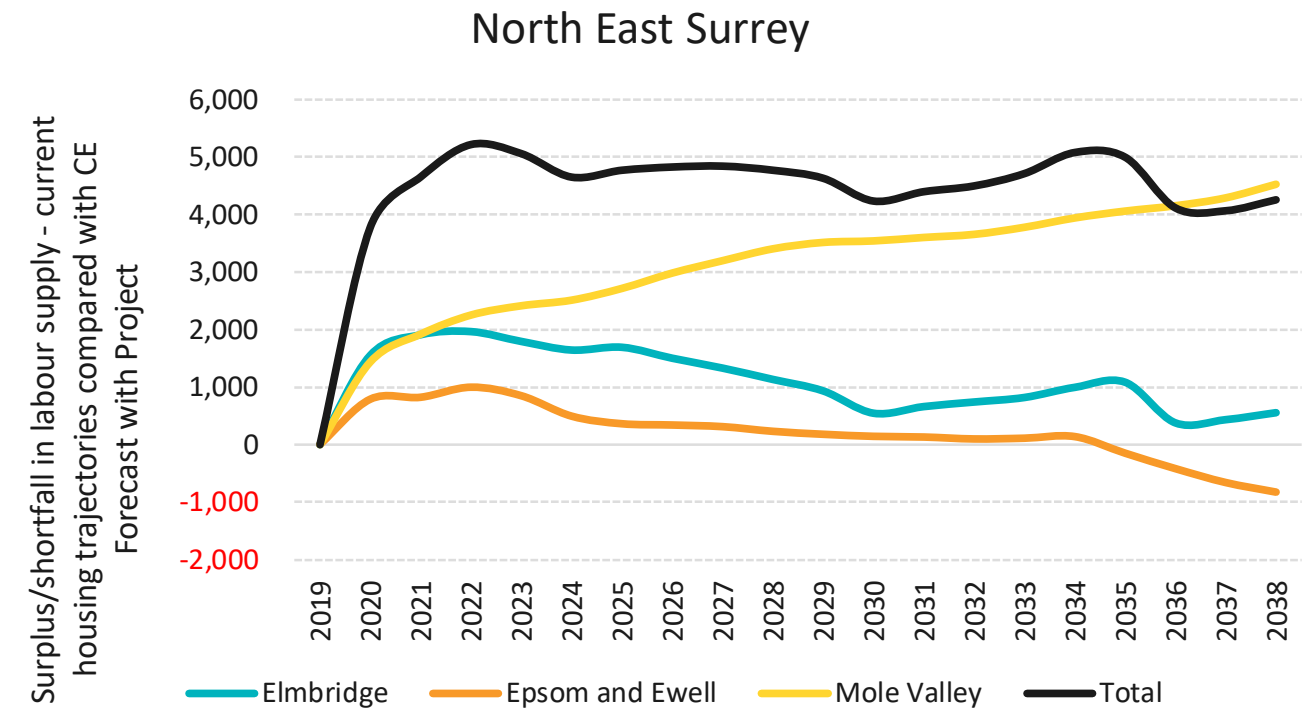
5.3 Age of the labour force

5.3.1 The population of the study area as a whole has seen ageing in recent years and this is expected to continue in the future, reflecting wider trends (namely declining birth rates and increases in life expectancy, combined with the 'bulge' in elderly population as the 'baby-boomers' reach old age). Whilst the overall size of the labour force is an important consideration, it is also necessary to consider the age of the labour force to ensure that the supply of labour is suitably aligned with demand from jobs.

5.3.2 Diagram 5.3.1 shows the projected labour supply across the study area to 2038 split by under 45s and 45 and over, based on both the current housing trajectory scenario and the most recent (2018-based) SNPP. As the trajectory scenario uses the SNPP, it follows similar trends in projected age structure, albeit adjusted to reflect the given amount of housing.

5.3.3 In the case of under 45s, labour supply based on the SNPP would be expected to decline slightly, from around 685,000 currently to around 660,000 in the longer term. Because of additional population growth supported by current housing trajectories, labour supply based on current trajectories would be expected to reverse this trend, with the labour supply of under 45s increasing to around 710,000 in the long term.

5.3.4 The labour force which is age 45 and over is expected to increase steadily, from around 620,000 currently to around 750,000 by 2038 (based on current trajectories; this would be lower, at around 700,000 in 2038 based on the current SNPP). This increase in the older labour supply reflects the combination of:

- The underlying population itself ageing, with significant growth in the number of older people; and
- Increasing economic activity in these age groups, for example in the 65-69 age groups (as a result of increases in state pension age) and amongst women, reflecting increases in participation throughout adult life.

Diagram 5.3.1: Projected labour force in the study area 2019-38 by age - Current housing trajectory scenario and 2018-based SNPP (re-based to 2019)
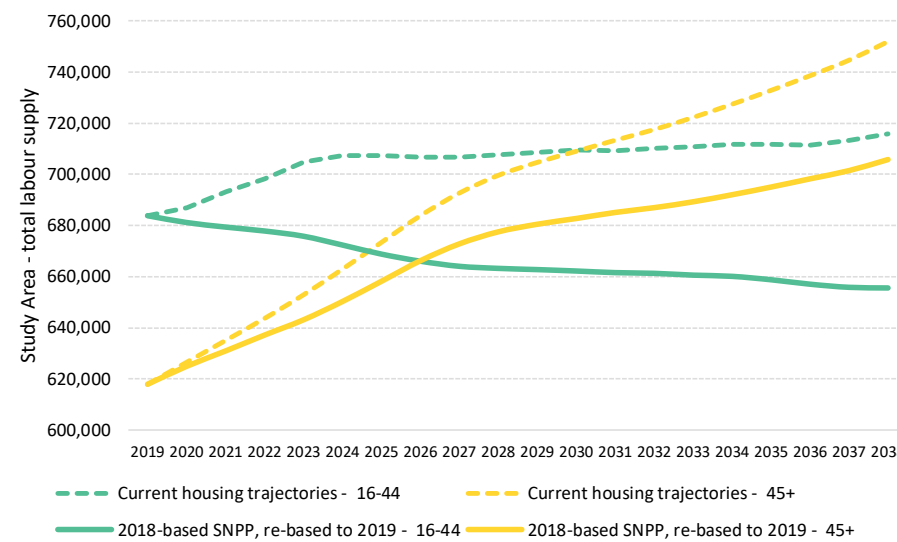
Source: Lichfields analysis

5.4 Relationship with Heathrow expansion

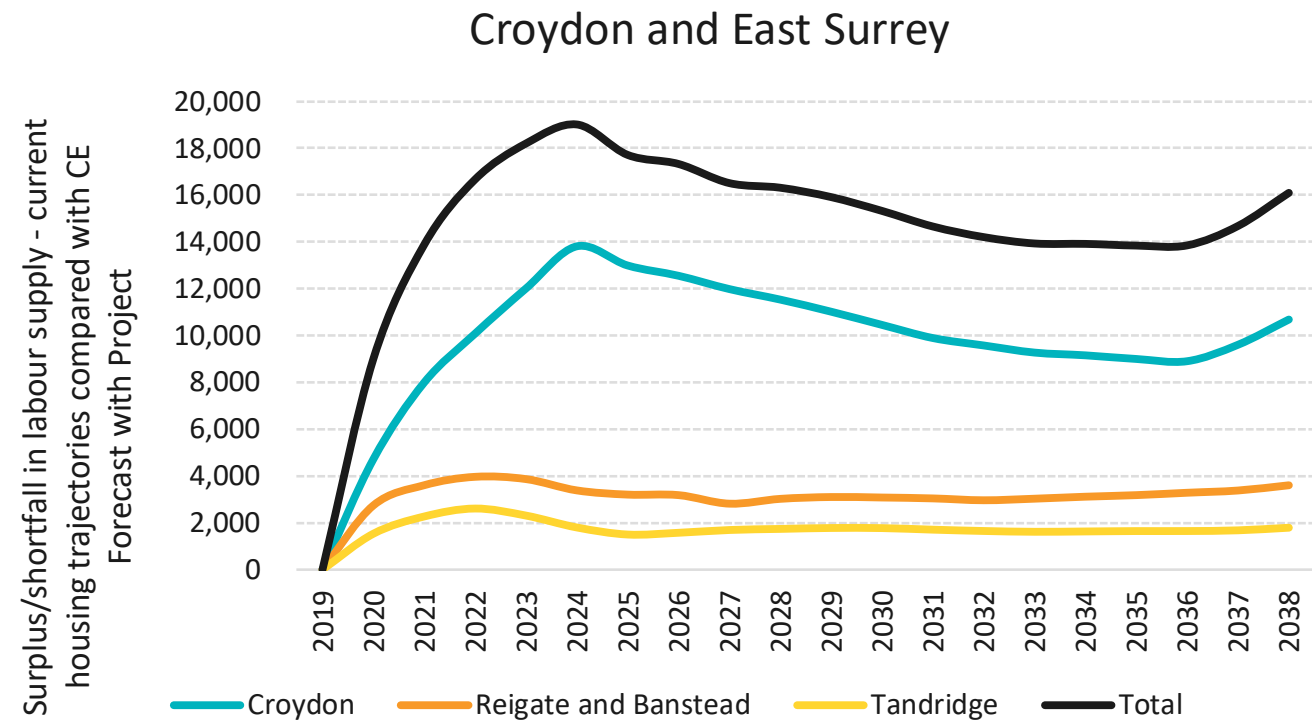5.4.1 Proposed expansion at Heathrow Airport will, as with Gatwick, have implications for labour supply and housing demand across a wide impact area. While the development of a Third Runway at Heathrow is not considered within the Project scenarios outlined above, it does form part of the cumulative assessment within Chapter 16 (Socio-economics) of the PEIR. Accordingly, it is necessary to examine potential cumulative population and housing impacts that could arise in combination to the Project in order to inform the PEIR.

5.4.2 The starting point is to determine whether there is any overlap between these impact areas and, if so, whether there are any potential impacts (in terms of population, labour supply and housing) which need to be addressed.

5.4.3 The Heathrow EIA Scoping Report Chapter 10: Economics and Employment sets out several study areas across which impacts will be assessed. Of relevance to the Project is the wider sub-regional context area:

"A wider 'sub-regional context area' - The main function of this sub-regional area will be to provide an economic baseline and to consider its capacity to meet the 'wider' Heathrow generated growth. It is comprised of the 'Elizabeth Line West' area identified by the draft New

London Plan, along with three LEP areas (Thames Valley Berkshire, Enterprise M3 and Buckinghamshire Thames Valley)." Heathrow Expansion EIA Scoping Report – Chapter 10: Economics and employment para 10.1.10 [2]

5.4.4 The extent of the Heathrow wider sub-regional context area is shown in Diagram 5.3.1 below, along with the relevant areas used for the purposes of the Project (the Gatwick Labour Market Area and the Gatwick Study Area used in this report).

5.4.5 This shows there is only overlap of one district between the Gatwick and Heathrow areas – Elmbridge in Surrey. The comparison of the labour supply generated by current housing trajectories and the labour supply needed to support forecast job growth (CE, with the Project) for Elmbridge and the North East Surrey housing market area is shown above in Diagram 5.2.2. It shows that in Elmbridge specifically, there is expected to be a surplus of labour supply of up to c.2,000 in the early 2020s falling to around 500-1,000 by the early 2030s and falling to below 500 in the longer term (but not falling below zero). Looking across the housing market area as a whole, the labour surplus is expected to be around 5,000 in the short term, falling to around 2,500-3,000 in the longer term. This is in the context of an overall surplus across the Gatwick Study Area of over 80,000 by 2038.

5.4.6 At the time of writing it is unknown how many net additional jobs Heathrow's third runway is expected to generate across Heathrow's wider sub-regional context area, and the exact timeframe for when these might be generated. However, even accounting for the impact of the Project there is clearly a significant amount of 'headroom' in the labour supply in the local authority where there is an overlap between the two airport areas (Elmbridge) and in the housing market area in which that authority sits (North East Surrey). Expansion at Heathrow Airport would need to generate labour demand in excess of c.2,500 workers in Elmbridge alone in order for there to be any potential imbalance in labour supply and demand resulting from both the Project at Gatwick and future expansion at Heathrow.

5.4.7 Furthermore, as previously noted, the assessment of the labour supply generated by current housing trajectories represents a 'worst-case scenario' because in the future local plans will be updated and expected housing delivery will increase (as a result of the standard method), in turn increasing the labour supply generated in the Study Area. This would further increase the 'headroom' in the surplus labour supply of the North East Surrey housing market area, decreasing the likelihood that expansion at

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both Heathrow and Gatwick will place pressure on the authority (or authorities) impacted by both.

Diagram 5.4.1 Heathrow Wider Sub-Regional Context Area and Gatwick Labour Market Area/Study Area for Assessment of Population and Housing Effects
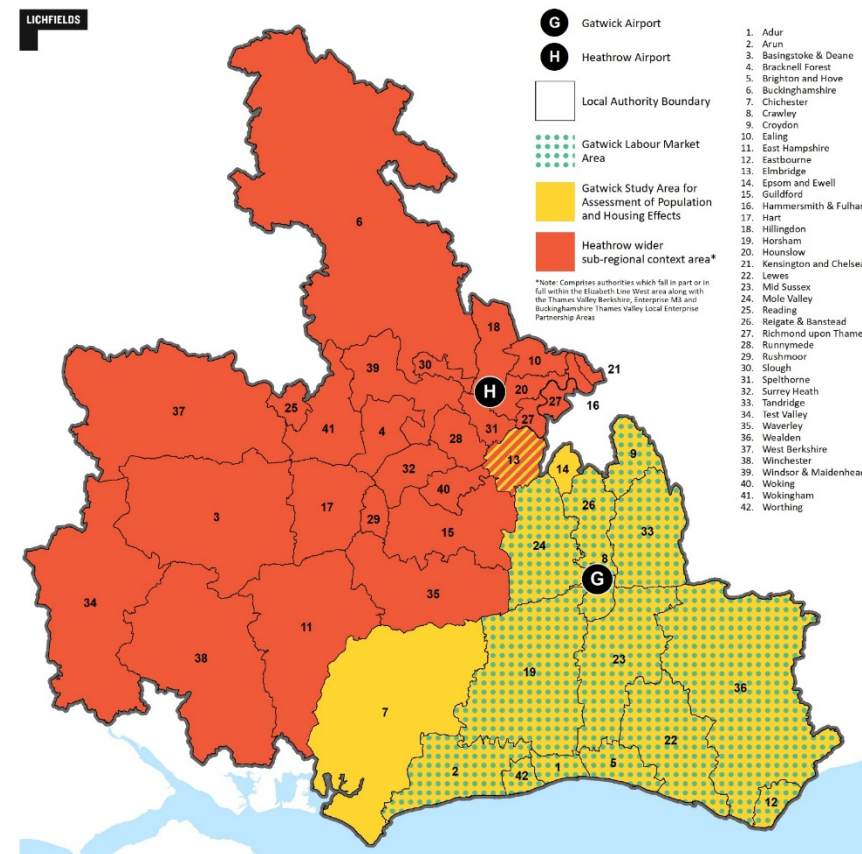
5.5.3 Whilst the labour force is expected to grow across the study area, in line with national trends this growth would primarily be in older workers. This is due to a combination of increasing economic activity amongst older people (eg due to rising state pension age) and ageing more widely. The number of people in the labour force in the study area which are of younger working age (under 45) is expected increase slightly then remain broadly stable to 2038 at around 710,000, while the number of over 45s in the labour force is expected to rise steadily from 620,000 currently to 750,000 in 2038. The additional c.16,000 workers arising from the Project in the study area represents a relatively small proportion of the overall labour force.

5.5.4 Looking at Heathrow's wider sub-regional context area shows just one authority of overlap with the Study Area – Elmbridge. The analysis suggests that current housing trajectories have a comfortable degree of headroom in the labour supply in Elmbridge and its housing market area sufficient to support additional labour demand from the project and from any additional jobs arising from a third runway at Heathrow (in other words, expansion at Heathrow would need to generate demand for in excess of c.2,500 workers in Elmbridge alone for there to be any likely impact on labour and housing demand arising from expansion at both airports). In reality the headroom is likely to be greater than set out in this assessment because actual housing delivery (and therefore population and labour supply growth) is likely to be higher than that based on current housing trajectories.

5.5 Summary

5.5.1 Sections 3.0 and 4.0 established that overall, across the study area, the labour supply needed to support the growth in jobs forecast by Cambridge Econometrics with the additional workers arising from the Project (see Section 3.0, Diagram 3.4.1 Scenario 5) was less than the labour supply generated by current housing trajectories (see Section 4.0, Diagram 4.5.1 Scenario 6).

5.5.2 Looking more in-depth, on an annual basis and at individual authorities/housing market areas, suggests there are no notable 'pinch-points' where there may be particular extra pressures on housing demand. There is expected to be surplus of labour supply in the North West Sussex HMA where most of the additional jobs from the Project are concentrated, and any

shortfalls in a small number of individual local authorities are likely to be offset by surpluses in neighbouring areas.

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6 Summary and conclusions

6.1 Summary

6.1.1 This report has been prepared by Lichfields on behalf of Gatwick Airport with input from Cambridge Econometrics and Oxera which have provided economic forecasts. This report provides the background analysis to demonstrate that the operational phase of the Project would not have significant effects on population levels and housing. It should not be used for the purposes of assessing local housing needs or requirements as it does not examine all relevant factors and has been prepared based on third party data which may be subject to change as part of future plan making.

6.1.2 Several future scenarios covering the study area have been examined, led either by population trends, job forecasts or housing numbers, the outputs for which are shown in Diagram 6.1.1. Bars of the same colour show growth in a given indicator (eg **blue** for population) under the various scenarios.

Diagram 6.1.1: Summary of population, dwelling, labour supply and job outputs - all scenarios (study area total, 2019-38 total change)

Source: Lichfields

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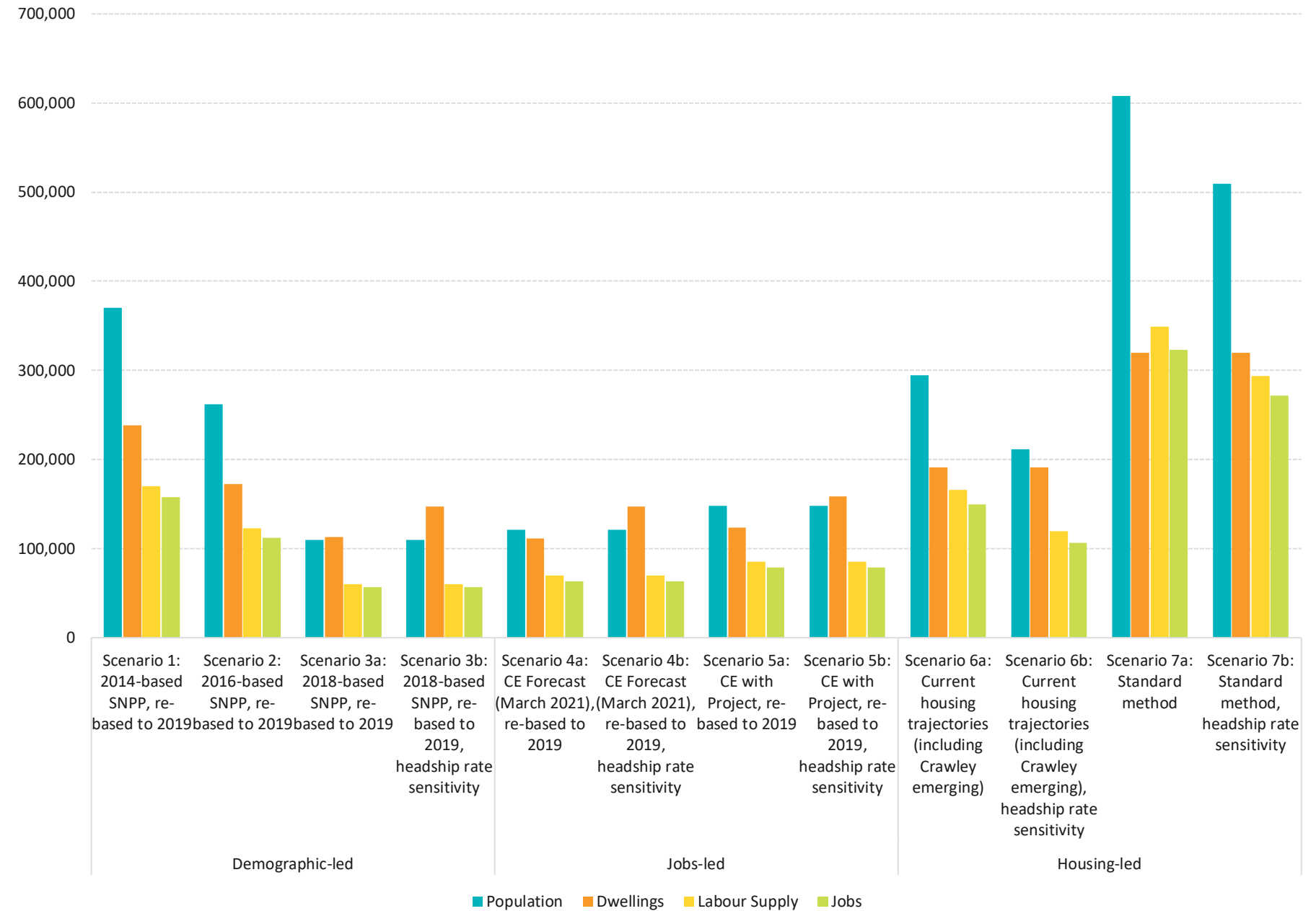
6.1.3 The two scenarios considered most useful for answering the question at the heart of this report – ie is it likely that growth generated by the Project would have a significant impact on population/housing - are:

- Scenario 5a: the number of jobs forecast in Cambridge Econometrics' most recent economic forecast (March 2021) with the additional workers arising in the operational phase of the Project, and how much housing would be needed to support this; and

- Scenario 6a: the amount of housing which is likely to come forward based on current housing trajectories (and the amount of population and labour supply this would generate), and how many jobs this might support.

6.1.4 Our analysis suggests that across the study area as a whole to 2038 the amount of labour supply which can reasonably be expected to be generated based on current housing trajectories is greater than the amount of labour supply needed to support the increase in the most recent job forecast from Cambridge Econometrics, with additional jobs from the Project (ie labour supply outweighs labour need in the study area).

6.1.5 Looking in more detail over the next 20 years the analysis suggests that:

- Within the North West Sussex housing market area, the amount of labour supply generated based on current trajectories would exceed labour supply needed to support the CE forecast with additional Project jobs by over 25,000 in total by 2038, rising steadily from 2019 onwards;

- In the rest of the study area there may be shortfalls in labour supply in Eastbourne, Epsom and Ewell and Chichester albeit this would likely be balanced by surpluses in the rest of their respective housing market areas;

- The labour force would age, in line with national trends. The number of people in the labour force under age 45 would rise to around 710,000 over the next 20 years, with those age 45 and over seeing steady growth; and

- In Elmbridge (the only authority to overlap with Heathrow's wider sub-regional context area) and its housing market area (North East Surrey) there is a significant surplus of labour supply available to support any additional job growth resulting from expansion at Heathrow even after the effects of the Project are factored in.

6.2 Conclusion

6.2.1 Based on the analysis, it is concluded that the Project would not generate significant population or associated housing effects. The Project is expected to result in significant growth of workers associated with Gatwick Airport – amounting to c.16,000 (direct, indirect and catalytic) in the study area by 2038 (note that the study area used in this report is slightly larger than the Labour Market Area and smaller than the Five Authorities Area referred to elsewhere in the PEIR). However it is not reasonably expected that additional demand arising during the operational phase of the Project would create pressure on the housing supply of any particular authority, or that the study area would need to make specific provision for additional housing in response to the Project's job creation before 2038.

7 References

Ministry of Housing, Communities and Local Government (MHCLG) (2021) National Policy Planning Framework (NPPF) [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf

8 Glossary

8.1 Glossary of terms

Table 8.1.1: Glossary of Terms

Term	Description
ASMigR	Age Specific Migration Rates
CE	Cambridge Econometrics
DCLG	Department of Communities and Local Government
EIA	Environmental Impact Assessment
GAL	Gatwick Airport Limited
HMA	Housing Market Area
MHCLG	Ministry for Housing, Communities and Local Government
MYEs	Mid-Year Estimates
OBR	Office for Budget Responsibility
ONS	Office for National Statistics
PEIR	Preliminary Environmental Information Report
SMR	Standardised Mortality Ratio
SNHP	Sub-National Household Projections
SNPP	Sub-National Population Projections
TFR	Total Fertility Rate
UK	United Kingdom

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Annex 1

Model inputs and assumptions

| Input | Demographic | | | | Employment-led | | Housing-led | |
	Scenario 1: 2014-based SNPP	Scenario 2: 2016-based SNPP	Scenario 3a: 2018-based SNPP	Scenario 3a: 2018-based SNPP, headship rate adjustment	Scenario 4: Cambridge Econometrics Forecast	Scenario 5: Cambridge Econometrics Forecast with Project	Scenario 6: Current trajectories	Scenario 7: Standard method
Demographic								
Base Population	ONS 2018 Mid-Year Population Estimates (MYEs) by single year of age and sex by local authority.							
Births	Total Fertility Rate (TFR) by local authority from ONS 2014-based SNPP applied.	Total Fertility Rate (TFR) by local authority from ONS 2016-based SNPP applied.	Total Fertility Rate (TFR) by local authority from ONS 2018-based SNPP applied.					
Deaths	Standardised Mortality Ratio (SMR) by local authority from ONS 2014-based SNPP applied.	Standardised Mortality Ratio (SMR) by local authority from ONS 2016-based SNPP applied.	Standardised Mortality Ratio (SMR) by local authority from ONS 2018-based SNPP applied.					
In-migration from UK	Age Specific Migration Rates (ASMigR – the proportion of people in a given age/sex group who migrate into a given local authority each year / total number in that group) and migration differentials (the degree to which ASMigRs change each year) by local authority from ONS 2014-based SNPP applied. Reference population (ie the population from which in-migrants are drawn) is the 2014-based National	ASMigRs and migration differentials by local authority from ONS 2016-based SNPP applied. Reference population is the 2016-based National Population projections (UK) by sex and single year of age.	ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Reference population is the 2018-based National Population projections (UK) by sex and single year of age.		ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Reference population is the 2018-based National Population projections (UK) by sex and single year of age. Number of migrants is constrained/inflated to achieve labour supply necessary to support job growth.		ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Reference population is the 2018-based National Population projections (UK) by sex and single year of age. Number of migrants is constrained/inflated based on dwelling growth.	

Input	Demographic				Employment-led		Housing-led	
	Scenario 1: 2014-based SNPP	Scenario 2: 2016-based SNPP	Scenario 3a: 2018-based SNPP	Scenario 3a: 2018-based SNPP, headship rate adjustment	Scenario 4: Cambridge Econometrics Forecast	Scenario 5: Cambridge Econometrics Forecast with Project	Scenario 6: Current trajectories	Scenario 7: Standard method
	Population projections (UK) by sex and single year of age.							
Out-migration to the UK	ASMigRs and migration differentials by local authority from ONS 2014-based SNPP applied.	ASMigRs and migration differentials by local authority from ONS 2016-based SNPP applied.	ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied.		ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Number of migrants is constrained/inflated to achieve labour supply necessary to support job growth.		ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Number of migrants is constrained/inflated based on dwelling growth.	
In-migration from overseas	Age/sex profile (by sex and single year of age) and total number of migrants by local authority from ONS 2014-based SNPP applied.	Age/sex profile (by sex and single year of age) and total number of migrants by local authority from ONS 2016-based SNPP applied.	Age/sex profile (by sex and single year of age) and total number of migrants by local authority from ONS 2018-based SNPP applied		Age/sex profile (by sex and single year of age) and total number of migrants by local authority from ONS 2018-based SNPP applied. Number of migrants is constrained/inflated to achieve labour supply necessary to support job growth.		Age/sex profile (by sex and single year of age) and total number of migrants by local authority from ONS 2018-based SNPP applied. Number of migrants is constrained/inflated based on dwelling growth.	
Out-migration to overseas	ASMigRs and migration differentials by local authority from ONS 2014-based SNPP applied.	ASMigRs and migration differentials by local authority from ONS 2016-based SNPP applied.	ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied		ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Number of migrants is constrained/inflated to achieve labour supply necessary to support job growth.		ASMigRs and migration differentials by local authority from ONS 2018-based SNPP applied. Number of migrants is constrained/inflated based on dwelling growth.	
Housing								
Household Formation Rates	Stage 1 household formation rates (ie by sex and 5 year age group) from 2014-based household projections by local authority applied.	Stage 1 household formation rates (ie by sex and 5 year age group) from 2016-based household projections by local authority applied.	Stage 1 household formation rates (ie by sex and 5 year age group) from 2018-based household projections by local authority applied.	Stage 1 household formation rates (ie by sex and 5 year age group) from 2018-based household projections by local authority applied. If the rates for 16-19, 20-24, 25-29 and 30-34 year olds in a given authority are projected to fall below the 2001 level by 2030, rates are adjusted so they return to the 2001 level by 2030. Rates	Stage 1 household formation rates or relevant sensitivity from 2018-based household projections by local authority applied.			

Input	Demographic				Employment-led		Housing-led	
	Scenario 1: 2014-based SNPP	Scenario 2: 2016-based SNPP	Scenario 3a: 2018-based SNPP	Scenario 3a: 2018-based SNPP, headship rate adjustment	Scenario 4: Cambridge Econometrics Forecast	Scenario 5: Cambridge Econometrics Forecast with Project	Scenario 6: Current trajectories	Scenario 7: Standard method
				held constant thereafter.				
Communal Establishment Population	Communal establishment population by sex and 5 year age group from 2014-based household projections by local authority applied. Below age 75 absolute figures are used, above age 75 rates are used (reflecting official methodology)	Communal establishment population by sex and 5 year age group from 2016-based household projections by local authority applied. Below age 75 absolute figures are used, above age 75 rates are used (reflecting official methodology)	Communal establishment population by sex and 5 year age group from 2018-based household projections by local authority applied. Below age 75 absolute figures are used, above age 75 rates are used (reflecting official methodology)					
Vacancy	Vacancy rate calculated for each authority using Census 2011 (KS401EW) using household spaces with no usual residents / all household spaces							
Employment								
Economic Activity Rates	Starting point is the 2011 Census economic activity rates by age and sex (DC6107EW) by local authority. Rates are projected forward using the annual rates of change by age and sex from the Office for Budget Responsibility (OBR) labour market participation rates projections published in January 2017							
Unemployment	ONS model-based estimates of unemployment for the year July to June 2019. Rates held at current level.							
Labour Force Ratio	Residents in employment as of 2019 calculated using ONS 2019 MYEs with 2019 projected economic activity rates applied, less those unemployed (based on ONS model-based estimates of unemployment for year to June 2019). The number of employed residents in each local authority / number of jobs (from Cambridge Econometrics March 2021 forecast) gives the labour force ratio.							

Current housing trajectory data

	Source of trajectory	Source
Adur	AMR/5YHLS (2019)	https://www.adur-worthing.gov.uk/media/Media,156203,smxx.pdf
Arun	AMR/5YHLS (2020)	https://www.arun.gov.uk/download.cfm?doc=docm93jijm4n14090.pdf&ver=14338
Brighton and Hove	SHLAA (2021)	https://www.brighton-hove.gov.uk/sites/default/files/2021-02/2020%20SHLAA%20Update%20FINAL%20030221b.pdf
Chichester	AMR/5YHLS (2020)	https://www.chichester.gov.uk/media/33782/Chichester-Local-Plan-Area-Five-Year-Housing-Land-Supply---2020-2025-Updated-15-July-2020/pdf/5YHLS_Position_Statement_-_Chichester_Five_Year_Land_Supply_as_of_15_July_2020.pdf
Crawley	AMR (2019) and emerging LP 2021	https://crawley.gov.uk/sites/default/files/2020-11/Crawley%20Borough%20Local%20Plan%20Authority%20Monitoring%20Report%202018-19.pdf
Croydon	Housing Trajectory (updated 2019)	https://drive.google.com/file/d/1Ph9uXM_3SznqRwnvaJ__fnjALd53-sMN/view
Eastbourne	AMR (2020)	https://www.lewes-eastbourne.gov.uk/_resources/assets/inline/full/0/295067.pdf
Elmbridge	AMR (2020)	https://www.elmbridge.gov.uk/_resources/assets/attachment/full/0/7755.pdf
Epsom and Ewell	AMR (2019)	http://democracy.epsom-ewell.gov.uk/documents/s15201/Annual%20Monitoring%20Report%202018-2019%20Annex%201.pdf
Horsham	AMR (2020)	https://www.horsham.gov.uk/__data/assets/pdf_file/0009/93924/AMR_2019_2020_CHAPTER_3_Housing.pdf
Lewes	5YHLS (2020)	https://www.lewes-eastbourne.gov.uk/_resources/assets/inline/full/0/273535.pdf
Mid Sussex	5YHLS (2021)	https://www.midsussex.gov.uk/media/5995/5-year-supply-combined.pdf
Mole Valley	5YHLS (2019)	https://www.molevalley.gov.uk/media/pdf/k/5/Five_Year_Housing_Land_Supply_Annual_Review_2019-24.pdf
Reigate and Banstead	AMR (2019)	http://www.reigate-banstead.gov.uk/downloads/file/5750/housing_trajectory_2019
Tandridge	5YHLS in AMR (2020)	https://www.tandridge.gov.uk/Portals/0/Documents/Planning%20and%20building/Planning%20strategies%20and%20policies/Current%20and%20adopted%20planning%20policies/Monitoring%20and%20land%20supply/Authority-Monitoring-Report-2019-2020.pdf?ver=2020-08-13-184711-130
Wealden	5YHLS in AMR (2020)	https://www.wealden.gov.uk/UploadedFiles/Five-Year-Housing-Land-Supply-Statement-2020-3.pdf
Worthing	AMR (2020)	https://www.adur-worthing.gov.uk/media/Media,158914,smxx.pdf

Notes: For 2019/20 actual completion figures have been used, either as set out in the latest AMR or from MHCLG Live Table 122 where 2019/20 AMR data is missing. Does not include trajectories in emerging plans (eg currently at Reg 18/19 stage or undergoing examination), with the exception of Crawley. Where the trajectory ends before 2038 an average figure from 2020 to the end of the trajectory is trended. Some authorities only have a five-year land supply, in which case most of the trajectory is estimated using the average for 2020 onwards. Where a total figure only is given this is averaged.

Table A2.1: Current housing trajectories

Year ending	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	13	380	529	462	317	322	202	207	207	157	137	72	32	*252*	*252*	*252*	*252*	*252*	*252*
Arun	515	547	1,326	1,906	1,398	1,423	1,568	1,688	1,606	1,423	1,347	1,111	*1,395*	*1,395*	*1,395*	*1,395*	*1,395*	*1,395*	*1,395*
Brighton and Hove	558	622	985	1,386	1,153	1,054	1,112	1,112	1,112	1,112	1,112	470	470	470	470	470	*874*	*874*	*874*
Chichester	503	349	720	758	607	397	672	549	398	318	278	278	278	278	148	58	*406*	*406*	*406*
Crawley	452	475	398	846	726	354	251	287	303	204	55	220	220	220	220	220	220	220	220
Croydon	1,657	2,640	2,640	2,640	2,640	929	929	929	929	929	929	929	929	929	929	929	929	*1,357*	*1,357*
Eastbourne	200	310	396	249	226	259	*288*	*288*	*288*	*288*	*288*	*288*	*288*	*288*	*288*	*288*	*288*	*288*	*288*
Elmbridge	396	529	529	529	530	532	287	287	288	288	288	516	517	517	517	517	85	*422*	*422*
Epsom and Ewell	185	93	245	181	79	142	142	142	142	142	185	185	185	185	185	44	44	44	44
Horsham	955	710	605	1,034	1,311	1,444	792	753	465	445	389	315	*751*	*751*	*751*	*751*	*751*	*751*	*751*
Lewes	242	389	389	389	389	389	*389*	*389*	*389*	*389*	*389*	*389*	*389*	*389*	*389*	*389*	*389*	*389*	*389*
Mid Sussex	1,003	1,072	1,072	1,072	1,072	1,072	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*	*1,072*
Mole Valley	157	299	299	299	299	299	*299*	*299*	*299*	*299*	*299*	*299*	*299*	*299*	*299*	*299*	*299*	*299*	*299*
Reigate and Banstead	459	924	701	532	330	365	360	232	*492*	*492*	*492*	*492*	*492*	*492*	*492*	*492*	*492*	*492*	*492*
Tandridge	262	496	454	208	82	82	*264*	*264*	*264*	*264*	*264*	*264*	*264*	*264*	*264*	*264*	*264*	*264*	*264*
Wealden	1,034	965	965	965	965	965	*965*	*965*	*965*	*965*	*965*	*965*	*965*	*965*	*965*	*965*	*965*	*965*	*965*
Worthing	396	173	328	803	414	505	345	*428*	*428*	*428*	*428*	*428*	*428*	*428*	*428*	*428*	*428*	*428*	*428*
Total	**8,987**	**10,973**	**12,581**	**14,259**	**12,538**	**10,533**	**9,938**	**9,892**	**9,648**	**9,216**	**8,918**	**8,294**	**8,975**	**9,195**	**9,065**	**8,834**	**9,154**	**9,919**	**9,919**

Notes: Figures for 2020 are actual completions based either on authority AMR data or MHCLG Live Table 122 where the latest AMR is missing. Figures shown in *italics* are trended based on the average seen from 2020/21 to the end of the available trajectory. Figures for Crawley post-2030 are taken from the emerging Local Plan average to 2035. Figures may not sum due to rounding. Figures may not precisely match PopGroup outputs on an annual basis due to rounding and model functionality.

Annex 3

Headline outputs for all scenarios by local authority

Table A3.1: Headline outputs - Scenario 1: 2014-based SNPP, re-based to 2019

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	74,658	29,279	35,719	33,209	37,942	27,068	30,926
Arun	160,758	188,703	76,594	94,499	78,099	88,127	57,907	64,736
Brighton and Hove	290,885	322,933	135,374	157,863	167,505	183,147	172,173	187,066
Chichester	121,129	133,573	58,596	68,811	61,119	65,911	81,512	87,722
Crawley	112,409	131,700	46,685	57,912	62,880	73,618	103,595	120,283
Croydon	386,710	463,296	164,921	211,540	205,905	244,628	146,506	175,158
Eastbourne	103,745	120,220	51,130	62,436	50,490	56,066	47,310	52,370
Elmbridge	136,795	150,220	58,523	67,375	70,764	76,737	71,093	76,935
Epsom & Ewell	80,627	97,175	32,636	40,897	43,202	52,427	37,021	44,834
Horsham	143,791	155,375	63,455	73,152	77,307	80,274	71,243	74,053
Lewes	103,268	121,982	47,215	58,006	52,207	60,729	47,883	55,584
Mid Sussex	151,022	170,085	64,713	77,561	82,456	91,550	69,261	76,665
Mole Valley	87,245	96,828	38,653	44,996	46,420	50,543	56,416	61,490
Reigate and Banstead	148,748	178,247	62,098	78,663	81,433	96,705	85,657	102,140
Tandridge	88,129	101,530	37,574	46,592	47,584	54,774	45,388	52,085
Wealden	161,475	187,174	72,241	88,835	83,130	93,823	68,502	77,473
Worthing	110,570	128,485	52,579	66,102	57,838	64,464	56,468	63,003
Study Area	**2,451,607**	**2,822,182**	**1,092,266**	**1,330,960**	**1,301,547**	**1,471,465**	**1,245,003**	**1,402,521**

Source: Lichfields analysis using PopGroup

Table A3.2: Headline outputs - Scenario 2: 2016-based SNPP, re-based to 2019

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019***	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	72,660	28,900	33,535	33,209	37,656	27,068	30,692
Arun	160,758	186,152	75,498	91,433	78,099	87,826	57,907	64,515
Brighton and Hove	290,885	316,085	131,395	146,758	167,505	180,233	172,173	184,091
Chichester	121,129	133,439	57,892	66,768	61,119	66,784	81,512	88,884
Crawley	112,409	120,773	45,516	51,450	62,880	67,796	103,595	110,770
Croydon	386,710	432,194	156,636	182,802	205,905	228,889	146,506	163,889
Eastbourne	103,745	118,508	50,004	60,254	50,490	55,541	47,310	51,879
Elmbridge	136,795	143,021	57,379	63,673	70,764	74,494	71,093	74,687
Epsom & Ewell	80,627	87,861	32,132	36,523	43,202	47,261	37,021	40,416
Horsham	143,791	154,529	62,404	71,644	77,307	80,791	71,243	74,530
Lewes	103,268	116,615	46,589	54,900	52,207	58,657	47,883	53,687
Mid Sussex	151,022	168,068	63,473	74,329	82,456	91,186	69,261	76,360
Mole Valley	87,245	91,908	38,265	42,471	46,420	48,277	56,416	58,733
Reigate and Banstead	148,748	163,599	60,818	70,432	81,433	88,981	85,657	93,981
Tandridge	88,129	96,652	37,088	43,159	47,584	52,295	45,388	49,728
Wealden	161,475	184,735	71,597	86,806	83,130	93,459	68,502	77,172
Worthing	110,570	126,402	51,666	62,372	57,838	64,261	56,468	62,804
Study Area	**2,451,607**	**2,713,202**	**1,067,253**	**1,239,310**	**1,301,547**	**1,424,386**	**1,245,003**	**1,356,818**

Source: Lichfields analysis using PopGroup. *Note: This scenario has a different number of dwellings to Scenario 1 for the Study Area at the base date because it uses different household projections (which convert the population in 2019 into households and subsequently dwellings).

Table A3.3: Headline outputs - Scenario 3a: 2018-based SNPP, re-based to 2019

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019***	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	67,036	28,903	31,389	33,209	35,007	27,068	28,533
Arun	160,758	182,474	75,467	90,534	78,099	88,152	57,907	64,755
Brighton and Hove	290,885	299,534	131,383	137,169	167,505	172,388	172,173	176,077
Chichester	121,129	132,633	57,884	67,036	61,119	66,109	81,512	87,985
Crawley	112,409	116,612	45,510	50,462	62,880	66,201	103,595	108,164
Croydon	386,710	396,192	156,559	171,409	205,905	212,568	146,506	152,202
Eastbourne	103,745	109,038	49,999	55,496	50,490	51,718	47,310	48,308
Elmbridge	136,795	133,466	57,373	61,427	70,764	70,364	71,093	70,547
Epsom & Ewell	80,627	80,887	32,131	34,148	43,202	43,771	37,021	37,432
Horsham	143,791	160,678	62,397	74,730	77,307	86,164	71,243	79,487
Lewes	103,268	111,152	46,587	52,917	52,207	56,161	47,883	51,403
Mid Sussex	151,022	137,313	63,472	63,258	82,456	74,017	69,261	61,982
Mole Valley	87,245	91,453	38,265	41,560	46,420	49,966	56,416	60,788
Reigate and Banstead	148,748	156,956	60,795	67,534	81,433	86,903	85,657	91,787
Tandridge	88,129	91,839	37,086	40,527	47,584	49,999	45,388	47,545
Wealden	161,475	174,674	71,613	81,869	83,130	89,624	68,502	74,005
Worthing	110,570	119,650	51,655	58,469	57,838	62,480	56,468	61,064
Study Area	**2,451,607**	**2,561,589**	**1,067,079**	**1,179,933**	**1,301,547**	**1,361,592**	**1,245,003**	**1,302,064**

Source: Lichfields analysis using PopGroup. *Note: This scenario has a different number of dwellings to Scenarios 1 and 2 for the Study Area at the base date because it uses different household projections (which convert the population in 2019 into households and subsequently dwellings).

Table A3.4: Headline outputs - Scenario 3b: 2018-based SNPP, re-based to 2019, headship rate adjustment

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	67,036	28,903	32,158	33,209	35,007	27,068	28,533
Arun	160,758	182,474	75,467	92,252	78,099	88,152	57,907	64,755
Brighton and Hove	290,885	299,534	131,383	144,333	167,505	172,388	172,173	176,077
Chichester	121,129	132,633	57,884	67,793	61,119	66,109	81,512	87,985
Crawley	112,409	116,612	45,510	52,475	62,880	66,201	103,595	108,164
Croydon	386,710	396,192	156,559	181,439	205,905	212,568	146,506	152,202
Eastbourne	103,745	109,038	49,999	56,885	50,490	51,718	47,310	48,308
Elmbridge	136,795	133,466	57,373	62,525	70,764	70,364	71,093	70,547
Epsom & Ewell	80,627	80,887	32,131	34,927	43,202	43,771	37,021	37,432
Horsham	143,791	160,678	62,397	76,265	77,307	86,164	71,243	79,487
Lewes	103,268	111,152	46,587	53,895	52,207	56,161	47,883	51,403
Mid Sussex	151,022	137,313	63,472	64,206	82,456	74,017	69,261	61,982
Mole Valley	87,245	91,453	38,265	42,231	46,420	49,966	56,416	60,788
Reigate and Banstead	148,748	156,956	60,795	68,899	81,433	86,903	85,657	91,787
Tandridge	88,129	91,839	37,086	40,991	47,584	49,999	45,388	47,545
Wealden	161,475	174,674	71,613	82,945	83,130	89,624	68,502	74,005
Worthing	110,570	119,650	51,655	59,979	57,838	62,480	56,468	61,064
Study Area	**2,451,607**	**2,561,589**	**1,067,079**	**1,214,196**	**1,301,547**	**1,361,592**	**1,245,003**	**1,302,064**

Source: Lichfields analysis using PopGroup

Table A3.5: Headline outputs - Scenario 4a: Cambridge Econometrics (March 2021) forecast

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	66,828	28,903	31,248	33,209	34,964	27,068	28,498
Arun	160,758	169,827	75,467	84,559	78,099	81,677	57,907	59,998
Brighton and Hove	290,885	312,375	131,383	142,558	167,505	180,751	172,173	184,620
Chichester	121,129	129,128	57,884	65,300	61,119	64,324	81,512	85,609
Crawley	112,409	110,712	45,510	47,984	62,880	62,782	103,595	102,577
Croydon	386,710	403,516	156,559	174,280	205,905	216,682	146,506	155,148
Eastbourne	103,745	111,362	49,999	56,570	50,490	52,985	47,310	49,492
Elmbridge	136,795	141,387	57,373	63,578	70,764	75,128	71,093	75,323
Epsom & Ewell	80,627	83,378	32,131	35,053	43,202	45,283	37,021	38,725
Horsham	143,791	149,624	62,397	68,672	77,307	80,070	71,243	73,865
Lewes	103,268	110,552	46,587	52,570	52,207	55,934	47,883	51,195
Mid Sussex	151,022	155,900	63,472	69,849	82,456	85,432	69,261	71,541
Mole Valley	87,245	88,839	38,265	40,387	46,420	48,552	56,416	59,068
Reigate and Banstead	148,748	156,405	60,795	67,216	81,433	86,680	85,657	91,552
Tandridge	88,129	92,239	37,086	40,634	47,584	50,280	45,388	47,812
Wealden	161,475	175,888	71,613	82,224	83,130	90,516	68,502	74,742
Worthing	110,570	114,462	51,655	56,051	57,838	59,591	56,468	58,240
Study Area	**2,451,607**	**2,572,421**	**1,067,079**	**1,178,734**	**1,301,547**	**1,371,631**	**1,245,003**	**1,308,005**

Source: Lichfields analysis using PopGroup

Table A3.6: Headline outputs - Scenario 4b: Cambridge Econometrics (March 2021) forecast with headship rate adjustment

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	66,828	28,903	32,026	33,209	34,964	27,068	28,498
Arun	160,758	169,827	75,467	86,135	78,099	81,677	57,907	59,998
Brighton and Hove	290,885	312,375	131,383	150,184	167,505	180,751	172,173	184,620
Chichester	121,129	129,128	57,884	66,038	61,119	64,324	81,512	85,609
Crawley	112,409	110,712	45,510	49,911	62,880	62,782	103,595	102,577
Croydon	386,710	403,516	156,559	184,523	205,905	216,682	146,506	155,148
Eastbourne	103,745	111,362	49,999	58,008	50,490	52,985	47,310	49,492
Elmbridge	136,795	141,387	57,373	64,902	70,764	75,128	71,093	75,323
Epsom & Ewell	80,627	83,378	32,131	35,874	43,202	45,283	37,021	38,725
Horsham	143,791	149,624	62,397	70,133	77,307	80,070	71,243	73,865
Lewes	103,268	110,552	46,587	53,558	52,207	55,934	47,883	51,195
Mid Sussex	151,022	155,900	63,472	71,144	82,456	85,432	69,261	71,541
Mole Valley	87,245	88,839	38,265	41,044	46,420	48,552	56,416	59,068
Reigate and Banstead	148,748	156,405	60,795	68,592	81,433	86,680	85,657	91,552
Tandridge	88,129	92,239	37,086	41,106	47,584	50,280	45,388	47,812
Wealden	161,475	175,888	71,613	83,340	83,130	90,516	68,502	74,742
Worthing	110,570	114,462	51,655	57,484	57,838	59,591	56,468	58,240
Study Area	**2,451,607**	**2,572,421**	**1,067,079**	**1,214,004**	**1,301,547**	**1,371,631**	**1,245,003**	**1,308,005**

Source: Lichfields analysis using PopGroup

Table A3.7: Headline outputs - Scenario 5a: Cambridge Econometrics forecast with additional jobs from Project

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	68,248	28,903	31,859	33,209	35,763	27,068	29,150
Arun	160,758	173,418	75,467	86,240	78,099	83,545	57,907	61,370
Brighton and Hove	290,885	312,931	131,383	142,804	167,505	181,104	172,173	184,981
Chichester	121,129	131,410	57,884	66,366	61,119	65,566	81,512	87,263
Crawley	112,409	114,661	45,510	49,584	62,880	65,137	103,595	106,425
Croydon	386,710	404,489	156,559	174,662	205,905	217,231	146,506	155,541
Eastbourne	103,745	111,560	49,999	56,665	50,490	53,088	47,310	49,589
Elmbridge	136,795	141,666	57,373	63,691	70,764	75,285	71,093	75,480
Epsom & Ewell	80,627	83,598	32,131	35,136	43,202	45,412	37,021	38,835
Horsham	143,791	153,877	62,397	70,468	77,307	82,525	71,243	76,130
Lewes	103,268	110,765	46,587	52,663	52,207	56,052	47,883	51,303
Mid Sussex	151,022	160,619	63,472	71,774	82,456	88,194	69,261	73,854
Mole Valley	87,245	89,114	38,265	40,501	46,420	48,713	56,416	59,264
Reigate and Banstead	148,748	157,202	60,795	67,534	81,433	87,148	85,657	92,045
Tandridge	88,129	92,560	37,086	40,764	47,584	50,466	45,388	47,988
Wealden	161,475	176,221	71,613	82,367	83,130	90,701	68,502	74,895
Worthing	110,570	117,034	51,655	57,244	57,838	61,029	56,468	59,646
Study Area	**2,451,607**	**2,599,373**	**1,067,079**	**1,190,322**	**1,301,547**	**1,386,959**	**1,245,003**	**1,323,758**

Source: Lichfields analysis using PopGroup

Table A3.8: Headline outputs - Scenario 5b: Cambridge Econometrics forecast with additional jobs from the Project, with headship rate adjustment

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	68,248	28,903	32,659	33,209	35,763	27,068	29,150
Arun	160,758	173,418	75,467	87,866	78,099	83,545	57,907	61,370
Brighton and Hove	290,885	312,931	131,383	150,447	167,505	181,104	172,173	184,981
Chichester	121,129	131,410	57,884	67,126	61,119	65,566	81,512	87,263
Crawley	112,409	114,661	45,510	51,587	62,880	65,137	103,595	106,425
Croydon	386,710	404,489	156,559	184,934	205,905	217,231	146,506	155,541
Eastbourne	103,745	111,560	49,999	58,106	50,490	53,088	47,310	49,589
Elmbridge	136,795	141,666	57,373	65,019	70,764	75,285	71,093	75,480
Epsom & Ewell	80,627	83,598	32,131	35,961	43,202	45,412	37,021	38,835
Horsham	143,791	153,877	62,397	71,991	77,307	82,525	71,243	76,130
Lewes	103,268	110,765	46,587	53,653	52,207	56,052	47,883	51,303
Mid Sussex	151,022	160,619	63,472	73,124	82,456	88,194	69,261	73,854
Mole Valley	87,245	89,114	38,265	41,161	46,420	48,713	56,416	59,264
Reigate and Banstead	148,748	157,202	60,795	68,921	81,433	87,148	85,657	92,045
Tandridge	88,129	92,560	37,086	41,238	47,584	50,466	45,388	47,988
Wealden	161,475	176,221	71,613	83,486	83,130	90,701	68,502	74,895
Worthing	110,570	117,034	51,655	58,718	57,838	61,029	56,468	59,646
Study Area	**2,451,607**	**2,599,373**	**1,067,079**	**1,225,996**	**1,301,547**	**1,386,959**	**1,245,003**	**1,323,758**

Source: Lichfields analysis using PopGroup

Table A3.9: Headline outputs - Scenario 6a: Current housing trajectories

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	71,797	28,903	33,452	33,209	37,698	27,068	30,726
Arun	160,758	205,381	75,467	101,090	78,099	100,342	57,907	73,709
Brighton and Hove	290,885	322,986	131,383	147,673	167,505	186,799	172,173	190,797
Chichester	121,129	129,668	57,884	65,691	61,119	64,415	81,512	85,730
Crawley	112,409	119,299	45,510	51,621	62,880	67,701	103,595	110,615
Croydon	386,710	423,686	156,559	182,638	205,905	227,932	146,506	163,203
Eastbourne	103,745	108,796	49,999	55,383	50,490	51,591	47,310	48,190
Elmbridge	136,795	143,109	57,373	65,369	70,764	75,839	71,093	76,035
Epsom & Ewell	80,627	82,329	32,131	34,725	43,202	44,579	37,021	38,122
Horsham	143,791	165,951	62,397	76,891	77,307	89,303	71,243	82,382
Lewes	103,268	113,304	46,587	53,831	52,207	57,401	47,883	52,538
Mid Sussex	151,022	187,132	63,472	83,771	82,456	103,497	69,261	86,669
Mole Valley	87,245	96,949	38,265	43,804	46,420	53,245	56,416	64,778
Reigate and Banstead	148,748	163,418	60,795	70,110	81,433	90,766	85,657	95,867
Tandridge	88,129	95,702	37,086	42,102	47,584	52,248	45,388	49,683
Wealden	161,475	193,761	71,613	90,017	83,130	100,331	68,502	82,847
Worthing	110,570	122,454	51,655	59,755	57,838	64,085	56,468	62,632
Study Area	**2,451,607**	**2,745,722**	**1,067,079**	**1,257,923**	**1,301,547**	**1,467,770**	**1,245,003**	**1,394,523**

Source: Lichfields analysis using PopGroup

Table A3.10: Headline outputs - Scenario 6b: Current housing trajectories with headship rate adjustment

	Population		Dwellings		Labour supply		Jobs	
	2019	2038	2019	2038	2019	2038	2019	2038
Adur	64,301	69,935	28,903	33,452	33,209	36,670	27,068	29,889
Arun	160,758	201,106	75,467	101,090	78,099	98,156	57,907	72,103
Brighton and Hove	290,885	306,802	131,383	147,673	167,505	176,946	172,173	180,733
Chichester	121,129	128,185	57,884	65,691	61,119	63,636	81,512	84,694
Crawley	112,409	114,553	45,510	51,621	62,880	64,937	103,595	106,098
Croydon	386,710	398,839	156,559	182,638	205,905	214,197	146,506	153,369
Eastbourne	103,745	106,037	49,999	55,383	50,490	50,209	47,310	46,899
Elmbridge	136,795	140,274	57,373	65,369	70,764	74,292	71,093	74,484
Epsom & Ewell	80,627	80,385	32,131	34,725	43,202	43,483	37,021	37,186
Horsham	143,791	162,332	62,397	76,891	77,307	87,255	71,243	80,494
Lewes	103,268	111,087	46,587	53,831	52,207	56,210	47,883	51,447
Mid Sussex	151,022	183,545	63,472	83,771	82,456	101,423	69,261	84,932
Mole Valley	87,245	95,253	38,265	43,804	46,420	52,284	56,416	63,608
Reigate and Banstead	148,748	159,967	60,795	70,110	81,433	88,789	85,657	93,779
Tandridge	88,129	94,540	37,086	42,102	47,584	51,593	45,388	49,060
Wealden	161,475	190,906	71,613	90,017	83,130	98,787	68,502	81,572
Worthing	110,570	119,208	51,655	59,755	57,838	62,309	56,468	60,896
Study Area	**2,451,607**	**2,662,954**	**1,067,079**	**1,257,923**	**1,301,547**	**1,421,175**	**1,245,003**	**1,351,243**

Source: Lichfields analysis using PopGroup

Table A3.5: Headline outputs - Scenario 7a: Standard Method

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	80,176	28,903	37,001	33,209	42,519	27,068	34,656
Arun	160,758	206,456	75,467	101,570	78,099	100,964	57,907	74,166
Brighton and Hove	290,885	354,845	131,383	161,512	167,505	207,076	172,173	211,508
Chichester	121,129	142,833	57,884	71,720	61,119	71,786	81,512	95,541
Crawley	112,409	137,867	45,510	59,027	62,880	79,037	103,595	129,136
Croydon	386,710	508,302	156,559	215,384	205,905	276,455	146,506	197,946
Eastbourne	103,745	123,989	49,999	62,587	50,490	59,575	47,310	55,648
Elmbridge	136,795	153,194	57,373	69,431	70,764	81,594	71,093	81,806
Epsom & Ewell	80,627	102,245	32,131	42,216	43,202	56,354	37,021	48,193
Horsham	143,791	181,858	62,397	83,512	77,307	98,707	71,243	91,058
Lewes	103,268	127,268	46,587	59,864	52,207	65,218	47,883	59,692
Mid Sussex	151,022	198,228	63,472	88,217	82,456	110,159	69,261	92,248
Mole Valley	87,245	103,835	38,265	46,628	46,420	57,317	56,416	69,732
Reigate and Banstead	148,748	186,361	60,795	79,137	81,433	104,492	85,657	110,365
Tandridge	88,129	111,550	37,086	48,481	47,584	61,495	45,388	58,477
Wealden	161,475	200,282	71,613	92,819	83,130	103,926	68,502	85,816
Worthing	110,570	139,873	51,655	67,764	57,838	73,968	56,468	72,291
Study Area	**2,451,607**	**3,059,161**	**1,067,079**	**1,386,873**	**1,301,547**	**1,650,645**	**1,245,003**	**1,568,277**

Source: Lichfields analysis using PopGroup

Table A3.12: Headline outputs - Scenario 7b: Standard Method with headship rate adjustment

	Population		Dwellings		Labour supply		Jobs	
	2019	**2038**	**2019**	**2038**	**2019**	**2038**	**2019**	**2038**
Adur	64,301	77,989	28,903	37,001	33,209	41,304	27,068	33,666
Arun	160,758	202,133	75,467	101,570	78,099	98,751	57,907	72,540
Brighton and Hove	290,885	336,456	131,383	161,512	167,505	195,800	172,173	199,991
Chichester	121,129	141,056	57,884	71,720	61,119	70,842	81,512	94,284
Crawley	112,409	132,151	45,510	59,027	62,880	75,685	103,595	123,660
Croydon	386,710	476,754	156,559	215,384	205,905	258,893	146,506	185,372
Eastbourne	103,745	120,664	49,999	62,587	50,490	57,892	47,310	54,076
Elmbridge	136,795	149,999	57,373	69,431	70,764	79,843	71,093	80,050
Epsom & Ewell	80,627	99,532	32,131	42,216	43,202	54,803	37,021	46,866
Horsham	143,791	177,599	62,397	83,512	77,307	96,298	71,243	88,835
Lewes	103,268	124,616	46,587	59,864	52,207	63,783	47,883	58,378
Mid Sussex	151,022	194,279	63,472	88,217	82,456	107,868	69,261	90,329
Mole Valley	87,245	101,959	38,265	46,628	46,420	56,249	56,416	68,431
Reigate and Banstead	148,748	182,132	60,795	79,137	81,433	102,052	85,657	107,787
Tandridge	88,129	110,091	37,086	48,481	47,584	60,667	45,388	57,689
Wealden	161,475	197,286	71,613	92,819	83,130	102,305	68,502	84,477
Worthing	110,570	136,005	51,655	67,764	57,838	71,837	56,468	70,208
Study Area	**2,451,607**	**2,960,704**	**1,067,079**	**1,386,873**	**1,301,547**	**1,594,871**	**1,245,003**	**1,516,639**

Source: Lichfields analysis using PopGroup

Detailed outputs by local authority for Cambridge Econometrics scenario with Project (Scenario 5a) and current housing trajectory scenario (Scenario 6a)

Scenario 5a: Cambridge Econometrics (March 2021) with the Project outputs

Table A4.1: Scenario 5a: Cambridge Econometrics with Project - Job forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	27,068	26,370	26,459	26,549	26,703	26,895	27,082	27,255	27,412	27,567	27,722	27,995	28,261	28,527	28,634	28,741	28,847	28,948	29,049	29,150
Arun	57,907	56,134	56,264	56,562	56,878	57,255	57,617	57,936	58,233	58,520	58,805	59,337	59,854	60,368	60,543	60,718	60,888	61,049	61,210	61,370
B'n & Hove	172,173	168,024	168,167	168,857	169,993	171,493	172,658	173,712	174,694	175,649	176,594	177,633	178,641	179,638	180,560	181,474	182,373	183,242	184,111	184,981
Chichester	81,512	79,823	79,781	80,040	80,504	81,039	81,554	82,041	82,500	82,944	83,385	84,121	84,833	85,540	85,843	86,142	86,434	86,710	86,986	87,263
Crawley	103,595	100,818	100,826	99,724	99,699	99,927	100,457	100,928	101,365	101,791	102,216	103,306	104,379	105,454	105,617	105,785	105,953	106,110	106,268	106,425
Croydon	146,506	145,989	146,671	147,508	148,446	149,348	149,953	150,422	150,849	151,259	151,668	152,175	152,666	153,153	153,559	153,972	154,382	154,768	155,155	155,541
Eastbourne	47,310	46,285	46,505	46,756	47,044	47,390	47,629	47,814	47,976	48,129	48,279	48,452	48,616	48,776	48,917	49,057	49,195	49,326	49,457	49,589
Elmbridge	71,093	69,705	69,929	70,241	70,716	71,258	71,650	71,997	72,308	72,609	72,903	73,242	73,564	73,881	74,161	74,439	74,710	74,967	75,223	75,480
Ep. & Ewell	37,021	36,401	36,476	36,547	36,727	36,949	37,123	37,268	37,399	37,528	37,656	37,813	37,964	38,113	38,238	38,364	38,485	38,602	38,718	38,835
Horsham	71,243	69,744	69,857	69,998	70,301	70,695	71,136	71,550	71,937	72,317	72,694	73,464	74,220	74,974	75,175	75,376	75,573	75,758	75,944	76,130
Lewes	47,883	46,567	46,659	46,880	47,232	47,671	47,993	48,281	48,544	48,800	49,052	49,335	49,607	49,876	50,122	50,367	50,609	50,840	51,072	51,303
Mid Sussex	69,261	67,506	67,638	67,870	68,213	68,614	69,042	69,433	69,798	70,161	70,522	71,282	72,031	72,779	72,963	73,149	73,331	73,505	73,680	73,854
Mole Valley	56,416	55,238	55,416	55,555	55,850	56,193	56,463	56,720	56,951	57,174	57,392	57,654	57,902	58,144	58,342	58,537	58,728	58,907	59,085	59,264
R. & Ban.	85,657	83,828	84,535	84,964	85,581	86,295	86,812	87,274	87,685	88,090	88,486	88,990	89,467	89,942	90,307	90,670	91,029	91,368	91,707	92,045
Tandridge	45,388	44,066	44,154	44,358	44,733	45,127	45,401	45,632	45,830	46,026	46,217	46,451	46,677	46,901	47,089	47,277	47,464	47,639	47,814	47,988
Wealden	68,502	66,365	66,324	66,704	67,451	68,250	68,807	69,316	69,772	70,230	70,682	71,192	71,689	72,185	72,651	73,118	73,582	74,019	74,457	74,895
Worthing	56,468	56,076	56,405	56,623	56,817	57,133	57,388	57,587	57,766	57,939	58,109	58,524	58,929	59,331	59,387	59,443	59,498	59,547	59,597	59,646
Study Area	**1,245,003**	**1,218,939**	**1,222,066**	**1,225,736**	**1,232,888**	**1,241,532**	**1,248,764**	**1,255,167**	**1,261,019**	**1,266,732**	**1,272,381**	**1,280,967**	**1,289,300**	**1,297,581**	**1,302,109**	**1,306,630**	**1,311,081**	**1,315,307**	**1,319,532**	**1,323,758**

Source: Lichfields using PopGroup. *May not match CE forecast precisely due to rounding in modelling.

Table A4.2: Scenario 5a: Cambridge Econometrics with Project – Labour supply forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	33,209	32,353	32,462	32,572	32,761	32,997	33,227	33,438	33,631	33,822	34,012	34,346	34,673	34,999	35,130	35,262	35,392	35,516	35,639	35,763
Arun	78,099	76,417	76,594	76,999	77,430	77,943	78,435	78,870	79,274	79,665	80,053	80,777	81,481	82,180	82,419	82,657	82,889	83,108	83,326	83,545
B'n & Hove	167,505	164,503	164,643	165,319	166,431	167,899	169,040	170,072	171,034	171,968	172,893	173,911	174,898	175,873	176,776	177,671	178,551	179,402	180,253	181,104
Chichester	61,119	59,976	59,945	60,139	60,488	60,890	61,277	61,643	61,987	62,322	62,653	63,206	63,741	64,272	64,499	64,724	64,943	65,151	65,359	65,566
Crawley	62,880	61,705	61,710	61,036	61,020	61,160	61,484	61,772	62,040	62,301	62,561	63,228	63,885	64,543	64,643	64,745	64,848	64,944	65,041	65,137
Croydon	205,905	203,890	204,843	206,012	207,322	208,582	209,427	210,082	210,679	211,250	211,821	212,531	213,216	213,896	214,463	215,040	215,612	216,152	216,691	217,231
Eastbourne	50,490	49,552	49,787	50,056	50,364	50,735	50,990	51,188	51,362	51,525	51,686	51,872	52,047	52,219	52,369	52,519	52,666	52,807	52,948	53,088
Elmbridge	70,764	69,525	69,748	70,060	70,533	71,074	71,465	71,811	72,121	72,421	72,715	73,053	73,374	73,690	73,970	74,247	74,517	74,773	75,029	75,285
Ep. & Ewell	43,202	42,566	42,653	42,736	42,947	43,206	43,410	43,580	43,733	43,883	44,033	44,217	44,393	44,567	44,714	44,861	45,003	45,139	45,275	45,412
Horsham	77,307	75,603	75,725	75,878	76,206	76,634	77,112	77,560	77,980	78,391	78,800	79,635	80,455	81,272	81,490	81,708	81,921	82,122	82,324	82,525
Lewes	52,207	50,878	50,978	51,220	51,604	52,084	52,436	52,751	53,038	53,317	53,593	53,903	54,199	54,493	54,762	55,030	55,294	55,547	55,800	56,052
Mid Sussex	82,456	80,613	80,771	81,048	81,457	81,936	82,448	82,915	83,351	83,783	84,214	85,123	86,017	86,910	87,130	87,351	87,569	87,777	87,986	88,194
Mole Valley	46,420	45,404	45,550	45,664	45,907	46,189	46,411	46,622	46,812	46,995	47,175	47,390	47,593	47,793	47,955	48,116	48,272	48,419	48,566	48,713
R. & Ban.	81,433	79,367	80,037	80,443	81,027	81,703	82,193	82,630	83,019	83,403	83,778	84,255	84,707	85,156	85,501	85,846	86,185	86,506	86,827	87,148
Tandridge	47,584	46,341	46,433	46,648	47,042	47,456	47,744	47,987	48,195	48,402	48,603	48,848	49,086	49,322	49,520	49,717	49,914	50,098	50,282	50,466
Wealden	83,130	80,371	80,321	80,782	81,686	82,654	83,329	83,944	84,497	85,052	85,599	86,217	86,819	87,419	87,983	88,549	89,111	89,641	90,171	90,701
Worthing	57,838	57,377	57,714	57,937	58,135	58,458	58,719	58,923	59,106	59,283	59,457	59,882	60,296	60,708	60,765	60,822	60,879	60,929	60,979	61,029
Study Area	**1,301,547**	**1,276,440**	**1,279,915**	**1,284,548**	**1,292,362**	**1,301,600**	**1,309,145**	**1,315,790**	**1,321,858**	**1,327,785**	**1,333,646**	**1,342,391**	**1,350,878**	**1,359,311**	**1,364,091**	**1,368,866**	**1,373,568**	**1,378,032**	**1,382,496**	**1,386,959**

Source: Lichfields using PopGroup.

Table A4.3: Scenario 5a: Cambridge Econometrics with Project - Population forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	64,301	62,999	63,114	63,243	63,498	63,733	63,970	64,146	64,290	64,477	64,720	65,227	65,751	66,366	66,664	66,962	67,282	67,632	68,003	68,248
Arun	160,758	158,382	158,845	159,686	160,423	161,349	162,113	162,697	163,353	163,884	164,638	166,246	167,657	169,134	169,927	170,767	171,556	172,305	172,984	173,418
B'n & Hove	290,885	286,779	287,012	287,934	289,501	291,616	293,258	294,589	296,078	297,430	298,988	300,773	302,633	304,325	305,870	307,309	308,854	310,311	311,756	312,931
Chichester	121,129	119,731	119,939	120,376	121,060	121,792	122,359	122,875	123,408	123,958	124,687	125,777	126,869	127,996	128,667	129,300	129,913	130,510	131,078	131,410
Crawley	112,409	110,672	110,723	109,610	109,515	109,590	109,876	109,991	110,173	110,286	110,587	111,443	112,353	113,264	113,491	113,660	113,860	114,151	114,426	114,661
Croydon	386,710	383,506	384,962	386,638	388,505	390,281	391,412	391,969	392,687	393,557	394,602	395,841	397,240	398,399	399,519	400,509	401,570	402,652	403,774	404,489
Eastbourne	103,745	102,365	102,951	103,561	104,183	104,965	105,460	105,799	106,153	106,566	106,959	107,483	108,009	108,569	109,123	109,634	110,145	110,662	111,183	111,560
Elmbridge	136,795	134,892	135,089	135,391	135,983	136,581	136,906	137,042	137,149	137,347	137,528	137,957	138,284	138,708	139,182	139,610	140,123	140,644	141,186	141,666
Ep. & Ewell	80,627	79,807	80,020	80,209	80,617	81,026	81,237	81,394	81,529	81,680	81,821	82,045	82,239	82,471	82,624	82,784	82,980	83,207	83,416	83,598
Horsham	143,791	141,386	141,776	142,057	142,618	143,346	143,995	144,583	145,136	145,828	146,556	148,008	149,491	150,990	151,562	152,090	152,628	153,129	153,625	153,877
Lewes	103,268	101,284	101,473	101,761	102,266	103,067	103,501	103,832	104,167	104,569	105,073	105,810	106,416	107,170	107,832	108,440	109,130	109,753	110,356	110,765
Mid Sussex	151,022	148,633	149,042	149,379	149,984	150,624	151,198	151,527	151,844	152,364	153,011	154,382	155,805	157,290	157,859	158,394	159,010	159,602	160,223	160,619
Mole Valley	87,245	85,437	85,481	85,419	85,553	85,834	85,946	85,980	86,031	86,142	86,359	86,667	87,021	87,391	87,727	87,979	88,280	88,635	88,932	89,114
R. & Ban.	148,748	145,756	146,890	147,490	148,376	149,306	149,916	150,332	150,717	151,099	151,653	152,355	153,035	153,760	154,374	154,894	155,456	156,080	156,704	157,202
Tandridge	88,129	86,275	86,483	86,818	87,407	87,977	88,344	88,618	88,833	89,077	89,385	89,739	90,170	90,596	90,993	91,317	91,641	91,996	92,311	92,560
Wealden	161,475	157,180	157,277	157,975	159,488	161,079	162,056	162,805	163,536	164,487	165,601	166,884	168,116	169,370	170,635	171,822	173,080	174,247	175,358	176,221
Worthing	110,570	109,790	110,354	110,601	110,858	111,327	111,581	111,845	112,053	112,341	112,697	113,526	114,308	115,180	115,560	115,866	116,160	116,510	116,820	117,034
Study Area	**2,451,607**	**2,414,873**	**2,421,433**	**2,428,148**	**2,439,836**	**2,453,492**	**2,463,127**	**2,470,026**	**2,477,137**	**2,485,093**	**2,494,866**	**2,510,163**	**2,525,397**	**2,540,980**	**2,551,610**	**2,561,337**	**2,571,667**	**2,582,027**	**2,592,136**	**2,599,373**

Source: Lichfields using PopGroup

Table A4.4: Scenario 5a: Cambridge Econometrics with Project - Dwelling forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	28,903	28,398	28,455	28,563	28,742	28,902	29,054	29,179	29,337	29,510	29,695	29,981	30,280	30,618	30,834	31,034	31,248	31,465	31,688	31,859
Arun	75,467	74,584	74,830	75,423	76,033	76,700	77,290	77,804	78,408	78,959	79,591	80,585	81,501	82,486	83,152	83,845	84,525	85,173	85,768	86,240
B'n & Hove	131,383	129,390	129,184	129,525	130,155	131,096	131,792	132,461	133,122	133,831	134,585	135,432	136,299	137,243	138,177	139,059	139,990	140,971	141,933	142,804
Chichester	57,884	57,505	57,723	58,095	58,577	59,080	59,517	59,936	60,378	60,842	61,366	62,013	62,684	63,390	63,926	64,453	64,963	65,474	65,972	66,366
Crawley	45,510	44,913	44,989	44,704	44,796	44,984	45,247	45,476	45,745	45,984	46,315	46,841	47,395	47,968	48,251	48,530	48,791	49,076	49,348	49,584
Croydon	156,559	155,556	156,269	157,573	158,935	160,336	161,481	162,451	163,524	164,560	165,657	166,806	167,972	169,028	170,086	171,054	172,045	173,004	173,944	174,662
Eastbourne	49,999	49,457	49,785	50,201	50,629	51,141	51,508	51,847	52,188	52,551	52,905	53,326	53,754	54,200	54,657	55,078	55,490	55,911	56,318	56,665
Elmbridge	57,373	56,818	56,982	57,318	57,778	58,245	58,635	58,932	59,241	59,579	59,916	60,364	60,800	61,245	61,687	62,080	62,515	62,943	63,339	63,691
Ep. & Ewell	32,131	31,931	31,985	32,123	32,353	32,592	32,795	32,947	33,105	33,288	33,460	33,667	33,862	34,067	34,251	34,427	34,616	34,803	34,986	35,136
Horsham	62,397	61,670	61,895	62,248	62,726	63,244	63,728	64,172	64,645	65,143	65,669	66,441	67,259	68,067	68,523	68,950	69,381	69,804	70,192	70,468
Lewes	46,587	45,919	46,063	46,369	46,748	47,248	47,588	47,910	48,264	48,594	48,976	49,454	49,881	50,340	50,749	51,136	51,570	51,968	52,360	52,663
Mid Sussex	63,472	62,750	62,945	63,331	63,833	64,355	64,822	65,211	65,623	66,116	66,667	67,462	68,293	69,109	69,592	70,056	70,530	70,990	71,415	71,774
Mole Valley	38,265	37,630	37,627	37,699	37,860	38,057	38,197	38,299	38,432	38,568	38,756	38,990	39,207	39,433	39,622	39,792	39,983	40,186	40,369	40,501
R. & Ban.	60,795	59,757	60,141	60,567	61,072	61,599	62,013	62,343	62,740	63,104	63,533	64,015	64,505	65,024	65,468	65,900	66,341	66,756	67,179	67,534
Tandridge	37,086	36,502	36,551	36,768	37,090	37,416	37,641	37,845	38,028	38,252	38,482	38,734	39,019	39,302	39,576	39,827	40,076	40,329	40,569	40,764
Wealden	71,613	70,166	70,342	70,889	71,795	72,686	73,338	73,915	74,518	75,210	75,929	76,691	77,424	78,164	78,925	79,669	80,427	81,147	81,814	82,367
Worthing	51,655	51,393	51,703	51,971	52,229	52,579	52,818	53,098	53,378	53,671	54,000	54,514	55,036	55,576	55,908	56,202	56,478	56,785	57,032	57,244
Study Area	**1,067,079**	**1,054,341**	**1,057,468**	**1,063,367**	**1,071,351**	**1,080,259**	**1,087,464**	**1,093,826**	**1,100,675**	**1,107,763**	**1,115,503**	**1,125,315**	**1,135,170**	**1,145,260**	**1,153,384**	**1,161,093**	**1,168,969**	**1,176,784**	**1,184,226**	**1,190,322**

Source: Lichfields using PopGroup

Scenario 6a: Current trajectories

Table A4.5: Scenario 6a: Current trajectories - Dwelling forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	28,903	28,916	29,296	29,825	30,287	30,604	30,926	31,128	31,335	31,542	31,699	31,836	31,908	31,940	32,192	32,444	32,696	32,948	33,200	33,452
Arun	75,467	75,982	76,529	77,855	79,761	81,159	82,582	84,150	85,838	87,444	88,867	90,214	91,325	92,720	94,115	95,510	96,905	98,300	99,695	101,090
B'n & Hove	131,383	131,941	132,563	133,548	134,934	136,087	137,141	138,253	139,365	140,477	141,589	142,701	143,171	143,641	144,111	144,581	145,051	145,925	146,799	147,673
Chichester	57,884	58,387	58,736	59,456	60,214	60,821	61,218	61,890	62,439	62,837	63,155	63,433	63,711	63,989	64,267	64,415	64,473	64,879	65,285	65,691
Crawley	45,510	45,962	46,437	46,835	47,681	48,407	48,761	49,012	49,299	49,602	49,806	49,861	50,081	50,301	50,521	50,741	50,961	51,181	51,401	51,621
Croydon	156,559	158,216	160,856	163,496	166,136	168,776	169,705	170,634	171,563	172,492	173,421	174,350	175,279	176,208	177,137	178,066	178,995	179,924	181,281	182,638
Eastbourne	49,999	50,199	50,509	50,905	51,154	51,380	51,639	51,927	52,215	52,503	52,791	53,079	53,367	53,655	53,943	54,231	54,519	54,807	55,095	55,383
Elmbridge	57,373	57,769	58,298	58,827	59,356	59,886	60,418	60,705	60,992	61,280	61,568	61,856	62,372	62,889	63,406	63,923	64,440	64,525	64,947	65,369
Ep. & Ewell	32,131	32,316	32,409	32,654	32,835	32,914	33,056	33,198	33,340	33,482	33,624	33,809	33,994	34,179	34,364	34,549	34,593	34,637	34,681	34,725
Horsham	62,397	63,352	64,062	64,668	65,702	67,013	68,457	69,249	70,002	70,470	70,919	71,312	71,634	72,385	73,136	73,887	74,638	75,389	76,140	76,891
Lewes	46,587	46,829	47,218	47,607	47,996	48,385	48,774	49,163	49,552	49,941	50,330	50,719	51,108	51,497	51,886	52,275	52,664	53,053	53,442	53,831
Mid Sussex	63,472	64,475	65,547	66,619	67,691	68,763	69,835	70,907	71,979	73,051	74,123	75,195	76,267	77,339	78,411	79,483	80,555	81,627	82,699	83,771
Mole Valley	38,265	38,422	38,721	39,020	39,319	39,618	39,917	40,216	40,515	40,814	41,113	41,412	41,711	42,010	42,309	42,608	42,907	43,206	43,505	43,804
R. & Ban.	60,795	61,254	62,178	62,879	63,411	63,741	64,106	64,466	64,698	65,190	65,682	66,174	66,666	67,158	67,650	68,142	68,634	69,126	69,618	70,110
Tandridge	37,086	37,348	37,844	38,298	38,506	38,588	38,670	38,934	39,198	39,462	39,726	39,990	40,254	40,518	40,782	41,046	41,310	41,574	41,838	42,102
Wealden	71,613	72,647	73,612	74,577	75,542	76,507	77,472	78,437	79,402	80,367	81,332	82,297	83,262	84,227	85,192	86,157	87,122	88,087	89,052	90,017
Worthing	51,655	52,051	52,224	52,552	53,355	53,769	54,274	54,619	55,047	55,475	55,903	56,331	56,759	57,187	57,615	58,043	58,471	58,899	59,327	59,755
Study Area	**1,067,079**	**1,076,066**	**1,087,039**	**1,099,621**	**1,113,880**	**1,126,418**	**1,136,951**	**1,146,888**	**1,156,779**	**1,166,429**	**1,175,648**	**1,184,569**	**1,192,869**	**1,201,843**	**1,211,037**	**1,220,101**	**1,228,934**	**1,238,087**	**1,248,005**	**1,257,923**

Source: Lichfields using PopGroup. *May not match dwelling trajectories precisely due to rounding and model functionality.

Table A4.6: Scenario 6a: Current trajectories - Population forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	64,301	64,324	65,240	66,412	67,340	67,921	68,543	68,867	69,087	69,318	69,450	69,545	69,469	69,292	69,687	70,112	70,519	70,946	71,371	71,797
Arun	160,758	161,715	162,814	165,322	169,037	171,549	174,147	177,072	180,118	182,945	185,350	187,580	189,260	191,542	193,881	196,181	198,447	200,732	203,049	205,381
B'n & Hove	290,885	293,704	295,721	297,980	301,260	303,582	305,924	308,180	310,654	312,858	315,164	317,450	317,942	318,210	318,462	318,813	319,165	320,454	321,741	322,986
Chichester	121,129	121,988	122,408	123,637	124,925	125,822	126,207	127,315	128,047	128,354	128,511	128,655	128,778	128,888	129,004	128,765	128,344	128,808	129,239	129,668
Crawley	112,409	113,543	114,624	115,299	117,169	118,586	118,998	119,066	119,212	119,429	119,312	118,831	118,811	118,755	118,825	118,828	118,915	119,016	119,133	119,299
Croydon	386,710	391,122	397,950	403,191	408,423	413,413	413,558	413,704	413,754	414,102	414,470	414,909	415,474	416,140	416,757	417,517	418,274	419,147	421,323	423,686
Eastbourne	103,745	104,115	104,609	105,139	105,321	105,428	105,685	105,919	106,164	106,413	106,665	106,890	107,106	107,318	107,506	107,741	107,997	108,241	108,520	108,796
Elmbridge	136,795	137,225	138,100	138,636	139,118	139,619	140,112	140,034	139,930	139,875	139,757	139,599	140,103	140,622	141,200	141,876	142,507	141,914	142,504	143,109
Ep. & Ewell	80,627	81,011	81,288	81,776	81,988	81,881	81,908	82,035	82,126	82,148	82,206	82,368	82,535	82,707	82,869	83,061	82,805	82,612	82,430	82,329
Horsham	143,791	145,671	146,980	147,568	149,303	151,835	154,718	155,857	156,850	157,145	157,380	157,545	157,502	158,716	159,927	161,133	162,307	163,461	164,696	165,951
Lewes	103,268	103,648	104,403	104,840	105,320	105,791	106,320	106,796	107,194	107,726	108,222	108,698	109,191	109,753	110,357	110,961	111,523	112,112	112,695	113,304
Mid Sussex	151,022	153,014	155,497	157,331	159,107	160,898	162,771	164,672	166,475	168,253	169,955	171,719	173,481	175,382	177,294	179,182	181,113	183,067	185,131	187,132
Mole Valley	87,245	87,629	88,421	88,913	89,356	89,855	90,341	90,840	91,278	91,764	92,216	92,631	93,139	93,647	94,223	94,765	95,292	95,839	96,382	96,949
R. & Ban.	148,748	149,946	152,457	153,717	154,581	154,893	155,320	155,766	155,649	156,377	157,073	157,767	158,406	159,019	159,737	160,381	161,042	161,829	162,592	163,418
Tandridge	88,129	88,650	90,024	90,947	91,144	90,995	90,940	91,358	91,774	92,105	92,493	92,855	93,197	93,544	93,890	94,234	94,580	94,938	95,292	95,702
Wealden	161,475	163,740	165,711	167,327	168,838	170,506	172,185	173,811	175,359	176,897	178,537	180,224	181,925	183,634	185,302	186,936	188,596	190,252	191,988	193,761
Worthing	110,570	111,332	111,544	111,921	113,433	114,014	114,861	115,242	115,770	116,343	116,901	117,503	118,048	118,648	119,246	119,849	120,476	121,080	121,778	122,454
Study Area	**2,451,607**	**2,472,376**	**2,497,791**	**2,519,958**	**2,545,665**	**2,566,588**	**2,582,538**	**2,596,532**	**2,609,441**	**2,622,052**	**2,633,662**	**2,644,771**	**2,654,368**	**2,665,818**	**2,678,168**	**2,690,335**	**2,701,900**	**2,714,447**	**2,729,863**	**2,745,722**

Source: Lichfields using PopGroup

Table A4.7: Scenario 6a: Current trajectories – Labour supply forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	33,209	33,196	33,797	34,545	35,127	35,542	35,977	36,242	36,445	36,631	36,718	36,762	36,685	36,496	36,694	36,918	37,111	37,287	37,450	37,698
Arun	78,099	78,437	78,957	80,320	82,484	83,853	85,338	87,064	88,771	90,388	91,588	92,483	93,154	94,162	95,168	96,123	97,084	98,062	99,115	100,342
B'n & Hove	167,505	169,117	170,474	172,046	174,300	175,849	177,382	178,958	180,483	181,899	183,233	184,496	184,491	184,431	184,384	184,469	184,487	185,172	185,898	186,799
Chichester	61,119	61,405	61,475	62,133	62,817	63,272	63,496	64,197	64,626	64,769	64,704	64,637	64,557	64,459	64,368	64,086	63,706	63,895	64,083	64,415
Crawley	62,880	63,624	64,286	64,760	65,992	66,941	67,250	67,415	67,578	67,841	67,759	67,474	67,480	67,481	67,496	67,519	67,582	67,580	67,611	67,701
Croydon	205,905	208,614	212,849	216,109	219,349	222,415	222,439	222,654	222,682	222,803	222,857	223,001	223,125	223,487	223,750	224,209	224,625	225,069	226,312	227,932
Eastbourne	50,490	50,603	50,765	50,963	50,989	50,942	51,052	51,193	51,307	51,381	51,466	51,484	51,488	51,469	51,421	51,429	51,450	51,452	51,480	51,591
Elmbridge	70,764	71,073	71,653	72,018	72,322	72,713	73,152	73,309	73,448	73,551	73,646	73,597	74,033	74,429	74,787	75,240	75,599	75,150	75,462	75,839
Ep. & Ewell	43,202	43,354	43,475	43,734	43,796	43,699	43,769	43,918	44,042	44,111	44,209	44,357	44,521	44,662	44,822	44,997	44,849	44,716	44,609	44,579
Horsham	77,307	78,392	79,007	79,240	80,209	81,692	83,522	84,215	84,801	84,835	84,814	84,719	84,484	85,087	85,730	86,409	87,063	87,703	88,413	89,303
Lewes	52,207	52,372	52,799	53,096	53,425	53,660	54,046	54,433	54,741	55,084	55,337	55,463	55,678	55,842	56,073	56,343	56,528	56,761	57,010	57,401
Mid Sussex	82,456	83,560	84,961	86,087	87,099	88,159	89,368	90,726	92,005	93,116	94,103	95,112	96,089	97,141	98,163	99,202	100,206	101,216	102,297	103,497
Mole Valley	46,420	46,843	47,473	47,920	48,324	48,704	49,130	49,609	50,014	50,404	50,694	50,936	51,200	51,453	51,739	52,061	52,337	52,578	52,862	53,245
R. & Ban.	81,433	82,120	83,657	84,423	84,910	85,101	85,410	85,825	85,848	86,438	86,892	87,348	87,761	88,131	88,544	88,974	89,380	89,803	90,220	90,766
Tandridge	47,584	47,867	48,692	49,244	49,340	49,249	49,237	49,554	49,880	50,133	50,373	50,614	50,786	50,965	51,129	51,340	51,554	51,739	51,953	52,248
Wealden	83,130	84,432	85,499	86,445	87,247	88,162	89,187	90,276	91,263	92,105	92,892	93,676	94,496	95,313	96,064	96,851	97,602	98,376	99,257	100,331
Worthing	57,838	58,359	58,456	58,746	59,729	60,097	60,710	60,956	61,312	61,640	61,909	62,158	62,392	62,610	62,791	63,026	63,281	63,475	63,758	64,085
Study Area	**1,301,547**	**1,313,368**	**1,328,276**	**1,341,830**	**1,357,460**	**1,370,049**	**1,380,465**	**1,390,544**	**1,399,244**	**1,407,129**	**1,413,194**	**1,418,317**	**1,422,418**	**1,427,616**	**1,433,122**	**1,439,194**	**1,444,444**	**1,450,033**	**1,457,790**	**1,467,770**

Source: Lichfields using PopGroup

Table A4.8: Scenario 6a: Current trajectories – Job forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	27,068	27,057	27,547	28,157	28,631	28,969	29,324	29,540	29,706	29,857	29,928	29,963	29,901	29,747	29,909	30,091	30,248	30,392	30,525	30,726
Arun	57,907	57,618	58,000	59,001	60,591	61,597	62,688	63,956	65,209	66,397	67,278	67,936	68,429	69,169	69,908	70,610	71,316	72,034	72,807	73,709
B'n & Hove	172,173	172,736	174,123	175,729	178,030	179,612	181,179	182,788	184,346	185,792	187,155	188,444	188,439	188,378	188,331	188,417	188,436	189,136	189,877	190,797
Chichester	81,512	81,724	81,818	82,694	83,604	84,209	84,508	85,441	86,011	86,202	86,115	86,026	85,919	85,789	85,668	85,292	84,787	85,038	85,289	85,730
Crawley	103,595	103,954	105,035	105,809	107,821	109,372	109,878	110,147	110,413	110,843	110,709	110,243	110,254	110,255	110,279	110,316	110,419	110,416	110,467	110,615
Croydon	146,506	149,371	152,404	154,738	157,058	159,253	159,270	159,424	159,444	159,531	159,570	159,673	159,761	160,021	160,209	160,537	160,835	161,153	162,043	163,203
Eastbourne	47,310	47,267	47,419	47,604	47,628	47,584	47,686	47,818	47,924	47,994	48,074	48,090	48,093	48,076	48,031	48,039	48,058	48,060	48,086	48,190
Elmbridge	71,093	71,257	71,838	72,205	72,509	72,901	73,341	73,499	73,638	73,742	73,837	73,788	74,225	74,621	74,981	75,434	75,795	75,345	75,657	76,035
Ep. & Ewell	37,021	37,075	37,179	37,400	37,453	37,370	37,430	37,557	37,664	37,723	37,806	37,933	38,073	38,194	38,330	38,480	38,354	38,240	38,149	38,122
Horsham	71,243	72,317	72,885	73,099	73,993	75,361	77,050	77,689	78,230	78,261	78,241	78,154	77,937	78,493	79,086	79,713	80,316	80,906	81,562	82,382
Lewes	47,883	47,934	48,325	48,597	48,899	49,114	49,467	49,821	50,103	50,417	50,648	50,764	50,960	51,110	51,322	51,569	51,738	51,952	52,180	52,538
Mid Sussex	69,261	69,973	71,147	72,089	72,937	73,825	74,837	75,975	77,045	77,976	78,802	79,648	80,466	81,346	82,202	83,072	83,913	84,759	85,664	86,669
Mole Valley	56,416	56,989	57,755	58,299	58,791	59,252	59,771	60,353	60,846	61,321	61,674	61,968	62,289	62,597	62,945	63,337	63,673	63,966	64,311	64,778
R. & Ban.	85,657	86,735	88,359	89,168	89,682	89,884	90,211	90,648	90,673	91,296	91,775	92,257	92,694	93,084	93,520	93,974	94,404	94,850	95,291	95,867
Tandridge	45,388	45,518	46,302	46,827	46,918	46,832	46,820	47,122	47,431	47,672	47,901	48,130	48,293	48,464	48,619	48,820	49,023	49,199	49,403	49,683
Wealden	68,502	69,719	70,600	71,381	72,043	72,798	73,645	74,544	75,359	76,054	76,704	77,352	78,029	78,703	79,323	79,973	80,593	81,232	81,960	82,847
Worthing	56,468	57,036	57,130	57,414	58,375	58,734	59,333	59,574	59,922	60,242	60,505	60,749	60,978	61,190	61,367	61,597	61,846	62,036	62,313	62,632
Study Area	**1,245,003**	**1,254,281**	**1,267,865**	**1,280,210**	**1,294,964**	**1,306,668**	**1,316,437**	**1,325,895**	**1,333,963**	**1,341,319**	**1,346,723**	**1,351,117**	**1,354,738**	**1,359,238**	**1,364,031**	**1,369,272**	**1,373,756**	**1,378,714**	**1,385,583**	**1,394,523**

Source: Lichfields using PopGroup

Difference in labour supply between Cambridge Econometrics with the Project (Scenario 5a) and Current housing trajectory (Scenario 6a) – for 'pinch point' analysis

Table A4.9: Difference in labour supply between Cambridge Econometrics forecast with Project and Current housing trajectory scenarios

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Adur	0	843	1,335	1,973	2,366	2,545	2,750	2,804	2,814	2,809	2,706	2,416	2,012	1,497	1,564	1,656	1,719	1,771	1,811	1,935
Arun	0	2,021	2,364	3,321	5,054	5,911	6,903	8,194	9,497	10,723	11,535	11,706	11,673	11,981	12,748	13,466	14,195	14,955	15,788	16,797
B'n & Hove	0	4,613	5,831	6,728	7,869	7,949	8,342	8,885	9,449	9,931	10,340	10,584	9,593	8,557	7,608	6,797	5,936	5,770	5,645	5,694
Chichester	0	1,429	1,531	1,994	2,329	2,382	2,219	2,554	2,638	2,447	2,051	1,432	816	187	-131	-638	-1,237	-1,256	-1,275	-1,151
Crawley	0	1,919	2,576	3,724	4,971	5,781	5,766	5,643	5,538	5,541	5,198	4,246	3,595	2,939	2,853	2,774	2,734	2,635	2,570	2,564
Croydon	0	4,724	8,006	10,097	12,027	13,833	13,012	12,572	12,003	11,553	11,036	10,471	9,909	9,592	9,286	9,169	9,013	8,918	9,621	10,700
Eastbourne	0	1,051	978	908	625	208	61	4	-55	-145	-220	-387	-559	-750	-948	-1,090	-1,217	-1,355	-1,468	-1,498
Elmbridge	0	1,548	1,904	1,959	1,789	1,639	1,687	1,498	1,326	1,130	931	545	659	739	817	993	1,082	377	433	554
Ep. & Ewell	0	788	822	998	849	493	360	338	309	228	176	140	128	95	107	136	-154	-424	-666	-833
Horsham	0	2,789	3,282	3,362	4,002	5,058	6,411	6,655	6,822	6,444	6,014	5,084	4,029	3,815	4,240	4,701	5,142	5,580	6,089	6,778
Lewes	0	1,494	1,820	1,876	1,821	1,576	1,611	1,682	1,704	1,767	1,744	1,561	1,479	1,349	1,311	1,313	1,234	1,214	1,210	1,349
Mid Sussex	0	2,947	4,190	5,039	5,642	6,223	6,920	7,811	8,654	9,333	9,888	9,989	10,072	10,231	11,033	11,851	12,637	13,438	14,311	15,303
Mole Valley	0	1,439	1,923	2,256	2,417	2,515	2,719	2,987	3,202	3,408	3,520	3,546	3,606	3,660	3,783	3,946	4,065	4,158	4,295	4,532
R. & Ban.	0	2,752	3,620	3,980	3,883	3,398	3,217	3,195	2,829	3,035	3,114	3,093	3,055	2,975	3,042	3,128	3,195	3,297	3,393	3,618
Tandridge	0	1,527	2,259	2,597	2,298	1,792	1,492	1,567	1,685	1,731	1,770	1,766	1,699	1,643	1,609	1,623	1,640	1,641	1,671	1,782
Wealden	0	4,061	5,178	5,664	5,561	5,508	5,858	6,332	6,765	7,053	7,294	7,460	7,678	7,894	8,081	8,301	8,491	8,735	9,086	9,630
Worthing	0	982	742	809	1,594	1,638	1,990	2,033	2,206	2,357	2,452	2,276	2,096	1,902	2,026	2,203	2,402	2,546	2,779	3,056
Study Area	0	36,927	48,362	57,282	65,098	68,449	71,320	74,754	77,386	79,345	79,549	75,925	71,540	68,305	69,031	70,328	70,877	72,002	75,295	80,811

Source: Lichfields using PopGroup

Annex 5 Cambridge Econometrics UK Forecast Assumptions (March 2021)

UK forecast assumptions (March 2021)

Assumptions regarding COVID-19

As a result of the COVID-19 pandemic, the UK government introduced public health measures in 2020 to contain the outbreak and bring it under control. The impact of these measures and the virus was a sudden and sharp reduction in economic activity in nearly all sectors in 2020Q2 (19% reduction in GDP 2020Q2). Measures were relaxed in the summer months allowing a partial recovery before further tightening of measures (Lockdown 2.0) in November. These developments are reflected in the 2020 monthly GDP profile in Figure 1.

Figure 1 Monthly GDP 2020[1]
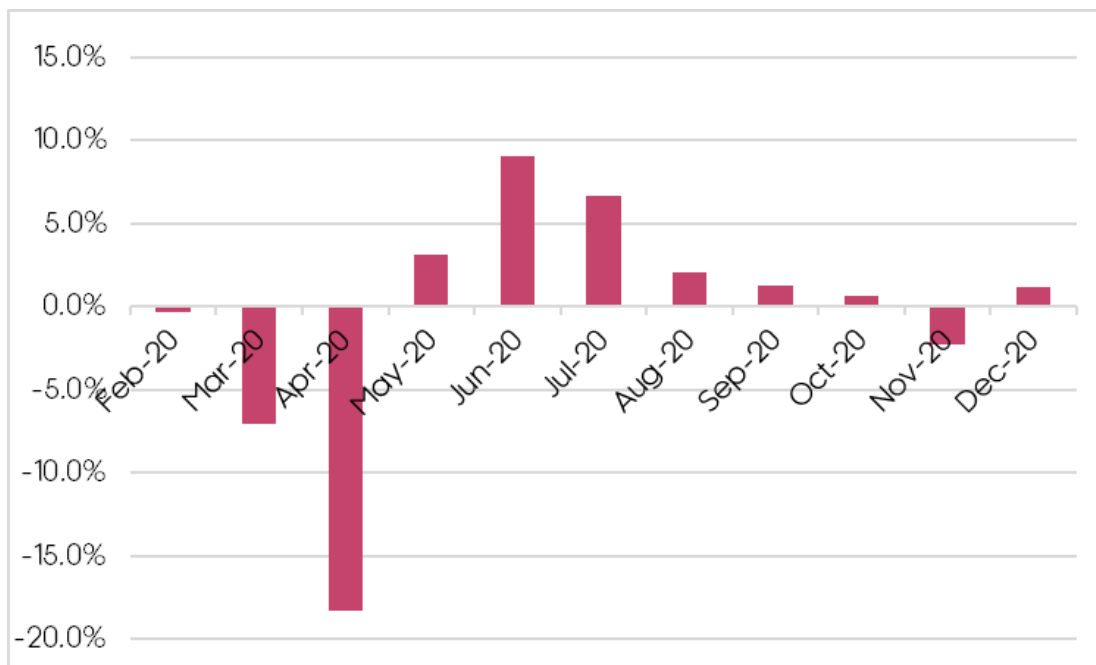
In 2021Q1, in response to new more virulent strands of COVID-19, a third wave of lockdown measures were implemented, and are expected to dampen economic activity. Based on mobility indicators, it is anticipated that the third lockdown was tighter than the second but looser than the first.

It is assumed that lockdown and social distancing measures will follow the Government's envisaged 'road map', with lockdown formally ending in late-March, social distancing to progressively ease over spring and the domestic economy to open fully by mid/late summer (with all UK adults expected to be offered a dose of the COVID vaccine by this time). The assumed 'post-lockdown' pick-up in activity will mean that GDP is assumed to increase in 2021, though to a lesser extent than previously forecast due to the weak start to the year.

Despite the assumed opening of the UK economy in 2021H2, persistent economic scarring and a muted economic recovery in 2021/2022 is expected. This comes as a result of rising unemployment, business closures, weak capital accumulation and permanent productivity

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[1] https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2020

impacts of the pandemic. Moreover, UK trade prospects remain very weak due to slow global economic growth (exacerbated/perpetuated by inequalities in the global allocation of the vaccine) and Brexit trade disruptions (see EU exit section below). Given this, the central assumption of this forecast is a 3.6% increase in GDP in 2021 and a 2.8% increase in GDP in 2022.

The post-pandemic economic recovery will depend on the responses of households, businesses and government.

- **Households** – Both upside and downside uncertainties are present and the recovery experience of households is expected to be heterogenous. High levels of household saving has been recorded during the pandemic and this could help fuel economic recovery. Simultaneously, considerable job losses have also been experienced (especially among 16-24-year-olds) and pay growth is expected to be sluggish, in line with scarred productivity. Household spending is assumed to recover partially in the short term, but experience permanent impacts from the pandemic.
- **Businesses** – Solvency issues are expected to weigh down on business investment in the near/medium term, offset partially by government support. Consequently, the forecast assumes 1.7% growth in (total) GFCF in 2021, picking up to 3.1% in 2022.
- **Government and Bank of England** – The UK government and Bank of England responded in several ways to support and prop up the economy and prevent job-losses / business insolvency. Many of these schemes are expected to be phased out according to the Spring Budget 2021 (stamp duty holiday will be phased out from June, COVID job support programmes and self-employment income support will be phased out from September 2021), and to be replaced by business 'Restart Grants' and 'Recovery Loans'. The forecast assumes that UK fiscal and monetary policy remains loose in the medium term as the economy recovers gradually. UK government is expected to tolerate higher-than-normal debt levels in the medium term, reducing the need for a budget surplus in the immediate future.

Government consumption in 2020 has been revised downwards considerably from the previous forecast. This is due to two main considerations: firstly, a large share of government spending during the pandemic was classified as a transfer (e.g. business subsidies) rather than government consumption; secondly, the effect of closures to public sector activity (e.g. elective medical procedures, dentistry, schools) have weighed down government consumption.

The medium-term prospects for employment recovery is expected to depend heavily on the timing, intensity and persistence of government job support measures beyond the retention scheme. Previous recessions indicate that job losses tend to be lagged and therefore, we expect the damaging effects of COVID-19 on employment to persist, resulting in stagnating employment levels in 2021 and 2022.

How the EU exit assumptions were developed

Overview

The EU–UK Trade and Cooperation Agreement was signed on 30th December 2020. No quantitative studies of the agreement have been published so far. Nevertheless, according to multiple sources, the agreement in principle is similar to the goals set out in the UK's approach to negotiations with the European Union. Literature published in 2019 and 2020, such as the studies by OBR (March 2020), UK in a Changing Europe (CEP) (2019), or the NIESR (November 2019) considered the potential impacts of scenarios aligned with these goals.

Based on the general terms included in the agreement, we adopted the following political assumptions for our forecast:

- The agreed Free Trade Agreement with the EU avoids reversal to WTO terms, but results in some barriers to trade which will gradually phase in;
- The points-based migration system introduces restrictions on inward migration from the EU;
- The uncertainty about the possibility of no-deal Brexit is lifted. However, some uncertainty remains over the speed of regulatory divergence.
- Some uncertainty remains over the possibility of changes to the agreement in the future that could affect the barriers to trade, such as the equivalence rules in the financial sector.
- The UK will continue to seek other trade agreements, which could reduce barriers to trade with non-EU countries in the future.

These political assumptions were converted into *economic* and *modelling* assumptions to explore the macroeconomic implications. The modelling assumptions provide inputs for our MDM-E3 model, the central economic model used in the forecast. For the forecast, we focussed primarily on the macroeconomic effects of Brexit on **exports**, **migration** and **investment**.

Export assumptions

The magnitude of the assumed impact on UK exports is similar to that assumed in the previous version of the forecast.

Our view assumes 30.6% decline in trade with the EU in the long term, with the impact on services trade being roughly twice as high as for manufacturing. We assume that a larger share of the total long-run impact will happen immediately in 2021 for goods exports, compared to services exports. This reflects the relatively greater significance of non-tariff barriers at the border for goods trade (such as customs declarations), compared to services trade.

In addition, we have incorporated into the assumptions the potential effect of the future trade deals with non-EU countries, such as the US, Australia, Canada and New Zealand. We take a moderate view that is aligned with the potential impact of the UK-US free trade agreement modelled by the Department for International Trade. We assume that UK exports to the US, Australia, Canada and New Zealand will increase by 4.3% in the long run. The implicit assumption on trade with the remaining parts of the world is that the UK will form trade arrangements similar to those it achieved through EU membership.

The resulting combined effect of these assumptions is a decline in UK exports to the world by 13.2% in the long run, which is similar in magnitude to the impact assumed in the previous version of the forecast.

We used the relationships in MDM-E3 to develop a forecast for imports; no additional economic or modelling assumptions were developed as inputs to the model with respect to imports.

Migration assumptions

Our assumption in this version of the forecast remains the same as in the previous version. It is assumed that the long run net migration to the UK will decline as a result of the new UK immigration policy. The starting point in developing the migration assumptions are the ONS population projections. These population assumptions are based on the 2018-based ONS

central population projections[2], which we adjusted using our estimate of the effect of Brexit on *total* net migration to the UK.

The adjustment remains the same as in the previous version of the forecast, and is aligned to the recommendation made by the Migration Advisory Committee in 2018, and the likely effect of the points-based system currently in place. Our assumption is that net annual migration will decline to 150,000 in the long run. Effectively, this reduces net immigration of the working-age population by 40,000 annually, a change primarily driven by a decline in net migration from the EU. This assumption is comparable with other estimates in the literature on the impact of Brexit.

The estimated decline in annual net migration is distributed across UK sectors according to the proportion of EU nationals in the sector's workforce. Data on workforce by nationality are obtained from the Annual Population Survey[3].

Additional assumptions were developed to account for the likely impacts of COVID-19 on internal and international migration, which is assumed to:

- Reduce net international migration in 2020 and 2021, with the impact distributed proportionally across UK sectors based on the presence of non-UK born population in the UK;

- Through the effect on internal migration, result in a small negative impact on the population size of London, and conversely, a small positive impact on the population size in other UK regions.

Investment assumptions

The combined effect of the new agreement and the remaining uncertainty over the speed of regulatory divergence are assumed to effectively replace the realised effect of the post-referendum uncertainty.

It is assumed that the overall impact of the new agreement on investment in the UK will lead to a 5% decline in investment in the long-run. This magnitude is similar to the realised impact of the post-referendum uncertainty. However, the impact of post-referendum uncertainty is expected to lift immediately in 2021. Therefore, in the short run, the net combined impact of lifting of the uncertainty and the withdrawal agreement will be positive (viewed in isolation of the assumed impact of COVID-19), before the full negative impact of the withdrawal agreement is realised in the long run.

These long-run investment impacts have been distributed across broad sectors. We characterised these impacts according to several simplifying categories:

- there would be no change in investment levels;
- investment would slow down, due to some businesses moving a proportion of their activity out of the UK. This would result in a decrease in investment, proportional to the diminished level of activity in the UK;
- investment would adjust based on changes to public spending plans;
- investment would slow down, due to some businesses moving a proportion of their activity out of the UK, but also as a result of the diminished growth prospects of that particular sector within the UK. This could further dampen investment intentions within the UK, as

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[2] ONS National population projections: 2018-based
[3] ONS Number of UK nationals, EU nationals, and non-EU nationals in employment by industry and region, April 2018 to March 2019

multi-national organisations within those sectors may choose to divert a disproportionate amount of their investment to countries with better growth prospects.

In the last case, expectations of diminished growth prospects may stem from factors such as lack of Single Market access, or skill shortages that have been further exacerbated by migration restrictions. Growth may also dampen in sectors that rely heavily on cooperation with other member states or funding from the EU. The mechanisms through which expectations of sectoral growth may diminish were not explicitly accounted for when developing the economic and modelling assumptions. A judgement was taken on which of these are most applicable at a sectoral level.

Detailed explanations of the assumptions in the forecast

The summary table below presents a qualitative overview of the specific long-term economic assumptions of the impacts of Brexit by broad sector:

Table 1: UK forecast assumptions

Sector	Export assumptions	Employment assumptions	Investment assumptions
Agriculture	Mild slowdown in EU demand	Moderate employment constraints	Mild slowdown in investment
Mining & quarrying	No specific impact modelled	Moderate employment constraints	Moderate to pronounced slowdown in investment
Low and medium-low tech manufacturing	Mild slowdown in EU demand	Strong employment constraints	Moderate to pronounced slowdown in investment
High and medium-high tech manufacturing	Mild to moderate slowdown in EU demand	Strong employment constraints	Moderate to pronounced slowdown in investment
Construction	Mild slowdown in EU demand	Moderate employment constraints	Moderate to pronounced slowdown in investment
Utilities	Mild slowdown in EU demand	Moderate employment constraints	No specific impact modelled
Transport, distribution, retailing, accommodation, catering, and administrative and support services	Moderate to pronounced slowdown in EU demand	Moderate employment constraints	Moderate to pronounced slowdown in investment
IT, financial and insurance, real estate, professional, and scientific and technical services	Pronounced slowdown in EU demand	Mild employment constraints	Moderate to pronounced slowdown in investment
Public administration and defence, education, health and social work, and other services (arts and other services)	Mild slowdown in EU demand	Mild employment constraints	Mild slowdown in investment

Source: Cambridge Econometrics.

Appendix: mapping to broad sectors

The broad sector outlined above map to 86 MDM sectors according to the following classifications:

Broad sectors	MDM sectors	
Agriculture	1 Crop & animal product.	3 Fishing
	2 Forestry & logging	
Mining & quarrying	4 Coal	7 Other mining
	5 Oil extraction	8 Mining support service
	6 Gas extraction	
Low and medium-low tech manufacturing	9 Food products	18 Coke & petroleum
	10 Beverages	21 Rubber & plastic
	11 Tobacco	22 Other non-metallic
	12 Textiles	23 Basic metals
	13 Wearing apparel	24 Metal products
	14 Leather, etc.	30 Furniture
	15 Wood, etc.	31 Other manufacturing
	16 Paper, etc.	32 Repair & installation
	17 Printing & recording	
High and medium-high tech manufacturing	19 Chemicals, etc.	27 Machinery, etc.
	20 Pharmaceuticals	28 Motor vehicles, etc.
	25 Computers, etc.	29 Other trans. Equip
	26 Electrical equipment	
Utilities	33 Electricity	36 Sewerage
	34 Gas, heat & cooling	37 Waste disposal
	35 Water	38 Waste management
Construction	39 Construction	41 Specialised construction
	40 Civil engineering	
Transport, distribution, retailing, accommodation, catering, and administrative and support services	42 Motor vehicles trade	52 Publishing
	43 Wholesale trade	53 Film & music
	44 Retail trade	54 Broadcasting
	45 Land transport	55 Telecommunications
	46 Water transport	69 Rental & leasing
	47 Air transport	70 Employment activities
	48 Warehousing, etc.	71 Travel agencies, etc.
	49 Postal & courier	72 Security, etc.
	50 Accommodation	73 Services to buildings

	51 Food & beverage	74 Office admin.
IT, financial and insurance, real estate, professional, and scientific and technical services	56 Computer programming	63 Head offices, etc.
	57 Information services	64 Architect. & related
	58 Financial services	65 Scientific research
	59 Insurance & pensions	66 Advertising, etc.
	60 Aux. financial serv	67 Other professional
	61 Real estate	68 Veterinary
	62 Legal & accounting	
Public administration and defence, education, health and social work, and other services	75 Public admin. & def	81 Libraries, etc.
	76 Education	82 Gambling
	77 Health	83 Sport & recreation
	78 Residential care	84 Membership organ.
	79 Social work	85 Repair of goods
	80 Arts & entertainment	86 Other personal

Source: Cambridge Econometrics.