

Executive Summary

The Surrey Infrastructure Study (SIS) was completed in January 2016 and provided a 'snap-shot' in time as of July 2015, reflecting the position in terms of anticipated growth patterns, the infrastructure projects required to support growth, their costs and anticipated funding at both county and district levels. AECOM has now been commissioned to update the 2016 SIS to reflect the position as of June 2017 based on updated growth projections over the period 2016/17 to 2030/31.

This report sets out the updated findings following a desk based assessment carried out by AECOM in parallel with dialogue with Surrey County Council, local authorities and other infrastructure providers in Surrey.

This study presents an overview of growth patterns and the infrastructure projects needed to support such growth, their costs, how much funding has already been secured or is expected toward their delivery and the funding gap for the period up to 2031. It has been produced drawing upon information obtained from the local authorities, and following a period of engagement with infrastructure providers, but also includes some broad funding and cost assumptions and modelling work with associated limitations that may

differ from those used in local infrastructure delivery plans and documents.

It provides a "snap-shot" in time, reflecting the position as of June 2017 and is not intended to supersede or replace local studies, which may have used different metrics that better reflect local circumstances

The preparation of the 2017 SIS has highlighted the need for continued collaborative working between the county, district and borough authorities, the Local Enterprise Partnerships and other service providers ranging from the NHS to the numerous utility companies.

It has also shown that shortfalls exist in terms of a standardised agreed approach towards a study of this kind including the collection of data on housing and employment sites, population forecasting, modelling infrastructure requirements and the costs and funding assumptions for that infrastructure.

The following identifies the key changes between the 2016 Surrey infrastructure Study and the 2017 Refresh.

The 2016 Surrey Infrastructure Study identified that:

- Surrey authorities planned for housing and economic growth from 2015-2030 to deliver on average 3,137 dwellings per year. This compares to completions of 2,495 dwellings per year across Surrey from 2010 to 2014. This comes to a total of 47,053 dwellings to 2030, which results in a 5% increase in population or 60,991 additional people.
- Delivering the infrastructure to support growth was identified to cost at least £5.37 billion to 2030.
- The study estimated **secured funding of over £993 million** and potential funding from the public sector, private sector and developer contributions of £1.23 billion.
- Taking into consideration the potential funding identified, a minimum gap in infrastructure funding of £3.2 billion was identified between 2015 to 2030.

The following key findings are highlighted from the 2017 study:

- Surrey authorities are planning to accommodate housing and economic growth over the 15 year period to 2031 delivering on average **4,357 dwellings per year.** This compares to completions of 2,486 dwellings per year across Surrey from 2011 to 2016.
- **65,356 dwellings** are expected between 2016 and 2031 with an associated population **increase of 106,123 people** (an increase of 9%).
- Delivering the necessary infrastructure to support that growth from now to 2031 is estimated to cost at least £5.5 billion.
- The study has estimated a combination of secured funding (£1.3 billion) and potential funding from the public sector, private sector and developer contributions (£1.82 billion). It is important to note that a full review of the funding position for each project included in the study is required to refine this estimation. This has been outside the scope of this project.
- Taking into consideration the potential funding identified, a gap in infrastructure funding of £2.46 billion still remains between now and 2031.
- The study demonstrates that current anticipated developer contributions. Central Government grants and other sources of income are not sufficient to support the scale of growth anticipated in Surrey in the period to 2031. This is without consideration of further potential changes to current funding sources which may reduce finances further, such as reduction in grants or additional

exemptions from the Community Infrastructure Levy (CIL).

- CIL is at varying stages of adoption across the county (due to the difference in stages of adoption of Local Plans), resulting in variations in the amount of money that will be collected. The identified funding gap should be considered and taken into account when setting CIL rates.
- The infrastructure requirements and associated costs presented represent a scenario based on a population forecast constrained by planned housing targets as opposed to ONS population forecasts. Where the Objectively Assessed Need (OAN) has been used, these may be higher than the final target.
- ONS population forecasts for Surrey over the same 15 year period are 34% higher than the study forecasts. The estimated costs associated with the infrastructure to support population growth could therefore be increased considerably if a growth level nearer the ONS forecast was realised.

The following actions have been identified for Surrey and its partners to take the study findings forward:

- Developing an investment framework and strategy for infrastructure delivery in Surrey to support planned growth
- Joint work between the 12 Surrey local authorities to bid for funding through the Local Enterprise Partnerships

- Developing an infrastructure evidence based to 2050 for the Surrey, West Sussex and East Sussex (3SC) area
- Engaging with Government and national agencies to shape their investment plans, as part of the Sub-National Transport Body, Transport for the South East
- Working with authorities in London, the East of England and South East to coordinate strategic policy and infrastructure investment across the Wider South East, including joint lobbying for strategic infrastructure priorities
- Revisit the evidence base behind this study on a regular basis in collaboration with partners to maintain a rolling understanding of the infrastructure landscape and funding priorities;
- Consider the implications of infrastructure providers decisions both now and in the future. This study has used standard metrics to determine requirements for some infrastructure elements (such as healthcare, libraries, community and leisure, youth services, social care accommodation etc), but the actual requirements will be heavily dependent on service decisions on new delivery models which are affected by regulatory, financial and technological changes;
- Local authorities and infrastructure providers to continue to work together to maintain an up-to-date understanding of growth distribution and supporting infrastructure;
- Use the study as a basis for identifying local level shortfalls to support bids for future funding, including potential means outlined in Section 6;

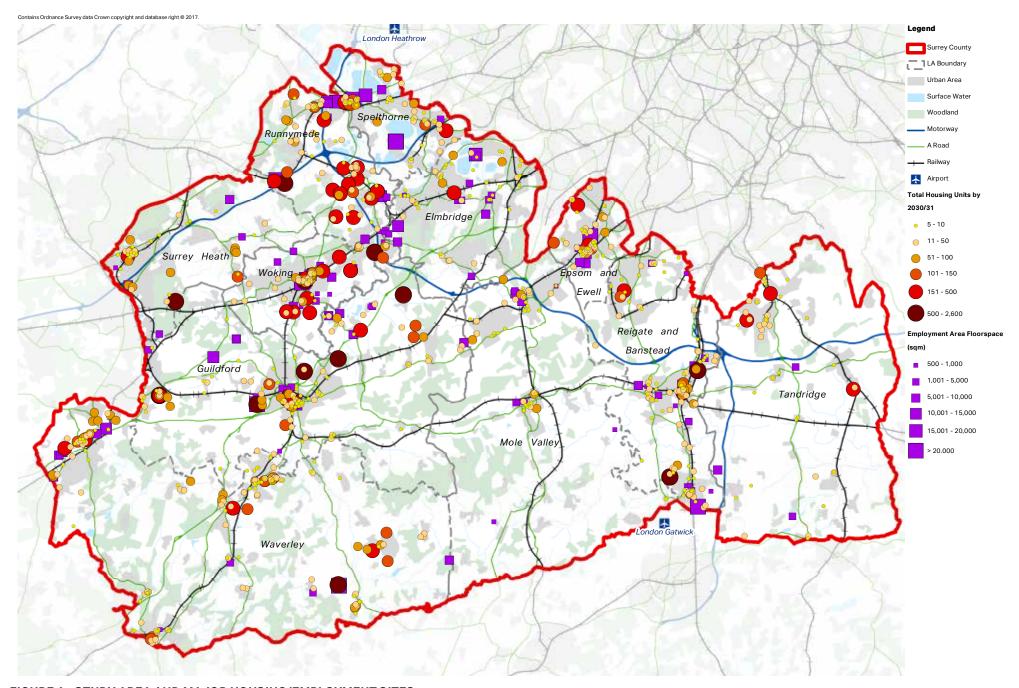


FIGURE A - STUDY AREA AND MAJOR HOUSING/EMPLOYMENT SITES

^{*} This is based on the most up to date information at the time of publication and could be subject to change, subject to review of planning policy documents Source: Local Authority data

SURREY

THE INFRASTRUCTURE STUDY IDENTIFIES THE FOLLOWING HEADLINES FROM 2016 TO 2031:

65,356 new homes

106,123 new people

59,000 new jobs

Total Infrastructure Costs: £5,512,790,000
Total Secured Funding: £1,229,120,000
Total Expected Funding: £1,822,080,000
Total Funding Gap: £2,461,590,000*

% of Infrastructure Funded: 55%

Motorways **TRANSPORT** Highways Public transport Other transport Primary education **EDUCATION** Secondary education AE/FE/HE Early Year facilities **HEALTH** Primary healthcare Acute healthcare Mental healthcare Adult social services COMMUNITY Libraries Youth services Community centres **GREEN** Sports facilities INFRASTRUCTURE Outdoor sport & Rec Green infrastructure Electricity & Gas **UTILITIES** Water & Sewage Waste Broadband ■ Secured Funding **FLOOD** Flood defences Expected Funding **DEFENCES** ■ Funding Gap **Emergency Services** £0 £200 £400 £600 £800 £1,000 £1,200 Millions FIGURE B -SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

^{* (}considering both secured and expected funding)

The diagram on the facing page illustrates the range of infrastructure required to support the delivery of 65,356 new homes from social infrastructure to transport and utility networks, open space and flood protection.

Our analysis has identified the potential costs of delivery alongside currently identified secured funding, potential funding from public, private and developer contributions and the remaining funding gap.

Having considered the range of potential funding options the analysis highlights a £2.46 billion funding gap between 2016 and 2031.

A similar level of investment in infrastructure is required across each of the three phases. However, given the budgets for beyond 2021 have not yet been set, it is difficult to gauge any degree of certainty regarding the level of investment beyond this date. Based on the information available, each phase currently has a significant funding gap identified.

Guildford is shown to have the largest infrastructure costs and gaps due primarily to a large number of major transport projects in the area. Waverley, Reigate & Banstead and Woking are also shown to have considerable infrastructure costs to support growth.

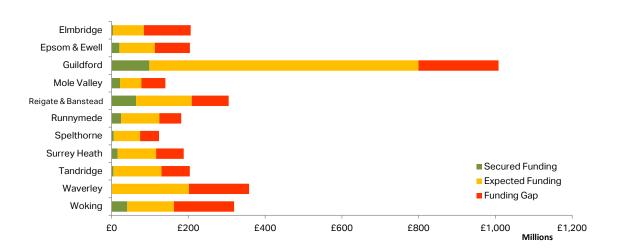


FIGURE C - TOTAL COST OF INFRASTRUCTURE AND ESTIMATED FUNDING

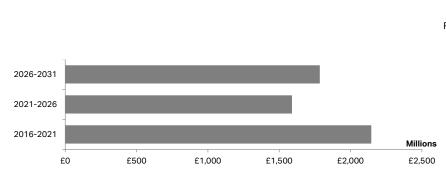


FIGURE D - TOTAL INFRASTRUCTURE COSTS AND ESTIMATED FUNDING

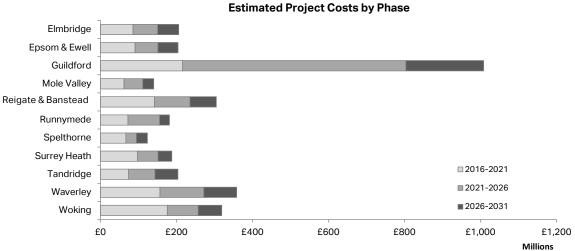
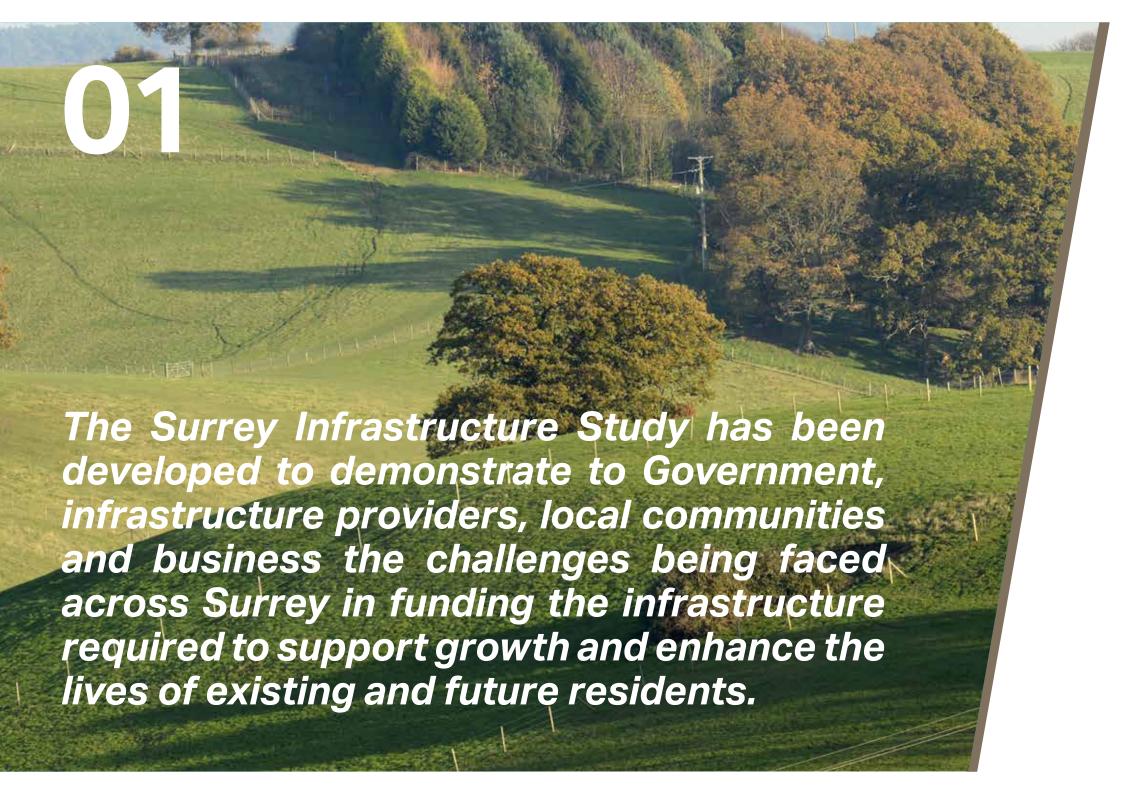


FIGURE E - ESTIMATED PROJECT COSTS BY PHASE



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INTRODUCTION

The 2017 Surrey Infrastructure Study (SIS) has been updated on behalf of the Surrey local authorities to provide an up to date view of emerging development and infrastructure requirements to support growth across Surrey.

The update presents a strategic view of growth distribution and infrastructure provision across Surrey drawing upon the projected growth anticipated to come forward within each of the Districts and Boroughs over the period to 2031.

This document outlines the strategic picture of the infrastructure required to support and unlock growth. It aims to:

- Collate and summarise population/housing growth projections across Surrey;
- Set out a combined understanding of capacity within current infrastructure provision and pipeline infrastructure projects being taken forward by local authorities and other infrastructure providers; and
- Highlight cumulative costs, funding streams and gaps in infrastructure funding.

The 2017 SIS has been produced for the following audiences:

- Officers and members within Surrey County Council and the 11 Surrey borough and district councils;
- The Coast 2 Capital and Enterprise M3 Local Enterprise Partnerships and Transport for the South East to inform priorities for investment to support growth objectives at both a strategic and a local level;

- Government and Infrastructure Providers to demonstrate the potential distribution of growth, infrastructure requirements and funding gaps; and
- Residents and businesses to provide a county-wide view of development and infrastructure requirements and the challenges in delivering infrastructure across the county.

In addition the study takes into consideration external factors affecting growth and infrastructure provision in Surrey in relation to the wider London and South East growth requirements.

Of particular relevance is the 2014 Inspector's Report on the Further Alterations to the London Plan which highlighted the lack of capacity in Greater London to meet growth requirements with some of the identified 7,000 homes per annum shortfall likely needing to be met in areas outside London, including Surrey.

Within London this context is recognised at the political level. The Recent GLA report City for all Londoners (November 2016) states that in order to accommodate growth while meeting housing, social and economic needs of londoners, a collaborative approach between London boroughs, local authorities in the wider South East, and central government is required, in particular focused around infrastructure. This report raises a number of issues, in particular:

It acknowledges that most of London's growth needs to be contained within London. However there is a need to agree joint infrastructure investment corridors - where infrastructure is planned to open up housing - that stretches beyond London's borders. This will require close cooperation with neighbouring authorities in the wider South East; and ■ It acknowledges that as London grows, there will be a need to protect and enhance the environment, including the Green Belt. This means protecting the Green Belt and designated green space against growth pressures. Greater intensification of development should occur to ensure this.

The Mayor's Draft Transport Strategy (June 2017) has identified the important role that transport plays in linking London to the areas in the wider South East. It recommends that in order to plan London's transport, there is a need to consider newhomes and jobs in the wider south east through the development of strategic corridors that continue outwards from London's growth corridors. It identifies two potential corridors, the South-Western / Surrey Corridor and the Gatwick / Brighton Corridor, which could have an impact on Surrey.

The London Plan includes mechanisms for closer political engagement and joint working with local authorities in the South East and East of England and they will influence the review of the London Plan currently underway.

Surrey local authorities are represented on the Shadow Partnership Board of Transport for the South East and are members of the Coast to Capital LEP and the Enterprise M3 LEP. These secured over £300m and £218m from the Government's Local Growth Fund, respectively, to support economic growth for the period 2015/16 to 2021. Combined, the Growth Deals will help create 36,000 jobs and 15,000 homes across the LEP areas. Therefore, it is increasingly necessary to adopt a more strategic approach to plan for infrastructure and unlock investment to support growth.

SCOPE OF THE STUDY

The Surrey Infrastructure Study covers all forms of infrastructure supporting the economic, environmental and social needs of Surrey (see Figure 1.2).

The categories covered in the report are shown in Figure 1.1.

The study is structured as follows:

Section 2 provides an overview of how growth and infrastructure is planned in Surrey.

Section 3 sets out social and economic growth drivers and the potential distribution of development in Surrey.

Section 4 provides an overview of infrastructure requirements across the county for a range of infrastructure provision including education, health, community, transport, utilities and flood protection.

Section 5 provides analysis on a local authority basis of development suitability taking into account infrastructure capacity and proposed investment.

Section 6 presents a commentary on delivery and funding issues affecting growth and infrastructure across Surrey.

Section 7 identifies recommendations and conclusions.

Section 8 details specific caveats supplied by some of the local authorities to accompany the housing forecasts.



EDUCATION











HEALTH & SOCIAL CARE



Primary

Education











COMMUNITY







Centres







GREEN INFRASTRUCTURE







Strategic Green Infrastructure



UTILITIES









TRANSPORT



Motorways





Transport





Transport







EMERGENCY SERVICES







FIGURE 1.1 - INFRASTRUCTURE CONSIDERATIONS

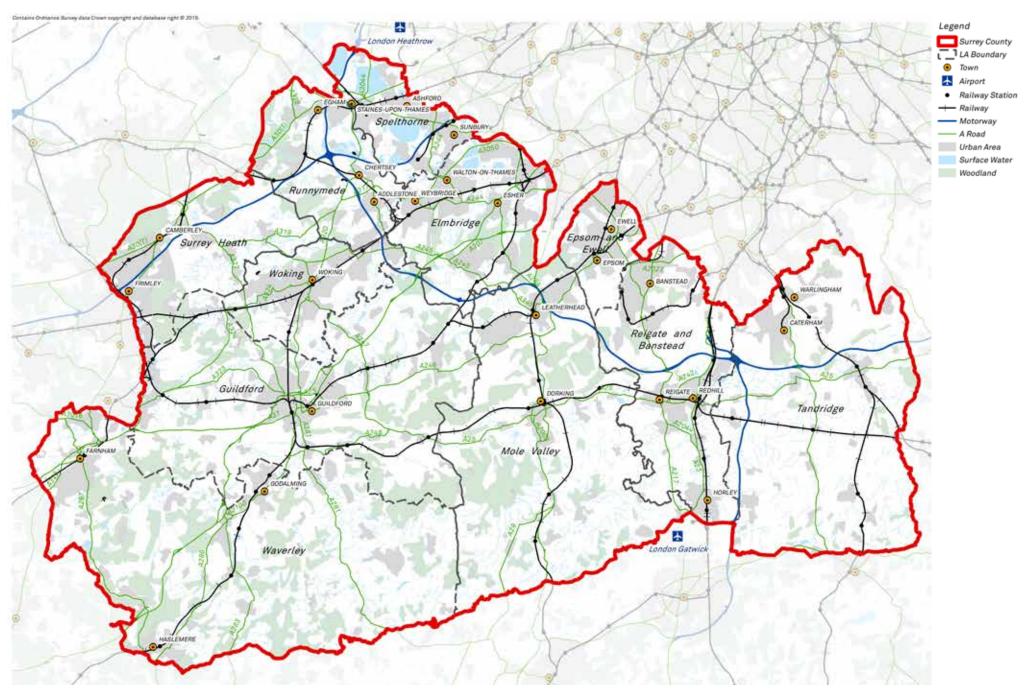


FIGURE 1.2 - STUDY AREA

PARAMETERS OF THE STUDY

This study has been prepared in accordance with the following parameters:

A Snapshot in Time:

■ The housing, employment and population forecasts presented in this document represent our understanding of the growth context at June 2017 but it is recognised that this information is continually evolving and should therefore be treated as a snap shot in time only.

Housing Growth:

- The production of the Infrastructure Study has required close working with the local planning authorities (LPAs) to establish the latest understanding of potential additional housing delivery between 2016 and 2031.
- It is crucial to highlight the fact that across the eleven local authorities a significant variation in the progression of local plans and associated technical work exists. As a result, each LPA has agreed a working set of figures for the purpose of this study.
- The housing trajectories presented in this document have been provided by the LPAs but represent only the latest working assumption on likely housing delivery. Some are based on anticipated completions of sites and/or adopted local plan annual average figures, while others are taken from recent Strategic Housing Market Assessments (SHMA's). Specific caveats have been supplied by some of the local authorities and are presented in Section 8.

Employment Sites:

■ Key employment sites presented in this document have been provided by the LPAs as sites likely to have significant implications for infrastructure provision. It does not include all employment sites and excludes smaller employment areas.

Population Forecasts:

A technical population modelling scenario forecast has been produced by SCC using the PopGroup Model to inform the infrastructure study document and the technical infrastructure modelling associated with it. This is a bottom-up forecast constrained by the number of dwellings to be built in each individual local authority as advised by the local planning authorities in June 2017.

Infrastructure Analysis:

- The study has sought to establish the existing scale, distribution and capacity of all infrastructure types and the required additional investment in infrastructure to support growth to 2031 through the consolidation of existing service planning and through theoretical modelling where no service planning is available.
- The eleven local authorities have undertaken considerable work to understand the infrastructure requirements to support their local plans. Figure 2.3 presents the current availability of existing Infrastructure Delivery Plans (IDPs) across the county. These IDPs have formed important source documents for this study.
- Again, it is crucial to highlight the fact that across the eleven local authorities a variation in the progression of infrastructure planning work exists in conjunction with

the progress on local plans. As a result, the inclusion of findings and proposed projects from those documents within this study must be accompanied by a health warning that they may not represent the latest position in the local area. It should also be noted that a number of the local authorities are currently in the process of updating their IDP.

- The topic specific infrastructure analysis represents a snap shot in time and does not necessarily reflect all current work underway across the various service areas to address capacity issues and plans for change in service provision.
- The analysis does not include detailed analysis of the impact of housing growth within London and adjoining counties (especially West Sussex, Hampshire and the Berkshire unitary authorities) which will have an impact on service demands within Surrey, particularly along border areas. This is explored however at a high level within Section 3.
- A project database has been created to record all identified project requirements, including the type, location, timing, costs and funding of those investments.

Cost Analysis:

■ The costs of infrastructure presented in this document represent the sum of all entries in the project database under that infrastructure theme and location. It should be

noted that not all items in the project database have an associated cost due to a lack of project details from which to estimate costs. This therefore means that the costs of infrastructure presented in this document represent a minimum figure.

- All costs presented in this report are based on current day prices and have not been index linked forward to the assumed date of requirement.
- A full set of cost caveats have been included at the conclusion of this document and explain the predominant source of cost information by each infrastructure topic.
- It is important to note that the total costs of infrastructure requirements for each local authority presented in this report are unlikely to match exactly those presented in the Infrastructure Delivery Plan of that LPA. This study covers all infrastructure topics for each local authority and has subsequently included additional project requirements which may not have been included in the local authority studies.

Funding Assumptions:

- The funding of infrastructure presented in this document is primarily based on the sum of all entries in the project database where a project has been identified as having secured funding or is expected to receive funding from one or more sources.
- The existing understanding of project specific funding is not complete and will need to be advanced by all interested parties.
- Funding has been classified into two categories of secured and expected.

- Secured funding represents any project funding that has been identified within each Local Authority's IDP or specifically noted as secured by source documents or in discussions with stakeholders such as the Environment Agency.
- Expected funding includes potential funding from the public sector, the private sector and developer contributions.
- The expected funding category includes a theoretical assumption on the potential developer contributions to that service requirement based on the number of new dwellings forecast in that area. The details of how the potential developer contribution has been calculated is included in Section 6.
- A number of working assumptions have had to be applied to other expected funding sources (both public and private) such as the likely NHS, private sector and utility company contribution to project costs which are inevitable but cannot at this time be confirmed as in many cases the project costs identified have been generated theoretically and do not represent actual projects. These working assumptions are also set out in more detail in Section 6 of the document.
- It should therefore be noted that the funding estimates presented in this document are indicative and based on a number of working assumptions and in the case of the NHS have not been validated. As this study is taken forward a greater degree of accuracy on potential funding sources is required.



PLANNING FOR INFRASTRUCTURE IN SURREY

THE BASIS OF THE STUDY

THIS STUDY DRAWS TOGETHER INFORMATION AND DATA FROM A RANGE OF SOURCES. IT SEEKS TO PIECE TOGETHER A STRATEGIC PERSPECTIVE ON GROWTH AND INFRASTRUCTURE PROVISION IN SURREY AT THE PRESENT TIME AND 15 YEARS INTO THE FUTURE.

It draws on the following information:

- Adopted and emerging Local Plans and Infrastructure Delivery Plans for all local authorities within Surrey
- Local Authorities' Local Plan evidence bases
- Other existing and emerging information, strategies and plans from local authorities across Surrey
- GIS database information provided by Surrey County Council
- Surrey County Council Pop Group model for population growth
- Documents produced by Coast to Capital & Enterprise M3 Local Enterprise Partnerships (LEP)
- Surrey Rail Strategy, Surface Access to Airports Study, the North Downs Line Assessment, and the Wessex Route Study
- Information from other infrastructure provider's plans including utility providers, the Environment Agency, Network Rail, Highways England and the National Health Service (NHS).

The study is based on a detailed analysis of issues in Surrey relating to growth and infrastructure current to June 2017. It should be recognised that this presents a snapshot in time and has no legal basis.

A spreadsheet database containing a list of all known infrastructure projects, costs and funding provides a detailed evidence base for this study.

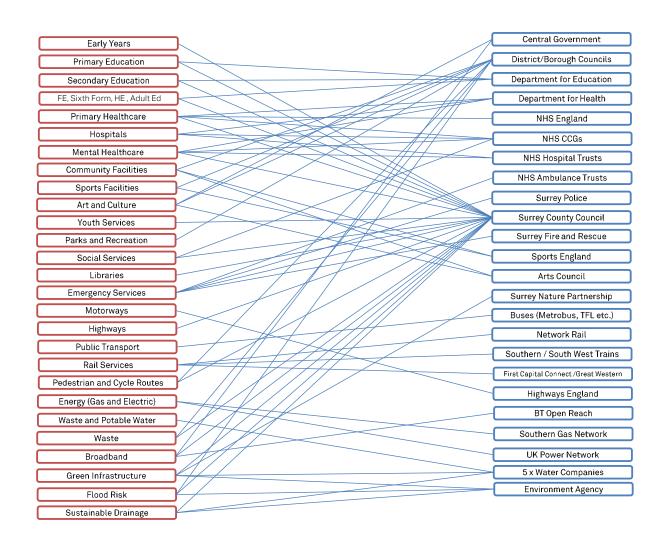


FIGURE 2.1- THE COMPLEX PATTERN OF INFRASTRUCTURE PROVISION IN SURREY

INFRASTRUCTURE PROVIDERS

FIGURE 2.1 SHOWS THE COMPLEX RELATIONSHIP BETWEEN INFRASTRUCTURE AND PROVIDERS IN SURREY. THE COUNTY COUNCIL AND THE DISTRICT AND BOROUGH COUNCILS PLAY A VITAL ROLE IN THE SUPPLY OF INFRASTRUCTURE IN SURREY. IN ADDITION A NUMBER OF PUBLIC AND PRIVATE ORGANISATIONS HAVE RESPONSIBILITY TO PROVIDE INFRASTRUCTURE TO SUPPORT EXISTING POPULATION AND PROPOSED GROWTH.

This study covers the following aspects of infrastructure provided by Surrey local authorities.

- Education (primary, secondary, further education and adult education)
- Other social infrastructure (libraries, adult social services and youth services, public health, community and sports facilities, parks and recreation)
- Highways and transport
- Waste management

In addition, other providers' requirements have been investigated including:

- Healthcare (NHS)
- Highways (Highways England)
- Rail and bus operators
- Utility services
- Other significant infrastructure (e.g. Environment Agency)

PLANNING FOR INFRASTRUCTURE

Changes to government legislation have modified how infrastructure planning is undertaken and placed greater emphasis on the link between the Local Plan and the delivery of infrastructure.

In Surrey it is the districts and boroughs who have responsibility for producing Local Plans as local planning authorities (LPAs).

Surrey County Council is a statutory consultee as an infrastructure provider, but does not have a statutory responsibility for plan making (with the exception of Minerals and Waste planning).

The Government's National Planning Policy Framework (NPPF) states that LPAs should work with other authorities and providers to assess the quality and capacity of a range of infrastructure types and the ability to meet forecast demands and take account of the need for strategic infrastructure within the LPA area (para. 162).

Local Plan policies on infrastructure delivery and development are required to operate together, in order to ensure delivery in a timely fashion. Where possible the NPPF recommends Community Infrastructure Levy (CIL) charges should be developed and assessed alongside the Local Plan (para, 177).

Localism Act 2011 and the NPPF also set out a duty to cooperate across boundaries enshrining the need for local planning authorities to engage with different organisations on strategic planning issues (para.179), in particular infrastructure providers as illustrated in Figure 2.2. County councils are subject to the duty and the LPAs are required to engage with Surrey County Council as a key infrastructure provider. However, there is no body in place to provide strategic co-ordination of growth across local authority boundaries or strategic infrastructure. Therefore, there is a vital need for increased dialogue and close collaboration between local authorities and infrastructure providers

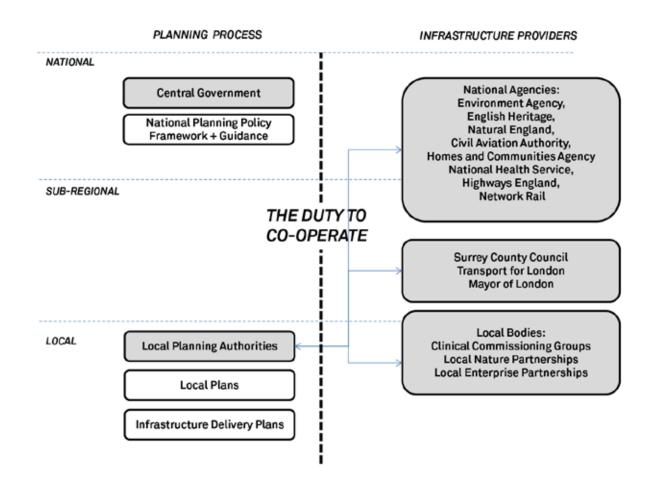


FIGURE 2.2- THE CURRENT PLANNING PROCESS AND INFRASTRUCTURE PROVISION IN SURREY

to ensure infrastructure is adequately planned for and delivered in tandem with area growth projections in order to meet service demand. In this way, this Study seeks to facilitate discussion by highlighting the core infrastructure issues which require attention.

As illustrated in Figure 2.3, all LPAs in Surrey are at varying stages in terms of having an up-to-date Local Plan. Some plans have been adopted while others are in the process of

being prepared. Where a local authority's Local Plan predates the adoption of the NPPF, policies may no longer be up to date and may need to be revised. All have produced an "Infrastructure Delivery Plan" which sets out infrastructure required to support growth and funding regimes.

This document will assist Surrey Local Authorities to fulfil the "Duty to Cooperate" and piece together a co-ordinated understanding of growth and infrastructure across Surrey.

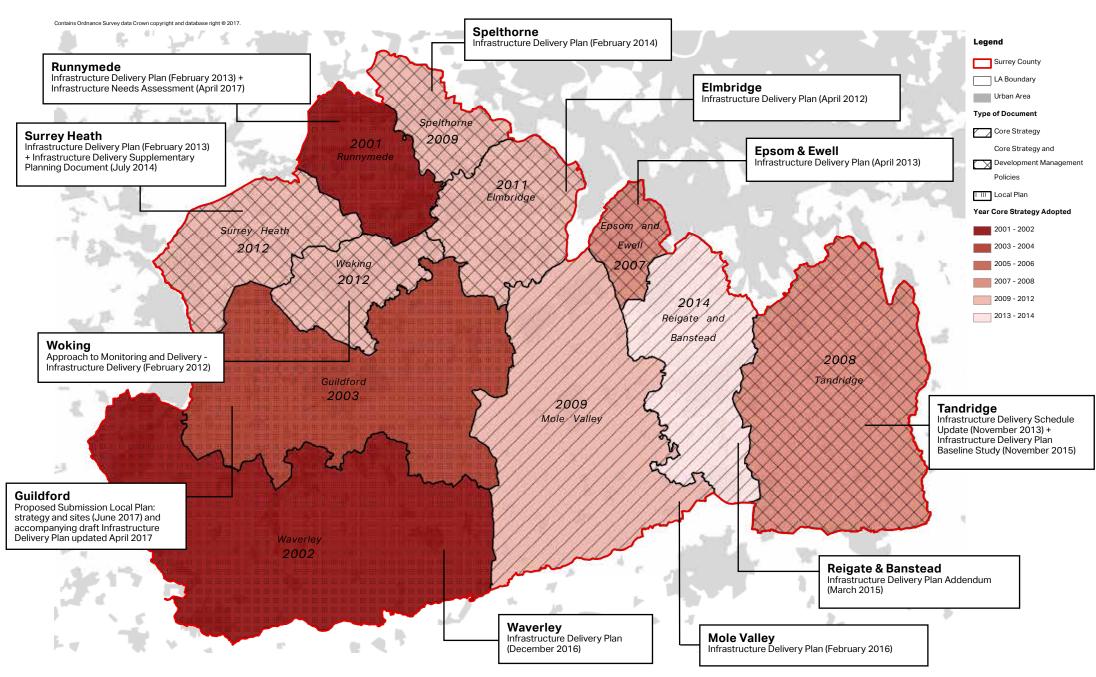


FIGURE 2.3 - LOCAL PLAN AND INFRASTRUCTURE DELIVERY PLAN STATUS IN SURREY LOCAL AUTHORITIES (JUNE 2017)



UNDERSTANDING SURREY'S GROWTH REQUIREMENTS

THIS SECTION AIMS TO SUMMARISE THE KEY ISSUES IN PLANNING FOR GROWTH IN SURREY TO 2031.

As highlighted in the previous section, growth in Surrey is planned for through the Local Plan process on an authority-by-authority basis. This section seeks to set the context for county-wide growth requirements and current planned growth areas as established within the Local Plans.

It comprises:

POPULATION GROWTH REQUIREMENTS

- Population modelling and growth assumptions to 2031;
- A social portrait summarising current socio-demographic issues and trends likely to impact on growth and infrastructure provision; and
- An understanding of housing growth requirements and locations.

ECONOMIC GROWTH REQUIREMENTS

- An economic portrait summarising current economic issues and trends; and
- An understanding of employment requirements and locations.

RELATIONSHIP WITH LONDON AND ADJOINING AREAS

■ An understanding of impacts on Surrey from potential growth in adjoining areas, especially from London.

This growth context is then used as the basis for examining infrastructure requirements in the remainder of this study.

POPULATION PROJECTIONS

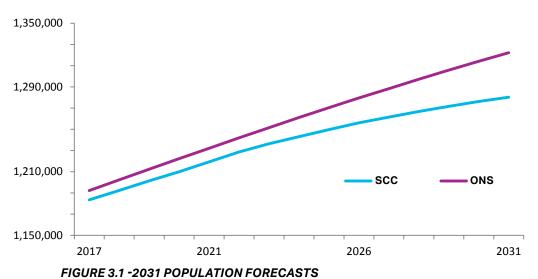
THERE ARE 2 DIFFERENT POPULATION PROJECTIONS WHICH NEED TO BE TAKEN INTO ACCOUNT:

2014 Based Sub National Population Projections from ONS

- Based on ONS census results, natural change and migration trends. These are unconstrained projections.
- Provided at the local authority level
- Used by Central Government departments and agencies for local authority funding
- Used by DCLG to produce the latest household forecasts which inform Strategic Housing Market Area Assessments (SHMAs)
- The ONS projection assumes a 2016 population of 1,182,100 for Surrey
- It projects a 2031 population of 1,320,700 an increase of 140,100, equivalent to 12% growth

SCC PopGroup Model based Population forecast

- A bespoke population forecast produced specifically for this study to establish a population forecast directly linked (and constrained) by the planned housing;
- Based on ONS census results, natural change but constrained to the housing trajectories of planned growth for each of the local authorities;
- Local authority level data provided June 2017; and
- This projection assumes a 2016 base population of 1,174,200 for Surrey.



Source: SCC PopGroup Model Forecasts, ONS 2014 based Sub National Population Projections

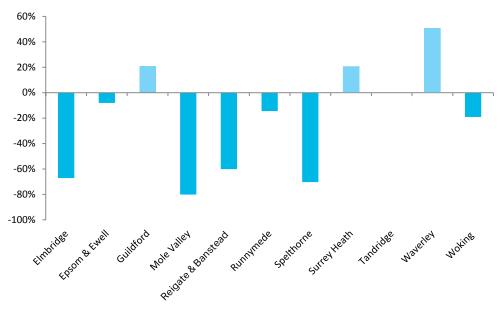


FIGURE 3.2 - SCC FORECASTS VARIATION FROM TREND BASED ONS FORECASTS (JUNE 2017)

- SCC Forecast projects a 2031 population of 1,280,300 an increase of 106,100, equivalent to 9% growth
- It should be noted that given this data was taken from a snapshot in time, it may differ from any evidence in emerging plans and SHMAs.

HOW THE POPULATION FORECASTS VARY BY LOCAL AUTHORITY

The housing trajectory based SCC forecasts and trend based ONS forecasts portray a significantly different total population change across Surrey as a whole between 2017 and 2031. There are significant variations between the local authorities. As shown in figure 3.2 the population forecasts which have been driven by the current housing trajectories are considerably lower in Elmbridge, Mole Valley and Spelthorne compared to the trend based forecasts.

In contrast, Guildford, Surrey Heath and Waverley show housing based figures that are higher than the trend based forecasts, whilst Epsom & Ewell, Runnymede and Tandridge have the most similar housing forecasts between the two.

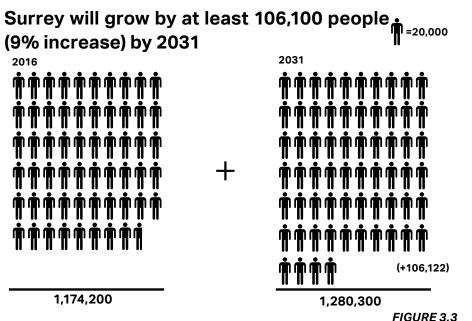
It is important to make clear why the population projections produced by SCC using the PopGroup Model are notably lower in most cases than the ONS population forecasts. As set out in the earlier study parameters section, the

PopGroup model is constrained by the number of homes planned by the local authorities. All other assumptions on baseline population and natural change will match the ONS forecasts.

Additionally, some of the housing trajectories provided by the local authorities are based upon anticipated delivery of sites and/or annual average plan requirements rather than objectively assessed needs for housing.

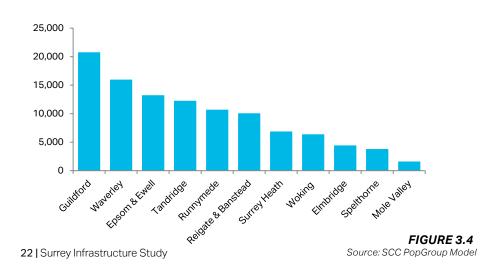
3.1 SOCIAL PORTRAIT

THE FOLLOWING HEADLINES SUMMARISE KEY SOCIO-DEMOGRAPHIC TRENDS AND PROJECTIONS THAT WILL AFFECT THE DISTRIBUTION OF GROWTH AND PLANNING FOR SUPPORTING INFRASTRUCTURE TO 2031.

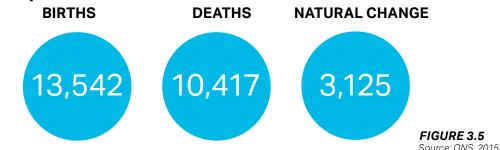


Source: SCC PopGroup Model

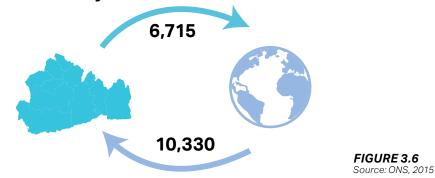
However, this growth varies significantly within Surrey, with the greatest increases currently projected in Guildford, Waverley, Epsom & Ewell and Tandridge.



In 2015 the natural increase of Surrey was 3,125 people:

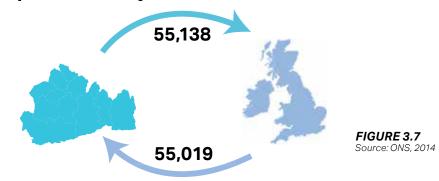


In 2015 there was net international migration of 3,615 people into Surrey



Guildford saw the biggest net-increase in international migration of 1,540 people.

In 2015 there was net domestic migration (within UK) of -119 people into Surrey



Migration between Surrey and London 2002-2015

London and Surrey are increasingly interconnected - the flow of migrants from London into Surrey and Surrey into London is nearly 2:1 from 2002 - 2015, in which Surrey received a net increase of 149,300 people from London.

Elmbridge received 17% of migrants while Reigate & Banstead received 14% and Epsom & Ewell 11%.

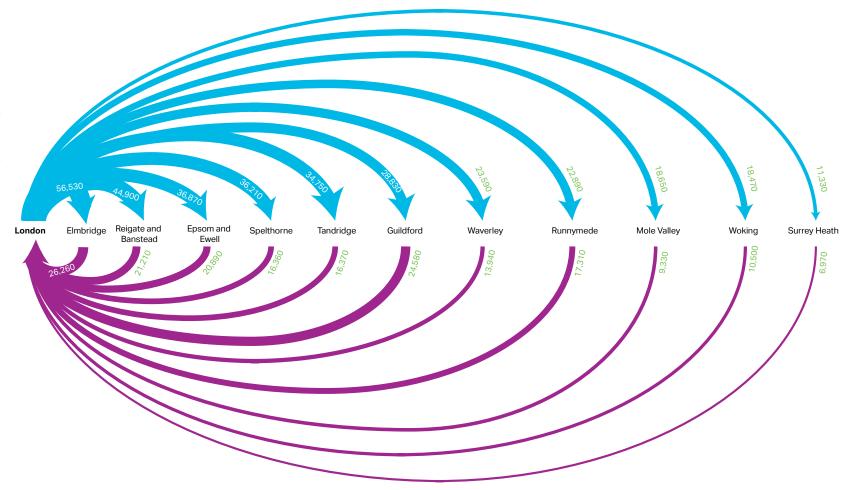
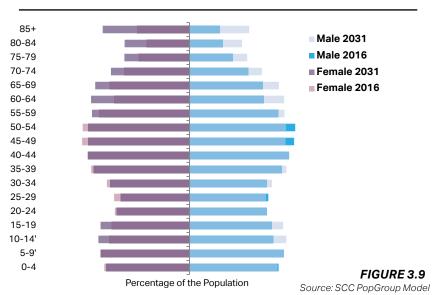


FIGURE 3.8 - INTERNAL MIGRATION BETWEEN LONDON AND SURREY LOCAL AUTHORITIES (2002-2015) (ONS)

Source: ONS, 2002-2015

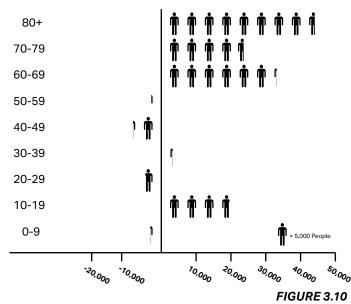
The population is ageing: The greatest increase in age categories will be those over 60, with the biggest increase in 85+

Forecast Change in Age Profile 2016 - 2031



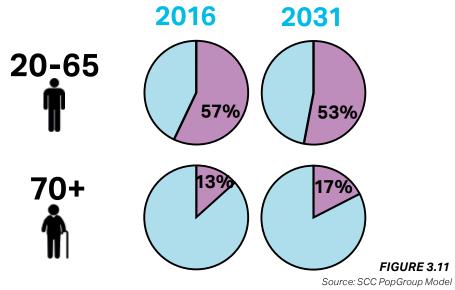
NEW PERSON BY AGE BRACKET

ageing population significant cause pressures on certain infrastructure types of demands (such transport) in Surrey. Changing requirements for housing typologies, increasing needs healthcare and accessible infrastructure almost certainly rise as those over the age of 60 will begin to represent an increasingly significant proportion of Surrey's population.



Source: SCC PopGroup Model

As the population gets older, working age residents will decline by 4% in their total share of the population by 2031, whereas elderly residents will increase their share by 4% of the population



As the elderly population increases this will likely create greater demand for 1 bedroom dwellings, including apartments. Although evidence suggests a large majority of elderly residents prefer not to downsize which also presents challenges as larger family homes are not made available to vounger and larger families.







FIGURE 3.12 Source: ONS 2011

The majority of Surrey's current housing stock is well suited for families (49%). however as the population ages housing stock requirements will alter.

Over 78% of the current housing stock is family homes, which are not ideally suited for an ageing population that requires smaller accommodation

The current population in Surrey mostly own their homes (73%), with few privately renting (14%) or in social housing (11%)

Quality of life is generally high across Surrey

However, there are some pockets of deprivation in certain urban areas such as Guildford, Woking and Merstham.

This typically high quality of life is reflected by the fact that only 0.5% of Surrey's working age population are claiming Job Seekers Allowance (JSA). Furthermore, an analysis of the number of JSA claimants from January 2015 to January 2017 shows a significant drop of 34%, suggesting an improving economic position in Surrey.

Spelthorne (13%), Guildford (12%) and Reigate & Banstead (15%) experience the highest level of JSA claimant rates across Surrey, reflecting the disparities in wealth commonly representative of major urban centres.

WORKING AGE JOB SEEKERS ALLOWANCE CLAIMANTS 2014-15

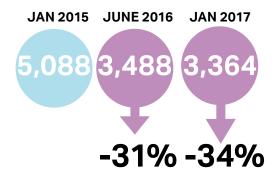


FIGURE 3.13
Source: NOMIS 2017

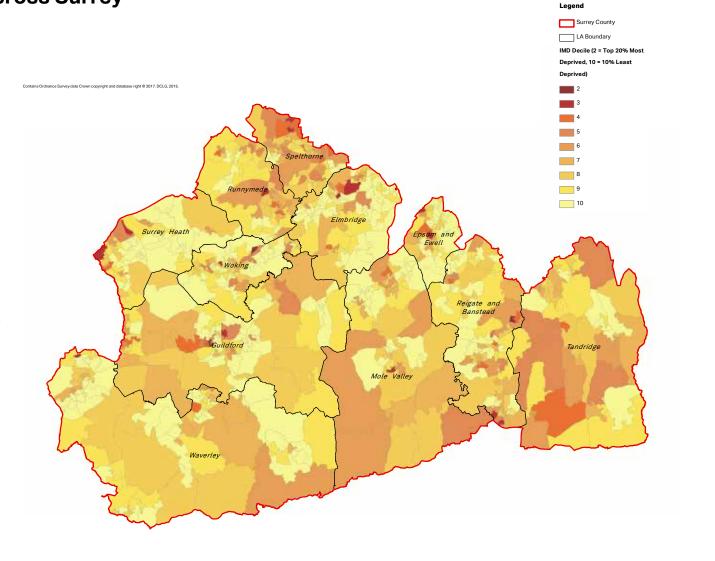


FIGURE 3.14 - INDEX OF MULTIPLE DEPRIVATION ACROSS SURREY (2015)

Source: DCLG (2015)

3.2 HOUSING A GROWING POPULATION

EXISTING HOUSING

There are approximately 486,000 housing units existing across Surrey local authorities. Figure 3.15 illustrates the distribution of those existing homes across the county with the largest share of homes accommodated by Reigate and Banstead, Guildford, Elmbridge and Waverley and the least homes within Epsom and Ewell.

The same figure illustrates the forecast additional dwellings between 2016 and 2031 as informed by the eleven local authorities for the purposes of this study (these are not all derived on the same basis as set out under the study parameters in Section 1 and the data caveats in Section 8). Figure 3.15 shows both the spread of that additional housing across the county as a whole but also the relative increase within each of the local authorities.

The local authority housing trajectories indicated that some 65,000 housing units are planned across Surrey between 2016 and 2031. This would equate to an annual completion rate of 4,357 dwellings which is considerably higher than the average achieved between 2006 and 2016 for Surrey as a whole which was closer to 3,000 dwellings per annum. Figure 3.16 illustrates the total completions achieved for each local authority between 2010 and 2016 according to DCLG data.

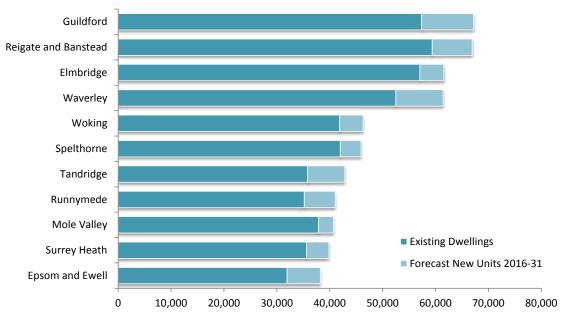


FIGURE 3.15 - EXISTING AND PROPOSED HOUSING

Source: ONS 2011, Local Authority data provided to Surrey County Council for Infrastructure Study

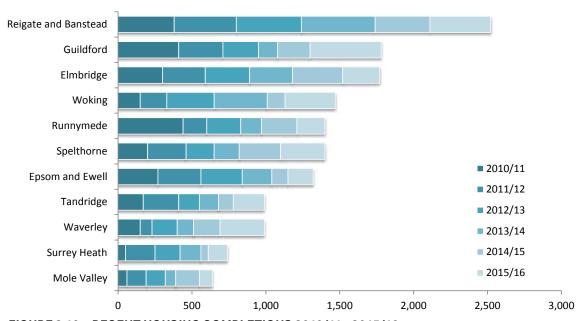


FIGURE 3.16 - RECENT HOUSING COMPLETIONS 2010/11 - 2015/16

Source: DCLG Completions Data

IDENTIFIED HOUSING SITES

For the purpose of this study the eleven local authorities were asked to provide two information sets.

The first was an agreed macro target housing trajectory for the local authority as a whole between 2016 and 2031. This was required to establish the total scale of housing growth expected over the study period and allow a bespoke populati on forecast to be produced to inform the assessment. The total number of homes forecast for each local authority is presented in figure 3.18.

The second set of information requested was detailed site specific data setting out the currently identified potential housing sites from all sources (permissions, allocations, strategic sites etc.). Where possible the associated phasing of these sites was also requested. This data has been used to map the distribution of forecast growth as illustrated in Figure 3.19 over the page.

	3	50-100	100-250	250-500	500-1,000	>1,000
Runnymede	******			20 SITES	OVER 100	UNITS
Guildford			AA** AA** AA**	18 SITES	OVER 100	UNITS
Waverley	**************************************	•		17 SITES	OVER 100	UNITS
Woking	冷冷***	:		15 SITES	OVER 100	UNITS
Reigate & Banstead	A			8 SITES C	OVER 100 l	JNITS
Spelthorne	合合 合合 合合***			7 SITES (DVER 100 l	JNITS
Surrey Heath	* * * * * * * * * * * * * * * * * * * *			4 SITE O	/ER 100 UI	NITS
Tandridge	冷冷 冷冷			4 SITES C	DVER 100 l	JNITS
Epsom & Ewell	**************************************			4 SITES (OVER 100 l	JNITS
Elmbridge	* ::			1 SITES C	OVER 100 l	JNITS
Mole Valley	**			O SITES C	OVER 100 l	JNITS

FIGURE 3.17 - NUMBER OF POTENTIAL SITES CURRENTLY IDENTIFIED FOR EACH AUTHORITY

Legend:

Source: Local Authority data provided for Infrastructure Study

PHASING

Figure 3.18 demonstrates current anticipated phasing of housing in the period to 2031.

The phasing has been recorded alongside the trajectories at a site specific level allowing the growth in housing to be illustrated using GIS, as well as phased over time. The phasing is broken down into the following periods:

- **2016-2021**;
- **2021-2026**:
- **2026-2031**

The housing trajectories show the following:

- The greatest proportion of houses will come forward between 2016-2021, in which approximately 24,000 units are proposed. This accounts for 37% of the identified delivery of new housing across Surrey over the period to 2031; and
- Housing trajectories are lower in the long term as fewer sites have been identified for development.

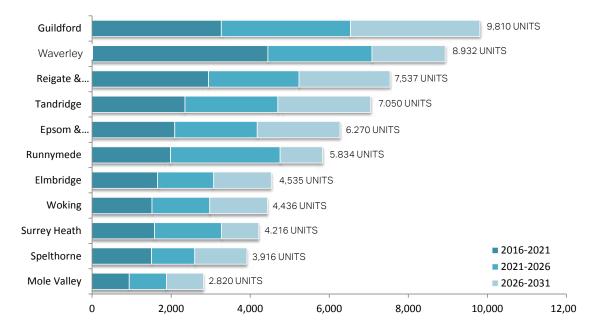


FIGURE 3.18 - PROPOSED HOUSING TRAJECTORIES PHASED OVER 15 YEARS

Source: Local Authority data provided for Infrastructure Study

Technical Note on Housing Trajectories:

As stated in the Study Parameters in Section 1 of this report the housing trajectories presented in this document have been provided by the LPAs but represent only the working assumption on likely housing delivery at June 2017 and do not necessarily represent the latest local plan position.

Importantly, analysis of the latest ONS population forecasts and associated DCLG household forecasts for Surrey suggest the housing figures presented for some of the local authorities within this section could underestimate future housing growth.

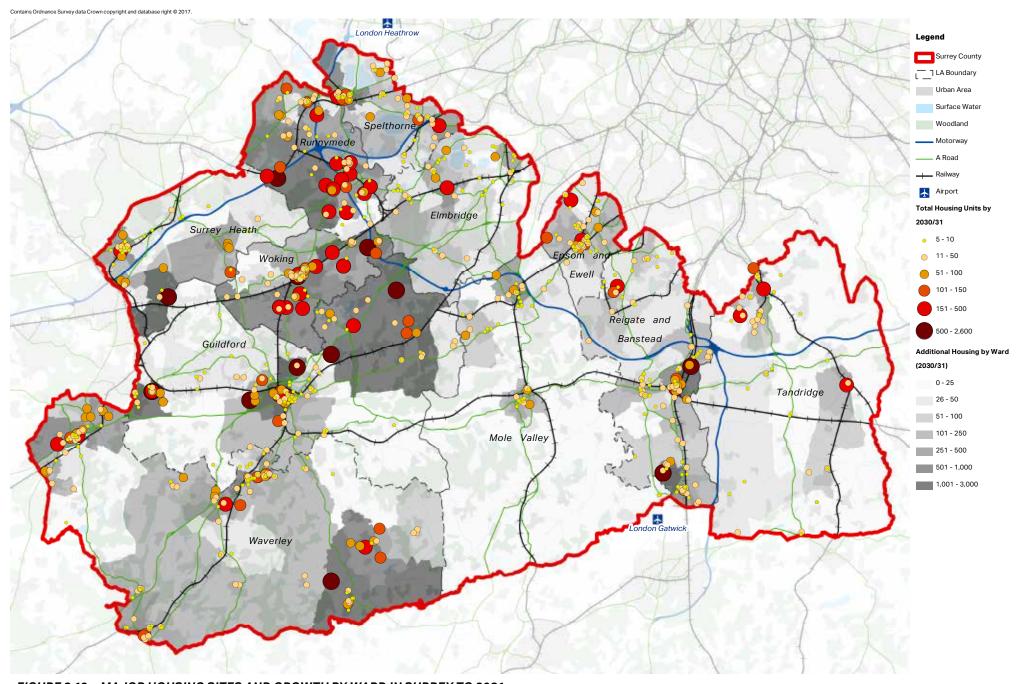


FIGURE 3.19 - MAJOR HOUSING SITES AND GROWTH BY WARD IN SURREY TO 2031

^{*} This is based on the most up to date information at the time of publication and could be subject to change, subject to review of planning policy documents Source: Local Authority data provided for Infrastructure Study

3.3 ECONOMIC PORTRAIT

SURREY'S ECONOMIC GROWTH IS DEPENDENT UPON ONGOING INVESTMENT IN INFRASTRUCTURE TO SUPPORT ECONOMIC ACTIVITIES, AND A WELL SERVICED HOUSING STOCK TO ENSURE A GROWING WORKFORCE CAN BE ACCOMMODATED. THIS SECTION SEEKS TO SET OUT THE CURRENT AND FUTURE ECONOMIC CONTEXT FOR SURREY AND LIKELY IMPLICATIONS FOR INFRASTRUCTURE.

ECONOMIC CONTEXT

Economic growth in Surrey varies across local authorities, with some areas performing well in many sectors, and others facing economic challenges.

On average, Surrey has seen strong economic growth. It is in close proximity to London as well as key infrastructure including Gatwick and Heathrow airports that connect it with the UK, Europe and the rest of the world. It has strong road and rail infrastructure providing primary connections to London and the rest of the UK (see Figure 3.20).

Surrey is located within the boundaries of 2 Local Enterprise Partnerships (LEPs) - Enterprise M3 (EM3) LEP and Coast to Capital (C2C) LEP.

Enterprise M3, which has been ranked the most resilient LEP area in England, currently has the second largest local business base, third highest skills and labour market, while ranking first in community cohesion. It covers mid and north Hampshire and west Surrey. It covers 14 district authorities across the two counties.

Currently, within the Enterprise M3 LEP there are 86,000 businesses that support 740,000 jobs. The LEP has a total GVA of £53bn. Future investments will focus on knowledge-intensive services that produce high value added in computing, defence, cyber security, digital media and professional services. The Enterprise M3 LEP are currently

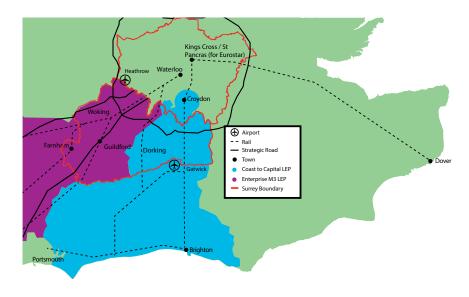


FIGURE 3.20 - REGIONAL ECONOMIC CONNECTIONS

updating their Strategic Economic Plan. The revised plan will identify additional priorities and aims for future investment.

Enterprise M3 aims by 2020 to have an increase of 25,000 jobs, improved GVA per head from 8% to 10% and to grow the overall business base by 1,400 businesses per annum.

The Coast to Capital LEP, covers all of West Sussex, Brighton and Hove, parts of East Sussex, parts of Surrey and extends up to Croydon in South London. The LEP has a total GVA of £49bn. The LEP's investment has a strong transport theme which accounts for the largest single part of its spending, with continued growth around the M23/A23 corridor and Gatwick a priority as it will improve UK and international connections within the C2C area.

Coast to Capital LEP increasingly sees future growth focused on service industries, where 80% of the area's economy is focused. To meet its targets the LEP is focusing on key sectors to improve the digital economy,

enhance the environmental resilience to open up new land for development and enhance educational facilities and research centres.

The entire Gatwick Diamond area is increasingly becoming the economic hub of the local area. The Gatwick Diamond Initiative is a business-led partnership, funded by seven local authorities (Epsom & Ewell, Reigate & Banstead, and Crawley Borough Councils, Mole Valley, Horsham Mid Sussex and Tandridge District Councils), two County Councils (Surrey & West Sussex) and Gatwick Airport, aiming to grow the region's existing jobs base, attract new jobs and secure investments from companies that most closely match local industry strengths and the predominant sectors that drive the local economy.

A summary of economic headlines is shown overleaf, although these should be caveated as they do not take into account any consideration of 'Brexit'. The county's distribution of employment density is illustrated by Figure 3.21 on the adjoining page.

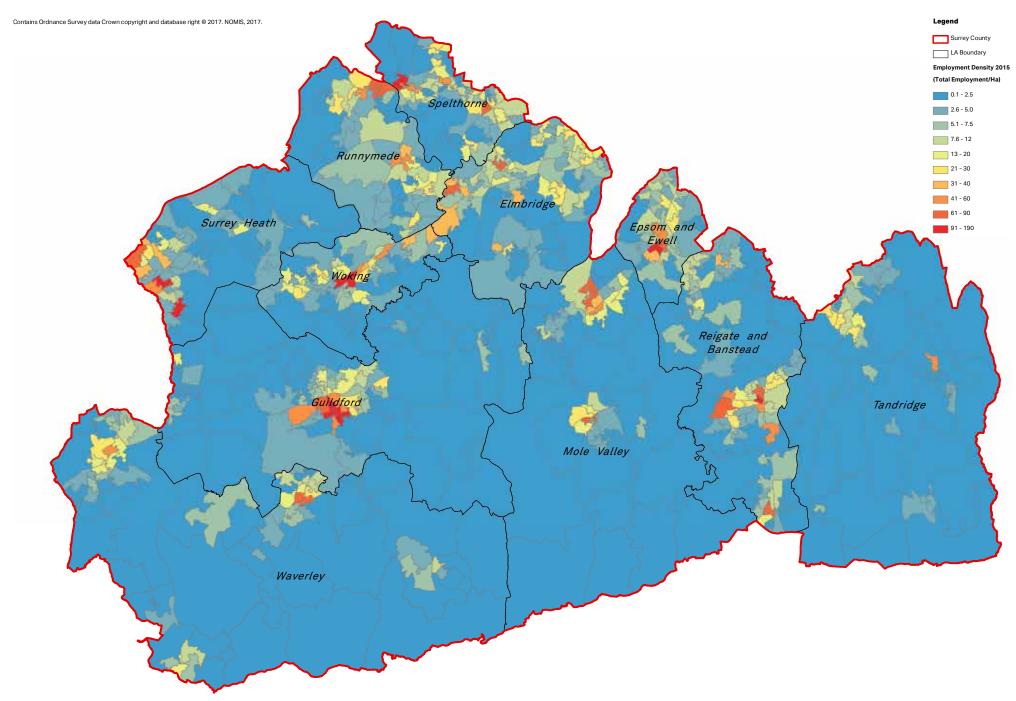


FIGURE 3.21 - EMPLOYMENT DENSITY

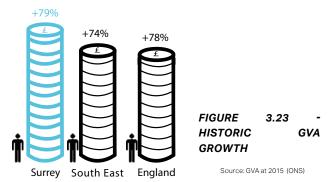
Source: ONS Business Register and Employment Survey 2015

Gross Value Added (GVA) per head

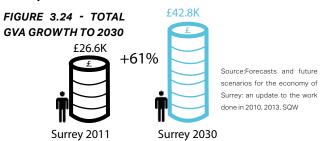
is high on average in Surrey



Surrey's GVA per head growth from 1997-2015 has outpaced the SE and is in line with the national average



This rate of growth will slow down to 2030, however Surrey can still expect a significant increase in its GVA per head to 2030



What does this mean?

Surrey does comparatively very well in it's GVA per head, however continued economic investment in infrastructure to enhance the competitive advantage of its proximity to Gatwick, Heathrow and London is necessary.

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There is a strong workforce skills profile on average



FIGURE 3.25 - % WORKFORCE WITH NVQ4+

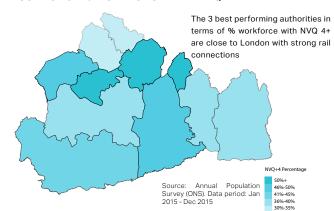


FIGURE 3.26 - % WORKFORCE WITH NVQ4+

However.

highly skilled occupations

make up 53% of occupations in 2014

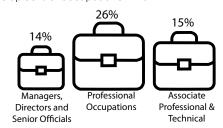


FIGURE 3.27 - OCCUPATIONAL TYPE 2014 Source: ONS 2015

What does this mean?

Overall, Surrey has a highly skilled and diverse occupational base meaning disposable income and in turn quality of life is generally high. However, there are areas of Surrey which lag behind the rest of the county in this respect. Although quality of life is still by no means poor, there is a need to continually invest in these areas, such as Spelthorne, to restrict any further decline and promote growth, while continuing to take advantage of Surrey's strong strategic location relative to London.

Median Salary levels

are significantly higher in Surrey than the average for England and the South East



FIGURE 3.28 - SURREY RESIDENT EARNINGS (2016)



FIGURE 3.29 - EXISTING COMMUTER PATTERNS Source: ONS

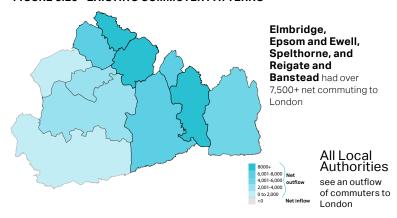


FIGURE 3.30 - NET COMMUTING IN 2014 Source: ONS

What does this mean?

More investment is also needed in transport infrastructure in the areas of high outflow commuting.

Job growth forecast to 2030

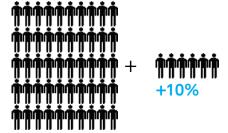


FIGURE 3.31 - JOB GROWTH FORECAST TO 2030

Source:Forecasts and future scenarios for the economy of Surrey: an update to the work done in 2010, 2013. SOW

59,000

new jobs in Surrey to 2030

Most recent forecasts anticipate that by 2030 Surrey will have experienced an increase of 59,000 new jobs, the equivalent of a 10% increase over the time period. However, these forecasts do not take into account Brexit.

Employment Growth in the following sub-sectors:



FIGURE 3.32 - SUB-SECTOR GROWTH TO 2030

Source: Forecasts and future scenarios for the economy of Surrey: an update to the work done in 2010, 2013, SQW

What does this mean?

Infrastructure investment is required to support job growth in areas where economic performance is comparatively weaker and address imbalances across the county.

The largest concentration of jobs is in wholesale, retail & public services

in line with the rest of the country



FIGURE 3.33 - LARGEST EMPLOYMENT SECTORS IN SURREY

Source: - BRES (2015)

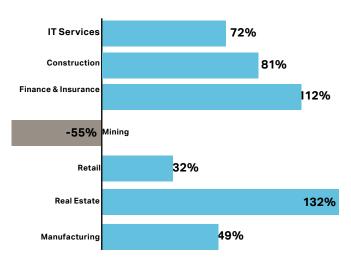


FIGURE 3.34 - SECTOR CHANGE TO 2030

Source:Forecasts and future scenarios for the economy of Surrey: an update to the work done in 2010, 2013, SQW

On average, Surrey has a strong representation in the knowledge economy



FIGURE 3.35 - % OF EMPLOYEES IN THE KNOWLEDGE ECONOMY
Source: - BRES (2015)

However, growth has slowed down in these sectors recently



FIGURE 3.36 - GROWTH IN KNOWLEDGE ECONOMY EMPLOYEES (2010-15)
Source: - BRES (2015)

The knowledge economy is strongest in Mole Valley, Reigate & Banstead, Elmbridge, Runnymede, Waverley and Woking where higher value jobs are located:

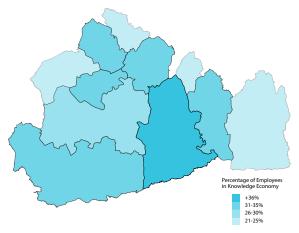


FIGURE 3.37 - PERCENTAGE OF EMPLOYEES IN KNOWLEDGE ECONOMY 2015 Source: -BRES (2015)

What does this mean?

Infrastructure investment is required to support growth in the knowledge economy. This should include attention to softer skills infrastructure provision.

3.4 SITES TO SUPPORT ECONOMIC GROWTH

In order to ensure ongoing economic growth, there are a number of key employment sites across Surrey.

Planning permissions, adopted and draft Local Plan employment allocations and existing employment sites with identified capacity have been recorded and those sites with over 500 sq.m of additional floorspace have been noted in Table 3.1 and illustrated in Figure 3.38.

The data presented here does not represent the net position on employment space (including the loss of employment space over the plan periods as well) but instead highlights significant new sites and capacity.

As illustrated, Surrey will continue to provide a wide range and quantum of commercial accommodation over the coming years and these employment sites will create additional requirements for the local and strategic infrastructure network, in particular the transport network and utility services.

It should be noted that Surrey accommodates a significant number of smaller businesses and employment sites below the 500 sq.m threshold included here.

	BUSINESS	INDUSTRIAL	MIXED USE	RETAIL	OFFICE	OTHER	UNCONFIRMED	TOTAL
Elmbridge	7	5	0	2	0	2	0	16
Epsom & Ewell	2	1	1	0	0	0	4	8
Guildford	12	6	2	7	1	0	0	28
Mole Valley	4	4	0	2	0	0	0	10
Reigate & Banstead	5	0	4	10	0	13	0	32
Runnymede	10	0	0	0	0	1	0	11
Spelthorne	1	0	4	0	0	4	0	9
Surrey Heath	2	2	0	0	0	3	0	7
Tandridge	0	3	0	0	0	0	0	3
Waverley	9	4	0	0	0	0	0	13
Woking	11	4	12	0	0	9	0	36
SURREY	65	30	23	20	1	32	4	175

TABLE 3.1 - KEY EMPLOYMENT SITES IDENTIFIED OVER 500 SQ.M - PERMISSIONS, ALLOCATIONS AND EXISTING SITES WITH CAPACITY (N.A = FUTURE USE UNCONFIRMED i.e. use has not been detailed in local plan)

Source: Local Authority data provided for Infrastructure Study

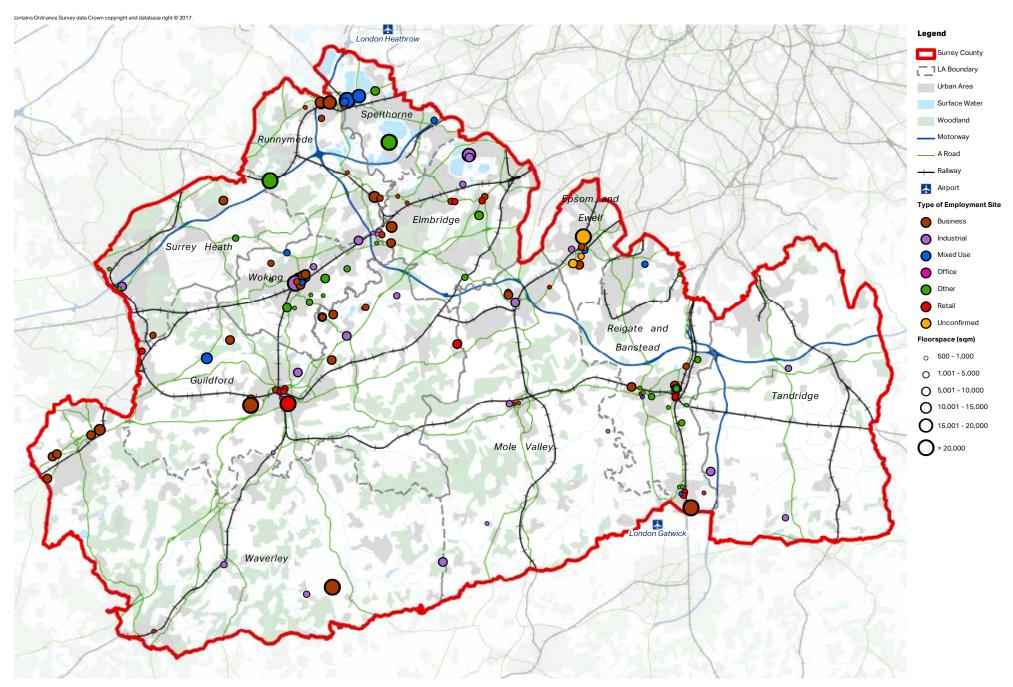


FIGURE 3.38 - SURREY EMPLOYMENT PERMISSIONS, ALLOCATION AND CAPACITY OVER 500 SQ.M

^{*} This is based on the most up to date information at the time of publication and could be subject to change, subject to review of planning policy documents Source: Local Authority data provided for Infrastructure Study

3.5 WIDER GROWTH

Having presented the forecast housing and economic growth across Surrey to 2031 it is also important to consider the planned growth in Greater London and the counties surrounding Surrey.

Figure 3.39 on the facing page illustrates the extent of planned housing across local authorities which adjoin the boundaries of Surrey County Council between 2016 and 2031.

Figure 3.39 also illustrates a number of key strategic development sites which are proposed in neighbouring authorities and are considered likely to impact on the strategic infrastructure that also serves Surrey in particular transport, education and healthcare. These include but are not limited to:

- Arborfield Garrison, Wokingham.
- Aldershot Urban Extension, Rushmoor.
- Whitehill Bordon, East Hampshire.
- Warfield, Bracknell Forest.
- Northern Horsham, Horsham.
- Heathrow opportunity Area, Hillingdon.
- Croydon Opportunity Area, Croydon
- Bromley Town Opportunity Area, Bromley
- Kingston Town Centre Opportunity Area, Kingston

As can be seen by the illustration of planned growth the greatest pressures of additional growth are likely along the northern and western boundaries of Surrey with a number of large strategic sites to the west of the county and the high level of planned housing delivery across the London boroughs.

ACCOMMODATING LONDON'S HOUSING DEMAND

The GLA's London Plan (2016) sets out the average annual minimum housing supply targets for each London borough until 2025. This identifies a minimum housing supply target across all boroughs of 42,000 homes per annum.

These targets are informed by the need for housing as evidenced by the GLA's 2013 SHMA and London's housing land capacity as identified through its 2013 SHLAA. The London Plan acknowledges that even against its own evidence base the alterations are planning for at least 7,000 shortfall each year over the plan period.

In terms of past housing delivery across London, over the 10 year period between 2004 and 2014, a total of 200,940 homes were completed across London. This equates to 20,094 homes per annum. This is under half the 42,000 housing target set out in the London Plan for the next 10 years, creating a significant shortfall of homes per annum unless delivery is improved significantly.

The report 'London's Unmet Housing Needs' (April 2014) authored by NLP has undertaken a high level assessment of the potential impacts of London forecast demand for housing in relation to the planned housing supply set out within the Plan.

This report identifies that whilst London itself may act with a degree of self containment as a housing market area, it is also clear that it exerts significant housing market pressures across a much wider area. This was recognised by SERPLAN which identified this area as the Rest of the South East (ROSE) area, but which NLP define as London's 'wider HMA' reflecting the fact that London's influence is wider than its administrative boundaries.

London's wider HMA effectively represents the area which London's unmet housing needs will have an influence upon

and, therefore, encompasses the areas which will likely need to respond to London's unmet needs within their own Local Plans.

NLP looked at two factors: the migration flows from London to that local authority; and the commuting flow from that local authority to London. These were then converted into a simple percentage representing the extent of housing market linkage an area has with London, and therefore a theoretical proportional share of London's unmet housing demand.

This assessment by NLP suggests that If London fails to meet its housing need between 2015 and 2030 there is every indication that unmet needs in London will necessitate additional delivery of new homes in areas around London including Surrey. The assessment suggests a theoretical demand for housing across Surrey of up to 47,800 homes between 2015 and 2030 in addition to those already planned within the Local authority local plans. The greatest additional pressures are identified for Elmbridge, Epsom and Ewell, Reigate and Banstead and Spelthorne.

It is important to note this is purely a theoretical exercise and has not taken into account the limitations to development from the Green Belt and other constraints. It does however demonstrate the scale of potential impact the London housing demand can have upon Surrey into the future and with it the associated pressures on existing and planned infrastructure capacity. The Mayor is currently carrying out a full review of the London plan and a draft Plan is anticipated at the end of 2017.

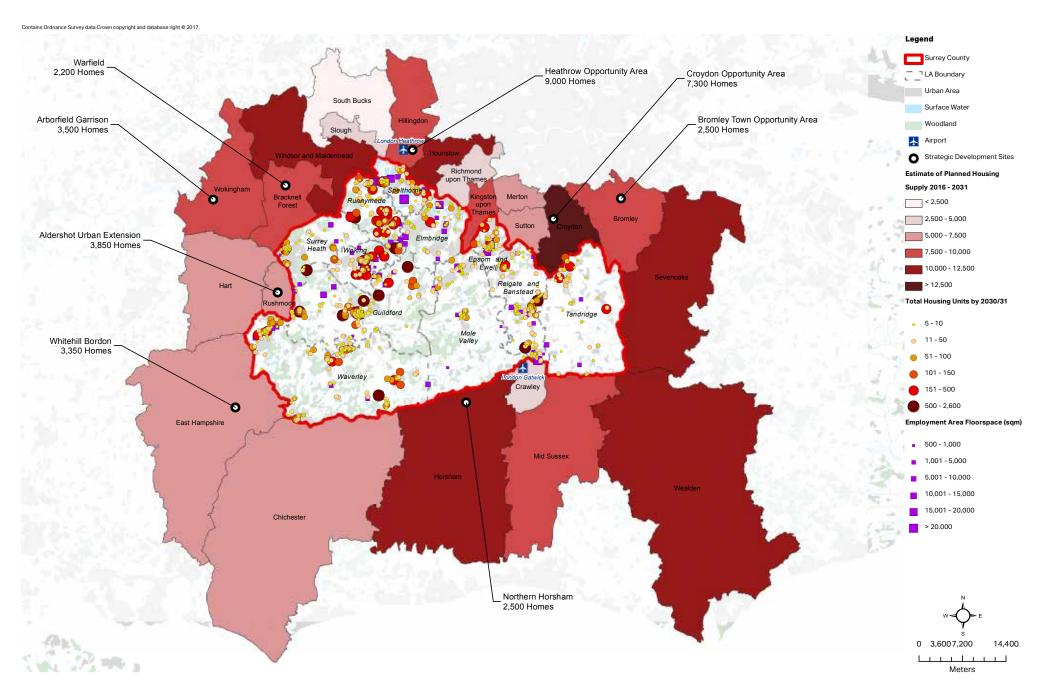


FIGURE 3.39 - ESTIMATED HOUSING FORECASTS AND KEY STRATEGIC SITES FOR LOCAL AUTHORITIES SURROUNDING SURREY COUNTY

Source: Published Local Plan documents and Further Alterations to the London Plan



INFRASTRUCTURE NEEDS AND REQUIREMENTS

THIS SECTION PRESENTS AN ASSESSMENT OF CURRENT INFRASTRUCTURE PROVISION AGAINST GROWTH FORECASTS TO 2031.

This covers the following infrastructure categories:

4.1 TRANSPORT

- Highways and roads
- Rail
- Public transport
- Airports
- Walking & Cycling
- Electric Vehicles

4.2 EDUCATION

- Early years and childcare
- Primary education
- Secondary education
- FE, Sixth Form, HE, Adult Education

4.3 HEALTH + SOCIAL CARE

- Primary Care Services
- Hospitals and Mental Health

Adult Social Care

4.4 COMMUNITY

- Library Services
- Youth services
- Community and Leisure
- Outdoor sports and recreation

4.5 GREEN INFRASTRUCTURE

4.6 UTILITIES

- Energy
- Broadband
- Water + Waste Water
- Waste

4.7 FLOOD PROTECTION

4.8 EMERGENCY SERVICES

The following is considered for each type of infrastructure:

- Existing capacity across the county
- An understanding of infrastructure requirements to support forecast growth
- An analysis of current proposed projects and costs
- An understanding of additional projects and funding gaps required to support forecast growth.



EXISTING CAPACITY

Surrey

Surrey

Surrey

152

3.600

84

Miles of Miles of Public Rail Stations

Motorways Highway

CURRENT SITUATION

Due to Surrey's location next to London, and the proximity of both Heathrow and Gatwick airports, there is considerable demand for movement within, to, from, and through the county. Surrey's motorways carry 80 percent more traffic than the average for the South East region and the A roads 66 percent more traffic than the national average. This has led to many of the roads already operating at capacity and if a traffic incident occurs, this can cause severe disruption on the wider network.

Surrey's main road and rail networks are radial, centred upon London. Orbital routes, with the exception of the M25, are relatively poor, exacerbated by the dispersed nature of towns.

While the county has a generally comprehensive rail network and a large number of rail stations, many services are at capacity and suffer from peak time overcrowding.

Improved road and rail access to Heathrow and Gatwick airports would increase Surrey's attractiveness as a business location. Currently it is guickest to travel to both airports by car from nearly everywhere in Surrey. Public transport to both airports needs to be faster with more direct services from Surrey towns to provide an alternative to car travel for passengers and employees.

SCC has used technical highway modelling to look at where current and future congestion bottlenecks are and

will occur. This information has identified the areas under M23 - key link to Gatwick and South Coast significant strain as:

- Guildford town centre:
- A3 Guildford:
- A3 between the Ripley junction and the A3/M25 (junction 10) Wisley interchange;
- A245 Portsmouth Road, west of A3 Painshill junction;
- A31 Alton Road on the approach to and through Farnham town centre:
- A22 near
- M3 junctions 3 to 4; and
- M25 junctions 13 to 14.





HIGHWAYS AND MOTORWAYS

The road network in Surrey comprises the Strategic Road Network (SRN), Primary Route Network (PRN) and local roads. The SRN has evolved principally to service London and consists of national trunk roads comprising:

- M25 London Orbital: almost 1/3 of route is within Surrev
- M25 and M3 forms part of the Trans European Road Network (TERN)

- A3 key link to Guildford and Portsmouth

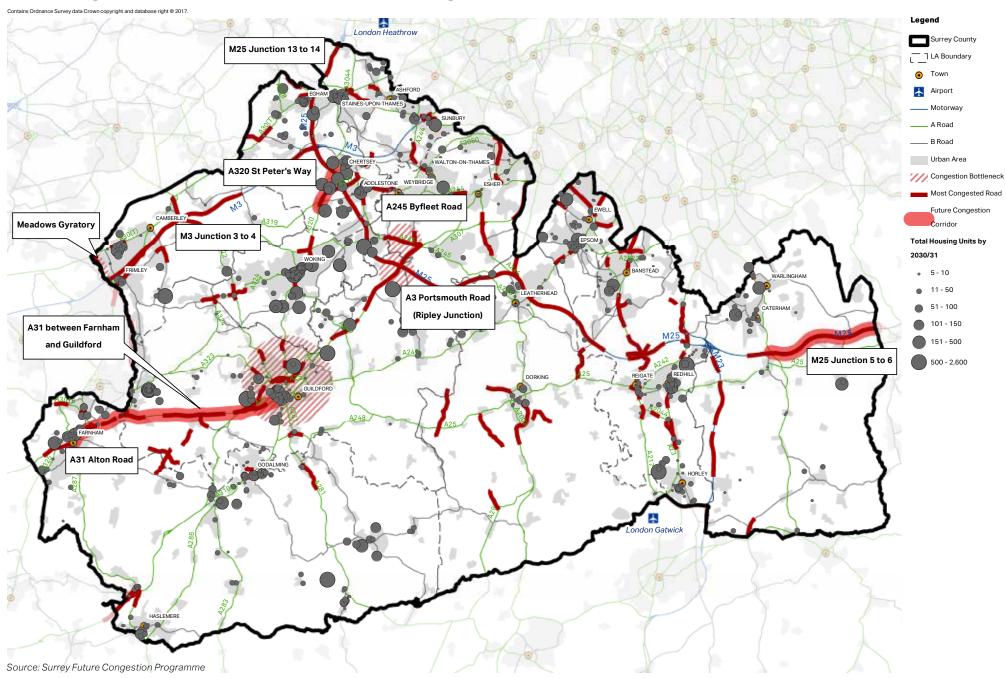
A number of regionally significant trunk roads also make up part of the SRN including the A3 and parts of the A30, A23 and A316 and is managed by Highways England.

Whilst Surrey's highway network is extremely busy, it does not suffer congestion to the degree that some metropolitan conurbations do. However, due to this busy nature, congestion does occur during the peak periods and at local hotspots, and rapidly arises when either incidents occur or traffic flow is disrupted. Surrey is particularly impacted by the knock-on effects of congestion on national roads which results in an increase of through traffic and a reduction in travel efficiency for local traffic. At the same time, travel demand is increasing as a result of additional development, both within and outside the county's boundaries, as well as increasing levels of car ownership and usage across the county which is becoming a larger driver of traffic growth than additional development.

The A3 corridor that provides access to London and Portsmouth in the south is a vitally important strategic route. With the opening of the Hindhead tunnel in 2011 the route has become more attractive to drivers, placing additional pressure on the corridor. Highways England (then Highways Agency) had proposed a number of junction improvements along the corridor as part of the Regional Transport Programme, however funding has been restricted in some instances due to these were abandoned

Figure 4.1

Existing major road network and congestion



following the abolition of the Regional Transport Board. More recently, the DfT's Road Investment Strategy: for the 2015/16-2019/20 Road Period (March 2015) has mandated Highways England to prepare a major widening scheme of the A3 Guildford to enter construction starting in the next road period. Highways England has advised that, if an A3 Guildford widening scheme is approved with funding agreed, construction is unlikely to commence until 2024 at the earliest. In the interim, Highways England is considering several early, targeted improvement schemes for the A3 through the Guildford area. In March 2017 the Government committed to improve the A3 northbound off-slip road at the University interchange and the A3 southbound off-slip road at the Stoke Interchange. These improvements are still supported by the County Council and Highways England and are being developed subject to a strong business case and funding. In the longer term a more strategic solution to support a vibrant and growing Guildford is very likely to be required to deal with congestion on the A3. The Road Investment Strategy 2015/16-2019/20 road period includes Improvements to the A3 in Guildford as a schemes developed for the next road period.

Highways England have been undertaking an M25 South West Quadrant Strategic Study, which recognises that there is a need to relieve the motorway network and recommends reducing pressures and providing parallel capacity.

Existing Motorways and Trunk Roads Capacity Issues:

- M23 north of Gatwick;
- M25 J7-14 and J5; and
- M25 South West Quadrant J12 to 14 is the busiest motorway stretch in Great Britain.
- A3:

Existing Highways Capacity Issues:

- A245 Byfleet Road, west of A3 Painshill junction;
- A24 around Dorking;

- A24 north of the M25 towards Epsom:
- Meadows roundabout A30 / A331 intersection;
- A320 between Woking and Chertsey; and
- A31 Guildford to Wrecclesham.



There are currently 84 railway stations in Surrey and the county is served by an extensive rail network. Movements to and from central London are well catered for via the South West Mainline, Portsmouth Direct Line and the London-Brighton mainline. There is limited provision for orbital movement across the rest of Surrey, though the North Downs Line connecting Gatwick and Reading via Redhill and Guildford. The line from Redhill to Tonbridge, the Ascot-Aldershot line and the Virginia Water to Weybridge route offer opportunities to move from one part of Surrey to another without having to interchange closer towards London.

Surrey has some of the most overcrowded train journeys in England and Wales. Not all parts of Surrey are well served by rail. Some towns have no direct connections to London and rail connectivity to both Heathrow and Gatwick Airports from most of Surrey is poor.



The local bus network is an integral part of the transport system in Surrey. Some of the more urbanised areas of Surrey, and particularly those areas bordering London, are relatively well served by bus services. In rural areas, particularly to the south of the county, there are fewer routes and services are less frequent, many operating only hourly or at lower frequencies. There are three bus stations: Guildford, Redhill and Staines located in Surrey.

SCC, as the local transport authority, has an important role working in partnership with bus operators to develop quality bus partnerships to help enhance the bus offer and encourage more patronage. SCC is responsible for the highways on which the buses run, the traffic signals, junctions and bus lanes that can expedite their movement, as well as bus stop infrastructure, information and passenger waiting facilities.



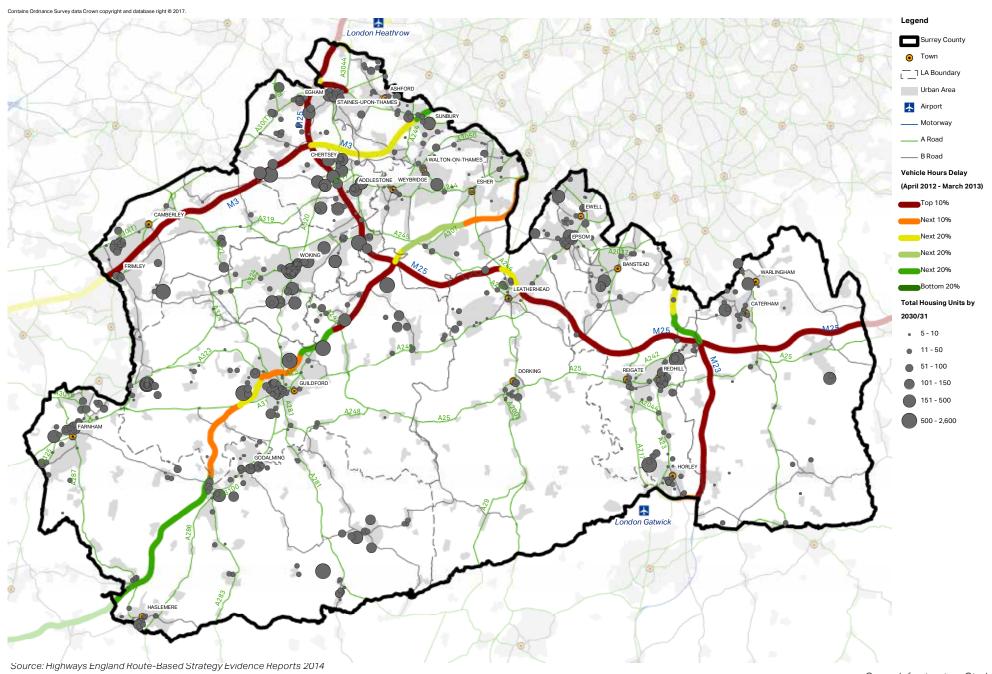
Heathrow and Gatwick airports are vital to Surrey's economy and convenient and efficient access is essential. Improved road and rail access would increase Surrey's attractiveness as a business location.

Currently it is quickest to travel to both airports by car from nearly everywhere in Surrey, even at peak times and with the high levels of congestion on Surrey's roads. Over 80% of passengers to both airports travel by car (private, rented or taxi), as do most employees at the airports coming from Surrey.

Congestion travelling to the airports leads to lost time for individuals and businesses. Improvements are needed on a number of routes including the A23/ M23 Hooley Junction, part of the A23 corridor to Gatwick. Public transport to both airports also needs to be faster with more direct services from Surrey towns to provide an alternative to car travel for passengers and employees. Currently, only Fastway 20 and 100 bus services provide quick and direct bus link to Gatwick.

The impact of various options is currently being assessed, including improving rail access to Heathrow from the south, and improving bus and coach services to both airports, as well as the North Downs Line improvements for Gatwick.

Motorway and trunk road - Vehicle Hours Delay





WALKING & CYCLING

Surrey has almost 3,448 kilometres (2,143 miles) of footpaths, bridleways, and byways. SCC has produced a Right of Way Improvement Plan and Cycling Strategy as part of the county's Transport Plan.

High levels of bike ownership in Surrey indicate significant suppressed demand for cycling. However there are a number of issues and challenges, including but not limited to:

- The need to equip different road users with the skills to share the road safely
- The challenge of achieving cycle infrastructure segregation on narrow, congested roads



ELECTRIC AND HYDROGEN VEHICLES

The government is aiming for 'almost all' cars and vans to be zero emissions by 2050 and for the sale of new petrol and diesel vehicles to be prohibited by 2040. Hence by 2030, electric vehicles (EVs) - and to a lesser degree hydrogen fuel cell vehicles - are anticipated to increase significantly from their current market share. Plug-in hybrid EVs offering a smaller electric range in combination with a conventional petrol engine are also projected to grow significantly in the short to medium term. Home charging off-street on driveways makes up the largest proportion of charge points for EVs and this is expected to continue in the future and suited to Surrey's suburban/rural character. Beyond private households, Surrey has a sparse but growing network of off-street charge points (slow, fast and rapid) including at public car parks, workplaces, car dealerships and motorway service stations. The county council has so far installed only a handful of charge points on-street (for car club vehicles in Guildford) and at some council work places. Zap map provides the most comprehensive map of all publicly accessible charge points. Challenges for EV infrastructure include:

- Lack of interoperability; currently drivers must join multiple schemes if they wish to access all of the installed points.
- Demand for a range of types of charge point (not just due to desired speed) but because there is currently no fully universal charging plug type.
- Grant funding for installation but not for maintenance
- Capacity of the local electricity grid, particularly for the most demanding 'rapid' charges

- Obstacles relating to on-street charging including street clutter and questions as to whether parking bays should be reserved for EV users only
- Fast changes in technology need to ensure that infrastructure provided isn't obsolete within a few years

Hydrogen fuel cell vehicles are further from mass market, but are being developed by a number of manufacturers. Hydrogen refuelling is faster than EV charging so a highly distributed network, as required for EVs, is not envisaged. In February 2017, the UK's first hydrogen filling station to be located on a forecourt opened in Surrey at Cobham services. A degree of diversity, with both electric and hydrogen vehicles meeting different needs is anticipated.



PROJECTSTOSUPPORTGROWTH

MOTORWAYS

Strategic corridors within the county are subject to high levels of congestion. Based on estimates of housing and population growth, Highways England are expecting future congestion on these routes. Schemes are required to manage this additional stress upon the network:

- Improvements to the strategic Wisley interchange between the A3 and M25 Junction 10 due to start 2019/2020
- The A23/M23 Hooley interchange north of the M25, experiences high levels of congestion and is identified as an investment priority by Highways England but is currently on hold.
- Capacity problems at M25 Junction 9 need to be addressed to facilitate growth in Leatherhead, whilst the future congestion projected between junctions 5 and 6 will also need to be considered and addressed.

Cost = £548,000,000 **Funding Gap** = £0

HIGHWAYS

The A3 is an area of significant congestion that is likely to get progressively worse. Delivery of projects to relieve congestion in town centres and along congested corridors will be critical to delivering growth.

■ A3 Guildford Road Investment Strategy includes improving the A3 in Guildford from the A320 to the Hog's Back Junction with the A31, with associated improvements

- Several improvements are proposed in Guildford. This includes town centre traffic improvements and exploring options for reconfiguring traffic, increasing pedestrianisation, and major public realm improvements.
- A series of interventions along the A217 to relieve traffic congestion
- As part of the Greater Redhill Sustainable Transport Package, capacity improvements are being investigated at the A23 junction with Three Arch Road and Maple Road
- A281 Horsham Road / A248 Kings Road / A248 Broadford Road junction improvement scheme
- A31 Guildford to Wrecclesham
- A320 Corridor Strategic Solution to M25
- A217 / A23 / A25 wider network benefits

The future redevelopment of Dunsfold Aerodrome will result in a significant impact on the local and strategic highway network. In addition four potential locations for Tandridge Garden Village are currently being explored, including Redhill Aerodrome. This will require the provision of a new junction onto the M23 resulting in significant impact in terms of traffic flow.

Cost = £1,015,340,000 Funding Gap = £560,360,000*

RAII

Capacity improvements are required to support growth and sustainable travel.

■ The Surrey Rail Strategy highlights the need for capacity and infrastructure enhancements, including

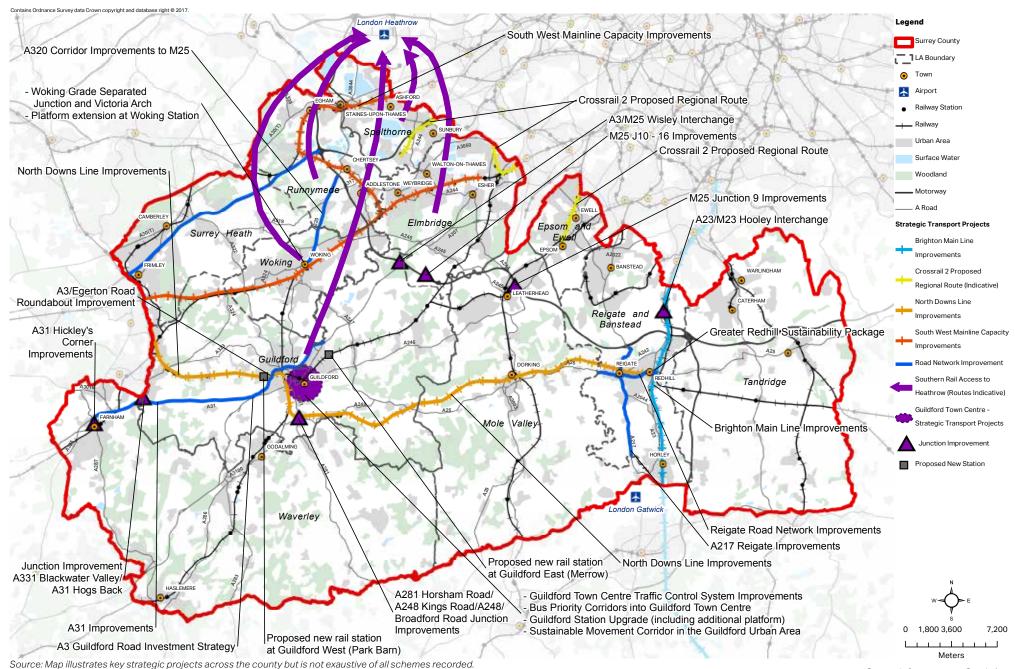
electrification, train lengthening and line speed enhancements on the North Downs Line, coupled with junction improvements, the removal of bottlenecks and associated capacity enhancements on the Brighton Main Line, all of which will improve orbital rail services across Surrey. This will increase capacity and journey opportunities on both lines and enhance access to / from Gatwick Airport. Additional station requirements at Guildford East (Merrow) and Guildford West (Park Barn) have also been highlighted through our Rail Strategy.

- The Wessex Route Study identifies key projects including the Woking Flyover, Platform 6 extension at Woking and an additional platform at Guildford Station.
- Crossrail 2 could potentially provide a significant capacity increase on the Southwest Main Line (SWML) largely addressing the forecast capacity gap, and extend lines into Surrey at Epsom, Shepperton and Hampton Court. The proposed regional route which extends into Surrey at Epsom and potentially other stations in the county is currently supported within Surrey's Rail Strategy. SCC has published a study to identify the optimum configuration of Crossrail 2 for Surrey and the best use of released capacity.
- Public transport to Heathrow needs to be faster with more direct services from Surrey. The impact of various options has been assessed, including options to improve Southern Rail access.
- A major railway station upgrade at Guildford, with infrastructure and service improvement at Longcross.
- Improving the operation and interface of Reigate Level Crossing and the A217 in Reigate town centre

Cost = £1,086,930,000 Funding Gap = £901,500,000*

* (considering both secured and expected funding)

Strategic transport projects



BUSES

To enable local bus services to operate efficiently and reliably, and to be attractive to new passengers, there is a need to deliver appropriate infrastructure and traffic management to support this. This will assist with encouraging bus operators to provide increased bus service frequencies and reduced journey time, while achieving high passenger satisfaction. Enhanced bus services will increase public transport accessibility to areas of employment and will support the sustainable development of new housing.

Quality Bus Corridors are being developed in partnership with the bus operators across the important economic centres in Surrey, including Redhill and Reigate, Horley, Epsom, Guildford, Woking, Staines and along the Blackwater Valley to Camberley. These schemes will include bus priority measures, new bus shelters, access improvements at bus stops, real time passenger information, marketing and promotion, and greater bus/rail interchange providing better connectivity.

Cost = £50,650,000 Funding Gap = £13,570,000*

WALKING & CYCLING & OTHER TRANSPORT

A series of walking and cycling improvements from the provision of new cycle routes to the widening of footways are required across all local authorities within Surrey in town centres and at busy junctions, not only to enhance connections for pedestrians and cyclists but to also improve access to public transport.

■ The Sustainable Movement Corridor in the Guildford urban area is the most ambitious bus transit, walking and cycling scheme currently planned in the county. It will provide priority pathway for pedestrians, cyclists and buses, largely along existing roads in the town.

Greater Redhill Sustainable Transport Package is a series of improvements along sections of the A23: the A2044 and the A217 corridors in and around Redhill, Reigate, Salfords and Harley and along the National Cycle Route 21 (NCR21). Delivery of some of the elements of the package is already complete. The remainder of the works including bus corridor improvements and various cycle and pedestrian paths should be completed by March 2018.

Cost = £378,630,000 Funding Gap = £207,590,000*

ELECTRIC AND HYDROGEN VEHICLES

Central government grant schemes are in place for installation of charge points at workplaces and homes. On the Strategic Road Network Highways England is tasked with ensuring there is at least one charge point every 20 miles. although this is clearly below anticipated demand levels. Further to this, the government plans to legislate to enable an element of control in a primarily market-led approach to charge point network growth. For example creating new powers to require interoperability between charge point providers and requiring open-source information on the location, live status and prices of charge points. Proposed powers will extend to mandating charge point installation in selected strategic locations, should a market-led approach prove inadequate. The county council is currently developing an EV charging strategy. This is considering issues of location, type (charging speed and vehicle compatibility), accessibility and installation and maintenance contracts, in order to develop a coordinated charge point network.

^{* (}considering both secured and expected funding)





EARLY YEARS & CHILDCARE



CURRENT SITUATION

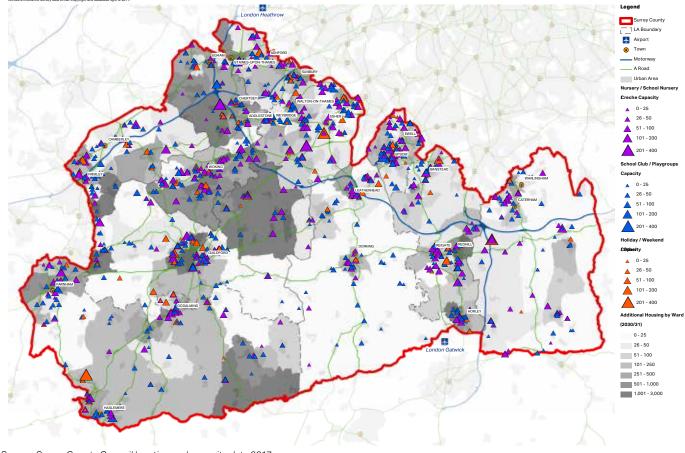
Childcare provision in Surrey comprises independent nurseries, school nurseries, crèches, after school clubs, playgroups, holiday and weekend schemes, and individual child minders. The Childcare Act 2006 places a duty on all local authorities in England to ensure there is enough childcare services for parents that want them.

Surrey County Council therefore holds a responsibility for providing certain elements of Early Years provision, particularly with regard to identifying any gaps in childcare provision. Many of the Early Years services are provided independently, however Surrey County Council retains a responsibility to audit the statutory standards for learning, development and care for children from birth to five that all early years providers must meet. Distribution /capacity is shown in Figure 4.4.

HEADLINES

- There are a variety of different Early Years service types provided in Surrey. These include the more permanent nursery and crèche facilities as well as after school, weekend and holiday clubs.
- Provision of services is higher and more wide-ranging in the more densely populated urban areas of Guildford and Elmbridge, whilst the range of services is more limited in the more rural areas such as Mole Valley.

Early years and childcare capacity against housing growth



Source: Surrey County Council location and capacity data 2017

The **SCC Childcare Sufficiency Assessment 2016** has identified six areas where current provision will not be able to meet future demand for early education. These clusters are:

- Holmwoods and Beare Green in Mole Valley district;
- Bletchingley and Nutfield, Merstham, Redhill East, and Redhill West wards in Reigate and Banstead borough and Tandridge (also a focused are for FEET);
- Chertsey Meads, and Chertsey St Ann's in Runnymede borough (also a focused area for FEET);
- Addlestone Bourneside, Addlestone North, and Chertsey South and Row Town wards in Runnymede borough;
- Stanwell North, Ashford North and Stanwell South in Spelthorne borough (also a focused area for FEET); and
- Ashford East, Ashford Common, and Ashford Town wards in Spelthorne borough (also a focused area for FEET).

Table 4.1

Early years and childcare capacity

	NURSERY/SCHOOL NURSERY/ CRÈCHE		SCHOOL CLUB	/PLAYGROUPS	HOLIDAY / WEEKEND /. OTHER		
	FACILITIES	TOTAL CAPACITY	FACILITIES	TOTAL CAPACITY	FACILITIES	TOTAL CAPACITY	
Elmbridge	53	2,986	68	2,408	18	1,185	
Epsom & Ewell	28	1,579	41	1,594	14	596	
Guildford	41	2,353	84	2,467	23	1,457	
Mole Valley	22	1,051	48	1,309	8	390	
Reigate & Banstead	39	2,295	79	2,384	13	798	
Runnymede	21	1,115	43	1,332	13	535	
Spelthorne	26	1,425	53	1,689	11	493	
Surrey Heath	20	1,105	55	1,553	10	568	
Tandridge	30	1,574	50	1,441	11	573	
Waverley	43	2,312	78	2,323	21	1,323	
Woking	34	1,703	52	1,637	10	434	
SURREY	357	19,498	651	20,137	152	8,352	

Source: Surrey County Council

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

Table 4.1 sets out the current capacity in terms of Early Years provision. The project age specific population forecasts show a decline in early years age children to 2031 and at the local authority level. We cannot therefore show future requirements for facilities. It is acknowledged however that major developments will produce increased demand locally, which will need to be catered for and the challenge for adequate cover is greater in the rural parts of the county.

In addition, Surrey County Council has the responsibility for providing 15 hours of Free Early Education Entitlement (FEEE) for vulnerable 2 year olds, all 3 and 4 year olds and identifying gaps in Early Years and Childcare provision. From September 2017 SCC will be required to provide 30 hours of childcare for children of working families. This requirement to extend FEEE for 3 and 4 year olds has brought challenges in identifying the number of providers willing to create new FEEE places (potential increase of over 8,000 places to be required based on FEEE extension from 15 to 30 hours), as well as increase funding requirements for SCC.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in Early Years provision as set out within the IDPs include the following;

- Three Early Year classrooms at Dunsford Park Primary
- New Yearly Years facility at Horley to support growth

COSTS AND FUNDING

Based upon information contained within each local authority's IDP the following costs and funding have been recorded:

Cost = £23,020,000 **Funding Gap** = £1,610,000

Costs are set out for each local authority in Section 5

* (considering both secured and expected funding)

PRIMARY EDUCATION



Surrey 26% of schools Academies

CURRENT SITUATION

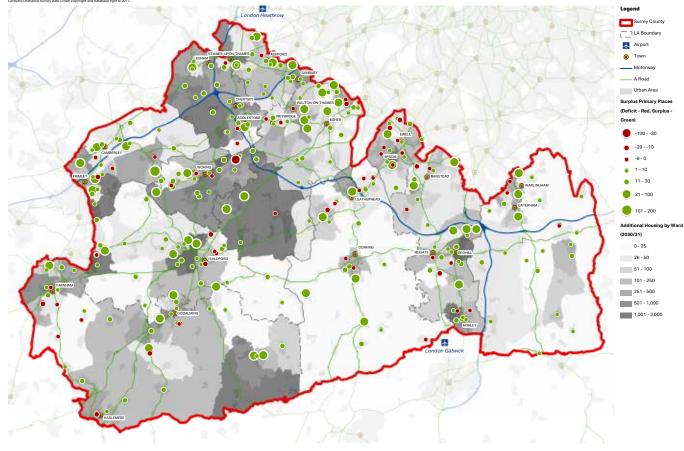
In Surreythere are 174 primary, 42 junior and 84 infant schools, as well as two all through schools, providing both primary and secondary education. These schools comprise state funded or controlled schools; voluntary aided or controlled schools, academies and free schools. Distribution/capacity is show in Figure 4.5. This representation of primary education provision excludes that supplied by independent schools, which accounts for around 21%.

HEADLINES

- In January 2017, there was a 5% overall surplus of primary places across all year groups, which is in line with DfE recommendations.
- In the 2016/17 academic year, SCC added an additional 937 places in Reception. Without this additional infrastructure, there would have been a shortage of 2% in Reception places.

However, demand for school places is not uniform, so whist there may be a surplus of places in on year group or area, there may be exceptional demand and a need for additional places in another. For example, there may be a surplus of places in Year 6 but a shortage of places in Year 1, or a deficit of places in Waverley but a surplus in Tandridge.

Primary school capacity against housing growth



Source: Surrey County Council location and capacity data 2017

* Symbols relate to surplus / deficit provision based on 2017 pupil and class size data

Table 4.2

Primary school capacity and forecast pupil change

LOCAL AUTHORITY WIDE PLACE DATA 2017

IDENTIFIED GROWTH IN PUPIL NUMBERS

	TOTAL SCHOOL PLACES - JAN 2017	TOTAL CHILDREN ON ROLL - JAN 2017	% SURPLUS / DEFICIT* OF SCHOOL PLACES IN JAN 2017	% FORECAST RISE OR FALL IN PUPIL NUMBERS BY 2023	ADDITIONAL SCHOOL PLACES CURRENTLY PLANNED BY 2023 **	% SURPLUS /DEFICIT* OF SCHOOL PLACES BY 2023
Elmbridge	11,127	10,622	5%	-1%	705	14%
Epsom & Ewell	6,680	6,549	2%	14%	676	-2%
Guildford	10,462	9,898	5%	6%	295	3%
Mole Valley	6,282	5,866	7%	1%	180	9%
Reigate & Banstead	11,973	11,603	3%	13%	1050	1%
Runnymede	5,703	5,452	4%	12%	180	-4%
Spelthorne	8,284	7,886	5%	13%	450	-2%
Surrey Heath	7,338	6,790	7%	0%	120	9%
Tandridge	6,645	6,311	5%	6%	0	-1%
Waverley	9,848	9,335	5%	0%	50	5%
Woking	8,685	8,345	4%	3%	255	4%

Source: Surrey County Council September January 2017 School Capacity Figures and Forecast Numbers to 2023

The need for school places is forecast using a variety of factors including birth data, existing pupil movement trends and housing trajectories from the Local Planning Authorities. However, there are no guarantees and forecasts are updated every six months to ensure they reflect the latest data. As such, the estimated information contained in the above table is subject to change.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2023

Table 4.2 sets out forecast growth in terms of primary school places to 2023. The information should be considered in the context of the following key issues:

- Capacity and numbers on roll indicate a positive position to accommodate future growth based on the housing trajectories provided by the Local Planning Authorities to the School Commissioning Team. However, additional housing growth will yield more pupils which could challenge capacity.
- Demographic changes indicate that the demand pressures experienced in primary places is now moving into the secondary sector.
- There are certain areas of exceptional pressure as demand for places is not uniform.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in early provision as set out by Surrey County Council includes:

- Expansion of Ewell Grove Infant and West Ewell Infant Schools to primary status
- Development of a new 2FE primary school in response to the Deepcut development in Surrey Heath
- Development of a new 2FE primary school in Horley in response to large scale housing growth in the area
- A new 2FE primary free school in Reigate/Redhill

COSTS AND FUNDING

All figures in this study in relation to primary education relates to CIL and S106 funding only

Cost = £182,000,000 Funding Gap = £137,860,000*

Costs are set out for each local authority in Section 5.

^{*}Surplus depicted in green , Deficit depicted in red

^{** &}quot;Additional School Places Currently Planned by 2023 relates to the number of additional places that will be in the system by 2023. This includes new schemes, as well as already implemented schemes that have only been partially completed due to their phasing

SECONDARY EDUCATION



72% of schools Academies

CURRENT SITUATION

In Surrey there are 53 secondary schools and two all through schools, providing both primary and secondary education. Schools comprise state funded or controlled schools; voluntary aided schools, academies and free schools. Distribution/capacity is shown in Figure 4.6. It is important to recognise that the data represented does not capture secondary provision offered by non maintained independent schools, which account for approximately 21% of secondary education in the county.

HEADLINES

- In January 2017, there was a 7% overall surplus of secondary school places across all year groups.
- In January 2017, there was a 7% surplus of Years 7 and 8 places, compared to an 11% surplus of Year 11 places, showing the rising trend of pupils in this sector.

Demand for school places is not uniform, and overall figures can mask the pressures felt in particular year groups and particular areas across the county. For example, there may be vacancies in Year 11 but a shortage of places in Year 7, or a deficit of secondary school places in Reigate but a surplus of places in Runnymede.

Secondary school capacity against housing growth

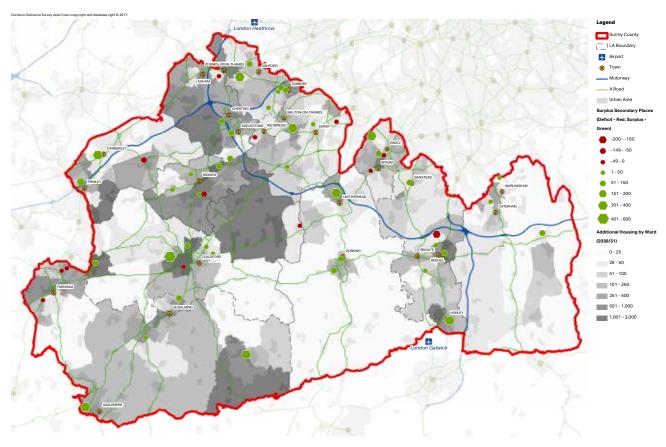


Table 4.3

Secondary school capacity and forecast pupil change

	LOCAL AUTI	HORITY WIDE PLAC	E DATA 2017	IDENTIFIED GROWTH IN PUPIL NUMBERS				
					ADDITIONAL			
	TOTAL SCHOOL PLACES JAN 2017	TOTAL CHILDREN ON ROLL JAN 2017	% SURPLUS/ DEFICIT OF PLACES JAN 2017	% FORECAST RISE OR FALL IN PUPIL NUMBERS BY 2025	SCHOOL PLACES CURRENTLY PLANNED BY 2025	% SURPLUS / DEFICIT OF PLACES BY 2025		
Elmbridge	4,506	4,261	5%	41%	1,300	-2%		
Epsom & Ewell	4,680	4,338	7%	36%	0	-23%		
Guildford	7,068	6,363	10%	20%	250	-3%		
Mole Valley	3,930	3,379	14%	30%	150	-6%		
Reigate & Banstead	6,475	6,162	5%	46%	1,590	-11%		
Runnymede	4,615	4,316	6%	32%	1,110	1%		
Spelthorne	5,595	5,013	10%	35%	450	-12%		
Surrey Heath	4,375	3,943	10%	11%	0	0%		
Tandridge	3,625	3,438	5%	19%	0	-12%		
Waverley	6,602	6,020	9%	25%	150	-11%		
Woking	4,590	4,451	3%	45%	300	-19%		

Source: Surrey County Council September January 2017 School Capacity Figures and Forecast Numbers to 2023 *Surplus depicted in green, Deficit depicted in red

The need for school places is forecast using a variety of factors including birth data, existing pupil movement trends and housing trajectories from the Local Planning Authorities. However, there are no guarantees and forecasts are updated every six months to ensure they reflect the latest data. As such, the estimated information contained in the above table is subject to change.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2025

Table 4.3 sets out forecast growth in terms of secondary school places to 2025. The information should be considered in the context of the following key issues:

- Looking at capacity on a countywide and borough/district level masks local areas of pressure, particularly in larger borough and districts with a higher amount of rural areas.
- Demographic changes indicate that the demand pressures experienced in primary places is now moving into the secondary sector.
- Analysis represents a snapshot in time and strategic educational planning is underway to address challenges to capacity. However, additional housing growth will yield more pupils, which will provide additional infrastructure challenges.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in secondary provision includes the following:

- 6FE free school in Elmbridge
- 1FE expansion at St Peter's Catholic, Guildford
- 1FE expansion at the Priory School, Dorking
- 6FE free school in Reigate and Banstead
- 2FE expansion at St John the Baptist
- 6FE Free School in Chertsey

COSTS AND FUNDING

All figures in this study in relation to secondary education relates to CIL and S106 funding only

Cost = 255,000,000 Funding Gap = £206,860,000*

Costs are set out for each local authority in Section 5.

SPECIAL EDUCATIONAL NEEDS AND DISABILITIES (SEND)



Surrey 47

Special Schools Specialist Centres attached to Mainstream School

CURRENT SITUATION

Years Reception - 14

In Surrey, there are 4 primary, 7 all through, and 11 secondary special schools. In addition there are 9 infant, 11 primary, 12 junior and 11 secondary specialist centres attached to mainstream schools, and 3 National Autistic Society Cullum centres attached to mainstream secondary schools.

These schools cater for a wide range of special educational needs, with educational arrangements to meet the needs of pupils with: Communication and Interaction Needs, Complex Social and Communication Needs, Hearing Impairment needs, Learning and Additional Needs, Social, Emotional and Mental Health needs, Severe Learning Difficulty and Disability, Visual Impairment needs

There are also a wide range of non-maintained and independent special schools in Surrey, which offer education to children with special educational needs.

Post-16 SEN

There are 11 maintained Special Schools, 6 non-maintained Special Schools and 2 Special Post-16 Institutions (SPIs) within surrey delivering further education to high needs learners aged 16-25. There are 4 Surrey FE Colleges which also provide purpose built facilities and further education programmes specifically designed for learners with SEND. High needs learners who do not require specialist facilities or programmes but benefit from additional learning support are supported through additional high needs funding provided by the Education and Skills Funding Agency (ESFA). This enables them to access one of the 31 School Sixth Forms, 5 Sixth Form Colleges, 4 Commercial and Charitable Providers (delivering across a number of locations), nonspecialist programmes within the 4 FE colleges and 1 Higher Education Provider offering limited further education opportunities in Surrey. FE Colleges and some sixth-form colleges within Surrey also offer a range of adult education courses.

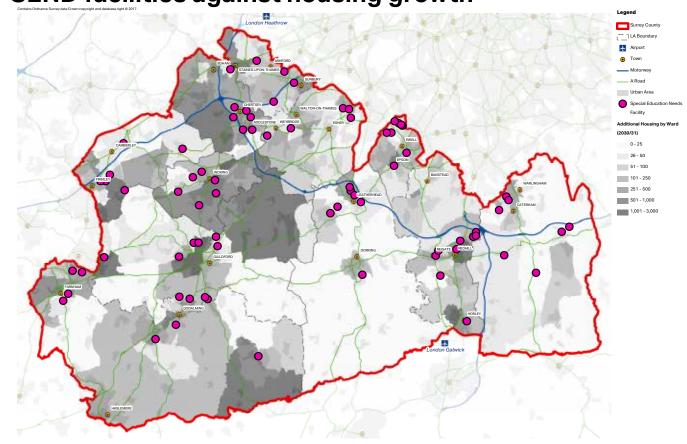
Figure 4.7

SEND facilities against housing growth

HEADLINES

A number of students requiring specialist provision attend out of county institutions. As part of Surrey's SEND Development Plan work is underway to develop local provision for students with high needs.

An increasing proportion of young people are choosing to continue their learning in the workplace through programmes such as Supported Internships, thus reducing the demand on physical sites dedicated to teaching.



Dedicated SEND facilities

	ALL THROUGH SPECIAL SCHOOL	INFANT SPECIAL SCHOOL	JUNIOR SPECIAL SCHOOL	PRIMARY SPECIAL SCHOOL	SECONDARY SPECIAL SCHOOL	SPECIAL SCHOOLS WITH POST- 16	FE COLLEGE WITH SEN
Elmbridge	0	0	1	0	2	1	1
Epsom & Ewell	1	2	1	1	1	1	1
Guildford	2	1	2	2	1	1	1
Mole Valley	1	2	2	2	1	1	0
Reigate & Banstead	0	1	2	1	3	1	1
Runnymede	0	1	1	2	3	1	0
Spelthorne	0	0	1	2	1	0	0
Surrey Heath	1	1	0	1	3	2	0
Tandridge	0	0	0	2	5	1	0
Waverley	1	2	1	1	3	1	0
Woking	1	0	1	1	2	1	0
SURREY	7	10	12	15	25	11	4

Source: Surrey County Counci

- In January 2017, there was a 2% overall surplus of places special schools across all year groups (Reception year to Year 14).
- A number of students requiring special or specialist provision attend non-maintained and independent institutions. As part of Surrey's SEND programme work is underway to facilitate education closer to home for students with high needs.
- For the 2016/17 academic year, SCC provided an additional 31 places in Reception.

It should be noted that demand for school places is not uniform, so whist there may be a surplus of places in a year group, area or designation of need, there may be exceptional demand and a need for additional places in another.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

Table 4.4 sets out the current spread of SEN facilities across Surrey. The IDPs and consultation with SCC identify the following significant SEN projects:

- Change of age range from secondary to primary at West Hill School
- Purpose built nursery on school site at the Ridgeway School
- New free school to meet the needs of children with complex social and communication needs
- Refurbishment of facilities in specialist centres for learning and additional needs at Ashford Park, Oakfield and Loseley Fields schools
- New free school to meet the needs of children with communication and interaction needs.

^{*} Point Data is not availble for every facility, as some schools offer some limited SEN provision. The point data identified in Table 4.4 and Figure 4.8 lists special schools, and specilaist centres and some FE colleges with SEN.

^{*}Many post-16 education providers without specialist, dedicated SEN facilities are also able to offer appropriate education for high needs learners. Information about these non specialist providers is available on pages 56-57

FURTHER EDUCATION, HIGHER EDUCATION AND ADULT EDUCATION



31 School Sixth

Surrey 4 CCPs

5 th Sixth Form Colleges

Surrey

Surrey

3

Surrey
4

FE colleges

Surrey 7

HE Institutions SCC Adult Education Centre

be developed to assess this, in which physical infrastucture to facilitate post-16 education will continue to be important, whilst work based and remote learning will play an increasing role.

Education Centres The two main Higher Education institutions in Surrey are considered to be Royal Holloway University of London and

the University of Surrey, located in Runnymede and Guildford respectively. The University of the Creative Arts also has campuses at Epsom and Farnham. Higher Education institutions often lead to a transient student population in the areas they are located, bringing with them their own challenges in planning for infrastructure.

CURRENT SITUATION

The Education and Skills Funding Agency (ESFA) funds 65 Surrey institution to deliver further education to 16-18 year olds. These comprise of; School Sixth Forms, Sixth Form Colleges, FE Colleges, Special Schools (and Specialist Post-16 Institutions) and Commerical and Chariable Providers (CCP), as well as a Higher Education Institution. Within Surrey higher education is not exclusively delivered within traditional University settings. All 4 of Surrey's further education colleges also offer higher education opportunities as an alternative to traditional university settings.

Surrey Adult Education - run by Surrey County Council - is the key supplier of Adult Education provision across the county. There is a fairly even spread of centres across Surrey. The 7 Centres are located across 6 of the 11 local authorities within Surrey. Adult education courses in East Surrey are provided by East Surrey College. FE Colleges and some sixth-form colleges within Surrey also offer a range of adult education courses.

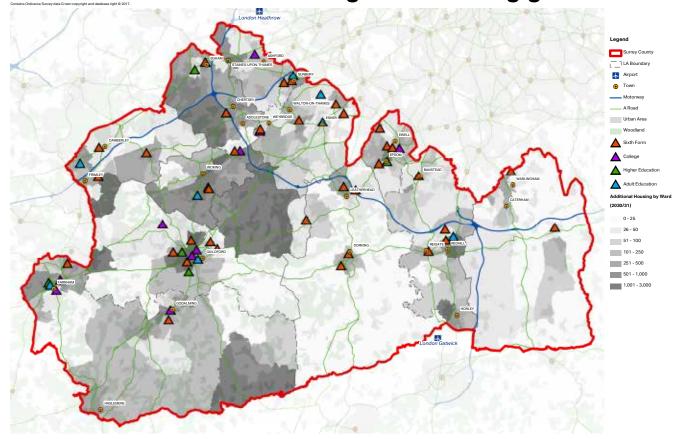
HEADLINES

An increasing proportion of young people are choosing to continue their learning in the workplace, thus reducing the demand on physical sites dedicated to teaching and learning. As a result, most further education providers in Surrey have experienced reduced ESFA contracts, but have spare capacity and potential for growth.

Identifying capacity for growth within post-16 education requires analysis of the impact of learner choice and current and emerging skills gaps in conjunction with future housing developments. Moving forward a bespoke model needs to 58 | Surrey Infrastructure Study

Figure 4.8

Post 16 education facilities against housing growth



Source: Surrey County Council location data 2017

Post-16 education facilities

	HE INSTITUTION CAMPUS	FE COLLEGE CAMPUS	SIXTH FORM COLLEGE CAMPUS	SCHOOL SIXTH FORM	CCP DELIVERY LOCATIONS	SCC ADULT EDUCATION CENTRES
Elmbridge		1	1	3	1	2
Epsom & Ewell	1	1		4		
Guildford	1	2	1	6	1	1
Mole Valley				4	1	
Reigate & Banstead		1	1	3		
Runnymede	1		1	2	1	
Spelthorne		1		2		1
Surrey Heath				2	2	1
Tandridge				2	1	
Waverley	1		1	1	2	1
Woking			1	2	2	1
SURREY	4	6	6	31	11	7

Source: Surrey County Council and AECOM web-based research

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Additional Adult Education Clients



Royal Holloway University of London, Runnymede

12,000

Forecast students (currently 9,000)

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Table 4.5 sets out the current spread of Post-16 Education facilities across Surrey. The IDPs identify the following significant Further Education and Higher Education projects:

- Growth on campus at Royal Holloway University of London, comprising 3 building projects: Library £40m (opening 2017), Science Building £20m, and Residences £40m based on feedback from RHUL and assumed to be funded.
- Growth of Surrey University with expansion plans for learning, accommodation and business facilities.

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £112,030,000 Funding Gap = £3,340,000*

Costs are set out for each local authority in Section 5.

^{* (}considering both secured and expected funding)



PRIMARY CARE SERVICES



FTE GPs

260 Dental Practices Surrev **Pharmacies**

- the strongest position to accommodate growth from a health perspective; and
- Guildford, Mole Valley and Waverley appear to be in According to the mapping there remains a lack of capacity to the north of surrey and in Guildford/ Wokina.

CURRENT SITUATION

The Health and Social Care Act 2012 changed the way that primary care services are planned and organised. This facilitated a move to clinical commissioning, a renewed focus on public health and allowing healthcare market competition for patients. This is provided by the Clinical Commissioning Groups (CCGs) - of which there are 6 covering the Surrey area.

In March 2016 NHS England further reorganised into 44 Sustainability and Transformation Plan (STP) areas. These were agreed by NHS Trusts, local authorities and CCGs.

This move towards STPs have focused on improving integration of healthcare services (CCGs, Trusts and Adult Social Care), while reorganising GP provision through a focus on the development of hubs to create better scale of provision (1GP practice: 30,000 people). This involves limiting the development of new GP practices through procurement, resulting in total footprint reductions, despite increasing demand.

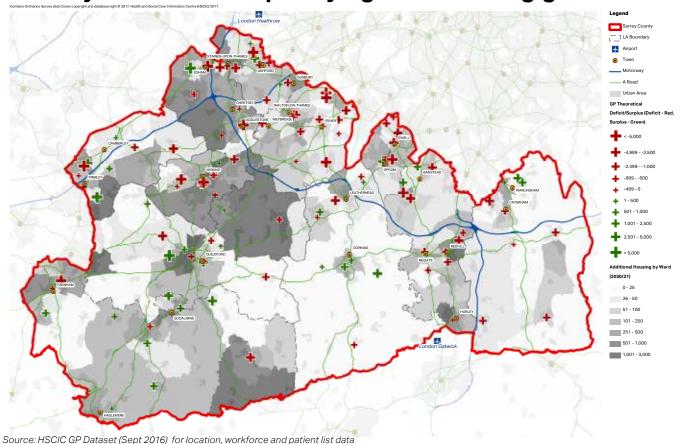
Similar issues are faced by health and social care professionals across Surrey.

HEADLINES - GPs

■ In general the provision of GP services across Surrey is poor, with a provision of 1GP per 1,994 patients;

Figure 4.9

Primary healthcare capacity against housing growth



Primary healthcare capacity & theoretical future needs

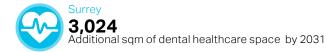
	EXI	STING PRIMARY O	017	2016-2031 ADDITIONAL REQUIREMENTS		
	NUMBER OF FTE GP	PATIENT LIST SIZE	PATIENTS PER GP	POPULATION PER DENTAL PRACTICE	GPS	DENTISTS
Elmbridge	56	146,420	2,594	4,160	2	3
Epsom & Ewell	43	85,877	1,982	3,300	7	8
Guildford	69	120,413	1,750	4,580	12	12
Mole Valley	53	91,678	1,731	4,307	1	1
Reigate & Banstead	67	141,300	2,109	5,576	6	6
Runnymede	40	80,799	2,040	4,798	6	6
Spelthorne	52	103,299	2,003	5,209	2	2
Surrey Heath	54	106,891	1,996	4,219	4	4
Tandridge	46	86,622	1,895	6,175	7	7
Waverley	88	154,609	1,763	4,756	9	9
Woking	53	116,808	2,220	3,578	4	4
SURREY	619	1,234,716	1,994	4,516	59	60

Source: Primary healthcare capacity and patient list size according to HSCIC 2016 data, Pharmacy and Denal data from HSCIC 2016 data. UK benchmark for GP provision is 1800 patients to 1 GP, 165 sq.m per GP provision

UK benchmark for Dental provision is .57 dentists per 1,000 people, 50 sq.m per dentist

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031





Future requirements are based on the application of benchmark standards against population growth forecasts (identified in footnote of Table 4.6). Important caveats to note include:

■ The benchmarks are high level and do not reflect the significant variation in usage of health facilities and services of communities with differing levels of older residents or the varying health needs caused by factors such as deprivation and poverty. In addition, due to the changes in delivery models that have occured in recent years, which emphasise footprint reductions of primary care services and a focus on delivery services through a hub model, it is likely the total footprint demand to be considerably less than the identified requirement.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in acute health provision includes the following:

- Extension of Greystone House Surgery in Redhill
- Extension of Wall House Surgery in Reigate

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £30,600,000 Funding Gap = £1,800,000*

Costs are set out for each local authority in Section 5.

* (considering both secured and expected funding)

HOSPITALS AND MENTAL HEALTH





Figure 4.10

Hospital locations against housing growth areas

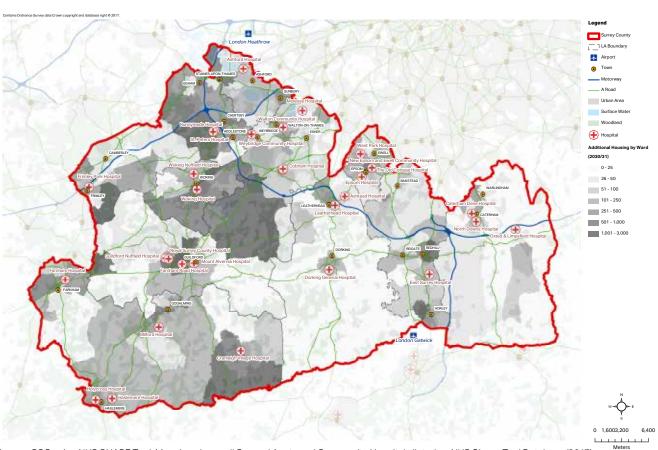
CURRENT SITUATION

There are 5 NHS Trusts operating within the Surrey county boundary comprising a number of General Acute and Community hospital facilities. The majority of these are classed as 'General Acute Hospitals', whilst East Surrey Hospital is defined as a 'Multi-Service Hospital'. Ashford and St Peter's Hospitals Foundation Trust and Epsom and St Helier University Hospital Trust jointly run their two respective hospitals.

Surrey and Borders Partnership NHS Foundation Trust (SABP) is the mental health trust for Surrey providing community, inpatient and social care services for psychiatric and psychological illnesses.

HEADLINES - HOSPITALS

- A significant proportion of mental health beds are located in Runnymede.
- Community hospitals are also located within Elmbridge, Epsom & Ewell, Guildford, Mole Valley, Tandridge and Waverley.
- Figure 4.10 does not include all private hospitals. A large number of health episodes are treated within private healthcare facilities in Surrey.



Source: SCC using NHS SHAPE Tool. Mapping shows all General Acute and Community Hospitals listed on NHS Shape Tool Database (2017)

Table 4.7

NHS hospital capacity and theoretical future need

EXISTING HOSPITAL BED CAPACITY (2016)

	LAISTIN	GHOGFHAL	MENTAL	11 (2010)		2016-2031 ADDITIONAL REQUIREMENTS		
	GENERAL ACUTE	MATERNITY	ILLNESS & LEARNING DISABILITY	TOTAL		ACUTE HOSPITAL BEDS	MENTAL HEALTH BEDS	
ROYAL SURREY COUNTY HOSPITAL	459	61		520	Elmbridge	9	2	
NHS FOUNDATION TRUST	(81%)	(32%)	-	(75%)	Epsom & Ewell	26	5	
FRIMLEY HEALTH NHS FOUNDATION TRUST	1, 302	73	_	1,375	Guildford	41	8	
	(92%)	(82%)		(92%)	Mole Valley	3	1	
ASHFORD AND ST PETER'S HOSPITALS NHS FOUNDATION	504	53	_	557 (84%)	Reigate & Banstead	20	4	
TRUST	(87%)	(47%)			Runnymede	21	4	
SURREY AND SUSSEX HEALTHCARE NHS TRUST*	623 (92%)	42 (64%)	-	665 (90%)	Spelthorne	7	2	
EPSOM AND ST	, ,	, ,		, ,	Surrey Heath	13	3	
HELIER UNIVERSITY HOSPITALS NHS TRUST*	795 (83%)	97 (42%)	-	892 (78%)	Tandridge	24	5	
SURREY AND					Waverley	31	6	
BORDERS PARTNERSHIP NHS	-	-	197 (89%)	197 (89%)	Woking	13	3	
FOUNDATION TRUST			·	·	SURREY	208	43	
TOTAL*	3,683	326	197	4,206				

Source: NHS England: Unify2 data collection - KH03 - Average daily number of available and occupied beds open overnight by sector (October to December 2016)

Source: Future Requirements based on AECOM Analysis of population change and continuation of ratio of beds to population.

Note - Existing Hospital Bed capacity data is not available at the site specific level (and therefore local authority level) but available at NHS Trust level as presented above. The figure in brackets illustrates the % Occupied of total Available beds on Average)

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

33,280

Additional sqm of acute hospital bed space by 2031



3,639

Additional sqm of mental health bed space by 2031

Future requirements are based on the application of best practise standards against population growth forecasts. Important caveats to note include:

Both health and social care services are moving away from bed based care for both physical and mental health with a greater emphasis on avoiding hospital admissions and nursing/residential home placements. The focus is on managing people in their own communities. It is unlikely that the current benchmarks used reflect the planned move towards fewer acute beds with more people with increasingly complex needs being managed in the community and supported, medically, by general practice.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in Hospital and Mental Health provision includes the following:

- New build health facilities for Haslemere Hospital
- Cranleigh Village Hospital £6m

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £144,080,000 Funding Gap = £31,590,000*

Costs are set out for each local authority in Section 5.

^{*} The NHS Trusts presented above in some cases cover wider areas outside Surrey County (such as Epsom and St Helier University Hospital NHS Trust). Therefore the total figure provides a figure which covers a wider area than Surrey exclusively.

^{* (}considering both secured and expected funding)

ADULT SOCIAL CARE





Surrey 300 Residential Care Homes

CURRENT SITUATION

From 1 April 2009 all health and social care services in England are registered and regulated by the Care Quality Commission (CQC), whether provided by the NHS, local authorities, private companies or voluntary organisations.

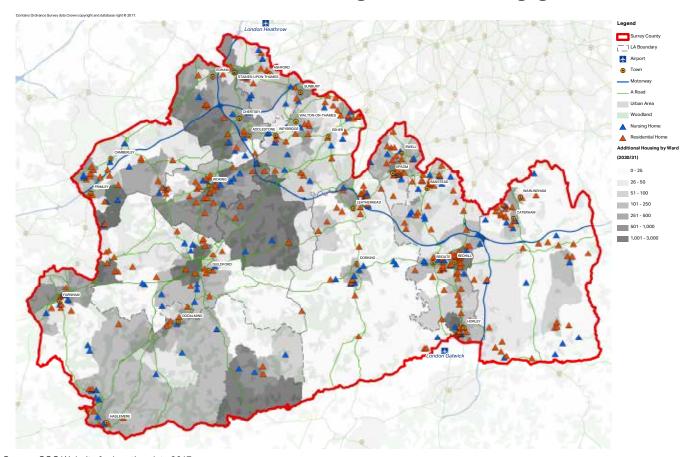
Across Surrey, Residential and Nursing homes are provided for by a mixture of these public and private organisations.

Adult Social Care client groups include: People with learning disabilities; people with mental health needs; people with physical disabilities; and older people (over 65 years).

HEADLINES

- As of 2016, there were 5,609 nursing beds, 4,152 residential beds, and 1,040 Extra Care beds across Surrey
- According to Figure 4.11, the greatest provision is towards the north, in the more heavily populated areas of Surrey
- Provision of Adult Social Care beds is predominantly through private companies, but commissioned through SCC

Social care accommodation against housing growth areas



Source: CQC Website for location data 2017

Social care accommodation & theoretical future need

		NURS	ING			RESIDE	NTIAL			EXTRA	CARE	
	BEDS	SCC FUNDED BEDS	BEDS/ 1,000 OVER 75	BEDS NEEDED BY 2025	BEDS	SCC FUNDED BEDS	BEDS/ 1,000 OVER 75	BEDS NEEDED BY 2025	BEDS	SCC FUNDED BEDS	BEDS/ 1,000 OVER 75	BEDS NEEDED BY 2025
Elmbridge	418	95	36	137	733	181	63	218	46	46	4	-
Epsom & Ewell	184	23	28	69	194	74	30	63	-	-	-	-
Guildford	513	86	45	165	321	116	28	88	156	116	14	-
Mole Valley	419	136	44	160	302	122	31	98	302	122	31	-
Reigate & Banstead	927	209	74	391	761	273	61	283	160	54	13	-
Runnymede	251	84	35	84	215	68	30	64	50	50	7	-
Spelthorne	437	106	49	133	142	83	16	32	112	112	13	-
Surrey Heath	728	95	94	317	182	87	23	66	-	-	-	-
Tandridge	566	91	70	248	384	119	47	151	-	-	-	-
Waverley	825	152	63	341	478	182	37	171	61	50	5	-
Woking	341	93	43	123	440	110	5	144	126	43	16	-
SURREY	5,609	1,170	54	2,168	4,152	1,415	40	1,378	1,040	620	7	750

Source: Draft Accommodation WWith Care and Support Commissioning Statements 2016

FUTURE REQUIREMENTS TO MEET GROWTH TO 2025



Surrey
2,168
Additional Nursing Care beds



Surrey
1,378
Additional Res

Additional Residential Care beds



750

Additional Extra Care beds/units

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

The list below sets out key investments expected to support population growth:

- 750 Additional Extra Care beds/units provision across Surrey
- Specialist Young People Accommodation in Woking

COSTS AND FUNDING

AECOM has estimated accommodation costs based the forecasts presented in the Surrey Adult Social Care Commissioning Reports. UK benchmark costs have been applied to those forecasts. This identifies the following costs for Surrey:

Cost = £422,250,000 Funding Gap = £42,230,000*

Costs are set out for each local authority in Section 5.



4.4 COMMUNITY

LIBRARIES



42 SCC managed Libraries Surrey 10

Community Partnered Libraries Surrey

Community Link Libraries

CURRENT SITUATION

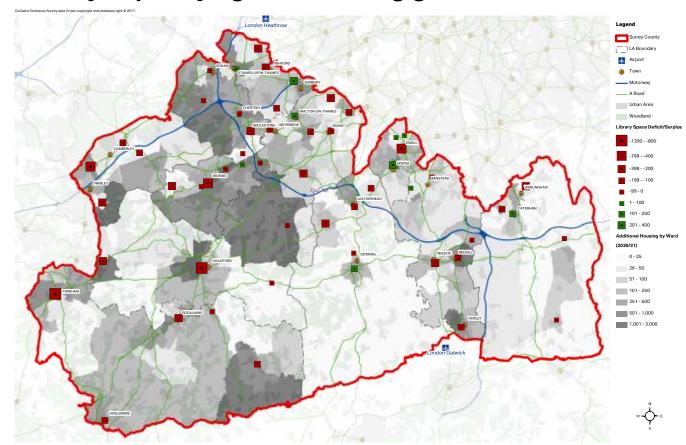
The nature of a library and what it provides today continues to change. The service is not just about books but also delivers services that help to provide social and digital inclusion and support the well being and prosperity of Surrey residents across all ages. They look to becoming community hubs, sharing with other services and have flexible spaces which also bring in opportunities locally for learning and cultural events.

Whilst there has been an active capital programme of refurbishing libraries for some time, this has now ceased due to financial pressures still leaving some libraries in unsuitable buildings in poor locations and the service will be developing an asset strategy programme for the future to tackle these.

HEADLINES

- Location of Libraries is a fundamental issue when considering quality of provision. Libraries may not be sited in locations in towns where people congregate.
- Focus around including Library provision alongside the delivery of a wide-range of services at a collective facility.
- Pressure on libraries to downsize to release assets and to reduce library space to accommodate a greater variety of other services integrated into or co-located within the library.

Library capacity against housing growth areas



Source: Surrey County Council for location and capacity data 2017

Table 4.9 Library capacity & theoretical future need

	NUMBER OF LIBRARIES	FLOORSPACE(SQM)	SIZE REQUIRED FOR CATCHMENT (SQM)	SUM OF SURPLUS / DEFICIT FLOORSPACE (SQM)	2015-2031 ADDITIONAL LIBRARY SPACE (SQ.M) REQUIREMENT
Elmbridge	7	2,334	3,328	-994	111
Epsom & Ewell	4	2,084	1,980	104	331
Guildford	4	1,202	3,664	-2,462	519
Mole Valley	6	1,355	2,153	-798	40
Reigate & Banstead	6	2,637	3,624	-987	252
Runnymede	5	1,330	2,159	-829	267
Spelthorne	5	2,110	2,474	-364	95
Surrey Heath	4	862	2,215	-1,353	172
Tandridge	5	1,116	2,161	-1,045	307
Waverley	5	1,426	3,092	-1,666	399
Woking	6	2,100	2,505	-405	160
SURREY	57	18,604	29,355	-10,751	2,653

Source: Surrey County Council (2017) & AECOM analysis of future demands using benchmark of 25 sq.m per 1,000 people. headlines on previous page will not match total libraries in table above as headline exclude specialist libary provision (i.e music and drama library) Sum or Surplus / Deficit based upon current population size and application of benchmark of 25 sq.m per 1,000 people.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



2,653

Sqm of additional library space required by 2031

Whilst our analysis identifies the need for 2,653 sq.m of additional provision. It is important to recognise the changing nature of library service provision and possibilities for delivering these requirements in new and innovative ways including the shared use of multi functional spaces.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

The list below sets out key library investments expected to support population growth:

- Multiple library refurbishments across the County
- Horley Town Centre New Library

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £14.260.000Funding Gap = £5,620,000*

Costs are set out for each local authority in Section 5.

^{* (}considering both secured and expected funding)

YOUTH SERVICES



Total Number of SCC Youth Centres

Surrey 36 **Facilities**

Surrey

Non SCC **Facilities**

CURRENT SITUATION

Youth Centres in Surrey are run by Surrey County Council, through it's Family Service and Young People and Family Teams. Through this service SCC offer a wide range of support for young people and families in each youth centre depending on local needs.

HEADLINES

Tandridge

763

Fewest hours of service provided March 2014-15

Reigate & Banstead

783

Highest number of clients recorded March 2015

Runnymede & Spelthorne - most provision

0.24

Youth service providers per 1,000 young people

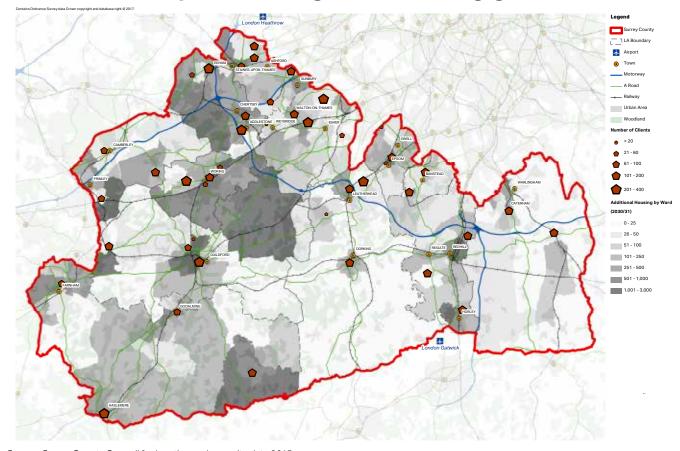
Tandridge - least provision

0.11

Youth service providers per 1,000 young people

It is important however to note that some facilities are privately run and accessibility by all may not be possible.

Youth service provision against housing growth areas



Source: Surrey County Council for location and capacity data 2015

Youth services capacity & theoretical future need

	NUMBER OF YOUTH CENTRES	CLIENTS RECORDED - MARCH 2015	HOURS OF DELIVERY - MARCH 2014 - 15	HOURS PER CLIENT	2016-2031 ADDITIONAL YOUTH FACILITY CLIENTS
Elmbridge	5	702	1,174	1.7	10
Epsom & Ewell	3	179	980	5.5	68
Guildford	4	620	1,048	1.7	119
Mole Valley	4	645	1,597	2.5	2
Reigate & Banstead	5	783	2,439	3.1	36
Runnymede	5	601	1,929	3.2	72
Spelthorne	5	620	1,755	2.8	19
Surrey Heath	3	306	1,308	4.3	20
Tandridge	2	327	763	2.3	57
Waverley	5	652	1,144	1.8	67
Woking	3	505	1,297	2.6	9
SURREY	43	5,940	15,434	2.6	479

Source: Surrey County Council Youth Support Services (2015) & AECOM analysis of future demands

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



additional youth facilities

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

The list below sets out youth facility investments expected to support population growth:

- Phoenix Youth Centre (recently completed);
- Neighbourhood Skills Centre in Woking; and
- Merstham Youth Centre Due for completion in Autumn 2017.

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £6,370,000 Funding Gap = £190,000*

Costs are set out for each local authority in Section 5.

* (considering both secured and expected funding)

COMMUNITY & INDOOR SPORTS FACILITIES





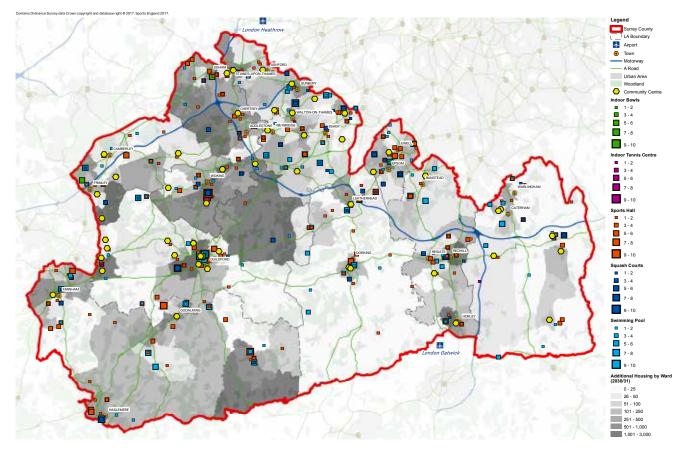
CURRENT SITUATION

Community and Indoor Sports facilities in Surrey comprise both public and private facilities. Public facilities are provided and funded by the local authorities. This allows for anyone to access the facilities. Private facilities often require membership and payment for the use of those facilities.

HEADLINES

- Spelthorne has the largest gaps in indoor sports provision, with the supply below the Surrey average in all of the 5 categories.
- Reigate & Banstead and Surrey Heath also suffer with gaps in provision with supply below the Surrey average in 4 out of the 5 categories.
- There are gaps in current facility distribution against the focus areas of housing growth. This can be seen in Guildford, Runnymede and parts of Waverley.
- Elmbridge and Reigate and Barnstead have relatively strong provision of indoor sports provision where future housing growth is projected.

Community & leisure provision against housing growth



Source: Surrey County Council and Sport England Active Places for location and capacity data April 2017

Community and leisure provision

	COMMUNITY CENTRES	SPORTS HALL COURTS	SWIMMING POOL LANES	SQUASH COURTS	GYM STATIONS	INDOOR BOWLS RINKS	INDOOR TENNIS COURTS
Elmbridge	7	69	60	25	1,012	4	6
Epsom & Ewell	2	55	34	16	701	1	2
Guildford	11	111	51	13	797	6	4
Mole Valley	3	57	32	13	359	4	0
Reigate & Banstead	3	68	45	13	565	6	0
Runnymede	4	57	17	8	596	6	4
Spelthorne	4	40	21	7	1,036	0	0
Surrey Heath	5	36	12	9	644	6	0
Tandridge	6	47	35	11	341	0	3
Waverley	2	107	67	14	937	0	3
Woking	4	28	18	12	739	0	10
SURREY	49	674	392	140	7,727	33	32

Source: Surrey County Council and Sport England Active Places April 2017

Table includes all provision recorded by Sport England and does not differentiate between Public and Private access

Community centres presented is limited to those defined specifically as community centres and does not include wider provision of community facilities and halls for hire.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



6,898 sqmnew flexible community space



20 new swimming pool lanes



31

new sports courts



Surrey

Surrey

new indoor bowls rinks

The above infrastructure requirements have been identified based on a combination of those actual planned projects according to the local authorities and further AECOM analysis using Sport England and best practice standards.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

The list below sets out community and leisure facility investments expected to support population growth:

- Nower Wood Educational Nature Reserve and Field Centre - £1,000,000
- Cranleigh Arts Centre £150,000
- Haslemere Community Centre for older people £2,000,000
- Egham Leisure Centre upgrades

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £80,070,000 Funding Gap = £33,930,000*

^{* (}considering both secured and expected funding)

OUTDOOR SPORTS AND RECREATION





Outdoor Sports & Recreation

Children's Play Space

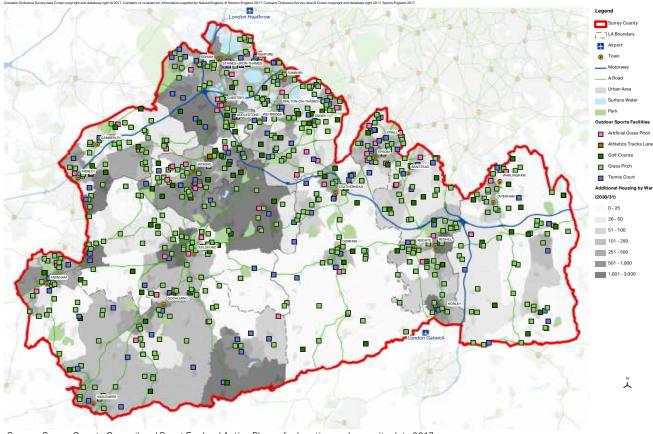
CURRENT SITUATION

Surrey has a wide range of open spaces, sports pitches, sports facilities and children's playgrounds. Outdoor sports and playspace are owned and operated by a mixture of private sector, voluntary organisations and local authorities.

HEADLINES

- There is a gap in outdoor sports provision in Reigate & Banstead and Spelthorne with capacity below Surrey's average supply to population ratio in 4 out of 5 categories.
- Guildford also displays similar issues with capacity below the average in 3 of the 5 categories. GBC has published a 'Guildford Open Space, Sport & Recreation Assessment 2017' (June 2017) which develops local standards for open space and establishes deficits and surpluses. This will form the basis of policy in GBC's forthcoming Local Plan: development management policies.
- Lack of sports provision around Guildford, which is due to experience significant growth.
- The larger urban centres of Elmbridge and Waverley similarly have strong provision of existing outdoor recreational facilities.

Outdoor sports and recreation against housing growth



Source: Surrey County Council and Sport England Active Places for location and capacity data 2017

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Outdoor sports and recreation

	GRASS PITCHES	ARTIFICIAL GRASS PITCH	TENNIS COURTS	ATHLETIC TRACKS LANES	GOLF CLUBS
Elmbridge	298	17	111	12	8
Epsom & Ewell	149	9	48	6	3
Guildford	209	12	40	12	10
Mole Valley	137	5	33	0	7
Reigate & Banstead	182	14	49	6	8
Runnymede	142	16	72	12	7
Spelthorne	99	12	31	0	2
Surrey Heath	165	11	24	0	6
Tandridge	205	9	52	0	13
Waverley	241	25	99	12	12
Woking	100	11	54	10	11
SURREY	1,927	141	613	70	87

Source: Surrey County Council and Sport England Active Places April 2017

Table includes all provision recorded by Sport England and does not differentiate between Public and Private access

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

3

Artificial Turf Pitches



Surrey

127haPlaying fields



Surrey

18haChildren's Playspace

The above infrastructure requirements have been identified based on a combination of those actual planned projects according to the local authorities and further AECOM analysis using Sport England and Fields in Trust best practice standards.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

The list below sets out the outdoor sports and recreation investments expected to support population growth:

- Godalming Leisure Centre Upgrades £4.5m
- Synthetic Pitch at Rodborough College £1.085m
- Skate Park at Sandy Hill £650,000

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £76,160,000 Funding Gap = £32,900,000*

Costs are set out for each local authority in Section 5.

* (considering both secured and expected funding)



4.5 GREEN INFRASTRUCTURE

GREEN INFRASTRUCTURE





Natural Green Space & Strategic Projects

Parkland

HEADLINES

- AONB make up 43,260ha (26% of Surrey land area)
- Kent Downs, Surrey Hills, High Weald
- Woodland makes up 33% of the land area of Surrey
- 52 Parks and Gardens in Surrey (4,120ha)

- Over 12,310 ha of Surrey have received National and International designations (not including AONB, County or National Parks, Woodland or common land)
- Strategic green infrastructure provision such as Epsom Downs, Horton Country Park Provide a strategic role beyond the borough boundaries in which they are located and is an example of shared infrastructure with a wider catchment.

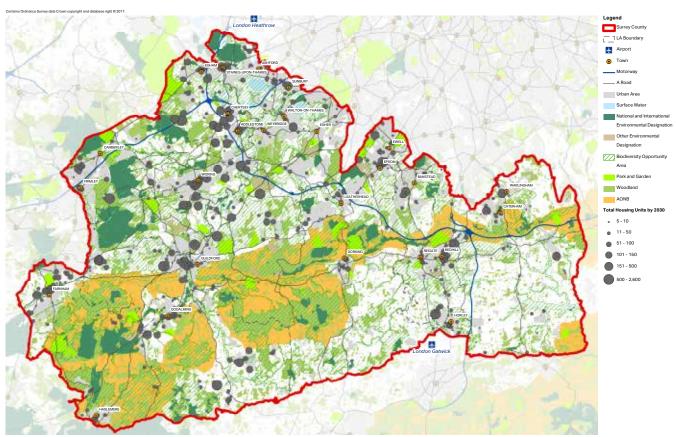
CURRENT SITUATION

Surrey's diverse natural and semi natural environment is a valuable asset. Not only does it provide the basis for the agricultural sector and supporting biodiversity but it also providing an attractive character that draws residents, employers and visitors into the county. Furthermore, the environment performs a wider range of functions with tangible benefits to society and the economy, such as air quality and climate regulation, flood mitigation and space for recreation.

The broader natural environment is supported by a network of more formal green infrastructure assets comprising a broad range of high quality green spaces and other environmental features including natural and semi natural green space, parks and gardens, amenity space, green and blue corridors (verges and rivers) as well as a range of other greenspaces including allotments.

Figure 4.16

Green infrastructure & proposed housing sites



Source: Surrey County Council, Surrey Nature Partnership, Historic England, Natural England, OS Meridian, Forestry Commission

Table 4.13

Green infrastructure provision

GI TYPE	AREA (HA)
AONB	43,260
National and International Designations	12,310
Parks & Gardens	4,120
Surface Water	3,270
Woodland	55,094
Woodland	94,665
Other Environmental Designations	2,241
TOTAL	120,295

INVESTING IN NATURAL CAPITAL

The NPPF highlights the planning systems role in contributing to the protection and enhancement of the natural environment. It seeks to establish coherent, ecological networks that are more resilient to current and future pressures while recognising the 'wider benefits' ecosystems services can have. SCC and Surrey Nature Partnership (SNP) support this ambition and are determined that development should deliver a net benefit to biodiversity.

GI delivery to support growth will be a product of both increased provision of dedicated space, as well as enhancing the quality of existing sites and initiatives to support the functionality of the wider environment. SNP, SCC and partners are keen for the environmental assets that underpin the value derived from GI to be considered as natural capital. As such, the benefits of growth can be considered alongside the impacts on the natural capital assets and investment can be targeted to where it can deliver greatest benefit.

SNP is leading the development of a Natural Capital Investment Strategy (NCIS) for Surrey. It is based on ensuring the appropriate and sustainable use of Surrey's natural capital assets, thereby securing the services which flow from it, through high quality, locally embedded decision-making. The NCIS will showcase how local natural capital, a key element of infrastructure, can create practical economic opportunities, deliver on broader sustainability

objectives, promote good health and quality of life as well as inform ways of working and policy for key stakeholders. Investment into GI projects is likely to cover a range of issues and scales:

LANDSCAPE SCALE

The high quality and character of Surrey's landscape is central to the county's identity, attracting inward investment and providing an important recreation resource for residents and visitors alike. As the county and wider south east grows, an increased investment into popular areas such as those in the ANOBs will be needed to ensure that the pressure from additional visitors does not undermine their special quality. This will be in the form of welcome site, access and land management both within the AONBs and across the wider landscape.

SUITABLE ALTERNATIVE NATURAL GREENSPACE

Any harmful effects from growth on sites internationally recognised for their ecological importance through the Habitats Directive will need to be mitigated. The creation of Suitable Alternative Natural Greenspace (SANGs) is one approach to mitigation that provides important new Gl assets. The cost of delivering and managing the SANGs will be needed to support future housing development will be covered by developer contributions (currently S106 planning obligations and in future, by a combination of S106 and CIL).

HABITAT CREATION ASSOCIATE WITH DEVELOPMENT

In addition, SNP and SCC have identified a series of Biodiversity Opportunity Areas (BOAs), and associated guidance notes, that provide a spatial framework to support the development of local GI strategies. Within this, series of sites have also been identified on a more detailed Habitat Creation Register that could be enhanced to provide GI that helps mitigate the impacts of development, potentially through developer contributions as part of a future biodiversity offsetting policy or better integration of biodiversity consideration into new infrastructure projects.

SPACE FOR RECREATION

A growing population will also put pressure on the county's parks, gardens, amenity spaces and allotments. Although

new development will be expected to provide new green space in line with provision standards within each of the Local Authorities existing or emerging open space and green infrastructure strategies, there is also a need for more strategic open space provision to alleviate areas of deficit and pressure on popular areas.

ACCESS TO THE COUNTRYSIDE

Surrey's existing long distance walking routes will need to be supported by a network of new and improved local access to the countryside. Better connectivity can provide a wide range of health and well-being benefits as well as improving access.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

106ha

Suitable Alternative Natural Green Space



Surrey 42ha

New Parkland





21ha
Allotments

The above infrastructure requirements have been identified based on a combination of those actual planned projects according to the local authorities and further AECOM analysis using Natural England and Fields in Trust best practice standards.

COSTS AND FUNDING

Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £92,540,000 Funding Gap = £13,320,000*

Costs are set out for each local authority in Section 5

* (considering both secured and expected funding)



ENERGY



ELECTRICITY

- UKPN and SSE provide electricity network distribution services in Surrey.
- UKPN's South Eastern Power Networks PLC (SPN) electricity network supplied from Chessington 275/132kV, Laleham 275/132kV and West Weybridge 275/132kV Grid Supply Points (GSPs) covers the Surrey study area. These have an aggregate demand of 759.9MW (Winter-W) and 519MW (Summer-S) across 10x132kV grid substations and 34x33kV primary substations.
- The aggregate firm capacity attributed to the three GSPs is 1,797MW (W) and 1,588MW (S) while aggregate load demand is projected to reach 878.2MW (W) and 601.3MW (S) by 2023.

Current Capacity issues

- UKPN note in the Chessington/Laleham/West Weybridge Regional Development Plan (RDP) (dated June 2015) that future load demand and network growth in the RDP area is likely to be influenced by future Gatwick development and new residential development proposed in Surrey and surrounding areas up to 2027.
- SSE Long Term Development Statement (LTDS), 2015 suggests that there are no constraint areas for accepting new generation or load, however, background fault levels at most voltages are generally high.

FUTURE REQUIREMENTS

Impacts of growth on supply

- UKPN estimate that the proposed new housing developments and supporting amenities will require approximately 150MW electricity supply demand over the period, which UKPN note is technically available from grid supply capacity. Future major works identified include Kingston Grid transformers' replacement, Guildford Grid reinforcement, Chertsey primary 33kV reinforcement and Brookwood primary 33kV reinforcement
- GBC have highlighted the need to reinforce from the Dorking Circuit to support the University of Surrey Research Park.

Summary of plans to support growth

Major works currently at feasibility study stage or under construction include the following:

- Brookwood Primary & EHV route HV Switchgear / ITC / 33kV UGC
- West Weybridge 33kV switchgear replacement
- Chertsey ITC and HV switchgear replacement
- West Weybridge to Chertsey 33kV underground cables (being replaced as 33kV)
- Weybridge HV Switchgear replacement and ITC
- Weybridge Dynamic Transformer Rating
- West Weybridge to Guildford 132kV cable

Table 4.14

UKPN Long Term Development Strategy (fully funded)

LOCAL AUTHORITY	REINFORCEMENTS & ASSET REPLACEMENT PROJECTS TO 2023	FUNDED INVESTMENT
Elmbridge	1	£358,649
Epsom & Ewell	8	£10,486,213
Guildford	15	£10,979,287
Mole Valley	3	£2,608,867
R & Banstead	8	£8,707,971
Runnymede	0	0
Spelthorne	0	0
Surrey Heath	0	0
Tandridge	2	£1,086,816
Waverley	0	0
Woking	8	£10,451,811
Surrey	44	£44,679,613

Source: UKPN SPN Regional Development Plan - Chessington/Laleham / West Weybridge Provisional 2017 revision

GAS SUPPLY

Gas is transmitted through a National Transmission System (NTS), in which it is then supplied to towns and villages through Local Distribution Zones (LDZ). The Gas Distribution Network Operator for Surrey is Southern Gas Networks (SGN).

CURRENT SITUATION

- SGN has a duty to extend or improve the National Transmission System (NTS), where necessary, to ensure an adequate and effective network for the transportation of gas. No specific upgrades have been identified within the county but future works may be required to respond to the wider demand for gas.
- No Current Capacity issues have been identified

FUTURE REQUIREMENTS

Impacts of growth on supply

 SGN forecast a small decrease in annual and peak day demands over the 2014-2024 period (albeit a small increase is expected in 2014-2015 due to economic recovery) due to increased efficiencies and renewable incentives.

Summary of plans to support growth

- Installation of infrastructure on a speculative basis to serve potential development areas is not supported by regulator OFGEM.
- Reinforcement projects for the LDZs are planned for on a reactive basis, Network reinforcement is determined on an application by application basis when new loads connect to the network, rather than planned for in advance.
- Agreements need to be reached with developers prior to investment in new infrastructure being made.
- It cannot be assumed that the existing network has sufficient capacity to supply all proposed development proposals across Surrey. It can however be assumed that the necessary capacity will be developed on a reactive basis by the gas Distribution Network Operator.

COST OF CONNECTING THE GROWTH SITES

UKPN strategic investments to 2023 have been taken into account but no strategic Gas Network investment data has been made available to this study.

AECOM are considering the whole cost of utilities and have therefore also considered the cost of connecting the planned housing and employment sites to the existing network.

Per dwelling and commercial floorspace benchmark energy connection costs have been applied to the growth forecasts and based on these assumptions, AECOM estimates the following costs associated with energy provision to support growth across Surrey to 2031.

Cost = £191,480,000 Funding Gap = £0

It is assumed that these costs will be borne by the developer and service providers. Costing caveats apply to all AECOM estimates presented within this document. See Costing assumptions at end of document

BROADBAND



BROADBAND DELIVERY UK (BDUK) - SUPERFAST BROADBAND PROGRAMME

Broadband Delivery UK (BDUK), part of the Department for Culture, Media and Sport, have set a national target of 95% provision of superfast broadband (speeds of 24Mbps or more) to all UK premises with universal basic broadband (speeds of at least 2Mbps).

The programme is being delivered in three phases:

- Phase 1 aims to provide superfast broadband to 90% of premises in the UK
- Phase 2 will seek to further extend coverage to 95% of the UK
- Phase 3 will test options to roll out superfast broadband beyond 95%.

Whilst this represents the current BDUK targets for all areas, Surrey County Council has implemented its own Superfast Surrey Programme with different contractual targets.

CURRENT SITUATION IN SURREY

According to Think Broadband, more than 96% of all Surrey premises can now access download speeds of 15mbps or more. In 2012, SCC signed a multi-million contract with BT to build on the existing and planned commercial rollouts of the fibre broadband network in order to address the issue of premises in Surrey without any fibre broadband provision. As a result, 86,000 Surrey homes and businesses were covered by fibre broadband infrastructure as part of the main phase of the programme.

However, analysis of data from Service Providers by SCC during an Open Market Review (OMR) and State Aid Public Consultation in 2015/2016 to understand the broadband landscape of Surrey identified that there are still more than 15,300 premises in Surrey that are unable to access fibre download speeds of 15mbps or more and are not included in any commercial plans.

As a result of the Superfast Surrey's very successful demand stimulation campaigns during the programme's main phase of deployment, take-up of fibre broadband services by residents has been significantly higher than projected in the contract finance model resulting in additional funding flowing into the contract as part of a clawback mechanism.

Last year, BT offered SCC an 'advance' of £3.9m of this clawback, known as 'Gainshare' to be used for further broadband infrastructure and in December 2016, the SCC Cabinet gave approval for this investment to be used for further fibre infrastructure.

SCC subsequently requested BT to model a solution, based on the lowest cost per premise, for as many as of the 15,300 premises as possible located across Surrey within the programme's available funding. This solution, known as the Gainshare deployment, was announced at the end of February and includes nearly 6,000 homes and businesses that are anticipated to benefit from further fibre infrastructure with download speeds of 24mbps or more.

Work has commenced on detailed design and planning with deployment due to commence at the end of 2017 and final works to be completed in early 2019.

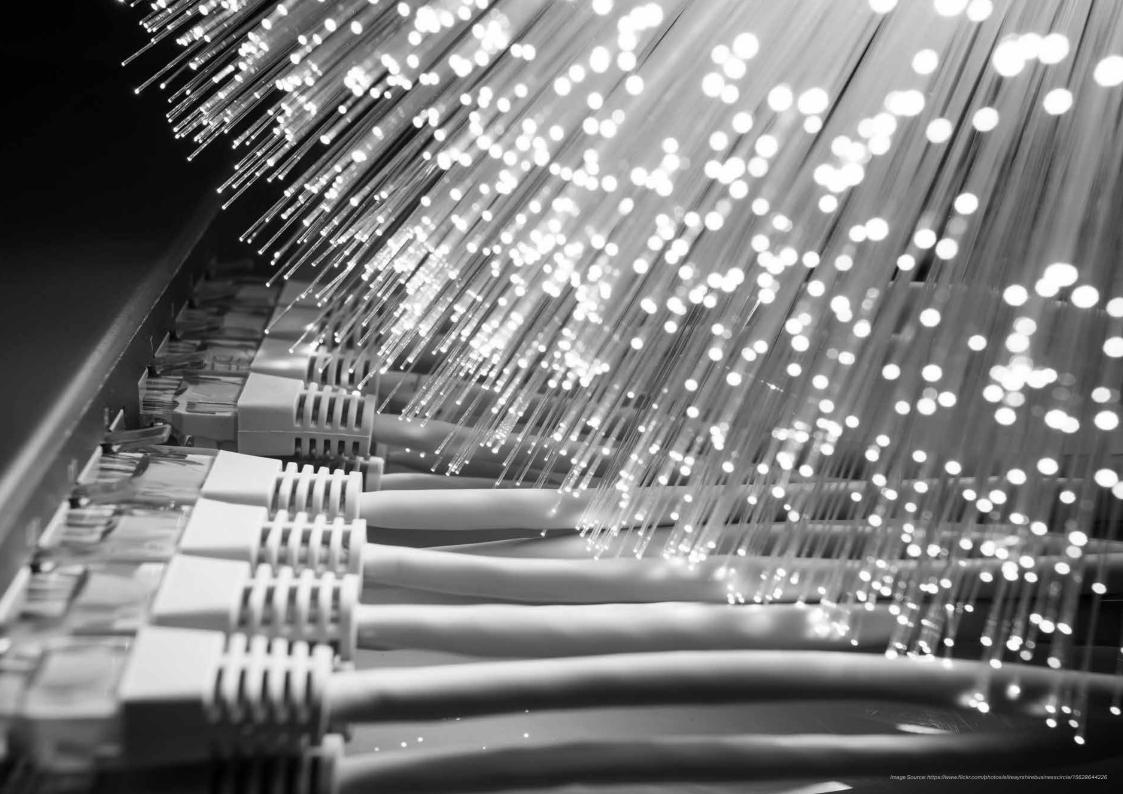
COST OF CONNECTING THE GROWTH SITES

Per dwelling and commercial floorspace benchmark communication connection costs have been applied to the growth forecasts and based on these assumptions, AECOM estimates the following costs associated with connecting new dwellings and commercial development to the existing broadband network:

Cost = £25,490,000 **Funding Gap** = £0

It should be noted that the costs set out above include only the developer funded connection costs for new housing and commercial development.

An assumption, as set out in section 6.3, has been made that all new development costs will be met by the developer in order to meet the market demand for broadband ready properties.



WATER & WASTE WATER



CURRENT SITUATION

Several Water Only (WO) companies operate in Surrey; Sutton & East Surrey Water, South East Water and Veolia Water. Thames Water and Southern Water operate as Water and Sewerage Companies (WaSC).

■ All water companies have prepared Water Resource Management Plans (WRMPs) for 2015 to 2040. These are updated every five years with the current review completed in 2014. These seek to accommodate the potential increase in demand from new development, manage the existing supply of water and take account of likely future changes due to climate change.

Table 4.15

Water Supply and Waste Providers



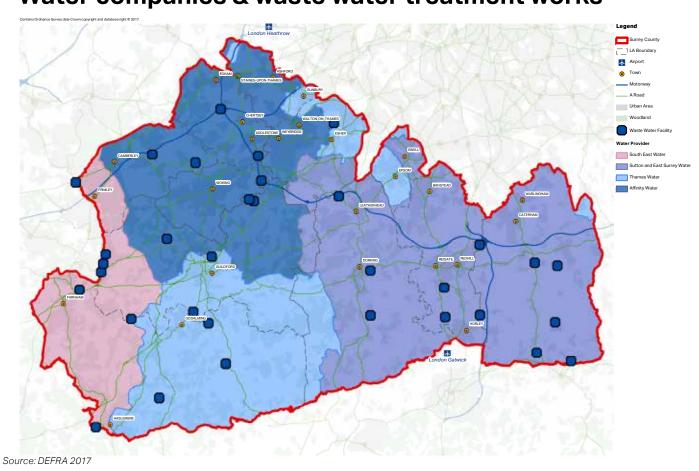
VW - VEOLIA WATER
SEW - SOUTH EAST WATER / TW - THAMES WATER
SESW - SUTTON & EAST SURREY WATER
W - PROVIDER

- Thames Water report that 80% of London's potable water is supplied from surface waters of the River Thames and the River Lee, via reservoirs, with the remaining 20% coming from groundwater.
- 30% of Thames Valley potable water comes from surface waters and 70% from groundwater.
- Southern Water's Sussex North Water Resource Zone (WRZ) which includes parts of Surrey has dry year

demands typically around 60 Ml/d. The WRZ's own internal sources are supplemented by a bulk import from Portsmouth Water of 15 Ml/d. However, the WRZ also provides a supply of 5.4 Ml/d from Weir Wood to South East Water.

■ There are over 30 Wastewater Treatment Works (WwTW) within the county

Water companies & waste water treatment works



Current Capacity issues

- Various WO and WaSCs have identified shortfalls within various WRZs.
- TWU Guildford WRZ: Average day peak week (ADPW) deficit of 0.1 MI/d in 2021/22, increasing to 3.8 MI/d in 2039/40.
- TWU London WRZ: A dry year annual average (DYAA) deficit of 59 MI/d in 2014/15, increasing to 416 MI/d in 2039/40.

FUTURE REQUIREMENTS

Impacts of growth on supply

- Network capacity is likely to be an issue at locations such as the Guildford-Woking-Staines corridor where large scale development is being proposed.
- Merstham and Mogden WwTW already identified as requiring upgrading to meet future demand.

Water Supply - Water Resource Management Plans

All five water companies have prepared Water Resource Management Plans (WRMPs) for 2015 to 2040. These are updated every five years with the current review completed in 2014. These seek to accommodate the potential increase in demand from new development, manage the existing supply of water and take account of likely future changes due to climate change.

Key actions to 2031 as highlighted in each plan are shown in Table 4.16.

Catchment Plans

Catchment Plans (CP) are in place or in preparation for the improvement of the Wey, Mole, Eden, Loddon, Arun & Rother, Colne and London (Hogsmill & Wandle) catchments. Projects under these action plans include Water Framework Directive targets to improve the ecological status of waterbodies that are not currently good by 2027 through a programme addressing in-channel habitat restoration, diffuse and point source pollution and barriers to fish passage.

Table 4.16

Water Supply Provider Plans

PROVIDER	INFRASTRUCTURE INVESTMENT PLANNED	TIMEFRAME
	Reductions in network leakage	2015-2020
Affinity Water	Universal metering programme;	2015-2020
	Implementation of water efficiency	2015-2020
ffinit	Increased water abstraction;	2015-2020
∢	Increase in bulk transfer of water.	2015-2020
	Developing groundwater source at Maytham Farm	2015-2020
Water	Developing a water re-use scheme at Aylesford (37.5 Ml/d)	2020-2030
South East Water	Building a new reservoir at Broad Oak (13.5 Ml/d)	2030-2035
South	Developing six water transfer schemes to share water with adjoining areas	2020-2040
	Creation of 3 new WRZ transfers.	-
r r	Additional leakage reduction required over the planning period.	-
Southerr Water	Water reuse scheme to commence	2027-2028
ος ´	Two desalination schemes	2027-2028
Sutton & ast Surrey Water	Selective Metering across East Sutton & Surrey	2015-2020
Sutte East S Wa	Increase Water Treatment Works capacity	2021-2030
	Leakage reduction measures	2015-2020
Thames Water	Commencement of 'full' metering programmes to households (70% of households by 2025)	2015-2020
	New groundwater schemes providing additional water supply	2015-2020
	Promotion of water efficiency	2015-2020
	Rollout innovative tariffs to promote water efficiency	2020 +
È	Further development of small groundwater schemes	2020 +
	Larger scale projects to secure long- term resilience including 150 MI/d wastewater re-use scheme	2020+

Summary of Water Company Plans to Support Growth

- Replacement of lead pipes in parts of Thames Ditton and Elmbridge.
- Extension of bulk transfer schemes proposed between various water companies.
- Network enhancements (if required) to accommodate Blackwell Farm development.
- Network enhancements (if required) to accommodate Princess Royal Barracks development in Surrey Heath.
- Network enhancements (if required) to accommodate former Wisley Airfield development.
- Upgrades to Merstham WwTW, Mogden WwTW, Old Woking WwTW, Hogsmill WwTW, Guildford WwTW, Loxwood WwTW.
- Network enhancements (if required) to accommodate large scale developments such as Blackwell Farm, Wisley Airfield and Gosden Hill Farm.

COST OF CONNECTING THE GROWTH SITES

Per dwelling and commercial floorspace benchmark water supply and waste connection costs have been applied to the growth forecasts and based on these assumptions, AECOM estimates the following costs associated with provision to support growth across Surrey to 2031:

Cost = £190,110,000 **Funding Gap** = £0

These costs are assumed funded by the developer and service providers.

WASTE



Surrey

141,000 tonnes of household waste of waste brought to CRCs collected by

(2015/16)

Surrey

430,000 tonnes LAs (2015/16)

Surrey

55% recycled, reused or composted (2015/16)

CURRENT SITUATION

Surrey County Council, in its role as the Waste Disposal Authority, provides 15 community recycling centres (CRCs) around the county where residents can recycle and dispose of their household waste. These complement the household waste collection services arranged by the local authorities from the kerbside and local recycling banks. The 15 CRCs in Surrey are operated by SUEZ Surrey Ltd on behalf of Surrey County Council. The County Council introduced changes to the CRC service in 2016 in order to achieve savings and maintain this important service to residents. Four of the busier CRCs at Epsom, Guildford, Leatherhead and Shepperton also contain waste transfer stations (WTS). These accept commercial & industrial (C&I) waste which is chargeable and also function as a drop off point for some district collections of residual household waste and recyclable materials prior to bulking and onward transfer for management elsewhere.

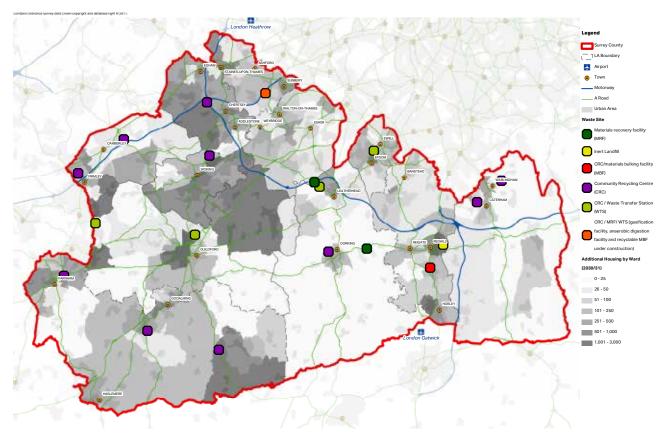
Some of the other facilities managing household waste in Surrey include Ash Vale WTS, Earlswood Materials Bulking Facility (MBF), Reigate Road Materials Recovery Facility (MRF) and Patteson Court Landfill near Redhill.

- Ash Vale WTS is partly operating as an overflow facility to relieve pressure on Guildford WTS for the receipt, storage and transfer of residual household waste sourced from district waste collections in Guildford and Surrey Heath.
- Earlswood MBF is used for the bulking, storage and onward transfer of district collections of residual household waste, recyclable materials and waste from Reigate & Banstead and Tandrdidge.

■ Patteson Court Landfill is the only landfill in Surrey which receives household waste. Patteson Court is required to be restored by 2030. The landfill received 277,359 tonnes of waste in 2015. In 2015/16, 60,600 tonnes was sent to landfill with 47,502 tonnes of household waste arising in Surrey was sent for disposal at Patteson Court. Reducing waste to landfill remains a priority although much of the waste deposited at Patteson Court is imported from outside the county.

This Study captures the main waste sites managing waste from households including WTSs, MRFs, MBFs and CRCs. These are the facilities that will bear the initial impact of housing growth

Waste capacity against housing growth



Source: Surrey County Council

HEADLINES

- Surrey remains reliant on facilities outside the county for the treatment of residual waste from households and the reprocessing of recyclable materials. The development of an Eco Park at Charlton Lane, Shepperton will partly address this issue by providing a more environmentally sustainable and cost effective means of treating the residual waste from households produced in the north of the county, as well as some waste from local businesses.
- In 2015, 277,359 tonnes of waste was landfilled at Patteson Court.
- The proportion of Surrey's household waste sent to landfill decreased slightly from 11% in 2013/14 to 6% in 2015/16.
- The Charlton Lane Eco Park, which is currently under construction, also includes a 40,000 tpa anaerobic digestion plant for food waste.
- During 2016, the County Council introduced changes to the CRCs within the County in order to meet savings targets. These changes included reduced hours at all sites and smaller sites closed one day per week, the introduction of an enhanced van permit scheme and stronger trade waste controls and the introduction of charges for non household waste comprising rubble, soil and plasterboard and tyres. In addition reuse shops were introduced and are now established at four sites.
- The revised Joint Municipal Waste Management Strategy (2015) includes a target to recycle and recover 70% of household waste by 2019/20.

Key Sites Receiving Municipal Waste:

- The 15 CRCs which received 141,000 tonnes of household waste in 2015/16
- Epsom WTS which can manage around 120,000 tonnes per annum (tpa) including some C&I waste
- Leatherhead WTS which can manage at least 30,000 tpa including some C&I waste
- Guildford WTS which can manage 180,000 tpa including some C&I waste

- including around 32,000 tpa of C&I waste
- Shepperton MRF which can manage 30,000 tpa including around 12.000 tpa of internal transfer from Shepperton CRC
- Grundons MRF, Leatherhead which can manage 40,000 tpa including some municipal waste
- Earlswood MBF which can manage 110,000 tpa of municipal waste
- Ash Vale WTS which manages 75,000 tpa of municipal, C&I and construction & demolition (C&D) waste
- Reigate Road MRF which can manage 45,000 tpa of municipal, C&I and C&D waste
- Patteson Court Landfill which had a remaining voidspace at the end of 2014 of 5.526,000 cubic metres.
- Agrivert, Trumps Farm which managed 12,863 tonnes of food waste in 2015/16.
- Colliers site at Trumps Farm which managed 3,767 tonnes of green waste in 2015/16.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

In addition to its role as the WDA, Surrey County Council is also the Waste Planning Authority (WPA). The WPA is required to produce a Waste Local Plan to ensure that sufficient land is available for the waste facilities needed to manage all types of waste produced in Surrey i.e. not just household waste.

In 2015 Surrey generated just under 571,000 tonnes of waste from households, an estimated 892,000 tonnes of Commercial and Industrial (C&I) waste and 1.972.000 of Construction, Demolition and Excavation (C,D&E) waste.

The Waste Needs Assessment which has been prepared as part of the draft Surrey Waste Local Plan identifies ashortfall

■ Shepperton WTS which can manage 120,000 tpa for sites for C,D & E Recycling, Energy Recovery, Composting and Non-inert landfill by 2033.

> The following projects are designed to enhance existing waste management infrastructure in the county:

- Work on the construction of an Eco Park at Charlton Lane. Shepperton commenced in Summer 2015 and is expected to be completed in Summer 2018. This will comprise a gasification facility for the treatment of around 44,710 tpa of primarily residual municipal waste from north Surrey; an anaerobic digestion facility for the treatment of up to 40,000 tpa of food waste mainly from homes around Surrey, and also some businesses; a 42,750 tpa capacity MBF for the receipt, storage, bulking and onward transfer of recyclable materials collected from homes and CRCs, and the retention of the existing 25,000 tpa capacity CRC. The Eco Park will replace the existing MRF and WTS at Charlton Lane.
- As part of the Slyfield Area Regeneration Project (SARP), SUEZ Surrey, working on behalf of the County Council, has plans to relocate the Slyfield WTS and to implement improvements to the Guildford CRC on Moorfield Road. The Guildford CRC may be relocated in the future to provide a larger more modern facility with more recycling containers and parking bays than can be accommodated on the current site.
- A review of the Surrey Waste Plan 2008 is currently being undertaken and a consultation on the draft plan is due to be carried out late 2017.

COSTS AND FUNDING

Based upon information within each local authority's IDP, the following costs and funding have been identified:

Cost = £1,820,000Funding Gap = £310,000*

Costs are set out for each local authority in Section 5 * (considering both secured and expected funding)

4.7 FLOOD PROTECTION

FLOODING



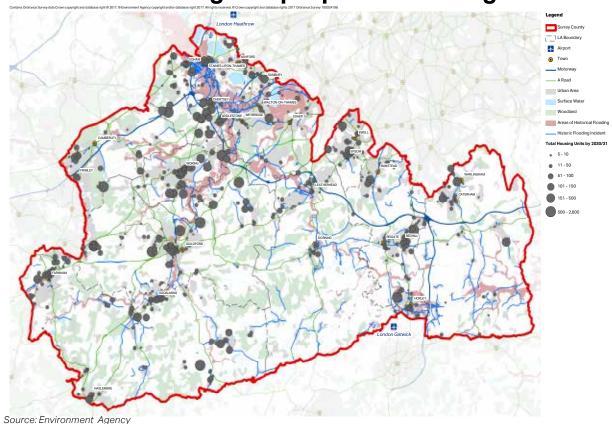
CURRENT SITUATION

There is a high risk of flooding in Surrey from fluvial sources as it has several large rivers running through its boundaries. The highest fluvial flood risk is to the north along the River Thames and the River Wey. It is anticipated that the highest population growth in the county will be in Guildford and the second highest is projected to be in Runnymede, where both local authorities are affected by these rivers. In recognition of this risk, SCC have updated their Local Flood Risk Management Strategy in 2017 to better reflect the changing landscape of flood risk management and to allow the Council and its partners to tackle flooding as effectively as possible.

Approximately £5.88million is to be invested in Flood and Surface Water Alleviation Schemes in Guildford and its surrounding area to help mitigate the risk of fluvial and surface water flooding. A further investment in the River Thames Scheme is also planned to mitigate flood risk along the Thames corridor within Surrey.

The River Mole was subject to extreme flooding in 2013/14 and consequently a long-term investment strategy has been developed. This links with the existing Lower Mole scheme which will protect 8000 properties in and around Molesey, and the Upper Mole Flood Alleviation Scheme which is currently in the final phase of construction, and will provide benefits to Crawley and Gatwick Airport.

Historical flooding and proposed housing sites



Future investment is also planned for the middle Mole – particularly around the towns of Leatherhead, Fetcham, Dorking and Reigate. Additionally, further studies are underway to better integrate river and surface water flooding around Horley and Smallfield.

It should be noted that in addition to the fluvial risk, Reigate and Redhill are highlighted in the Surrey Preliminary Flood Risk Assessment to be among the five highest risk areas for surface water flooding in the county. The planned Redhill Alleviation Scheme should help reduce this risk but as high population growth is projected in this area, further investment may be required.

Other areas which are highlighted to be at a high risk of surface water flooding include Woking and Byfleet and Epsom and Ewell.

A programme of projects and investment to reduce flood risk in communities near Heathrow, including: Datchet, Wraysbury, Egham, Staines, Chertsey, Shepperton, Weybridge, Sunbury, Molesey, Thames Ditton, Kingston and Teddington.

The River Thames Scheme

The River Thames between Datchet and Teddington has the largest area of developed floodplain in England without flood defences. Over 15,000 homes and businesses within the area are at risk from flooding. At the time of undertaking the study, the cost of the River Thames Scheme was estimated at £476million. The scheme consists of:

- Large scale engineering work to construct a new flood channel between 30 to 60 metres wide and 17 kilometres long, built in 3 sections:
- Section 1: Datchet to Hythe End flood channel
- Section 2: Egham Hythe to Chertsey flood channel
- Section 3: Laleham to Shepperton flood channel
- Improvements to 3 of the existing weirs on the River Thames
- Installation of property level protection for up to 1,200 homes to make them more resistant to flooding
- Improved flood incident response plans
- Creation of over 40 hectares of biodiversity action plan habitat

The scheme will affect Surrey county as a whole but with particular benefits for Elmbridge, Runnymede and Spelthorne.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

The following projects represent examples of key investment identified within each authority's IDP and from Surrey County Council and the Environment Agency. A full list of projects falling within the scope of this study is provided in the Project List which accompanies this report.

- River Thames Scheme
- Byfleet and Weybridge Flood Alleviation Scheme
- Caterham Bourne Flood Alleviation Scheme
- Dorking Flood Alleviation Scheme
- Godalming Flood Alleviation Scheme
- Guildford Flood Alleviation Scheme
- Leatherhead and Fetcham Flood Alleviation Scheme
- Redhill Flood Alleviation Scheme
- Smallfield Flood Alleviation Scheme
- Upper Mole Flood Alleviation Scheme
- Burstow Stream Catchment Study
- Reigate Town Initial Assessment
- Woking Initial Assessment

It should be noted that the above list of projects have been selected given their significance at the time of writing this report, and the status of these projects is likely to change.

COSTS AND FUNDING

The Environment Agency Medium Term Plan (MTP) and Flood Risk and Coastal Erosion Management programme (FCERM) have been used to compile a list of projects that fall within the scope of this study, and have associated project costs and funding breakdown. Flood risk infrastructure projects from the SCC Drainage Programme has also been taken forward for the funding gap analysis. It should be noted that the funding figures provided below, and the list of projects within the accompanying Project List have been taken at the time of undertaking this study. However, new projects may be added to both the EA and the SCC drainage programmes, and funding figures may be updated based on budget allowances and prioritisation.

Additionally, updates to District Local Plan documents and Infrastructure Development Plans have also been taken into account, particularly for those that have been updated since the previous issue of the Surrey Infrastructure Study (January 2016).

Based on the sources listed above, the following costs and funding gaps have been identified:

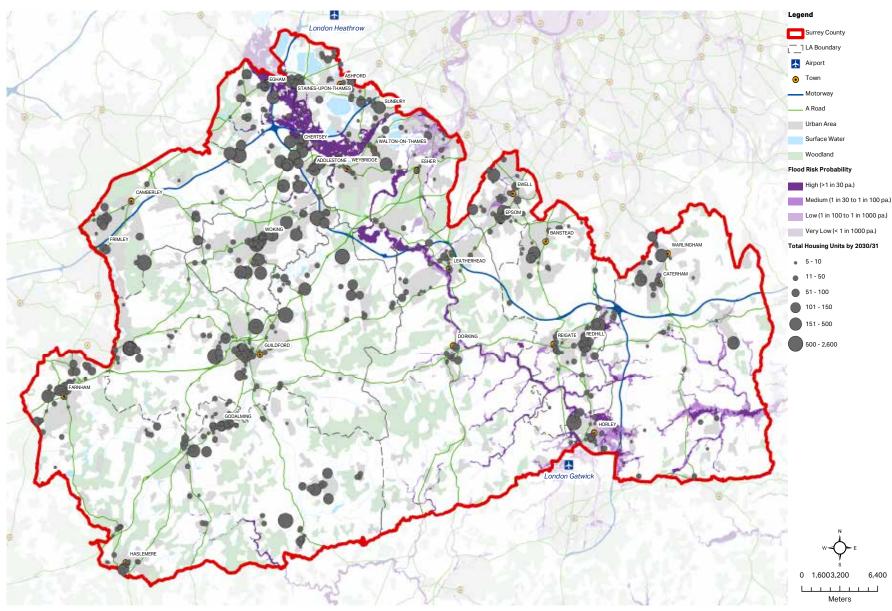
Cost = £549,250,000 Funding gap = £265,400,000*

Costs are set out for each Local Authority in Section 5

A number of projects within the SCC drainage programme do not have allocated costs at the time of undertaking this study. These have not been included as part of the funding gap analysis.

^{* (}considering both secured and expected funding)

Risk of flooding and proposed housing sites





EMERGENCY SERVICES





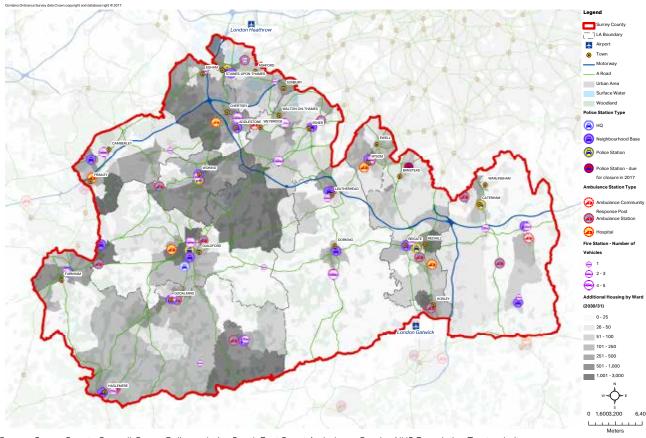


SURREY POLICE SERVICES

Surrey is policed by Surrey Police, with their headquarters located at Mount Browne just outside Guildford accommodating the Chief Officer team, support services (ICT, HR, Training, Finance, Communications, Professional Standards etc), dog training function, the force contact, control and dispatch centre, forensics and other operational functions that provide a force-wide service e.g. the Economic Crime Unit, central intelligence hub and Serious and Organised Crime Unit. Additional centralised resources such as the Major Crime Team and Collision Investigation Unit are accommodated at Woking police station. Local Policing is delivered through 3 geographic Basic Command Units (BCUs) located at; Guilford PS, Staines PS and Reigate PS. The vast majority of response, investigative and intelligence resources for each BCU work out of these main divisional hubs.

Currently neither the Mount Browne nor Woking sites are considered fit for modern needs with old, inefficient buildings and severe parking issues. Moving forward, a replacement with a single modern HQ and potential co-location with other Blue-Light services could be a viable option.

Emergency services facilities against housing growth



Source: Surrey County Council, Surrey Police website, South East Coast Ambulance Service NHS Foundation Trust website.

Table 4.17

Emergency service capacity

	POLICE SERVICES			FIRE SERVICES		AMBULANCE SERVICES		
	NEIGHBOURHOOD BASE	POLICE STATION	OTHER POLICE SERVICES	FIRE STATIONS	FIRE STATION VEHICLES	COMMUNITY RESPONSE POST	AMBULANCE STATION	HOSPITAL
Elmbridge	1	0	4	3	8	1	2	0
Epsom & Ewell	1	0	0	1	2	0	1	1
Guildford	2	2**	2	2	5	0	2	1
Mole Valley	2	0	0	2	6	0	2	0
Reigate & Banstead	1	3	3	3	6	0	2	1
Runnymede	1	0	2	2	6	1	0	1
Spelthorne	1	1	2	2	2	0	1	0
Surrey Heath	1	1	1	2	5	0	0	1
Tandridge	2	1	1	3	6	1	2	0
Waverley	4	0	0	5	11	0	3	0
Woking	1	1	3	1	3	0	2	0
SURREY	17	9	18	26	60	2	17	5

Source: AECOM desk-based research with Surrey Police Input, **Surrey Police HQ in Guildford

SURREY FIRE SERVICES

Surrey Fire and Rescue Service is a statutory service provided by Surrey County Council. There are currently 25 (permanent and temporary) stations across the county. Similar to the police services, many fire facilities are becoming old and modernisation would be beneficial. Modernisation of some facilities such as Waverley Fire Station are included in Surrey's Replacement of Fire Stations Programme. Guildford has recently opened a new fire station adjacent to the original site and work is shortly commencing on a new fire station in Spelthorne.

AMBULANCE SERVICES

Ambulance services are run by South East Coast Ambulance Service NHS Foundation Trust. This is one of twelve ambulance trusts working across England. Within Surrey there are 24 Ambulance stations, community response posts and hospitals where ambulances are located.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

The Emergency Service projects identified cover new and expanded facilities for each service type in relation to growth requirements across Surrey. Projects include:

- Neighbourhood Policing Centre, Guildford £100,000
- Policing on new settlement at Dunsford Aerodrome £250.000
- Ambulance Community Response Post, Guildford
- Replacement of Epsom Fire Station
- Redevelopment of Ambulance station in Epsom and Ewell

COSTS AND FUNDING

Based upon information contained within each local authority's IDP the following costs and funding have been recorded:

Cost = £36,730,000 Funding Gap = £1,530,000

Costs are set out for each local authority area in Section $5\,$

* (considering both secured and expected funding)



DEVELOPMENT SUITABILITY ANALYSIS

Each local authority within Surrey has been analysed in Each area plan should be reviewed in conjunction with the detail to generate the summary pages which precede this page. The development suitability section which follows allows us to present by area the following:

- Major development sites and forecast demographics
- Key infrastructure capacity issues across each infrastructure topic explored
- Topic specific summary of all identified infrastructure projects, associated cost and estimated funding
- Spatial mapping of the developments against identified transport and social infrastructure capacity issues.
- Mapping of key infrastructure projects

It is important to note that the projects and subsequent costings presented on the following pages are populated from a number of sources and some variation exists across the different authorities based on the status of their own infrastructure planning work.

Tables 5.1 and 5.2 on the facing page summarise the main sources used to populate the project list and the current status of infrastructure delivery plans for each authority.

universal legend below.

Universal Legend

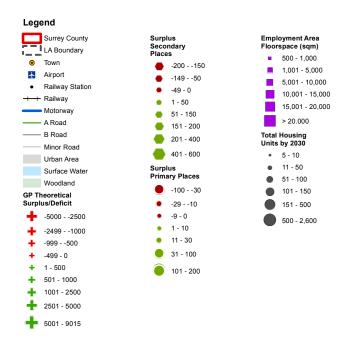


Table 5.1

Project List Source

		Key Source: LA IDP Project Schedule	Key Source: Surrey County Council	Key Source: AECOM Benchmark Modelling	Additional Sources
	Motorways	Yes	Yes		Highways England Route Strategies
Transport	Highways	Yes	Yes		Local Transport Strategy Forward
	Public Transport	Yes	Yes		Programmes Surrey Future Congestion programme
	Rail	Yes	Yes		Surrey Rail Strategy Wessex Route Study
	Other Strategic	Yes	Yes		Wessex Noute Study
	Primary Education	Yes	Yes		
Education	Secondary Education	Yes	Yes		
Ludcation	AE / FE / HE	Yes		Yes	FE and HE Providers
	Early Years	Yes	Yes	Yes	
	Primary Healthcare	Yes		Yes	
Health and Social	Acute Healthcare	Yes		Yes	
Care	Mental Healthcare	Yes		Yes	
	Adult Social Services	Yes	Yes	Yes	
	Libraries	Yes	Yes	Yes	
	Youth Services	Yes		Yes	
Community and Recreation	Community Facilities	Yes		Yes	
	Sports Facilities	Yes		Yes	
	Open Space & Recreation	Yes		Yes	
Green Infrastructu	re	Yes	Yes	Yes	Surrey Nature Partnership
	Energy (Electricity & Gas)	Yes		Yes	Service Provider Investment Plans
	Water and Sewage	Yes		Yes	Service Provider Investment Plans
Utilities & Waste	Waste	Yes	Yes		
	Broadband	Yes	Yes	Yes	Broadband Provider Plans
Flood Defences		Yes	Yes		Environment Agency
Emergency Services		Yes	Yes		

Table 5.2

Local Authority Project Schedule Source Documents

Authority	LA IDP Schedule sourced from
Elmbridge	Infrastructure Delivery Plan (April 2012)
Epsom & Ewell	Infrastructure Delivery Plan (April 2013)
Guildford	Guildford borough Proposed Submission Local Plan: strategy and sites (June 2017) - see Appendix C
Mole Valley	Infrastructure Delivery Plan (February 2016)
Reigate & Banstead	Infrastructure Delivery Plan Addendum (March 2015)
Runnymede	Infrastructure Delivery Plan (February 2013) + Infrastructure Needs Assessment (April 2017)
Spelthorne	Infrastructure Delivery Plan (February 2014)
Surrey Heath	Infrastructure Delivery Plan (February 2013) + Infrastructure Delivery Supplementary Planning Document (July 2014)
Tandridge	Infrastructure Delivery Schedule Update (November 2013) + Infrastructure Baseline Study (November 2015)
Waverley	Infrastructure Delivery Plan (December 2016)
Woking	Approach to Monitoring and Delivery - Infrastructure Delivery (February 2012)

Technical Note on Local Authority figures on following pages:

As stated in Section 3 of the report all the population figures presented on the following pages represent the outputs of the SCC PopGroup Model Population forecasts, based upon housing trajectories presented within this report, which have been produced to inform this study. Refer to Study Parameters in Section 1 of this report for a full explanation of the inputs, assumptions and exclusions related to the infrastructure costs and funding presented on the following pages.

5.1 ELMBRIDGE

TRANSPORT

4,535 new homes (+8%)

4,437

new people (+3%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

- A3 between Esher and M25 Junction 10 traffic congestion
- Current trends indicate that the A3 from Hook to Guildford is likely to be more highly congested.
- New Secondary Free School required in north of the Borough.
- Rebuilding of Three Rivers Academy (Formerly Rydens Enterprise School).
- Weylands Treatment Works in Hersham allocated as potential site for expansion of waste processing.
- Development site mitigation expected to be sufficient to limit changes to flood risk

Total Infrastructure Costs: £205,930,000

Total Secured Funding: £3,360,000

Total Expected Funding: £80,400,000

Total Funding Gap: £122,160,000

Funding as % of Costs: 41%









COMMUNITY



GREEN INFRASTRUCTURE

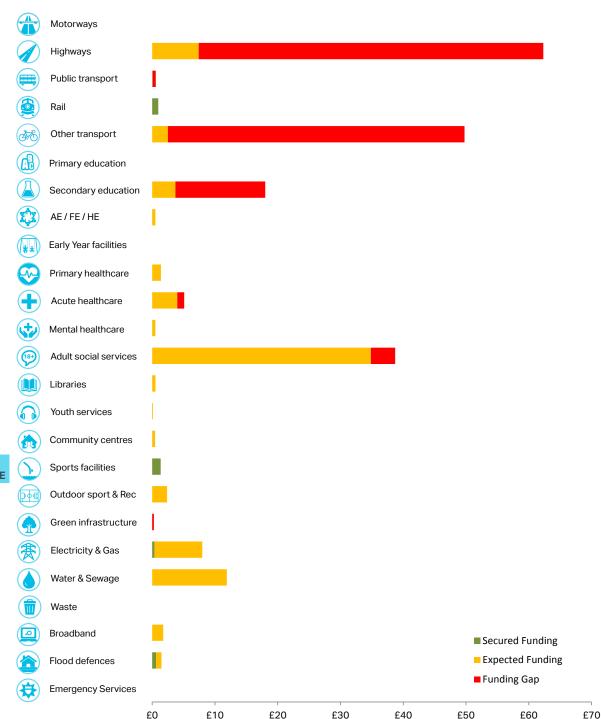


UTILITIES



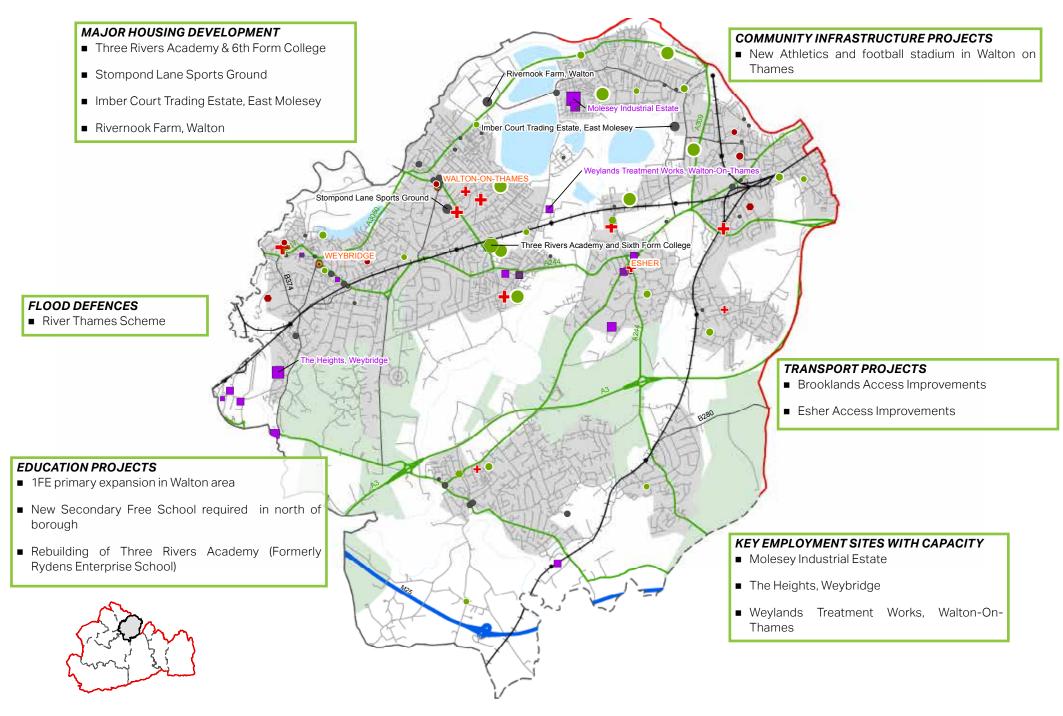
FLOOD DEFENCES





SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

Millions



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN ELMBRIDGE

5.2 EPSOM AND EWELL

6,270 13,242

new people (+17%)

to 2031

(+20%)

new homes

INFRASTRUCTURE HIGHLIGHTS

- Infrastructure investment required in urban centres (Epsom Town centre and Ewell Village)
- Borough wide primary education investment to support growth
- Existing rail network will require enhancements to support development growth
- Upgrades to existing water and wastewater networks may be required to support new development
- Support growth requirements and facilitate Crossrail
 2

Total Infrastructure Costs: £240,010,000

Total Secured Funding: £20,240,000

Total Expected Funding: £92,170,000

Total Funding Gap: £91,610,000

Funding as % of Costs: 55%









HEALTH



COMMUNITY



GREEN INFRASTRUCTURE

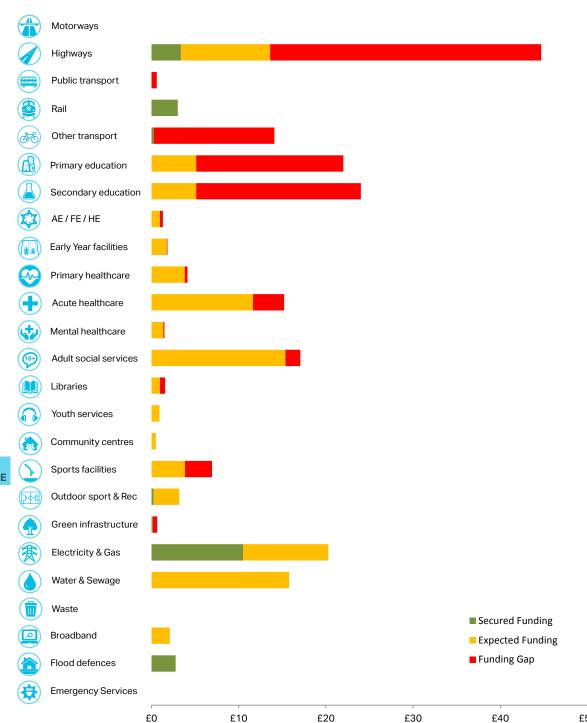


UTILITIES



FLOOD DEFENCES





SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

Millions

MAJOR HOUSING DEVELOPMENT

- The Utilities Site
- Land at Epsom & Ewell High School
- Remaining West Park Sites
- Depot Road & Upper High Street Site

KEY EMPLOYMENT SITES WITH CAPACITY ■ Longmead and Nonsuch Employment Sites

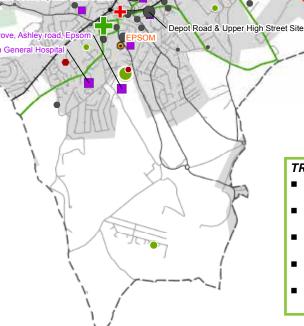
- Woodcote Grove, Ashley road, Epsom
- Epsom General Hospital
- Utilities Site, East Street, Epsom Town Centre

EDUCATION PROJECTS

- School re-organisation in Ewell
- Expansion of Stamford Green Primary School
- FE Education Provision Remodelling to provide improved facilities for SEN - Nescot College

COMMUNITY INFRASTRUCTURE PROJECTS

- Refurbishment of Alexander Recreation Ground and Court Recreation Ground
- Playground upgates and improvements to Manor Estate, Shadbolt Park, Chessington Road, Clarenden Park, Gatley Avene and Iris Road playgrounds



and at Epsom & Ewell High School

TRANSPORT PROJECTS

- Kiln Lane Link
- Various Epsom Town Centre transport schemes
- A240 Corridor improvements
- New pedestrian/cycle bridge Station Avenue
- Platform extensions Ewell East, Ewell West and Stoneleigh



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN EPSOM & EWELL local authority are not included in local costs and funding on facing page.

Remaining West Park Sites

The Utilities Sit

Projects Note - Any Strategic Projects Listed in Table 5.3 and affecting this

5.3 GUILDFORD



TRANSPORT

9,810 new homes

20,766 new people

to 2031

(+17%)

INFRASTRUCTURE HIGHLIGHTS

■ A3 road deficient in quality and capacity

(+14%)

- Guildford town centre improvements
- Vehicular demand on Local Road Network approaches or exceeds capacity of some junctions during peak periods
- Traffic congestion affects bus route efficiency
- Scope to improve pedestrian & cyclist provision
- Capacity issues on current rail infrastructure
- Need for new primary and secondary school places to secure urban extensions

Total Infrastructure Costs: £1,008,340,000

Total Secured Funding: £98,340,000

Total Expected Funding: £701,120,000

Total Funding Gap: £208,880,000

Funding as % of Costs: 79%





HEALTH



COMMUNITY



GREEN INFRASTRUCTURE

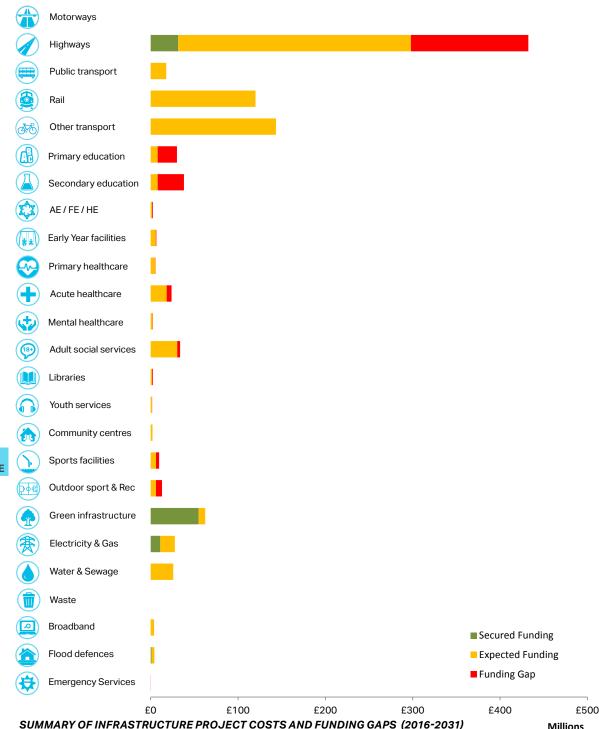


UTILITIES

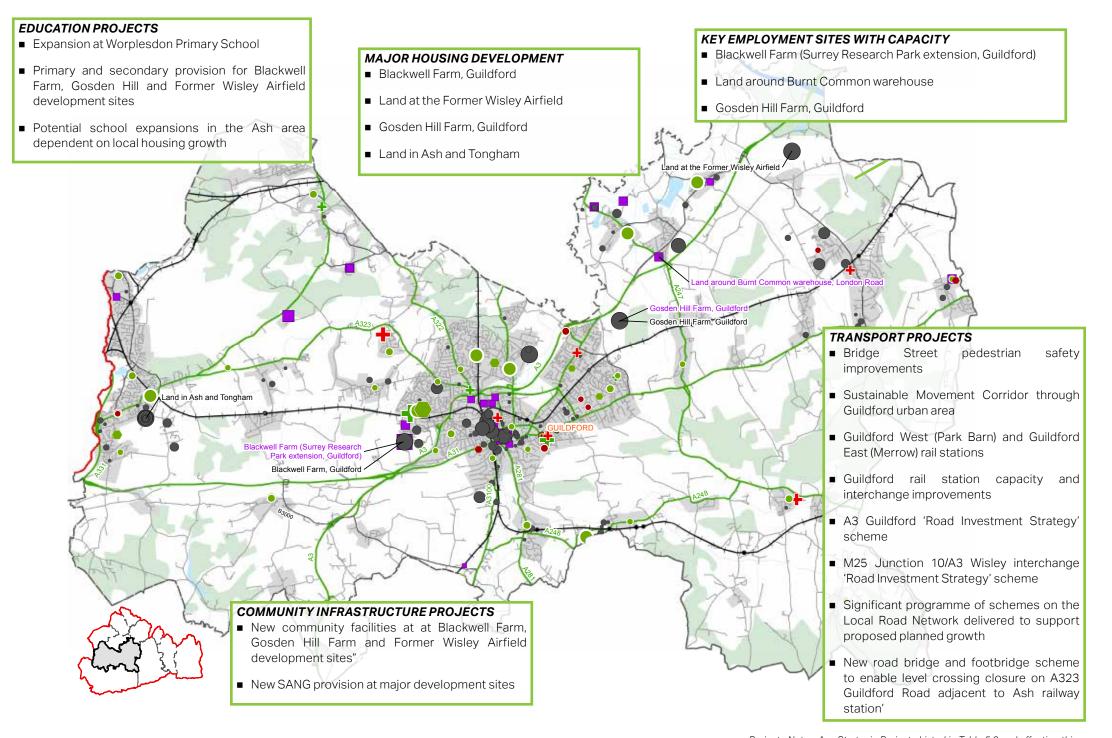


FLOOD **DEFENCES**





Millions



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN GUILDFORD

5.4 MOLE VALLEY TRANSPORT



Motorways

Waste

Broadband

Flood defences

Emergency Services

£0

£5

SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

£10

£15

£20

2,820 new homes (+7%)

1,612 new people

(+2%)

to 2031

EDUCATION



FLOOD

DEFENCES

INFRASTRUCTURE HIGHLIGHTS

- Very high car ownership among Mole Valley Residents
- Significant increases predicted in AM Peak traffic levels on Mole Valley Local Road Network - from Mole Valley development but also neighbouring areas
- A need for an improvement for bus priority schemes and measures to improve journey reliability
- Deepdene Station improvements identified
- Cycling levels in Mole Valley are high with associated investment requirements
- Need for flood improvements along the river Mole

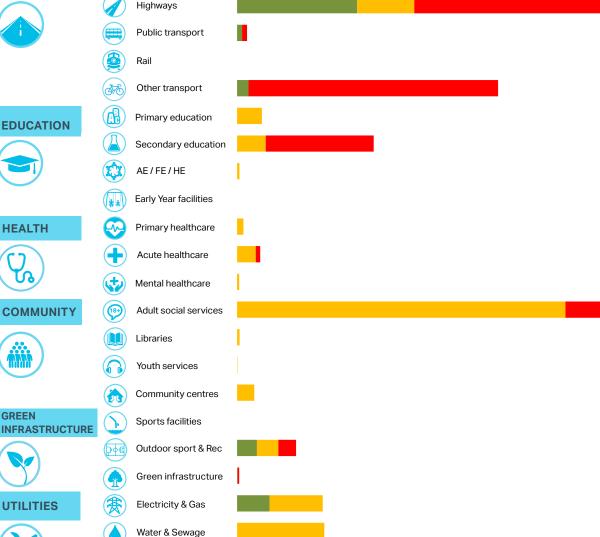


Total Secured Funding: £21,850,000

Total Expected Funding: £55,680,000

Total Funding Gap: £62,550,000

Funding as % of Costs: 55%



■ Secured Funding

Expected Funding

£30

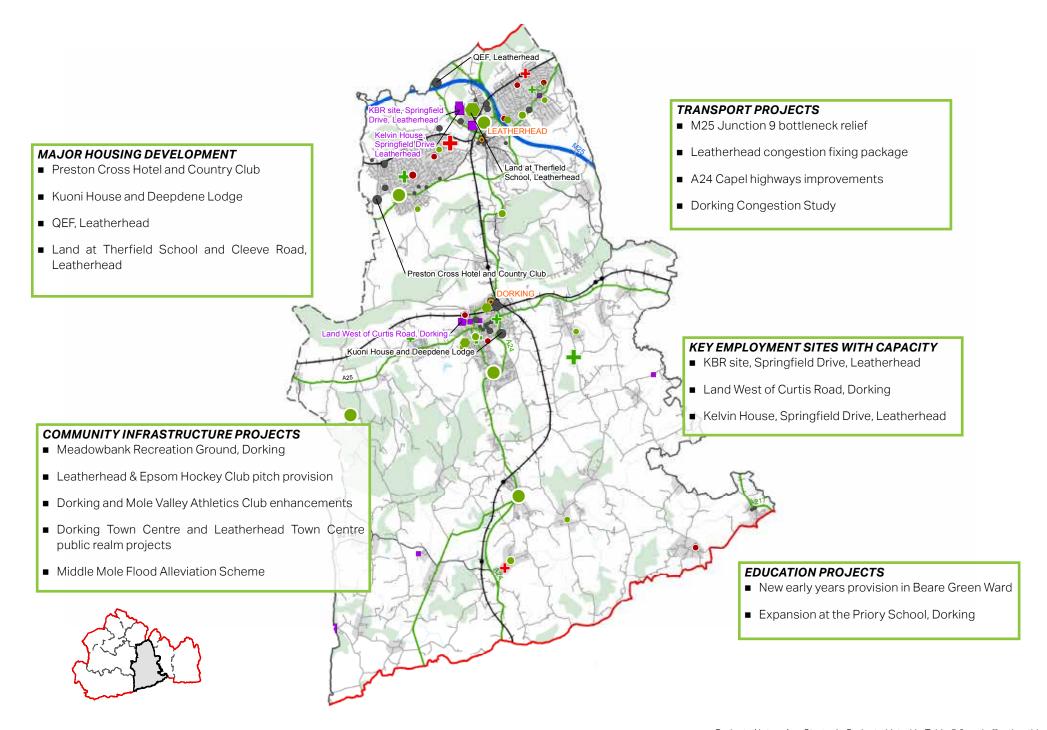
£35

Millions

■ Funding Gap

£25





SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN MOLE VALLEY

5.5 REIGATE AND BANSTEAD

7,537 new homes

10,076

new people (+7%)

to 2031

(+13%)

INFRASTRUCTURE HIGHLIGHTS

- Capacity issues on London to Brighton Rail and North Downs Line routes.
- Congestion in the borough is experienced in Redhill, Horley, Reigate and the links and junctions along the A217. A key issue in the borough is that of the resilience and reliability of the road network due to the congestion experienced.
- Reigate and Redhill are among the five highest risk areas for surface water flooding in England.
- Reception year and total primary school places limited across authority
- Surplus secondary school places will not continue with required new facilities and expansion to existing
- Shortfall in outdoor sports and children's playspace
- M25 junction 8 and the A23 Hooley Interchange experience congestion particularly during peak periods

Total Infrastructure Costs: £304,850,000

Total Secured Funding: £63,540,000

Total Expected Funding: £145,120,000

Total Funding Gap: £96,180,000

Funding as % of Costs: 68%





HEALTH



COMMUNITY



GREEN INFRASTRUCTURE

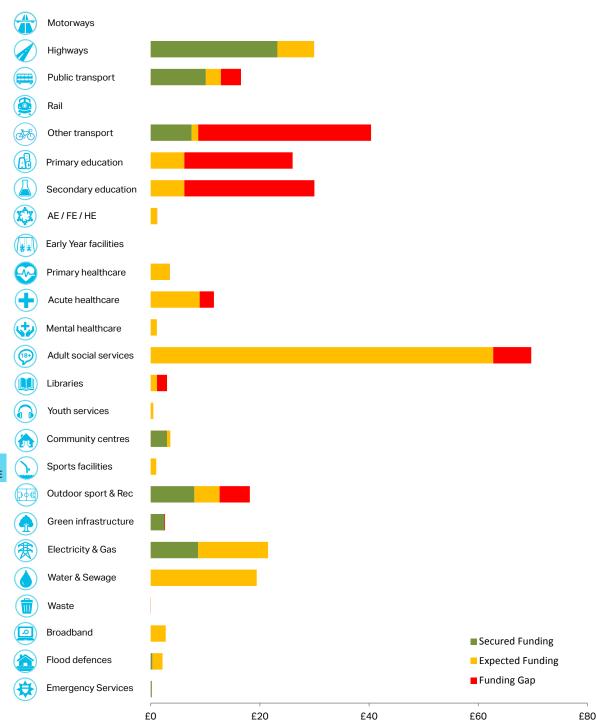


UTILITIES



FLOOD DEFENCES





SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

Millions

MAJOR HOUSING DEVELOPMENT

- Horley North West Sector
- Holmethorpe Quarry
- Former De Burgh School, Preston
- Redhill Town Centre

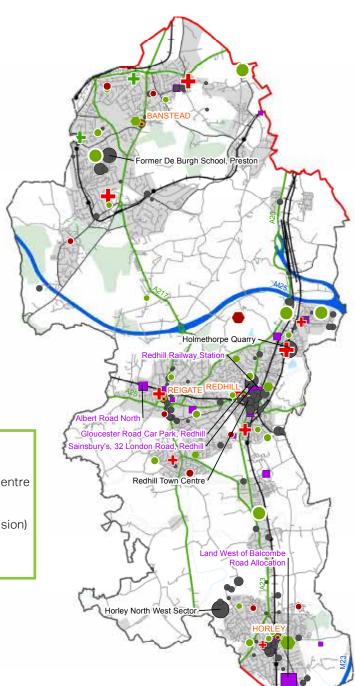
EDUCATION PROJECTS

- New early years education provision in Horley
- New 2FE primary school in Horley North West to meet demand from housing growth
- 6 FE new secondary school in Reigate/Redhill area and expanded secondary schools in Redhill and Horley

COMMUNITY INFRASTRUCTURE PROJECTS

- Mertsham Regeneration (Community Hub)
- Banstead Leisure Centre rebuild and Community Centre improvements
- Preston Regeneration (leisure centre and community provision)
- New Horley library and refurbishment of Redhill library





TRANSPORT PROJECTS

- New access routes and junction improvements associated with Horley North West Sector
- Improvements needed at A23/M23 Hooley interchange to alleviate congestion and improve connections to Gatwick
- Package of works to the A217 corridor
- Improvements needed at M25 Junction 8 / Reigate Hill to alleviate congestion
- Greater Redhill Sustainable Transport Package 2

KEY EMPLOYMENT SITES WITH CAPACITY

- Redhill Railway Station
- Sainsbury's, 32 London Road, Redhill
- Albert Road North
- Gloucester Road Car Park, Redhill
- Land West of Balcombe Road Allocation

5.6 RUNNYMEDE

TRANSPOR



5,834 new homes (+17%) 10,688

new people (+12%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

- Local growth expected to put additional increases on the Strategic Road Network through Runnymede.
- Local Road Network expected to experience increased peak time congestion
- Existing rail and bus service efficiencies likely to be impacted on by Runnymede growth proposals
- Existing primary healthcare facility capacity issues in Egham, Ottershaw and Addlestone
- Significant Flood risk infrastructure investment required across authority.

Total Infrastructure Costs: £181,300,000

Total Secured Funding: £24,550,000

Total Expected Funding: £99,950,000

Total Funding Gap: £56,810,000

Funding as % of Costs: 69%









COMMUNITY



GREEN INFRASTRUCTURE

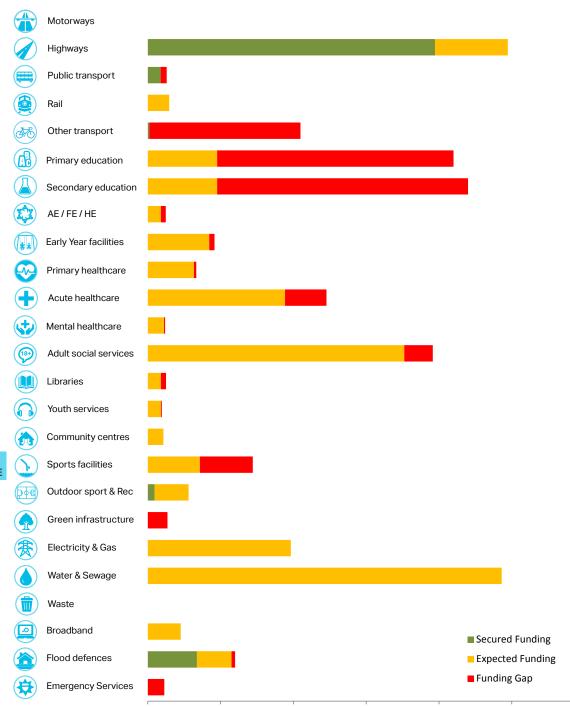


UTILITIES



FLOOD DEFENCES





£5

SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

£10

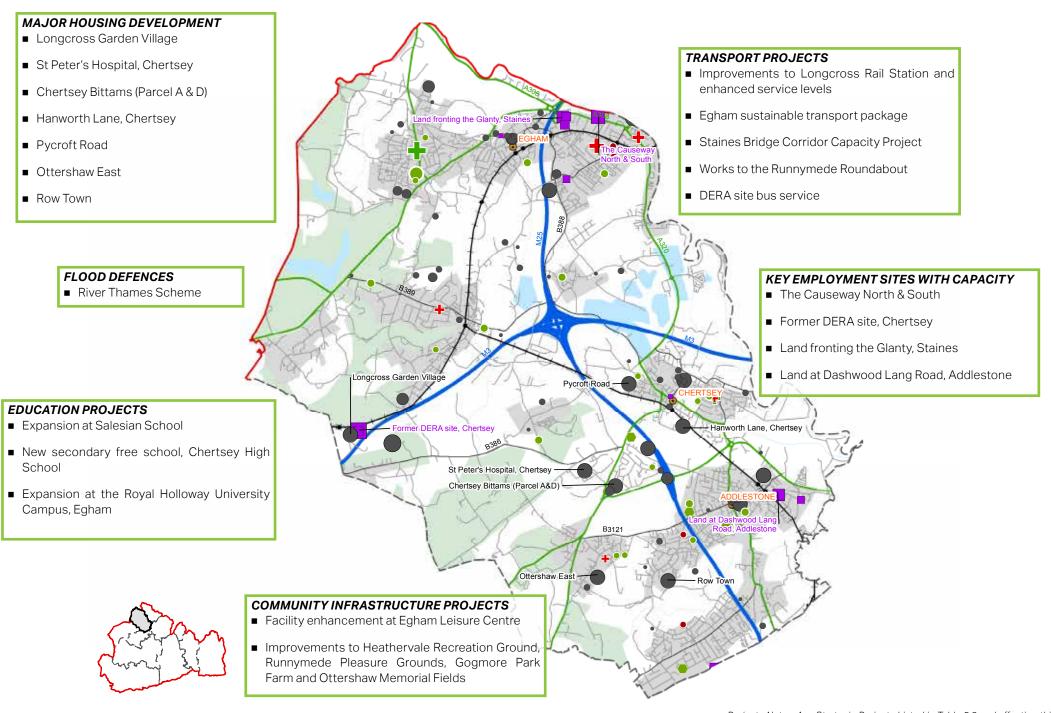
£15

£20

£25

£30

Millions



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN RUNNYMEDE

5.7 SPELTHORNE TRANSPORT





3,916 new homes (+9%)

3,796 new people (+4%)

to 2031

EDUCATION



INFRASTRUCTURE HIGHLIGHTS

- Heathrow Airport is located immediately to the north of the Borough with significant influence on the area and a current proposal for future expansion with a third runway
- Local growth expected to put additional increases on the Strategic Road Network through Spelthorne.
- Proximity to the River Thames means significant area is at risk from flooding, with Staines and Shepperton being the worst affected areas.
- Capacity pressures on existing early year facilities, primary schools and secondary schools.
- Capacity pressures on existing primary healthcare facilities.

Total Infrastructure Costs: £123,530,000

Total Secured Funding: £5,300,000

Total Expected Funding: £68,980,000

Total Funding Gap: £49,250,000

Funding as % of Costs: 60%









GREEN INFRASTRUCTURE

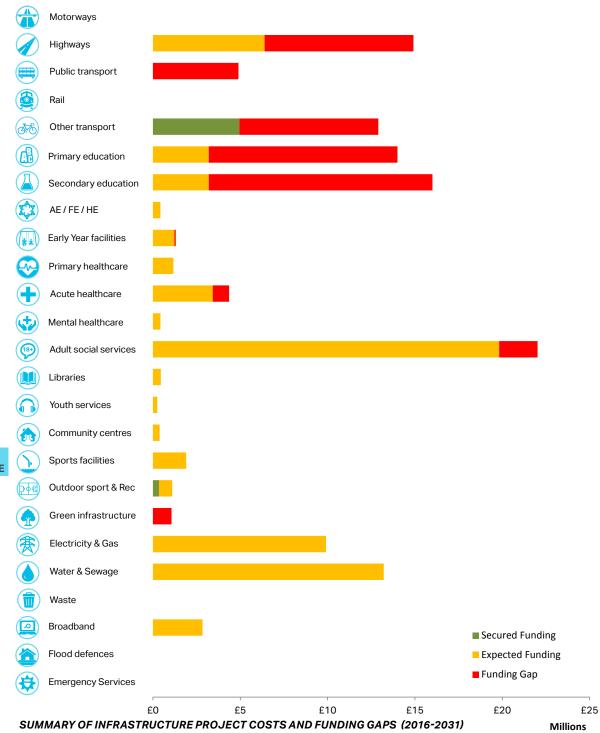


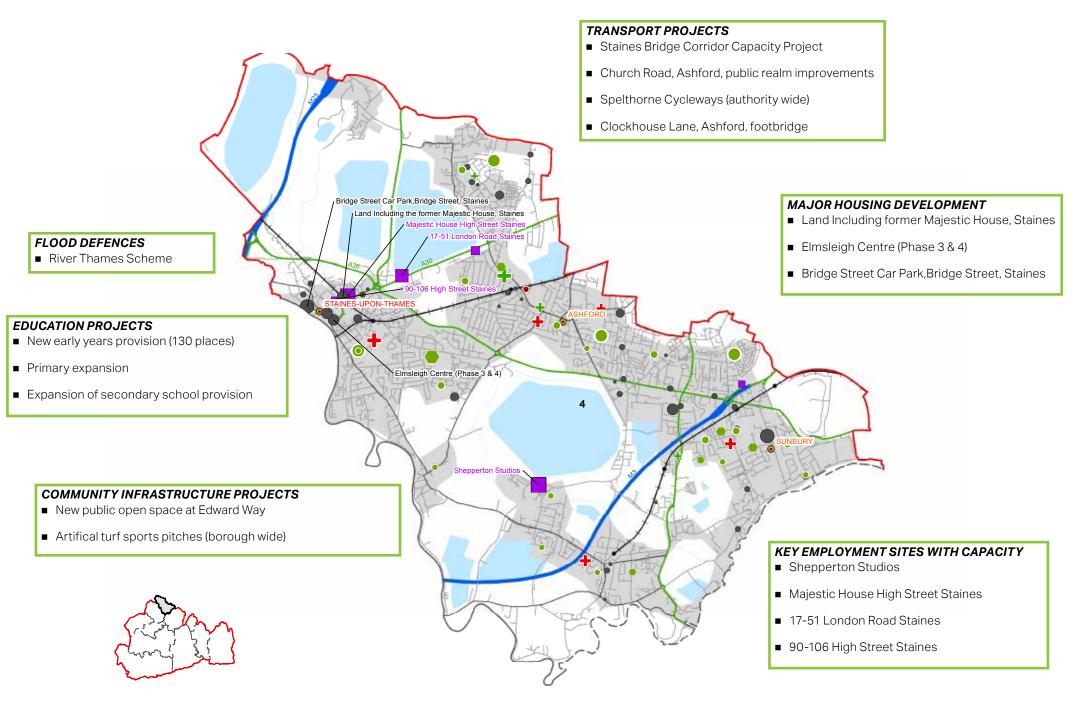
UTILITIES



FLOOD **DEFENCES**







SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN SPELTHORNE

5.8 SURREY HEATH

4,216

6,876

new homes **(+12%)**

new people (+8%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

- Possible capacity issues at the M3 junction 3 approaches (both north and south) with investment required to alleviate pressure.
- Area around Deepcut barracks will see increased traffic flows with requirement for highway improvements.
- Capacity issues within existing primary healthcare facilities across the authority.
- Deficit in existing library provision across the authority
- Notable increase in indoor sport facilities (particularly swimming pools) required to meet standards.

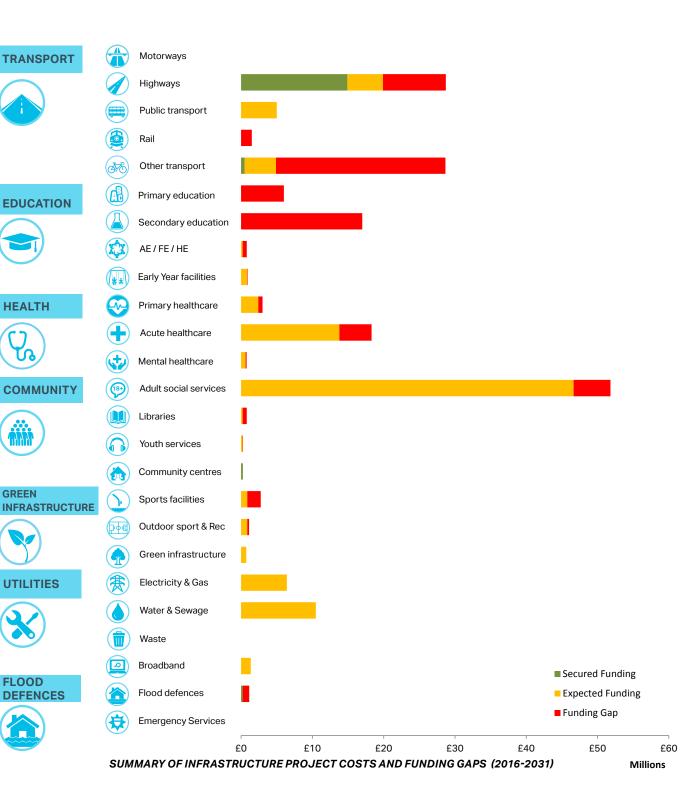
Total Infrastructure Costs: £187,800,000

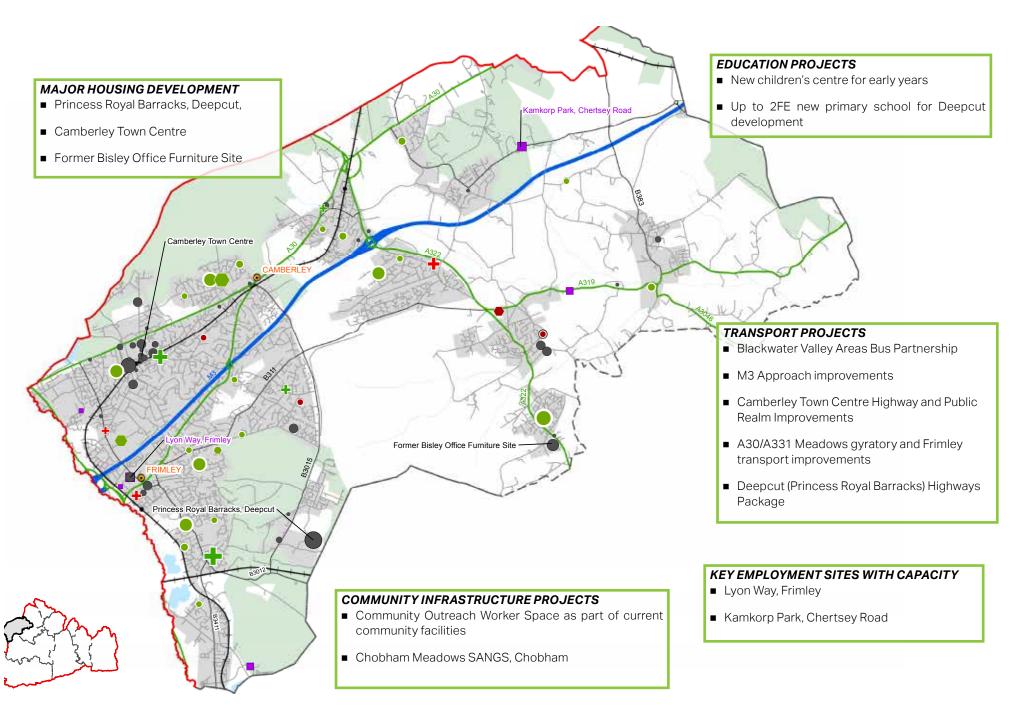
Total Secured Funding: £15,860,000

Total Expected Funding: £100,050,000

Total Funding Gap: £71,890,000

Funding as % of Costs: 62%





SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN SURREY HEATH

5.9 TANDRIDGE

TRANSPORT



7,050 new homes (+20%)

12,267

new people (refer to section 3.1) (+14%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

- Relatively low levels of periodic traffic problems on Local Road Network (morning and evening during school term time).
- Oxted health centre identified need for a satellite facility to relieve pressure on existing services.
- First Community Health and Care run a range of community services in the authority (inc. Caterham Dene Hospital).
- A number of indoor sport facilities required in urban areas of Caterham, Oxted and Whyteleafe to meet the demands of population.
- Increase need for elderly care accommodation
- The proposed new garden village will have significant infrastructure implications. These will need to be assessed once the location has been decided.

Total Infrastructure Costs: £203,680,000

Total Secured Funding: £4,420,000

Total Expected Funding: £125,470,000

Total Funding Gap: £73,790,000

Funding as % of Costs: 64%







COMMUNITY



GREEN INFRASTRUCTURE

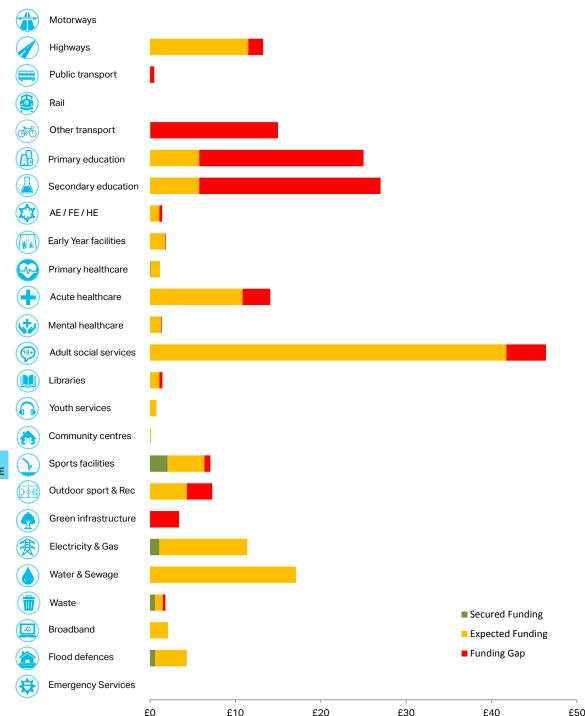


UTILITIES



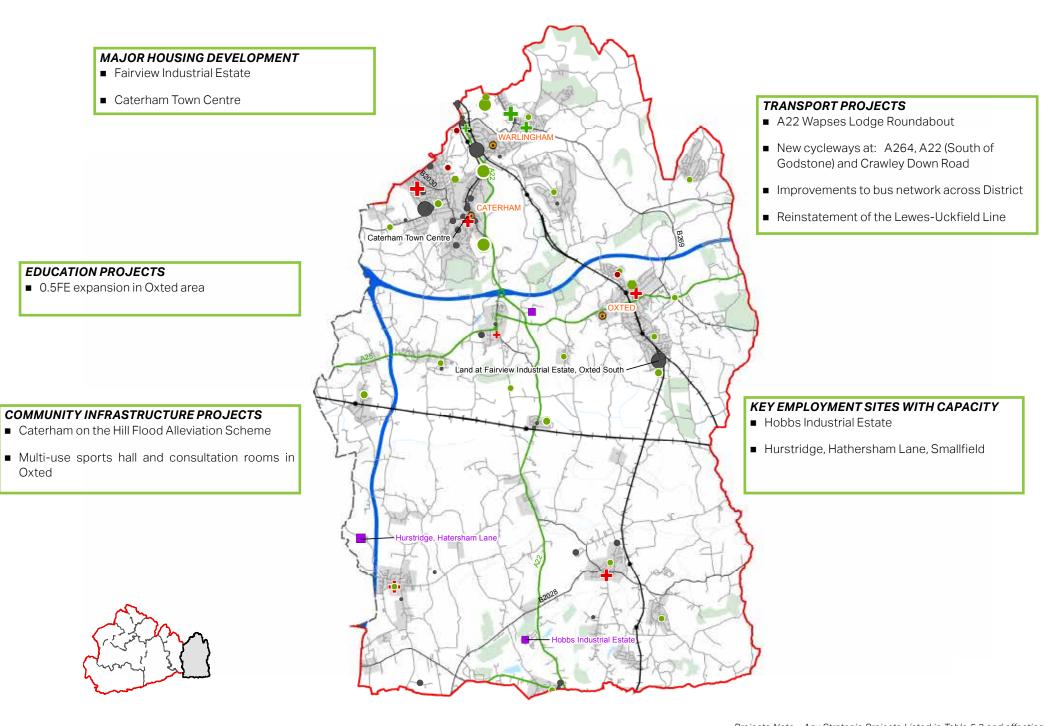
FLOOD DEFENCES





SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

Millions



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN TANDRIDGE

Projects Note - Any Strategic Projects Listed in Table 5.3 and affecting this local authority are not included in local costs and funding on facing page.

5.10 WAVERLEY

TRANSPORT



8,932 new homes (+17%)

15,974

new people (+13%)

to 2031

EDUCATION



INFRASTRUCTURE HIGHLIGHTS

- A325 and A31 corridors in and around Farnham Town Centre sensitive to additional traffic from major sites.
- Majority of communities have indicated a requirement for improved bus services
- A large number of potential cycle schemes have been identified for the authority.
- A need for increased capacity at existing waste management sites to support growth

Total Infrastructure Costs: £358,230,000





COMMUNITY





GREEN INFRASTRUCTURE



UTILITIES

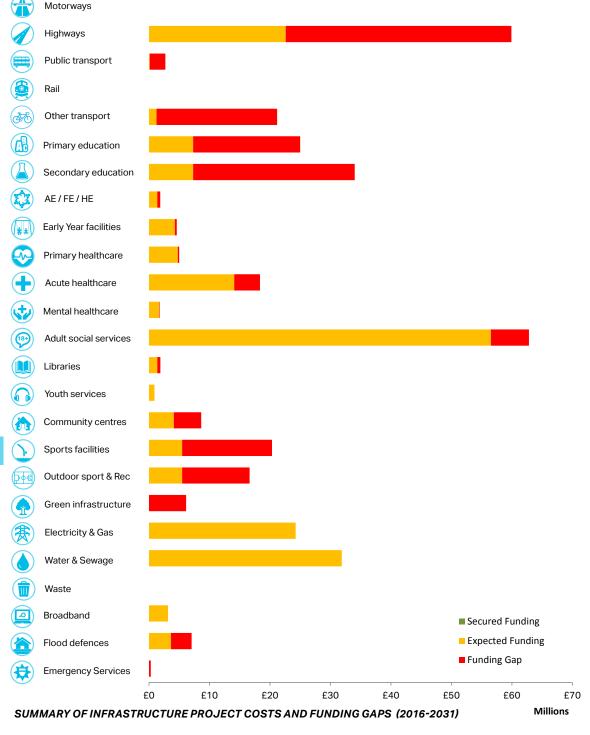


Total Expected Funding: £201,450,000



FLOOD DEFENCES





Total Secured Funding: £0

Total Funding Gap: £156,780,000

Funding as % of Costs: 56%

MAJOR HOUSING DEVELOPMENT EDUCATION PROJECTS ■ Land At East Street, Farnham ■ Relocate and enlarge Crainleigh Primary School ■ Dunsfold Aerodrome ■ Potential expansion at Glebelands secondary school, dependent on housing growth ■ Coxbridge Farm, Alton Road ■ New 2FE primary school and three early year classrooms - Dunsfold ■ West Cranleigh Nurseries Aerodrome ■ Land opposite Milford Golf Club Land At East TRANSPORT PROJECTS ■ A3100 Flambard Way Corridor Improvements ridge Farm, Alton Road A281 Access to Dunsfold Aerodrome ■ A31 Corridor improvement scheme ■ A281 Corridor improvement scheme ■ B2130 Corridor improvement scheme to serve Cranleigh Land opposite Milford Golf Club KEY EMPLOYMENT SITES WITH CAPACITY Old Ewhurst Brickworks ■ Land off Water Lane ■ Dunsfold Aerodrome d Ewhurst Brickworks West Cranleigh Nurseries **Dunsfold Aerodrome COMMUNITY INFRASTRUCTURE PROJECTS** New Community Centre at Haslemere ■ Improvements to Herons Leisure Centre ■ New MUGA provision at Snoxalls Field ■ Extension of play area at Crown Pits

SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN WAVERLEY

Projects Note - Any Strategic Projects Listed in Table 5.3 and affecting this local authority are not included in local costs and funding on facing page.

5.11 WOKING

4,436

6,389

new people (+6%)

to 2031

(+11%)

INFRASTRUCTURE HIGHLIGHTS

- Mainline from Woking at capacity during peak times limiting development capacity
- A number of areas suffer from lower public accessibility to GPs, town centres and secondary schools when compared to the rest of the urban area.
- Notable pressures on secondary school places at present and during plan period.
- Investment in college buildings required to bring up to standard and maintain usability.
- Notable flood Risk from River Wey and surface water sources with lack of formal flood defences in authority.

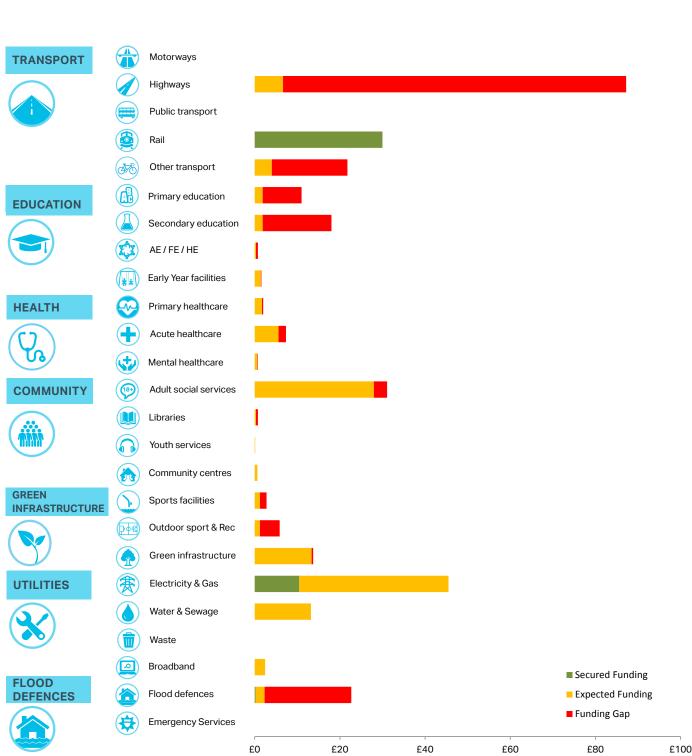
Total Infrastructure Costs: £319,030,000

Total Secured Funding: £40,660,000

Total Expected Funding: £121,690,000

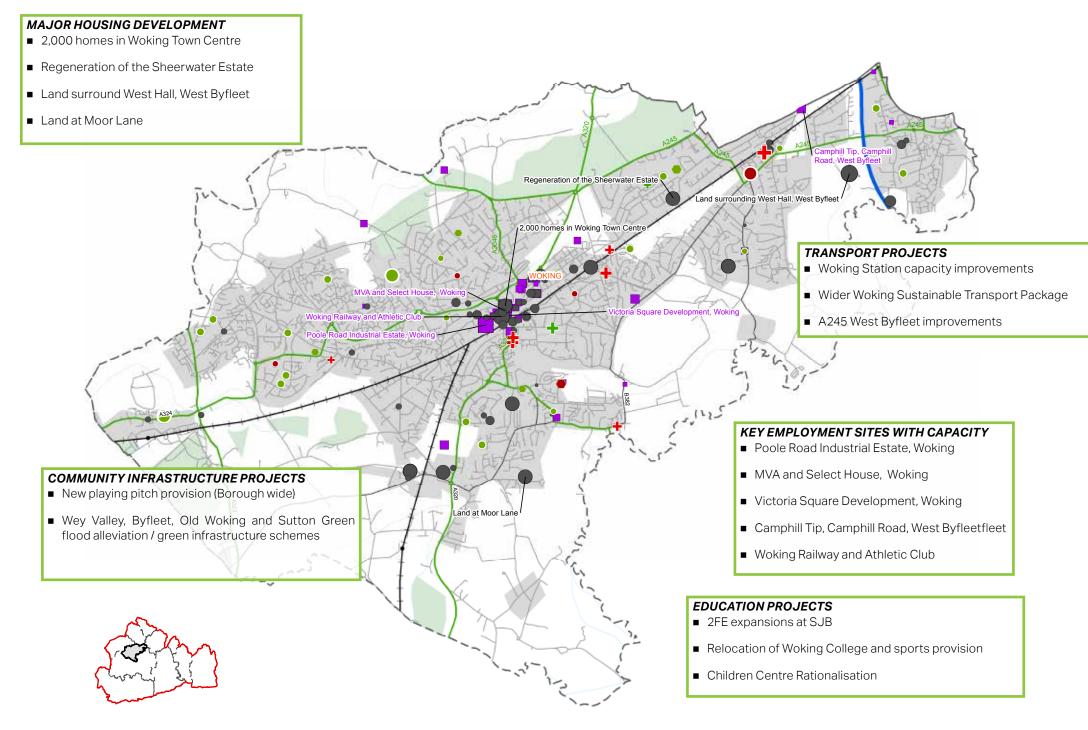
Total Funding Gap: £156,680,000

Funding as % of Costs: 51%



SUMMARY OF INFRASTRUCTURE PROJECT COSTS AND FUNDING GAPS (2016-2031)

Millions



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN WOKING

Projects Note - Any Strategic Projects Listed in Table 5.3 and affecting this local authority are not included in local costs and funding on facing page.

5.12 PROJECTS ADDRESSING MULTIPLE LOCAL **AUTHORITIES**

Table 5.3

Strategic Infrastructure Projects

STRATEGIC PROJECTS

A number of important infrastructure projects have been identified as necessary to support housing and economic growth across Surrey and not specifically within the limitations of local authority. These are primarily confined to transport projects, utilities, waste and flood defences.

It should also be noted that the Infrastructure study has identified theoretical increases in demand for services such as Acute hospital beds at the local authority level, and whilst these have been presented as need at a local level, it is acknowledged that this provision is likely to be delivered at a strategic level serving a number of local authorities.

Total Infrastructure Costs: £2,276,000,000

Total Secured Funding: £931,000,000

Total Expected Funding: £30,000,000

Total Funding Gap: £1,315,000,000

% of Infrastructure Funded: 42%

Project Type	Project Details	Cost	Funding
Highways	A31 Hickley's Corner Underpass	£87,000,000	£87,000,000
	A320 Corridor	£100,000,000	£100,000,000
Motorways	M25 junction 10/A3 Wisley Interchange Road Investment Strategy scheme	£250,000,000	£250,000,000
	M25 junction 10-16 Road Investment Strategy scheme	£250,000,000	£250,000,000
	A23/M23 Hooley interchange Junction improvement	£38,000,000	£38,000,000
	M25 Junction 9 leatherhead interchange bottleneck relief	£10,000,000	£10,000,000
	Brighton Mainline capacity improvements	tbc	tbc
	Crossrail 2 Proposed Regional Route	tbc	tbc
Rail	Proposed North Downs Line Improvements	£30,000,000	£30,000,000
	Southern Rail Access to Heathrow	£800,000,000	tbc
	Southwest Main Line Rail capacity improvements	tbc	tbc
	Woking Flyover' railway grade seperation at Woking junction	£100,000,000	tbc
Flood Defences	River Thames Scheme	£476,000,000	£248,000,000
Emergency Services	Replacement programme for Fire Stations	£35,000,000	£35,000,000
FE/HE	Growth on campus at RHUL - library £40m (opening 2017), science building £20m, residences £40m.	£100,000,000	£100,000,000
	Growth on campus at Surrey University	tbc	tbc
Social Care	Additional Extra Care Provision across Surrey of 750 beds	tbc	tbc
Special Education Needs	New free school to meet the needs of children across Surrey	tbc	tbc
Total Surrey		£2,276,000,000	£961,000,000

^{*}Crossrail 2 cost not included in total Surrey Strategic Infrastructure Projects





DELIVERY AND FUNDING

FUNDING IS THE BIGGEST RISK TO DELIVERING INFRASTRUCTURE. AS THIS DOCUMENT HIGHLIGHTS, THERE ARE PRESENTLY SIGNIFICANT GAPS IN FUNDING OF ALL TYPES OF INFRASTRUCTURE ACROSS THE COUNTY. WITH THE SHAPE AND LEVEL OF PUBLIC SECTOR FUNDING VERY DIFFICULT TO PREDICT SURREY LOCAL AUTHORITIES AND THEIR INFRASTRUCTURE DELIVERY PARTNERS FACE SIGNIFICANT FUNDING CHALLENGES TO ENSURE THE DELIVERY OF INFRASTRUCTURE TO SUPPORT EXISTING AND FUTURE RESIDENTS.

In light of this funding challenge delivery partners must explore every potential avenue of funding as part of the project delivery process. This chapter sets out:

- Organisations within Surrey with access to funding and their respective funding source options which could be relevant to infrastructure delivery.
- A high level analysis of the ability of developer contributions through Section 106 agreements and the Community Infrastructure Levy to deliver infrastructure, recognising the dependence on overall scheme viability relating to land values across Surrey.
- Other potential sources of funding.

The funding situation outlined in this chapter reflects current knowledge of approaches to the delivery and funding of infrastructure. However, an important point to note is that over the document time period (to 2031) at least three general elections will take place. This makes it difficult to predict the policy towards various types of infrastructure (health, education, transport etc.) in five years' time, and even in one years' time.

To illustrate this point, an education authority working 10 years ago, planning for an additional secondary school forecast as required in 2015 would have been unaware of the forthcoming creation of the Building Schools for the Future (BSF) programme, the subsequent abolition of that BSF programme, the Academies model and the recent direction towards free schools. Surrey local authorities can only work with what is currently known which highlights the need for flexibility - essential to accommodate the inevitable changes to delivery and funding over the planning period.

6.1 RELEVANT ORGANISATIONS WITH ACCESS TO FUNDING

AS IDENTIFIED IN EARLIER CHAPTERS THERE ARE A WIDE RANGE OF ORGANISATIONS RESPONSIBLE FOR THE DELIVERY AND FUNDING OF INFRASTRUCTURE WITHIN SURREY. THIS SECTION PRESENTS AN OVERVIEW OF THESE ORGANISATIONS AND THEIR SOURCES OF FUNDING.

SURREY COUNTY COUNCIL

As set out in previous sections SCC is responsible for providing many key local services and oversaw a gross annual expenditure of £1.79 billion in the financial year 2015/16. SCC is responsible for managing public money in the provision of these services including schools, social services, the fire service, roads, libraries, trading standards, land use, transport planning and waste management. SCC is the transport authority responsible for delivering the majority of the transport-related infrastructure to support development proposals in each local authority within Surrey.

Transport infrastructure projects in Surrey are funded through a blend of funding sources including Department for Transport grants, the LEPs and developer contributions.

Education and Children's Services represents the biggest outlay, in 2015/16 gross expenditure was over £0.96 billion, although the majority of costs are covered through government grants.

BOROUGH AND DISTRICT COUNCILS

The main services provided by the majority of local authorities include:

- Planning and Development Control
- Environmental Health
- Housing
- Leisure and Recreation
- Waste Collection

Sources of finance for local authorities include receipts from Council Tax distributed by Central Government, developer contributions (S106 or CIL) for specific local level infrastructure and service income.

The following additional funding sources are also available to local authorities to support development growth:

- New Homes Bonus this commenced in April 2011, and will match fund the additional council tax raised for new homes and empty properties brought back into use, with an additional amount for affordable homes, for the following six years. It is based on the council tax of additional homes and those brought back into use, with a premium amount for affordable homes, and paid for the following six years. Changes to the New Homes Bonus may reduce the amounts secured in the future.
- Retention of business rates A business rates retention scheme was introduced in April 2013. It will provide a direct link between business rates growth and the amount of money councils have to spend on local people and local services. Councils will be able to keep a proportion of the

business rates revenue as well as growth on the revenue that is generated in their area.

HIGHWAYS ENGLAND

Highways England (formally the Highways Agency) become a publicly owned corporation on 1st April 2015. Highways England reports to the Department for Transport and has responsibility for managing the Strategic Road Network in England. It operates a variety of information services, liaises with other government agencies as well as providing staff to deal with incidents on their roads.

Highways England responsibilities most relevant to the growth plan include undertaking large scale improvements through a programme of major schemes, carrying out routine maintenance of roads, structures and technology to make the network safe, serviceable and reliable and making sure traffic can flow easily on major roads and motorways.

A 'Road investment strategy' (RIS) sets out a long-term programme for UK motorways and major roads. Between 2015 and 2020, the first RIS will see £15.2 billion invested in over 100 major schemes to enhance, renew and improve the network nationwide.

Recent government announcements have confirmed a £1.4 billion package of 18 new road schemes in London and South East of England and of particular importance to Surrey a strategic study to look at long-term answers to conditions on the south-west quadrant of the M25, that can make the route effective for a generation to come.

NETWORK RAIL

Network Rail owns the infrastructure, including the railway tracks, signals, overhead wires, tunnels, bridges, level

crossings and most stations, but not the passenger or commercial freight rolling stock.

Although it owns over 2,500 railway stations, it manages only 19 of the biggest and busiest of them, all the other stations being managed by one or other of the various train operating companies.

Track renewal, the ongoing modernisation of the railway network by replacing track and signalling, continues to be carried out by private engineering firms under contract.

ENVIRONMENT AGENCY

The Environment Agency (EA) is a non-departmental public body, established in 1996 and sponsored by the United Kingdom government's Department for Environment, Food and Rural Affairs (DEFRA), with responsibilities relating to the protection and enhancement of the environment in England.

There are two "policy and process" directorates. One deals with Flood and Coastal Risk Management and the other with Environment and Business. These are backed up by the Evidence directorate. The fourth directorate is a single Operations "delivery" unit, responsible for national services, and line management of all the Regional and Area staff.

As a risk management authority, authorities can apply for an allocation of government funding annually from the Environment Agency (EA). Authorities can use flood and coastal erosion risk management grant in aid (FCERM GiA capital grants) towards the costs of building new flood and coastal erosion defences. The amount of government funding the EA allocates to a project depends on the public benefit it provides. Benefits include reducing flood risk to households, businesses and infrastructure and creating habitat for wildlife.

Authorities would need to apply to the FCERM Programme a year in advance. For example, to apply for an allocation for a project starting in April 2017, authorities would need to have submitted details in the 2016 submission period.

NHS COMMISSIONING (NHS ENGLAND AND CLINICAL COMMISSIONING GROUPS)

NHS commissioning is the process of planning, agreeing and monitoring services. This includes the development of new buildings and health infrastructure.

Commissioning is not one action but many, ranging from the health-needs assessment for a population, through the clinically based design of patient pathways, to service specification and contract negotiation or procurement, with continuous quality assessment.

The NHS commissioning system was previously made up of primary care trusts and specialised commissioning groups. Most of the NHS commissioning budget is now managed by 209 clinical commissioning groups (CCGs). These are groups of general practices which come together in each area to commission the best services for their patients and population.

Nationally, NHS England commissions specialised services, primary care, offender healthcare and some services for the armed forces. It has four regional teams but is one single organisation operating to a common model with one board.

The NHS recognise that there is no single geography across which all services should be commissioned: some local services can be designed and secured for a population of a few thousand, while for rare disorders, services need to

be considered and secured nationally. In Surrey therefore, there is no single commissioning body that adheres to the County boundary.

CCGs and NHS England are supported by new commissioning support units (CSUs).

The CCGs and NHS England receive direct funding for commissioning from the Government. In some instances they may also be recipients of developer contributions or other sources of local funding.

LOCAL ENTERPRISE PARTNERSHIPS (LEPS)

Surrey is covered by two cross-boundary LEPs:

- Enterprise M3 which covers the M3 corridor to the west of the County
- Coast to Capital which covers the corridor from Brighton to Croydon to the east of the County

LEPs are business-led, public/private bodies established to drive economic growth. With constrained public funding, the LEP need to find innovative ways to ensure the funding they receive has the greatest impact, and (where possible) creates future funding opportunities at the same time.

In March 2013, Lord Heseltine published a report on economic growth entitled 'No stone left unturned: in pursuit of growth', which outlined a number of new roles and responsibilities for LEPs. Since then the Government established the Single Growth Pot, worth £2bn per year, that LEPs can bid into (the Growth Deal). LEPs are also now responsible for overseeing the creation of a European

Funding Strategy for 2014-2020 for their individual areas. With regards to funding, the LEP's role is to:

- Explore new ways of funding infrastructure and enterprise investment
- Identify the finance gap for innovative SMEs looking to expand
- Help develop a 2014-2020 European Funding Programme that meets the need of the area
- Design innovative financial models to make best possible use of Enterprise Zone Business Rates income and Growing Places Fund recycled funds
- Provide clear guidance on where help, support and finance is available for enterprises

Growth Deal

Enterprise M3 and Coast to Capital have received the following growth deals:

Enterprise M3

£118.1 million received in the first tranche of the Local Growth Fund announced in July 2014

A further £29.9 million award in the second tranche, £71.1 million awarded in the third tranche (January 2017) and £42 million in loans from the Public Works Loan Board.

Identified to support 14 infrastructure projects to support creation of 6,000 new homes, 15,000 new jobs and attract up to £410 million public and private investment in Surrey and Hampshire.

Coast to Capital

The deal is worth £304m over six years, starting with investment of £41.5m of new funding in 2015/16.

This investment will unlock an additional £390m of investment from local public and private sector partners.

Combined together this will create a total new investment package of £628m for the Coast to Capital region.

There will be a further £237m invested in new housing which will subsequently be enabled by this investment.

Overall, the Coast to Capital Growth Deal will deliver up to 21,000 jobs, 9,000 new homes and 380,000 sq m of employment space.

RELEVANT UTILITY COMPANIES

Utilities infrastructure delivery and funding is largely the responsibility of the relevant utility companies with connections to services also funded through site developers. Of importance to this business plan however is clarifying the procedure by which these utility companies consider development sites and how these are included within their own investment strategies.

Utility Providers are regulated by OFGEM and OFWAT; in principle, neither regulator supports installing new infrastructure on a speculative basis, rather they are reactive to providing supply to new developers once schemes are consented. However, if a robust business case that gives a good level of certainty that development will take place in a definite timescale is put to the Regulators, advance funding may be approved.

PARISH AND TOWN COUNCILS

Parish councils are the first tier of local government. They are elected corporate bodies, have variable tax raising powers, and are responsible for areas known as civil parishes. A parish council serving a town is called a town council, and has the same powers, duties and status as a parish council.

Local Parish and town councils have powers to provide some facilities themselves, or they can contribute towards their provision by others. There are large variations in the services provided by parishes, but they can include the following relevant to this business plan:

- Support and encouragement of arts and crafts
- Provision of village halls
- Recreation grounds, parks, children's play areas, playing fields and swimming baths
- Cemeteries and crematoria
- Public conveniences
- Provision of cycle and motorcycle parking
- Acquisition and maintenance of rights of way

The Council also has the power to raise money through taxation, the precept. The precept is the parish council's share of the council tax. The precept demand goes to the billing authority - the local authority - which collects the tax for the Parish Council.

Parish councils and associated neighbourhood forums also now receive a "meaningful proportion" of Community Infrastructure Levy receipts to the neighbourhoods affected by development, typically 15-25%. The scale of this contribution is directly linked to the number of homes developed in the Parish and the existing scale of the parish (in terms of dwellings). The meaningful proportion can be spent on anything to help mitigate the impact the development has on the town or parish. It is the decision of the town or parish council where the money is spent.

It should be noted that there is incomplete coverage of town and parish councils across the local authorities in Surrey with none in Epsom and Ewell or Spelthorne.



6.2 DEVELOPER CONTRIBUTIONS

DEVELOPER CONTRIBUTIONS' INCLUDE "SECTION 106 AGREEMENTS" HIGHWAY CONTRIBUTIONS KNOWN AS "SECTION 278 AGREEMENTS" AND THE COMMUNITY INFRASTRUCTURE LEVY (CIL). THIS SECTION PRESENTS AN OVERVIEW OF DEVELOPER CONTRIBUTIONS IN SURREY.

SECTION 106

Planning obligations under Section 106 of the Town and Country Planning Act 1990 (as amended), commonly known as s106 agreements, are a mechanism which make a development proposal acceptable in planning terms, that would not otherwise be acceptable. They are focused on site specific mitigation of the impact of development. S106 agreements are often referred to as 'developer contributions' along with highway contributions and the Community Infrastructure Levy.

The common uses of planning obligations are to secure affordable housing, and to specify the type and timing of this housing; and to secure financial contributions to provide infrastructure.

The legal tests for when you can use a s106 agreement are set out in regulation 122 and 123 of the Community Infrastructure Levy Regulations 2010 as amended. The tests are:

- Necessary to make the development acceptable in planning terms
- Directly related to the development; and
- Fairly and reasonably related in scale and kind to the development.

The Government view S106 as providing on site or site related infrastructure and have introduced the Community Infrastructure Levy (CIL) to capture developer contributions from a wider proportion of developments, using a locally assessed charge based on the square meterage of new development, to support the development of an area.

The introduction of CIL has resulted in a tightening up of the s106 tests. S106 agreements, in terms of developer contributions, should be focused on addressing the specific mitigation required by a new development. CIL has been developed to address the broader impacts of development. There should be no circumstances where a developer is paying CIL and S106 for the same infrastructure in relation to the same development.

Section 278 Agreements – Highways Act 1980 - Developer Funded Improvements Works to the Existing Highway

Where highway objections to proposals can be overcome by improvements to the existing highway, developers can enter an agreement that requires them to pay for or undertake such works. These works may include minor highway realignments, roundabouts, traffic signals, right-turning lanes, passing bays, etc. S278 funds are exempt from CIL pooling restrictions.

DEVELOPMENT VIABILITY

A development's ability to contribute to infrastructure is dependent upon the value it will generate and the costs required to deliver it. This in turn is in part dependent on the value of the land. The "viability" of a scheme will impact on its ability to contribute through Section 106, CIL and other contributions to supporting infrastructure such as

highways provision, affordable housing, education and green infrastructure.

Residential Land Values across Surrey

Figure 6.1 illustrates average land values across local authorities in Surrey. This is based upon 2014 Valuation Office Agency (VOA) data an average price per hectare for land with planning permission for residential uses. This is the latest available data.

Across Surrey the average price ranges from £3,876,000 per hectare in Spelthorne to £7,081,000 in Elmbridge. In general it is not surprising that the local authorities with best connectivity to London (i.e Guildford, Woking, Elmbridge, Epsom & Ewell) have highest land values..

The estimated value of a typical residential site for England (excluding London) was £1,958,000 per hectare. When London is included the average value rises to £6,017,000 . All authorities in Surrey are significantly above the average for England.

It should be noted that the VOA produce annual reports of residential land transactions until late 2010 when Government withdrew funding for it. This is despite the requirement in the NPPF for local authorities to have regard to land values.

The locally-based values illustrated in Figure 6.1 are produced by the VOA on a theoretical basis and provide a means to compare variations across Surrey. However, they do not necessarily represent true land values, and are not able to demonstrate variations between sites or conurbations within each local authority.

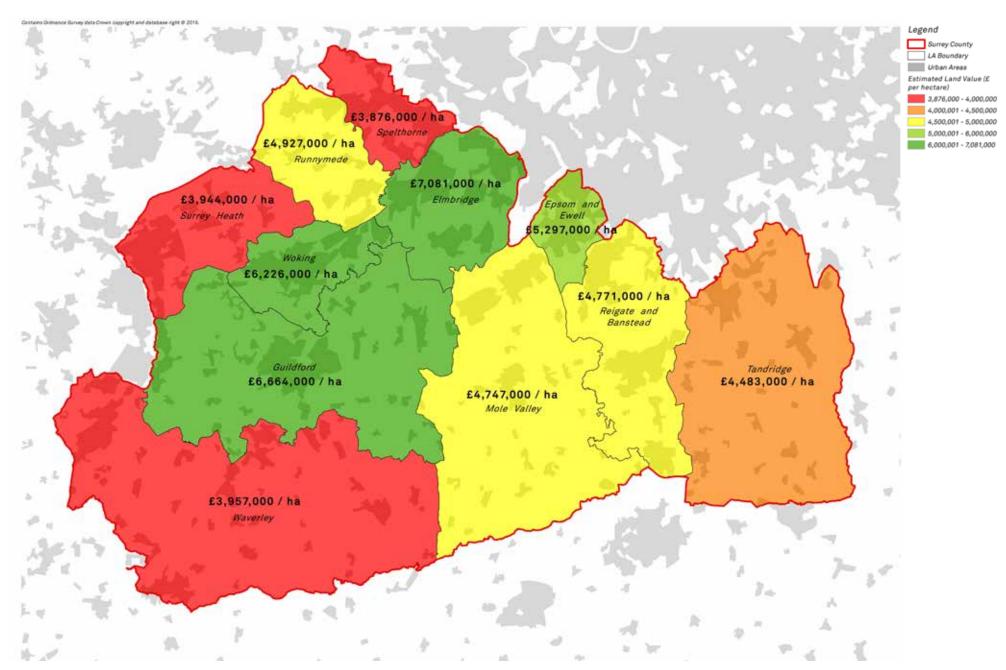


FIGURE 6.1 - LAND VALUES ACROSS LOCAL AUTHORITY AREA IN SURREY (2014)

Source: The Valuation Office Agency (VOA) published 2015 (2014 data)

COMMUNITY INFRASTRUCTURE LEVY

The Community Infrastructure Levy (CIL) came into force in April 2010. It is a fixed tariff based levy directed at new development to fund infrastructure.

The Government considers the CIL to be "fairer, faster and more certain and transparent than the system of planning obligations which causes delay as a result of lengthy negotiations". Levy rates are set by individual local authorities and may vary across each LPA and are subject to consultation with local communities and developers.

Figure 6.2 shows how CIL has been taken up across Surrey.

Eight authorities are currently charging CIL with typical residential charges of between £100 and £150 per sq metre.

The remaining authorities, namely Runnymede, Guildford and Waverley, are currently preparing new Local Plans and as a result the implementation of CIL in those areas has been delayed.

As Figure 6.2 shows, adopted and draft CIL rates are fairly consistent across Surrey representing the viability of development is broadly comparable across the county.

IMPLICATIONS OF CIL REGULATIONS ON SECTION 106 AGREEMENTS

The 2014 CIL Statutory Regulations placed additional restrictions on LPA's use of Section 106 funding. Since 6th April 2015 local authorities can no longer pool more than five s106 obligations together (dating back to March 2010) to pay for a single infrastructure project or type of infrastructure (however Section 278 agreements are unaffected). This restriction has had the effect of reducing contributions towards infrastructure schemes that would previously have benefited from pooled contributions received from more than five developments. This impact has been acknowledged by the Government in the recent review of CIL by an independent group from across the development industry and local government which was appointed in 2015 to assess whether the CIL regime was effective in providing infrastructure funding to support new development. A report from the group has been published and includes a number of conclusions including:

- Where CIL has been adopted it has raised only a fraction of the receipts anticipated at inception of the regime;
- Many authorities have not implemented CIL, leaving increased reliance on Section 106 agreements;
- CIL has not resulted in infrastructure being provided when needed to support development and it is particularly unsuited to larger developments; and
- CIL is overly complex and bureaucratic.

If the report's recommendations were adopted then the removal of the pooling restriction would be one of the outcomes. It is anticipated that whilst CIL will remain, any changes will be adopted by 2020, the end of the current parliament.

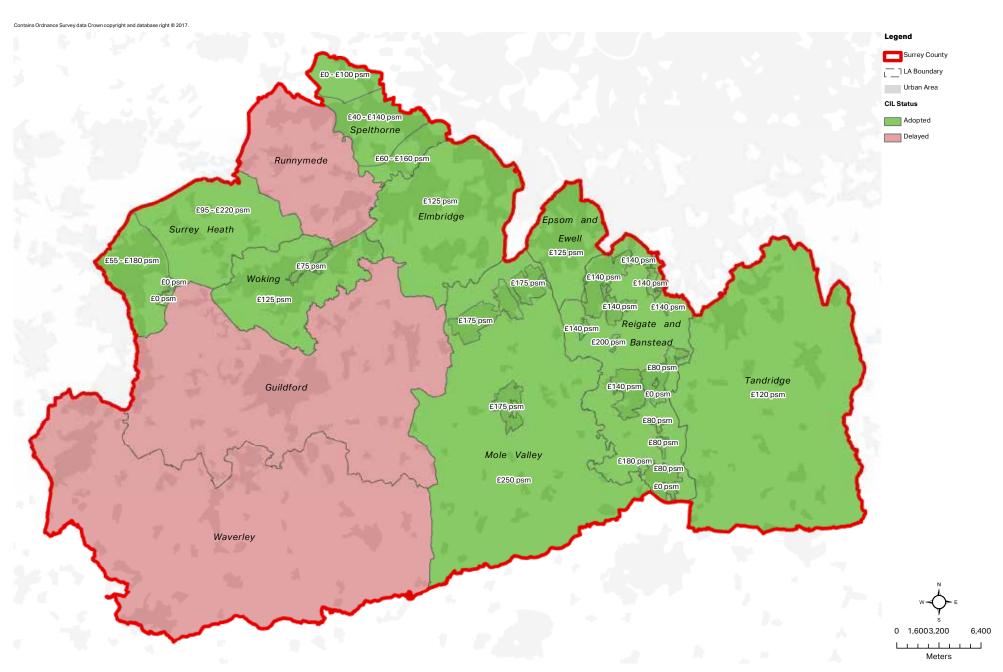


FIGURE 6.2- ADOPTED AND DRAFT RESIDENTIAL CIL RATES ACROSS SURREY

Source: Local Authority Published Draft and Adopted CIL Charging Schedules

6.3 PROJECT LIST FUNDING SENSE CHECK ASSUMPTIONS

TAKING INTO CONSIDERATION OUR UNDERSTANDING OF CURRENT AND PROJECTED DEVELOPER CONTRIBUTIONS AS SET OUT IN THE PRECEDING SECTIONS, THIS SECTION SETS OUT THE WORKING ASSUMPTIONS THAT WE HAVE USED IN ASSESSING LIKELY FUNDING AND GAPS FOR INFRASTRUCTURE PROJECTS TO 2031.

As set out in earlier chapters, the information on projects and costs set out within this study has been obtained from a variety of sources, with inputs from SCC officers, local authority IDPs and infrastructure providers.

In many instances information has been provided on likely costs but a considerable gap in information remains regarding likely funding sources.

In order to provide a "sense check" against total costs, a series of funding assumptions have been made based upon an analysis of current and projected funding sources.

A number of infrastructure topics have been assessed theoretically using benchmark calculations where no actual infrastructure projects have been identified. These theoretical costs have subsequently had a theoretical level of funding applied to them from either developer contributions, public sector funding or private sector funding.

The assumptions applied are set out here.

Developer Contributions

Table 6.2 on the facing page summarises our research into potential developer contributions through the community infrastructure levy to theoretically apply to projects with no identified funding. Surrey County Council have undertaken an estimate of potential CIL contributions across the county in light of the fact that eight out of eleven authorities are now charging a CIL rate. CIL is allocated by the borough and district councils and the allocation approach varies across the authorities. However, taking into account affordable housing exemptions the average level of CIL receipt per dwellings across all types of housing unit is estimated at £8,160.

The county have refined this analysis further with an assumed breakdown of this contributions across the various topics from transport, education through to the administrative costs of CIL. A different breakdown has been applied to Surrey Heath and Woking boroughs given the requirement to mitigate the impacts of all residential development within 5km of the Thames Basin Heaths Special Protection Area by providing SANGS and the fact that both boroughs fall within this 5km radius in their entirety. Along with Elmbridge, where only the south western part of the borough is affected, these authorities have already adopted CIL and 'topslice' contributions towards SANGS. Although Elmbridge also topslices CIL for SANGS, the average per dwelling across the whole of the Borough is very small. The other 'SANGS' local authorities - Guildford, Runnymede and Waverley have yet to adopt CIL and may not look to CIL to fund SANGS. This is set out on the facing page.

These combined sources have allowed us to develop a working assumption with regards to the potential level of CIL contribution per unit that could be expected across each of the infrastructure topics. The analysis presented in table 6.2 suggests that a total contribution of £6,732 can be assumed per dwelling which has subsequently been applied to the housing trajectories to generate the 'Expected Funding' presented within this report.

It is important however to note **there will also be additional developer contributions in the form of S278 and S106**, particularly in those local authorities where there are identified and potential strategic sites. There could also be some CIL contribution towards specific library projects but both of these factors have not been included in the figures presented here and is therefore presented as a conservative estimate.

The county have established these estimated contributions only for the purpose of this study as a theoretical exercise and they are based on the current CIL regulations which have the potential to change.

Public & Private Sector Funding Assumptions

A number of the theoretical costings can also be assumed as funded by either public or private sector organisations and subsequently be discounted from the identified funding gap. The table below highlights the % of identified costs assumed to be funded after all known secured funding and developer contributions have been taken into account.

Table 6.1

High level Funding Assumptions for Modelling

INFRASTRUCTURE	FUNDING WORKING ASSUMPTIONS	%
Healthcare	NHS	75
Waste Facilities	SCC / Local Authorities	75
Early Years	Private sector operators	90
Social Care	Private sector investment and institutional investment	90
Electricity & Gas	Electricity and Gas providers	100
Water and Sewage	Water supply and waste water providers	100
Broadband	Broadband communication providers	100

SCC Estimated CIL contributions across Surrey Local Authorities	Surrey Heath	Woking	Other Local Authorities	Applicable to Project List
Transport	£0	£1,499	£1,632	100%
Education	£O	£844	£1,632	100%
Local Authorities / healthcare	£O	£360	£2,040	100%
Parish / Neighbourhood Proportion	£2,040	£2,040	£2,040	50%*
SANGS	£5,712	£3,009	£O	100%
Flood Defences	£O	£O	£408	100%
CIL Administration	£408	£408	£408	0%
Total	£8,160	£8,160	£8,160	£6,732

Source: Surrey County Council

Note: Elmbridge top slice SANG from CIL, but when averaged across the borough the total per dwelling is low.

The funding assumptions presented are indicative and provide an overall rule of thumb in sense checking funding streams required to support infrastructure delivery in Surrey. These should be subject to review in dialogue with county and local authority officers and other infrastructure providers.

SCC Estimated CIL		Per Dwelling CIL Contribution			
contributions across Surrey Local Authorities		Surrey Heath	Woking	Other Local Authorities	
Motorways					
Highways	100%	£O	£1,499	£1,632	
Public Transport					
Rail					
Other Strategic					
Primary Education	50%	£0	£422	£816	
Secondary Education	50%	£0	£422	£816	
Adult Education	5%	£51	£69	£153	
Early Years	5%	£51	£69	£153	
Primary Healthcare	15%	£153	£207	£459	
Acute Healthcare	5%	£51	£69	£153	
Mental Healthcare	5%	£51	£69	£153	
Adult Social Services					
Libraries	5%	£51	£69	£153	
Youth Services	5%	£51	£69	£153	
Community Facilities	15%	£153	£207	£459	
Sports Facilities	20%	£204	£276	£612	
Outdoor sport & Recreation	20%	£204	£276	£612	
Green Infrastructure	100%	£5,712	£3,009	£0	
Energy (Electricity & Gas)					
Water and Sewage					
Waste					
Broadband					
Flood Defences	100%	£0	£0	£408	
Total		£6,732	£6,732	£6,732	

TABLE 6.2 - REVIEW OF POTENTIAL COMMUNITY INFRASTRUCTURE LEVY CONTRIBUTION FORMING WORKING ASSUMPTION

^{*}Working assumption applied that a percentage of the Parish / Neighbourhood meaningful proportion of CIL could be contributed towards local infrastructure projects.

6.4 ADDITIONAL SOURCES OF FUNDING

GIVEN THE LIMITATIONS OF CIL AND SECTION 106 TO FULLY FUND INFRASTRUCTURE ACROSS SURREY, CONSIDERATION MUST BE GIVEN TO WIDER (AND MORE INNOVATIVE) FUNDING MECHANISMS THAT ARE BEING DEVELOPED BY THE PUBLIC AND PRIVATE SECTORS.

CONTEXT

The market is in an economy where development investment finance is less freely available and risk is under greater scrutiny. This is coupled with an austerity budget position in the public sector resulting in lower availability of funding to support infrastructure projects.

Local authorities need to look across their full range of funding streams when considering delivery and prioritisation of infrastructure requirements. The flexibility to mix funding sources at a local level enables local authorities to be more efficient in delivering outcomes. Funding sources change over time with emerging priorities and changes in regime either at local, regional or national level. In addition, other partners and stakeholders may be able to play a part.

The following options reflect current possibilities for funding. They reflect a wide range of options based on proposals across Surrey, experience of the developer/financier community and existing and emerging sources of public sector funding.

The analysis has focused on four categories:

 Cash and Funds – funding from sources of 'investment capital', including grant funding and commercial finance, potentially delivered through a joint venture mechanism;

- Assets funding sources that arise from capturing an increase in land value;
- **Fiscal** funding that comes from the application of main stream fiscal tools (e.g. business rates); and
- Other potential funding sources thinking creatively and learning from other forward thinking authorities.

1) CASH AND FUNDS

PRUDENTIAL BORROWING (PUBLIC WORKS LOAN BOARD OR 'PWLB')

The public sector can borrow from the Public Works Loan Board (PWLB) at rates determined by HM Treasury to fund its spending and represents a key source of finance which could be used to fund infrastructure. This is the main direct funding source for local authorities and interest rates are currently low in comparison to other funding sources.

Local authorities can borrow to invest in capital works and assets so long as the cost of borrowing is affordable and in line with the principles set out in a professional Prudential Code. This means that local authorities must use various prudential indicators to judge whether their capital investment plans are affordable, prudent and sustainable.

Prudential borrowing represents a key source of affordable finance which could be used to meet the upfront costs of key infrastructure. It has the benefit of being a relatively reliable source of finance, not being subject to commercial market appraisals in the way that a bank financed project would be.

However, whilst this could help meet the upfront costs of infrastructure, it will increase the overall costs due to the need to service debt on the loan and it does place the local authority in a position of risk in terms of repaying the whole value of infrastructure from resources, if revenue or value through the schemes to come forward cannot be captured.

EUROPEAN FUNDING

European funding for the UK is still available for the short term from the European Regional Development Fund (ERDF), European Social Fund (ESF) and part of the European Agricultural Fund for Rural Development (EAFRD) which are combined into a single 'EU Structural Investment Funds (ESIF) Growth Programme' made available to Local Enterprise Partnerships (LEPs) on a competitive basis.

The Programme runs from 2014 to 2020 and focuses on:

- Skills, Employment Support and Promoting Social Inclusion (ESF)
- Research and innovation, IT and broadband, business support, low carbon, climate change, environment, transport, social inclusion, technical assistance (ERDF)
- Support for rural businesses (EAFRD)

EU funds require match-funding from either public or private sources. They must be additional to, and not replace, existing national funding. Opt-in arrangements are encouraged to ensure a closer integration with local and national programmes, sources of guaranteed match funding, and provide a low level of risk in delivery. Delivery of the programme is through a variety of routes. These are open calls for projects, opt-ins, possibly financial instruments, and commissioning through tendering for delivery contracts.

A number of other European funds can support infrastructure **LOCAL ASSET BACKED VEHICLE (LABV)** investment including: Connecting Europe Facility for road and rail infrastructure with significant EU added value; CIVITAS (LABV) in certain circumstances outweigh the costs for the implementation of ambitious, integrated, sustainable urban transport strategies; LIFE for measures to mitigate and adapt to climate change; Natura 2000 to protect the EU's most valuable and threatened species and habitats; ELENA advice require significant Officer and external advisor time. which supports councils in preparing and implementing sustainable energy plans for their area. In addition, the European Investment Bank (EIB) lends to individual projects where the total investment cost exceeds EUR 25m.

The future extent and role of European Funding in infrastructure investment in the UK will depend on the STRATEGIC ASSET MANAGEMENT arrangements agreed for the exit of UK from the European Union. Government has agreed to continue to fund EU projects. There are a range of approaches to ensuring public sector post Brexit if they meet national needs. The Government may assets are managed to maximise efficiencies. A number of need to provide additional national funding as a replacement innovative approaches to asset management, co-location for any EU funding lost to Surrey and to ensure that the local of services and provision of infrastructure are underway in economy can adapt and respond to new challenges to our Surrey. trading relationships. The absence of a national replacement to EU funding would exacerbate existing local funding gaps identified in this study.

2) ASSETS

The increase in land value has been a mainstay of economic assets to meet anticipated needs. development financing over recent years. Utilising a range of tools, such as development agreements, local asset backed vehicles or other joint ventures, local authorities have been able to secure large amounts of infrastructure from improvements to land values. This has needed to be combined with careful use of planning consents and S106 agreements, but with the restrictions on pooling of S106

Ensure assets are flexible and future proofed. contributions moving forward then the ability to use this option may narrow.

The rewards or benefits of a Local Asset Backed Vehicle although the financial implications of setting up a LABV are significant. Procurement, preparing and agreeing legal documentation, to include specialist property and financial Once in place, on-going management and due diligence needs to be considered, along with post procurement advice and support to the authority. If such costs were sought to be recovered through the vehicle it would in effect become a reduction of the land costs.

The county council is currently reviewing existing service assets and developing Service Asset Strategies to plan for future requirements. The council, along with local partners, is also a member of the Government's One Public Estate Programme. The following design principles are being utilised in both these work areas to manage and develop

- Enable residents to access public services from multifunctional service hubs.
- Ensure buildings are in the best location to deliver services and meet demand.
- Improve value for money and utilisation of assets, for example out of hours.

- Work towards a single public estate to reduce expenditure.
- Support economic development within the county.
- Generate additional income through sale or lease of surplus assets to help fund services.

The One Public Estate Programme will deliver a number of projects including the redevelopment of the Colebrook Day Centre in Redhill to provide a new purpose built multifunctional space delivering a number of front line services and the refurbishment of Weybridge Library to create space for co-location with another service.

3) FISCAL

BUSINESS RATE RETENTION

Business rate retention and Tax Increment Financing represent a real opportunity to bridge the infrastructure funding gap. It has required the enactment of new legislation which received Royal Assent in October 2012 and produced the Local Government Finance Act 2012. The Act introduced local retention of business rates, as well as powers for the Secretary of State to introduce Tax Increment Financing to allow councils to borrow against future increases in income.

The Business Rates Retention (BRR) scheme was introduced in April 2013 and provides the opportunity for councils to retain a proportion of business rates revenue as well as growth on the revenue that is generated. The scheme could be used to meet the cost of infrastructure as and when the revenue is received, or it could be used to raise finance to meet up-front infrastructure costs.

Under the BRR scheme local authorities are able to pool together on a voluntary basis to generate additional growth and smooth the impact of volatility in rates income across a wider economic area. Business rates would generate funds which could be used to pay for a range of needs. Their use to help meet the funding of infrastructure would need to be carefully considered against other council funding objectives.

Under current Government plans Local authorities will retain 100% of business rates within the sector by the end of this Parliament and how the system will operate is not yet clear. Its design and the implications for certainty of longer term income may impact on local authorities' willingness to invest in longer term projects such as infrastructure.

This will therefore require a concerted effort for local authorities to pro-actively to bring forward new business land and premises using all the available powers and financial interventions at their disposal to facilitate business expansion opportunities and also secure a higher proportion of inward investment businesses, particularly taking advantage of any displaced businesses from London.

TAX INCREMENT FINANCING (TIF)

Tax Increment Financing allows local authorities to capture the value of uplifts in local taxes (business rates) that occur as a result of infrastructure investment. Tax Increment Financing allows that uplift to take place by borrowing against the value of the future uplift to deliver the necessary infrastructure. Local retention of business rates removes the most important historic barrier to Tax Increment Financing schemes, namely that local authorities were not permitted to retain any of their business rates and therefore could not borrow against any predicted increase in their business rates.

Borrowing for Tax Increment Financing schemes therefore falls under the prudential system, allowing local authorities to borrow for capital projects against future predicted increases in business rates growth, provided that they can afford to service the borrowing costs out of revenue resources. However, such borrowing can only take place if local authorities and developers have a degree of certainty about the future tax revenue streams and whether there are sufficient guarantees that they will be retained within the authority.

The Local Government Finance Act includes two options for TIF. Option one would see local authorities, within the existing prudential borrowing rules, able to borrow against their income within the business rate retention scheme. Option two would allow a limited number of Tax Increment Financing schemes to be permitted in which the business rates growth would not be subject to the levy or reset for a defined period of time.

PRIVATE FINANCE 2 (PF2)

In December 2012, the Government concluded its review of PFI and published full details of a new approach to public private partnerships, Private Finance 2 (PF2). The Government remains committed to private sector involvement in delivering infrastructure and services, but has recognised the need to address the widespread concerns with Private Finance Initiative and the recent changes in the economic context

They key reforms are as follows:

■ **Public sector equity** - The public sector will take an equity stake in projects and have a seat on the boards of project companies, ensuring taxpayers receive a share of the profits generated by the deal.

- Encouraging more investors with long-term investment horizons The use of funding competitions will be introduced to encourage institutional investors such as Pension Funds to compete to take equity in a PF2 project after the design stage. This is significant in terms of risk as Pension Funds are unlikely to invest in projects that are insufficiently developed.
- **Greater transparency** Companies will have to disclose actual and forecast annual profits from deals. The new PF2 structure will curb gains to be made from refinancing and un-utilised funds in lifecycle reserves.
- More efficient delivery An 18-month limit on procurement will be introduced. Failure to meet this limit will see the respective public sector body lose funding.
- Future debt finance the tender process will require bidders to develop a long-term financing solution where bank debt does not provide the majority of the financing requirement. Institutional investment will, therefore, become an important source of finance for PF2.

The first confirmed programme to which PF2 has been applied is the £1.75 billion privately financed element of the Priority Schools Building Programme (PSBP). While the immediate PF2 pipeline is focused on accommodation projects, an asset class which has been a particular focus of the PFI reforms, the Government wants to ensure that all suitable projects take advantage of the benefits of PF2. Looking forward the Treasury will work with departments to assess which future projects are eligible for PF2.

4) OTHER POTENTIAL FUNDING SOURCES

There is the option to think 'creatively and bigger' and consider a range of further public and private sector sources, including but not limited to the following:

REVOLVING INVESTMENT FUNDS (RIFS)

The pooling of investments to create a regional fund for economic investment. These Revolving Investment Funds (RIF) provide access to a flexible source of capital that can be used to finance projects. Importantly this finance is provided as a loan, not a grant or subsidy. They will not provide quick fix solutions but have the potential to provide a vehicle for local investment that allows more entrepreneurship and experimentation than grant funding models.

There is on the ground experience to draw on in establishing RIFs, for example the Evergreen North West Fund, London Green Fund and the Cambridgeshire Horizon's rolling fund, but the model is new and will require ongoing evaluation to ensure that ventures are supported that realise the best returns. In the face of major cuts to grant funding a number of local authorities are considering the creation of similar schemes for regeneration and infrastructure.

PENSION FUNDS

The Local Government Pension Scheme (LGPS) is a funded, statutory, public service pension scheme. DCLG is responsible for the scheme's stewardship and maintaining its regulatory framework. It is administered and managed by local pension fund authorities. At the end of March 2013, the market value of the 81 funds in England was £167 billion.

A number of recent studies have looked at whether there is more scope for LGPS funds to do more to invest for

wider social and economic benefit. A study by the Smith Institute in 2012 summarised the key barriers to developing impact investments (particularly for infrastructure funds) were managing reputational risks associated with new investments and potential conflicts of interest, especially where local infrastructure schemes were concerned. Despite these perceptions, investment for wider impact was certainly much higher up the agenda of all the funds interviewed.

Its recommendations for change included better guidance for local funds, changes to restrictions on investments in the Investment Regulations and the creation of an enabling platform or clearing house. Another report published in 2012, by *Localis*, said that local authorities should be prepared to see an additional 8.5% of LGPS funds invested in domestic infrastructure.

In 2012, DCLG carried out a consultation on possible changes to the Investment Regulations. It proposed two options for overcoming perceived barriers to investing in infrastructure. As a result of the consultation, it amended the investment regulations to increase the proportion of the capital value of a fund that could be invested in partnerships. The CLG said the change would give funds more scope to "invest in infrastructure projects subject to a full risk assessment and satisfying themselves there is no conflict of interests".

LOCAL AUTHORITY BONDS / MUNICIPAL BONDS AGENCY

Local authorities have always had the power to issue bonds. Municipal bonds were used regularly throughout the early and mid-20th century, but fell into disuse during the 1970s and 1980s, as central government introduced controls over capital finance. The Public Works Loan Board became the main source of borrowing during this period. Bonds allow local authorities to raise substantial sums of capital

immediately, on the basis of promises to repay the capital with interest at a specified point in the future.

It would be possible for a local authority to issue bonds as part of a TIF process. Money would be obtained up-front by selling the bonds (instead of approaching financial institutions), and they could be repaid by the additional tax revenues resulting from the public investment. TIF takes this form in many cities in the USA. If the future tax revenues do not materialise and the local authority is thus unable to repay the bonds, this will of course cause financial problems for the local authority.

Local authorities' borrowing limits will be related to the revenue streams available to them, which influence their ability to repay the debt. Local authorities are prevented by law from using their property as collateral for loans. The only recent instance of bonds being issued is that of the Greater London Authority (GLA), which issued £600 million of bonds to raise funds for Crossrail. The GLA however has access to substantial revenue streams compared to most local authorities (such as fare revenue from Transport for London), and its borrowing capacity will therefore be proportionately larger.

The LGA produced a report in mid-2012 proposing to create a collective bond issuing agency. Participation would not be compulsory, but would be attractive to smaller authorities which might not be able to obtain the best price in the conventional bond market. The agency would also obviate the need for the participating councils to have a credit rating, though they would be required to supply financial information to allow investors to judge the agency's collective creditworthiness. Participating authorities would also be required to supply a small proportion of their desired loan in capital.

The business case assumed at least tacit support from government. Such support is critical in order for financial markets and bond investors to have confidence in the proposed agency. Securing and maintaining the necessary government support is a considerable risk as it appears that some parts of central government may be sceptical to the prospect of such an agency being created at this point.

Interest in this project was rekindled in late 2013, when the LGA management board voted to press ahead with the creation of such an agency. At least eighteen local authorities have expressed interest in participating in the new agency. LGA Modelling work suggests that a Municipal Bonds Agency would allow councils to raise funds at a significantly lower rate than those offered by the PWLB. The model showed that a council borrowing £100 million over 20 years would stand to save as much as £4.7 million compared to a PWLB loan.

CROWD FUNDING

Crowdfunding is the practice of funding a project or venture by raising monetary contributions from a large number of people, typically via the internet. The crowdfunding model is fuelled by three types of actors: the project initiator who proposes the idea and/or project to be funded; individuals or groups who support the idea; and a moderating organization (the "platform") that brings the parties together to launch the idea. There are two primary types of crowdfunding:

- Rewards Crowdfunding: entrepreneurs pre-sell a product or service to launch a concept without incurring debt or sacrificing equity/shares.
- Equity Crowdfunding: the backer receives shares of a company/project, usually in its early stages, in exchange for the money pledged. The company/project's success

is determined by how successfully it can demonstrate its viability

A variety of crowd funding platforms have emerged to allow ordinarywebusers to support specific philanthropic projects without the need for large amounts of money. Several dedicated civic crowdfunding platforms have emerged in the UK, some of which have led to the first direct involvement of local governments in crowdfunding. Notable examples include:

- Bristol City Council's Mayor's Fund crowdfunding grants for local charities and social enterprises in as part of its 'Mayor's Fund'. The grants for 2013/14 will fund work with disadvantaged young people and children in Bristol.
- Mansfield District Council Mansfield District Council successfully used the crowd sourcing platform Spacehive to raise over £36,000 to install free public WiFi across Mansfield.

There are limitations however, most projects are highly local, limiting the size of the community that might support and financially invest in an idea. Typical campaigns have generated funding around the tens-of-thousands mark. This would not be enough to support larger projects that local government is involved with, such as transport infrastructure and educational projects. This leaves the question of whether locally backed projects can raise enough money to support larger initiatives? It may be the case that crowd funding represents a potential funding stream for the smaller social infrastructure and desirable local level projects that can often be overlooked when allocating limited funding across a range of infrastructure requirements.

SOCIAL INVESTMENT

Social problems transfer from one community to the next, from one generation to another. By investing repayable and recyclable capital into tackling social problems, two types of returns are generated: financial returns to investors, but social returns to investors and to society more generally. This is empowering, efficient and necessary.

Social impact investment is the provision and use of capital with the aim of generating social as well as financial returns. This type of investment carries an expectation of repayment of some or all of the finance. It can cover loans, equity, bonds, and is sometimes used alongside other instruments, such as guarantees or underwriting. As with any other investments, where the investee business performs well, returns generated may be principally reinvested in the business, as well as offering a limited proportion of these to investors.

Investors in social outcomes weigh up the balance between the social and financial returns which they expect from an investment, according to their own priorities. They may accept lower financial returns in order to generate greater social impact.

INSTITUTIONAL INVESTORS

The UK, particularly the London region, offers an extensive set of infrastructure investment opportunities, including in the regulated utility, power generation and transportation sectors. The UK's longstanding track record of private ownership and robust rule of law makes it amongst the most attractive jurisdictions for infrastructure investing."

There is presently strong interest in the UK infrastructure market amongst overseas investors, including Middle East and Far East sovereign wealth funds as well as more traditional investors such as pension funds and which are struggling to find attractive opportunities to invest their cash amid record low interest rates, are committing more money to real assets, which promise higher returns as well as an annual cash yield. Infrastructure funds attracted \$40.7 billion in 2013, compared with \$30 billion the year before and nearing the 2007 peak of \$44 billion, according to Preqin, a global venture capital consultancy.

However, despite the strong interest in the UK market among investors, there are still hurdles to overcome as institutional investors attempt to marry their responsibilities and duties within tight legal and regulatory frameworks that vary across borders. Infrastructure debt competes for attention with other asset classes, and strong competition might see investors move their investment allocations away from the UK's infrastructure assets towards other asset classes.

INDUSTRY AND BUSINESSES

Surrey County is home to a wide range of businesses from multi-national firms to local family run businesses. All of these enterprises have a strong interest in ensuring the appropriate investment in infrastructure is maintained to support economic growth in the County. These firms represent a potential source of partner funding.

THE VOLUNTARY SECTOR

The voluntary sector (from voluntary organisations to individual volunteers) play an integral role in the delivery of social infrastructure provision across the County and will continue to provide capacity to support the existing and new population and assist in the delivery of new projects.



CONCLUSIONS

As identified at the outset of this document, this update to the Surrey Infrastructure Study presents an overarching baseline of growth patterns, infrastructure projects and cost requirements and gaps. It has been produced drawing upon information obtained through Surrey County Council officers and following a period of engagement with the Local Authorities and other infrastructure providers.

The study provides a "snap-shot" in time, reflecting the position during June 2017. It must be remembered that the growth and development context is in a constant state of flux and with all LPAs in Surrey at varying stages in developing and implementing their local plans, and negotiating planning consents, the position will change over time.

The preparation of the study has demonstrated strong collaborative working between the county and local authorities. It has however shown that shortfalls exist in terms of a standardised agreed approach towards a study of this kind including the collection of data on housing and employment sites, population forecasting, modelling infrastructure requirements and the costs and funding assumptions for that infrastructure.

The 2016 Surrey Infrastructure Study identified that:

- Surrey authorities planned for housing and economic growth from 2015-2030 to deliver on average 3,137 dwellings per year. This compares to completions of 2,495 dwellings per year across Surrey from 2010 to 2014. This comes to a total of 47,053 dwellings to 2030, which results in a 5% increase in population or 60,991 additional people.
- Delivering the infrastructure to support growth was identified to cost at least £5.37 billion to 2030.
- The study estimated **secured funding of over £993 million** and potential funding from the public sector, private sector and developer contributions of £1.23 billion.
- Taking into consideration the potential funding identified, a minimum gap in infrastructure funding of £3.2 billion was identified between 2015 to 2030.

The following key findings have been established from the 2017 study:

- Surrey authorities are planning to accommodate housing and economic growth over the 15 year period to 2031delivering on average 4,357 dwellings per year. This compares to completions of 2,486 dwellings per year across Surrey from 2011 to 2016.
- **65,356 dwellings** are expected between 2016 and 2031 with an associated population **increase of 106,123 people** (an increase of 9%).
- Delivering the necessary infrastructure to support that growth from now to 2031 is estimated to cost at least £5.5 billion.

- The study has estimated a combination of secured funding (over £1.23 billion) and potential funding from the public sector, private sector and developer contributions (£1.82 billion). It is important to note that a full review of the funding position for each project included in the study is required to refine this estimation. This has been outside the scope of this project.
- Taking into consideration the potential funding identified, a gap in infrastructure funding of £2.46 billion still remains between now and 2031.
- The study demonstrates that current anticipated developer contributions. Central Government grants and other sources of income are not sufficient to support the scale of growth anticipated in Surrey in the period to 2031. This is without consideration of further potential changes to current funding sources which may reduce finances further, such as reduction in grants or additional exemptions from the Community Infrastructure Levy (CIL).
- CIL is at varying stages of adoption across the county (due to the difference in stages of adoption of Local Plans), resulting in variations in land value and the amount of money that will be collected. The identified funding gap should be considered and taken into account when setting CIL rates.
- The infrastructure requirements and associated costs presented represent a scenario based on a population forecast constrained by planned housing targets as opposed to ONS population forecasts. Where the Objectively Assessed Need (OAN) has been used, these may be higher than the final target.

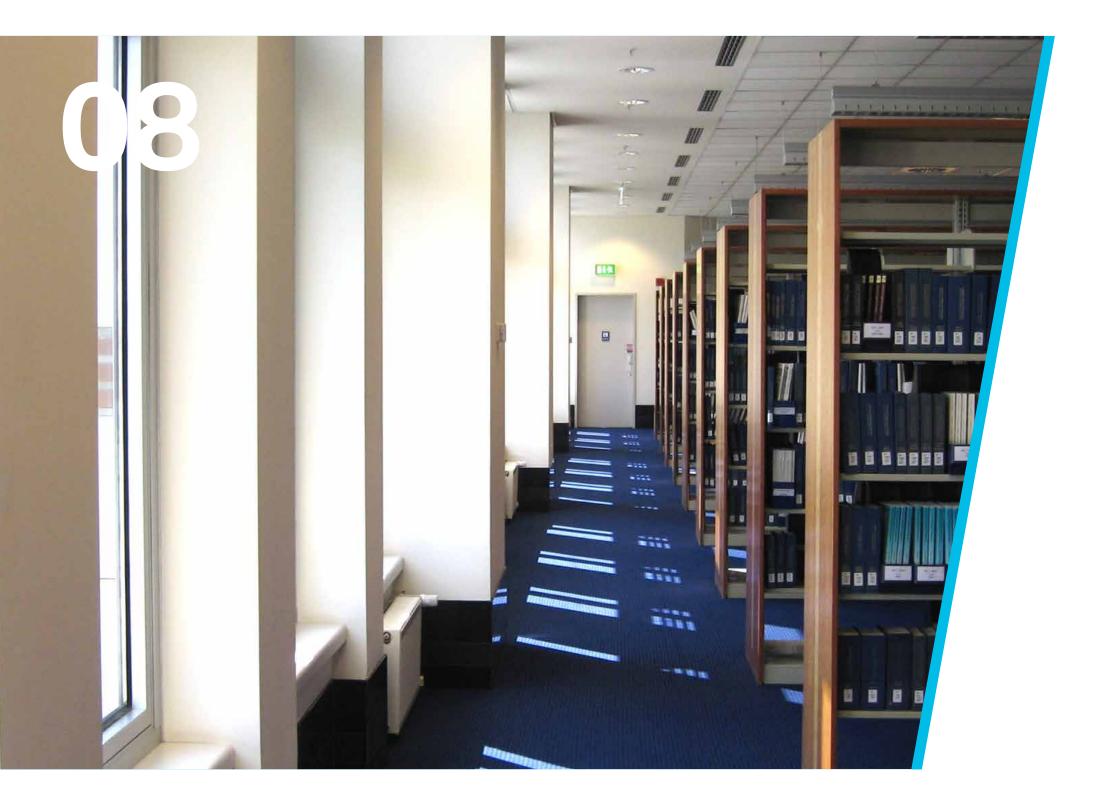
 ONS population forecasts for Surrey over the same 15 year period are 34% higher than the study forecasts.
 The estimated costs associated with the infrastructure to

The estimated costs associated with the infrastructure to support population growth could therefore be increased considerably if a growth level nearer the ONS forecast was realised.

The following key steps have been identified for Surrey and its partners to take the study findings forward:

- Developing an investment framework and strategy for infrastructure delivery in Surrey to support planned growth
- Joint work between the 12 Surrey local authorities to bid for funding through the Local Enterprise Partnerships
- Developing an infrastructure evidence based to 22050 for the Surrey, West Sussex and East Sussex (3SC) area
- Engaging with Government and national agencies to shape their investment plans, as part of the Sub-National Transport Body, Transport for the South East
- Working with authorities in London, the East of England and South East to coordinate strategic policy and infrastructure investment across the Wider South East, including joint lobbying for strategic infrastructure priorities
- Revisit the evidence base behind this study on a regular basis in collaboration with partners to maintain a rolling understanding of the infrastructure landscape and funding priorities;

- Consider the implications of infrastructure providers decisions both now and in the future. This study has used standard metrics to determine requirements for some infrastructure elements (such as healthcare, libraries, community and leisure, youth services, social care accommodation etc), but the actual requirements will be heavily dependent on service decisions on new delivery models which are affected by regulatory, financial and technological changes;
- Local authorities and r infrastructure providers to continue to work together to maintain an up-to-date understanding of growth distribution and supporting infrastructure;
- Use the study as a basis for identifying local level shortfalls to support bids for future funding, including potential means outlined in Section 6;
- Develop a wider linkage to asset management reviews to best utilise the public sector;
- Continue to work with the Local Enterprise Partnerships and other local authorities in the South East on strategic issues and priorities in particular transport to support growth. This may include linkages to London and radial routes to better connect the wider South East. In addition, considering the impacts of major infrastructure proposals such as airport expansion and the Crossrail extension; and
- Improve understanding and dialogue with evolving infrastructure delivery and management regimes, i.e. NHS services, adult education, library services etc.



INFORMATION CAVEATS

COST CAVEATS

AECOM costing advice is provided within this document and should be qualified as high level estimates given a lack of detailed scheme information. These cost caveats apply to the following topics within this report:

- Transport Projects (where SCC / HE / Network Rail and others have not provided cost estimates)
- Healthcare Projects and Social Care Accommodation
- Community, Library and Youth Spaces
- Open Space Provision
- Adult Education
- Children's Playgrounds
- Indoor and Outdoor Sports facilities
- Electricity Connections
- Gas Connections
- Potable, Waste and Surface Water Infrastructure
- Communications
- Waste Facilities

The following caveats apply to all costing provided by AECOM:

■ The information on which the cost estimates are based is very limited at this stage. As such, all of the costs are to be treated as "indicative" of the type of works stated rather than a specific estimate of the actual works.

- with good access and no abnormal restrictions in respect of working hours and the like.
- AECOM have excluded all land purchase, demolition and site preparation that may be required.
- In respect of ground conditions, AECOM have excluded the impact of encountering archaeological remains, contamination, high water table level, major "soft spots" and underground obstructions. It also excludes encountering and diverting existing utilities and drainage.
- As AECOM do not have sufficient details of the individual sites that will be developed, we have excluded any allowances for external works i.e. all works outside of the building footplate.
- The costs are all based on a notional project that starts and completes in June 2017 and therefore all inflation costs are excluded.
- AECOM have excluded professional fees and survey works and all other consultants fees and planning / building regulation costs that would apply to the works.
- AECOM have excluded all phasing and temporary works that could apply to the works.
- AECOM have excluded all maintenance and operational costs.
- AECOM have excluded all loose fixtures, fittings and equipment and in particular specialist equipment.
- AECOM have excluded all VAT.

■ The works are assumed to relate to level greenfield sites The following infrastructure topic costs are based primarily on the following sources although this list is not comprehensive:

- Highways SCC / Local Authority IDP's
- Motorways Highways England / SCC / Local Authority IDP's
- Rail Network Rail / SCC / Local Authority IDP's
- Public transport and other transport SCC / Local Authority IDP's
- Education SCC
- BDUK Broadband SCC
- Electricity UKPN / SCC / Local Authority IDP's
- Flood Defences SCC / Environment Agency

DATA CAVEATS

This study aims to present a vast amount of information in as simple and digestible format as possible. AECOM have received data from a number of stakeholders and partners, and this section sets out key caveats that have been supplied alongside that data.

Refer to Chapter 1 Parameters of the Study for detailed caveats on housing and employment data, housing forecasts and approach to infrastructure costs and funding.

The information presented in Chapter 3, as it relates to the economic position of Surrey is based on economic forecasting carried out prior to the UK referendum on the European Union. This economic analysis and the information presented in the Surrey Infrastructure Study does not take into account any potential effect of Brexit.

ELMBRIDGE

Elmbridge Borough Council's housing figures at the time of collection were based on outstanding permission, LAA figures and potential strategic development sites. This reflects the preferred approach set out in the December 2016 Strategic Options Consultation, with the Council recognising that the figure may change following further evidence collection and consultation. This contrasts with other local authorities, which have used housing numbers from their Strategic Housing Market Area reports.

EPSOM & EWELL

Epsom & Ewell SHMA (in conjunction with Elmbridge, Mole Valley and the Royal Borough of Kingston) forecasts an increase in housing demand. It projects an additional 8,500 new homes for the Borough. The Surrey Infrastructure Study incorporates this projection, however, the infrastructure deficit (for Epsom & Ewell) is based on the infrastructure

required to support our previous housing target, which is substantially smaller than the objectively assessed need identified in the SHMA – at about 181 units per annum extrapolated forward. In comparison, the current SHMA figure equates to at least 418 units per annum – so at least double the previous target. The identified infrastructure deficit could potentially be half of the actual total.

The nature and scale of infrastructure required to support this scale of growth has yet to be determined. As stated, it could be twice, if not more, what it is in the Surrey infrastructure Study. A factor that merits consideration in this matter is that our neighbours in the London Borough of Sutton are currently planning on high growth – mostly in the absence of any infrastructure uplift. Their plan is, to some extent, reliant upon shared infrastructure – available across the border here in Surrey. Growth in Sutton may have an adverse impact upon infrastructure demand in Epsom & Ewell.

Epsom & Ewell are in the process of developing a new Local Plan (which will use the OAN housing figure as a starting point). This will impact the scale and nature of new infrastructure needed, in which the scale of infrastructure deficit is likely to increase.

Kiln lane Link has been a much discussed piece of infrastructure in the borough for a number of years, in which Surrey County Council and Epson & Ewell Borough Council are still determining whether this scheme remains relevant. On that basis, it is likely that in the fall of 2017, Kiln Lane Link may not be as urgently pursued – this would have an impact on the infrastructure deficit. The obvious conclusion is that our deficit will go down – however, factoring in the higher numbers of housing, mentioned in the previous paragraphs, the infrastructure deficit would go back up.

Crossrail 2 will not impact the immediate Local Plan process, the prospect of this piece of infrastructure and the likelihood

that it may also require supporting infrastructure (alongside the growth) to make it work, may need to be considered in the not too distant future.

GUILDFORD

The Surrey Infrastructure Study update assesses the period 2016 – 2031, whereas the emerging Guildford Borough Local Plan covers the period 2015/16 – 2033/34. This creates a discrepancy to what is being planned in Guildford and what the Infrastructure Study assesses. In total, the Local Plan is seeking to meet 12,426 homes over the plan period (654 homes over 19 years) versus 9,810 identified in the Surrey Infrastructure Study (654 over 15 years).

Whilst Guildford Borough Council's housing requirement is 12,426 homes, the total supply exceeds this figure (approximately 10%). This buffer ensures we are able to meet our housing target and provides the council with flexibility, should sites not deliver as expected.

The Surrey Infrastructure Study assumes an annualised rate of delivery (654 homes each year), however due to the timing of the delivery of necessary infrastructure, which is only expected towards the latter part of the plan period, the delivery of new homes is also likely to be phased with a greater proportion being delivered later in the plan period.

RUNNYMEDE

As part of Runnymede Borough Council's ongoing cooperation with other Local Planning Authorities, including the County Council, data has been provided from past and emerging housing trajectories illustrating the anticipated deliverable and developable sites that may come forward in the current emerging plan period.

Like all trajectories, accuracy reduces over the longer period and while delivery in the early part of the plan period (the next five years) is considered to be relatively accurate, based as it is mostly on sites with planning permission that have been judged deliverable through past published Strategic Housing Land Availability Assessments, the later periods (years 6-10 and 11-15) are less likely to be accurate. Many of the sites identified in these periods have yet to be subject to the objective assessment of the planning process and some are reliant on changes in planning policy that may or may not be introduced as part of the emerging Local Plan in Runnymede. It should be noted that the Council has not yet decided upon the housing allocations that will be made to help meet identified needs.

The Surrey Infrastructure Plan, for which this data has been provided, is seeking to provide a county-wide view of infrastructure needed to support growth set out in current and emerging Local Plans. As the emergence of new Local Plans are on radically different timetable across the County this will lead to apparently anomalous differences in anticipated growth and consequential supporting infrastructure need. The period of assessment, up to 2031, will, of course, ensure that every Local Planning Authority in Surrey will have replaced their current Local Plan with newer, up to date documents. Consequently any housing or other trajectory extending into approximately 2020 or beyond will not reflect the inevitable change in local policy and the implications that may have on housing delivery.

For this reason, while Runnymede Borough Council has provided a Housing trajectory of sites known to the LPA at this time it is not recommended that any future assessment of infrastructure need is based on this trajectory and instead greater infrastructure need should be modelled to account for the likelihood that Runnymede, as well as all other Local Authorities, is likely to have to take steps in emerging Local Plans that will take effect before 2020 to significantly increase the supply of housing wherever possible.

It is therefore recommended for Runnymede, a more unconstrained household growth projection is used to model infrastructure need from 2020 onwards. This may be sourced from either recently completed SHMA documents or from the published DCLG household projections. While it is likely that full objectively assessed housing need may not be met within the individual boroughs and districts of Surrey, due to the significant constraints of flooding, ecology and green belt, amongst others, this 'maximum' growth projection will enable infrastructure need to be modelled to ensure infrastructure provision should not be considered a constraint in itself. As emerging Local Plans reach a stage of maturity that weight can be given to them, the actual infrastructure need, through local Infrastructure Delivery Plans, can be assessed in the appropriate detail to ensure it match the actual growth forecast at that time.

TANDRIDGE

Tandridge recognises that this document presents a snapshot in time. Since then Tandridge has updated many evidence bases and these are available via the Tandridge web site.

A new garden village is proposed in Tandridge, in which consultation closed in October 2017 to assist in identifying potential locations. The garden village will look to provide new housing and enable delivery of infrastructure to support the developmet and Tandridge as a whole. Infrastructure requirements will need to be further assessed once the location has been decided.

Oxted Regeneration has not been included in this report, but will need to be considered in fututre growth and infrastructure implications. It is a plan to revitalise the towncentre through the redevelopment and removal of the existing gasholders for 77 new homes.

WAVERLEY

Waverley Borough Council recognises that the Surrey Infrastructure Study is a snapshot in time, and therefore may quickly become out of date. For more up to date information, interested parties should look at the infrastructure pages of Waverley's website. Our Local Plan has been prepared on the basis of meeting a housing need of 519dpa, and includes a trajectory to match the delivery requirements. We have recently had the Examination hearings for our Local Plan during which the Inspector's preliminary findings raised this requirement to 590dpa.

Waverley Borough Council have identified that the completions look low based on local authority analysis. AECOM analysis have utilitsed data taken from the DCLG. Waverley Borough Council have identified 1,218 completions for the 6 year period of 2010/11 to 2015/16.

The housing figures are based on Waverley Local Plan housing requirement for the years 2016 to 2031. Although it is caveated in the report that the position may have changed, as a consequence of recent Local Plan examination hearings, Waverley have consulted on the Main Modifications in September 2017, with a proposed increase in the housing requirement from 519 to 590 dpa.

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