

04



INFRASTRUCTURE NEEDS AND REQUIREMENTS

THIS SECTION PRESENTS AN ASSESSMENT OF CURRENT INFRASTRUCTURE PROVISION AGAINST GROWTH FORECASTS TO 2030.

This covers the following infrastructure categories:

4.1 TRANSPORT

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

4.2 EDUCATION

- Early years and childcare
- Primary education
- Secondary and sixth form education
- HE, FE, Adult Learning

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.

Technical Note on Modelling Assumptions:

As stated in Section 3 of the report all infrastructure assessments and associated costs are driven from the SCC PopGroup Model Population Forecast, based upon housing trajectories presented within this report, which have been produced to inform this study. This forecast is considered likely to be a minimum increase and therefore the infrastructure requirements and costs presented here are also considered to be minimum estimates.



4.1 TRANSPORT

EXISTING CAPACITY

Surrey	Surrey	Surrey
152	3,600	84
Miles of Motorways	Miles of Public Highway	Rail Stations

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 quickest 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 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;
- M3 junctions 3 to 4; and
- M25 junctions 13 to 14.

- M23 – key link to Gatwick and South Coast
- 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... (see *overleaf*)



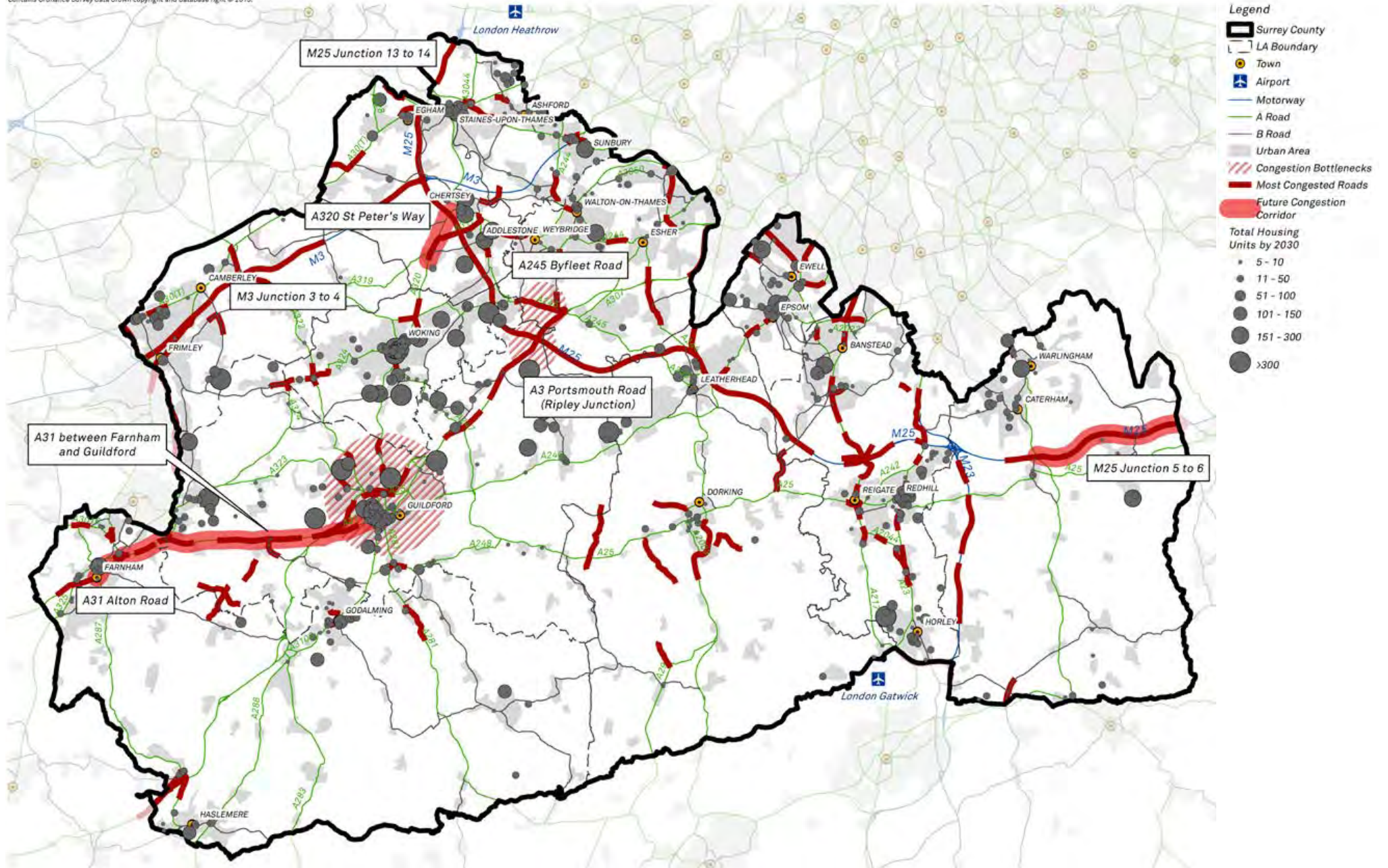
HIGHWAYS AND MOTORWAYS

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 Surrey
- M25 and M3 – forms part of the Trans European Road Network (TERN)

Figure 4.1 Existing major road network and congestion

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Source: Surrey Future Congestion Programme

the abolition of the Regional Transport Board. 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.

Existing Motorways and Trunk Roads Capacity Issues:

- M3 Junctions 2 to 4a;
- M23 north of Gatwick;
- M25 J7-14 and J5-6; 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;
- A31 Alton Road between Guildford and Farnham;
- A24 around Dorking; and
- A24 north of the M25 towards Epsom.



RAIL

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 some rail connections to Heathrow and Gatwick airports are unsatisfactory.



BUS

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.

SCC, as the local transport authority, has an important role in the delivery of local bus services and is also 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.



AIRPORTS

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.

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.



WALKING & CYCLING

Surrey has almost 3448 kilometres (2143 miles) of footpaths, bridleways, and byways. SCC are currently reviewing/completing a Walking Strategy for Surrey as part of the county's Transport Plan.

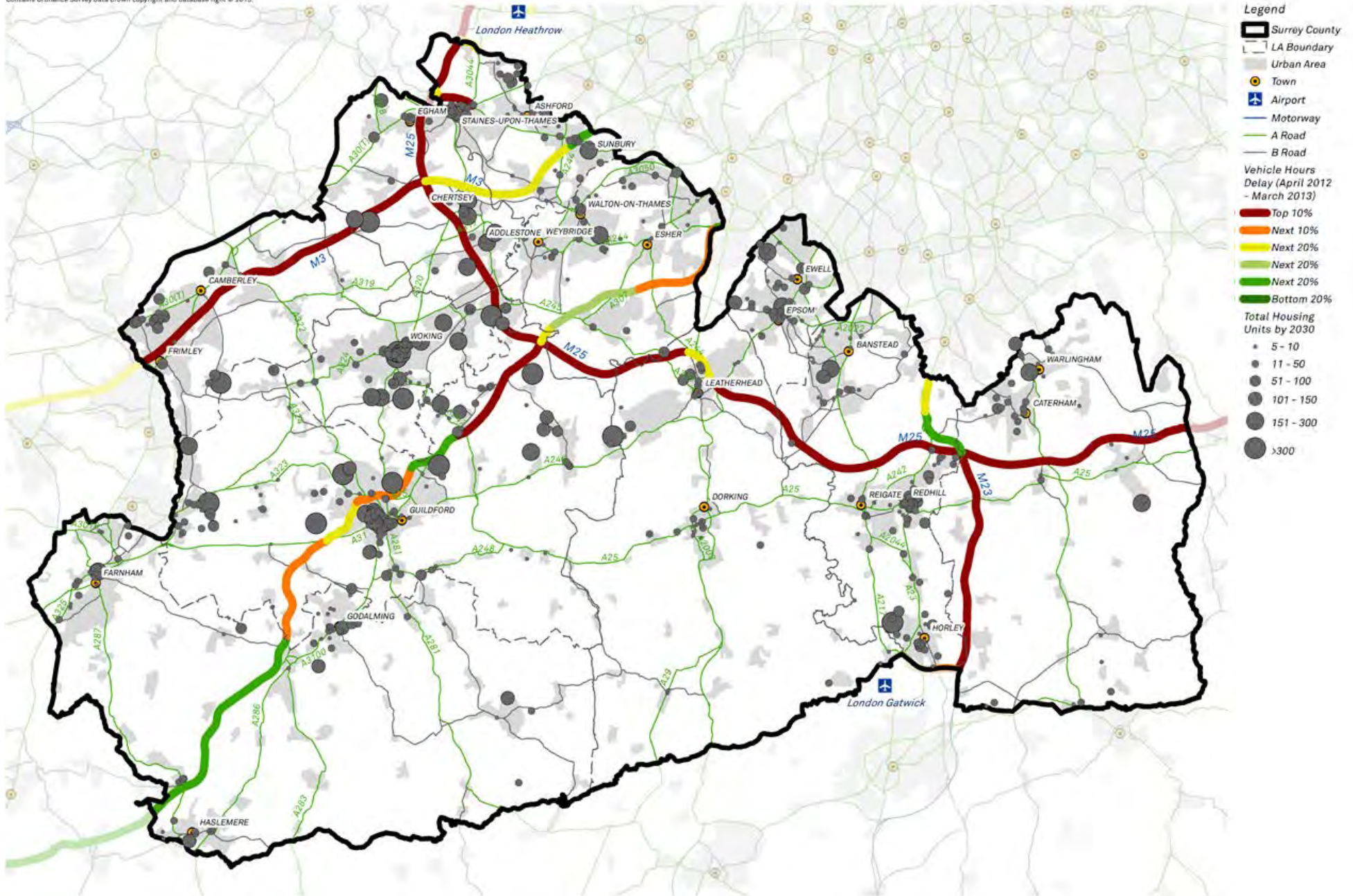
High levels of bike ownership in Surrey indicate significant suppressed demand for cycling. However there are a number of issues and challenges, including but not limited to:

- Limited funding available for cycling improvements
- 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

Figure 4.2

Motorway and trunk road - Vehicle Hours Delay

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Source: Highways England Route-Based Strategy Evidence Reports 2014

PROJECTS TO SUPPORT GROWTH

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:

- The M3 Junctions 2 (M25 interchange, Surrey Heath) to 4a (Farnborough) Smart Motorway is under construction and due to open for traffic in 2017/18. This section is to be resurfaced as part of the upgrade project.
- Improvements to the strategic Wisley interchange between the A3 and M25 Junction 10
- 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 = £411,250,000

Funding Gap = £10,250,000*

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.

- Guildford A3 Strategic Corridor improvements are needed to address the operational performance of the A3 including junction improvements between the A3/A31 Hogs Back and the A3/A3100 Clay Lane/Burpham Junction.
- Several improvements are proposed in Guildford including Town Centre traffic improvements. The Guildford Town Centre Masterplan will also explore

options to significantly reduce traffic flows through the gyratory/Onslow Street area.

- Highways England are looking at an improvement scheme on the A31 to Burnt Common
- A series of interventions along the A217 to relieve traffic congestion
- Dense urban areas including Epsom & Ewell, Woking and Farnham require local mitigation measures to improve journey times and traffic flows in order to facilitate growth.

Cost = £1,154,870,000

Funding Gap = £785,070,000*

RAIL

Capacity improvements are required to support growth and sustainable travel.

- The Surrey Rail Strategy presents capacity improvements which include electrification of, and train lengthening on the North Downs Line and Brighton Main Line junction improvements, which would improve the orbital services across Surrey, increasing capacity on both lines and improve rail access to Gatwick. Additional station requirements at Merrow and Park Barn have also been highlighted through this strategy.
- The latest 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. 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 launched 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 is currently being assessed, including options to improve Southern Rail access.

- Major station upgrades at Guildford and Longcross Stations

Cost = £1,719,350,000

Funding Gap = £1,562,170,000*

BUSES

Improvements to the local bus network are needed across the county to improve frequency, journey time, passenger experience and increase accessibility to employment and new development areas.

- Bus route improvement schemes are being planned in congested urban areas which include provision of bus priority lanes, real time passenger information, and upgrading of bus facilities in places such as Redhill town centre, Godalming, Guildford, and Horley.

Cost = £39,120,000

Funding Gap = £19,580,000*

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 Guildford Sustainable Movement Corridor initiative is the largest walking/cycling/public realm scheme currently planned in the county. It will provide an attractive, landscaped priority pathway for pedestrians, cyclists and buses, largely along existing roads in the town.

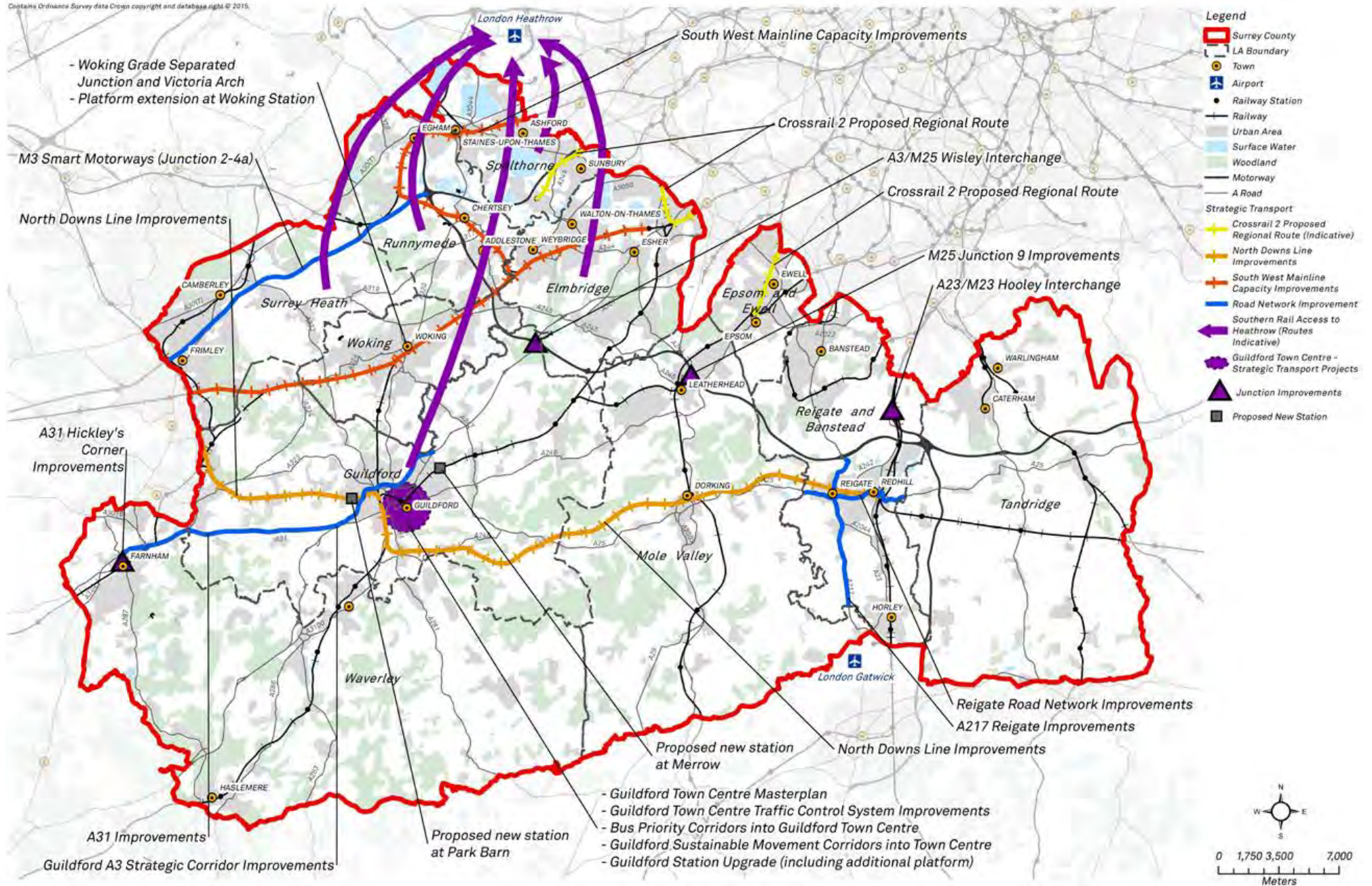
Cost = £268,790,000

Funding Gap = £128,720,000*

** (considering both secured and expected funding)*

Figure 4.3

Strategic transport projects



Source: Map illustrates key strategic projects across the county but is not exhaustive of all schemes recorded.

4.2 EDUCATION

EARLY YEARS & CHILDCARE



Surrey
1,160
Early Year &
Childcare Providers

Surrey
8,820
Child Minding
Places

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.

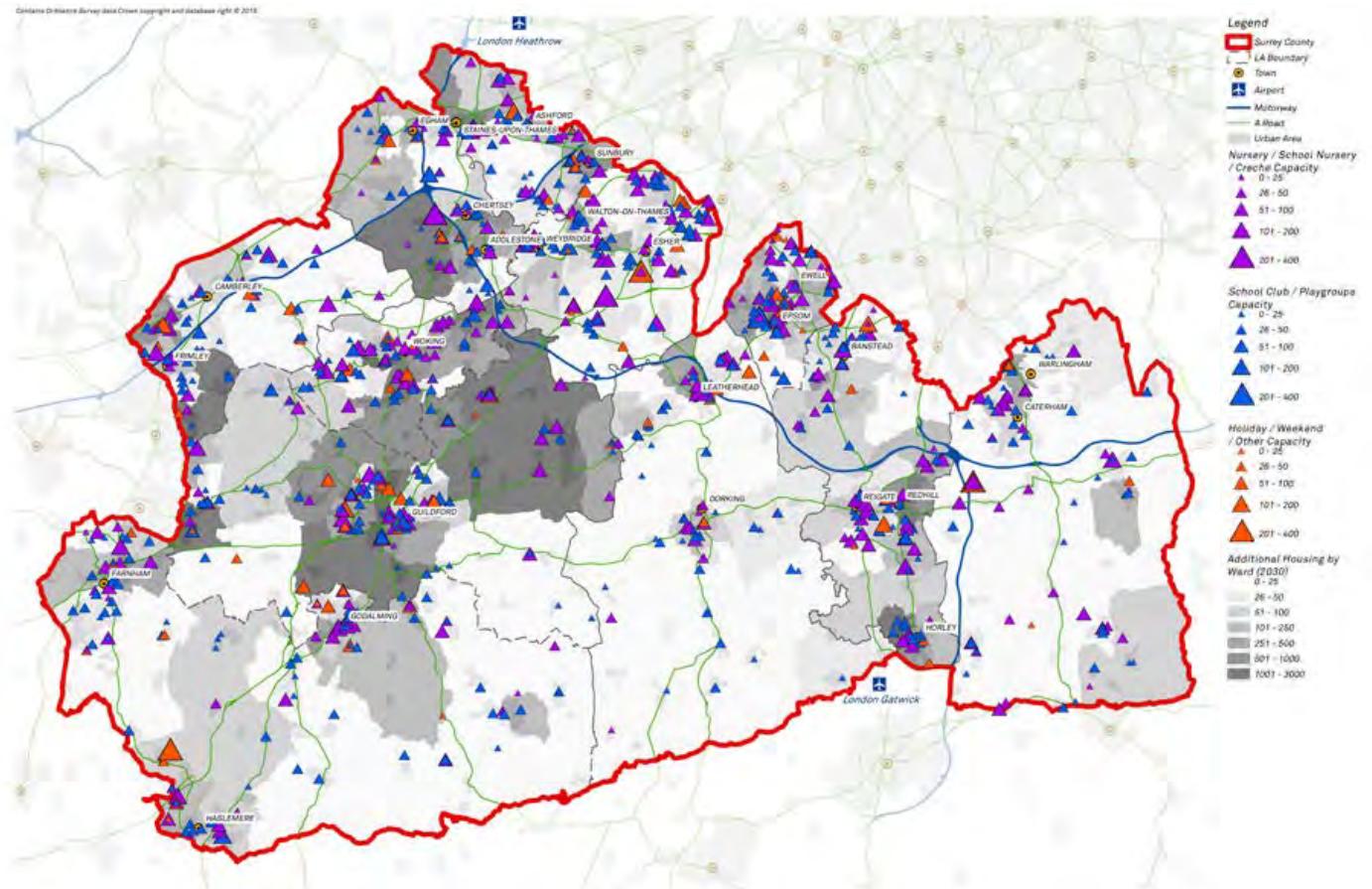
Surrey County Council therefore holds a responsibility for providing certain elements of Early Years provision, particularly with regard to identifying any gaps in childcare provision. Many of the Early Years services are provided independently, however Surrey County Council retains a responsibility 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.

Figure 4.4

Early years and childcare capacity against housing growth



Source: Surrey County Council location and capacity data 2015

The **SCC Childcare Sufficiency Assessment 2014** has identified nine areas where current provision will not be able to meet future demand for early education. These clusters are:

- Molesey North, Molesey South and Molesey East wards in Elmbridge
- Burpham and Merrow wards in Guildford
- Stoke, Stoughton and Westborough wards in Guildford
- Earlswood & Whitebushes, Meadvale & St. John's and South Park & Woodhatch wards in Reigate & Banstead
- Bletchingley & Nutfield, Merstham, Redhill East and Redhill West wards in Reigate & Banstead and Tandridge
- Addlestone Bourneside, Addlestone North and Chertsey South and Row Town wards in Runnymede
- New Haw and Woodham wards in Runnymede
- Egham Hythe and Thorpe wards in Runnymede
- Byfleet, West Byfleet and Pyrford wards in Woking

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 2030

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 2030 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.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

- Early Years education facility in Horley
- Private nursery at the former DERA site in Runnymede
- Early Years provision for 130 places in Spelthorne - £1.3m
- Provision for an additional 156 children (to 2021) in Woking - £1.5m
- Rationalisation of Children's Centre provision in Woking

COSTS AND FUNDING

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

Cost = £5,120,000

Funding Gap = £260,000*

Costs are set out for each local authority in Section 5

* (considering both secured and expected funding)

PRIMARY EDUCATION



Surrey
304
Schools

Surrey
13%
of schools
Academies

CURRENT SITUATION

In Surrey there are 169 primary, 46 junior and 89 infant schools. These comprise state funded or controlled schools; voluntary aided or controlled schools and academy schools. Currently, there are also two free schools providing primary education. Distribution /capacity is shown in Figure 4.5. This representation of primary education provision excludes that supplied by independent schools which accounts for around 20%.

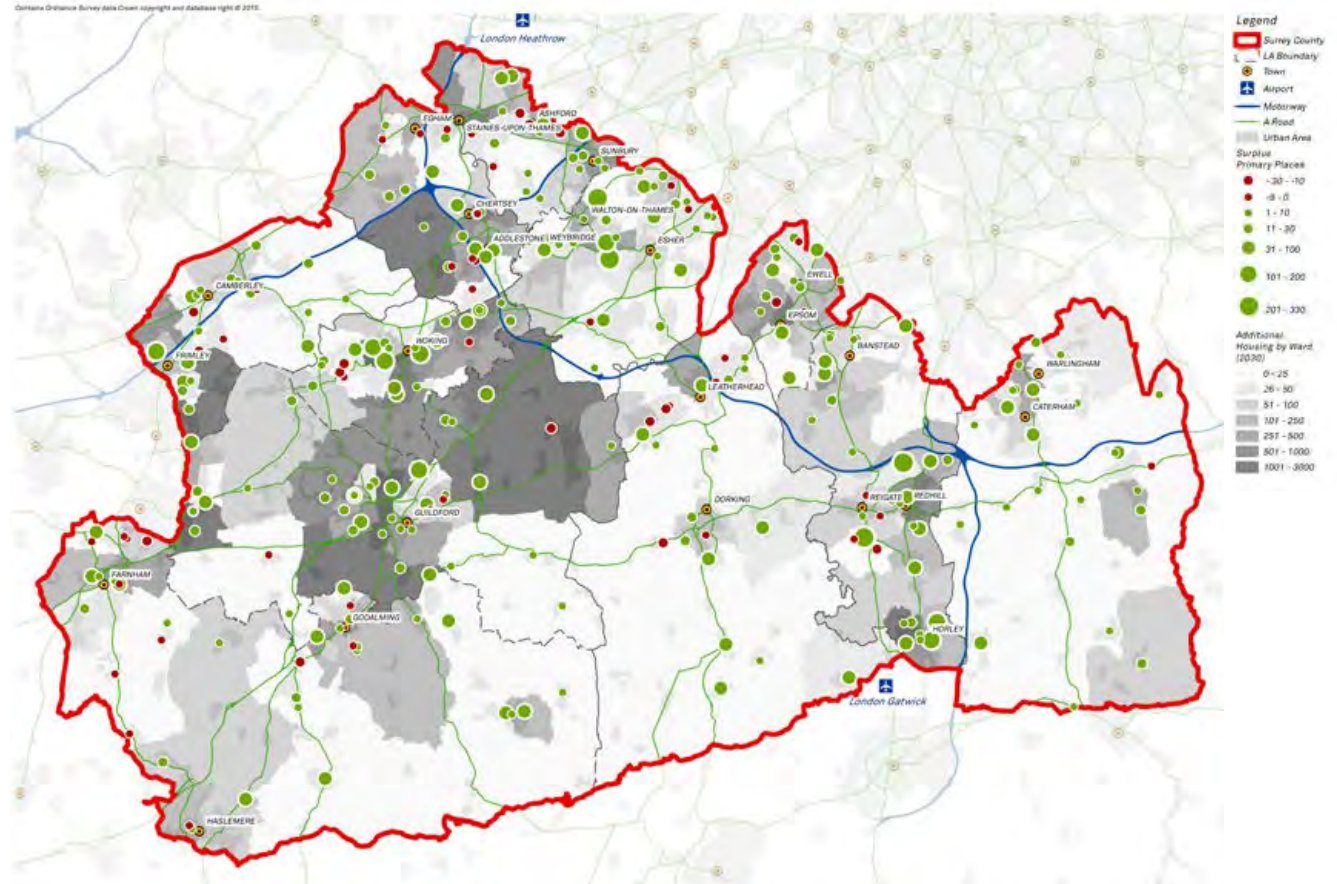
HEADLINES

- In May 2015, there was an 8% overall surplus of primary school places across all year groups.
- In May 2015, there was a 5% surplus of reception year places, compared to an 11% surplus of Year 6 places
- In the 2014/15 academic year, SCC added an additional 1058 temporary bulge primary places. Without this additional infrastructure, there would have been a deficit of 3% in Reception places.

Demand for school places is not uniform, so whilst there may be a surplus of places in one year group or area, there may be a need for additional places in another. For example, there may be a surplus of places in Year 5 but a shortage of places in reception year, or a deficit of places in Waverley but a surplus of places in Tandridge.

Figure 4.5

Primary school capacity against housing growth



Source: Surrey County Council location and capacity data 2015

Table 4.2

Primary school capacity and forecast pupil change

	LOCAL AUTHORITY WIDE PLACE DATA 2015			IDENTIFIED GROWTH IN PUPIL NUMBERS			
	TOTAL SCHOOL PLACES - MAY 2015	TOTAL CHILDREN ON ROLL - MAY 2015	% SURPLUS / DEFICIT* OF SCHOOL PLACES IN MAY 2015	ADDITIONAL PRIMARY PUPILS BY 2021	% CHANGE IN PRIMARY PUPILS BY 2021	ADDITIONAL SCHOOL PLACES PLANNED BY 2021	% SURPLUS / DEFICIT* OF SCHOOL PLACES BY 2021
Elmbridge	10,795	9,734	10%	972	10%	540	10%
Epsom & Ewell	6,030	5,749	5%	1,142	20%	718	8%
Guildford	10,932	10,106	7%	1,049	10%	540	-2%
Mole Valley	6,007	5,576	7%	656	12%	0	6%
Reigate & Banstead	11,563	10,088	13%	2,680	26.5%	1,170	4%
Runnymede	6,196	5,834	6%	195	3%	210	6%
Spelthorne	7,970	7,596	5%	439	6%	0	6%
Surrey Heath	7,164	6,712	6%	395	6%	540	2%
Tandridge	6,568	6,170	6%	276	4%	0	3%
Waverley	9,838	9,031	8%	260	3%	0	6%
Woking	8,937	8,051	10%	693	9%	210	6%
SURREY	92,000	84,647	8%	8,757	10%	3,928	5%

Source: Surrey County Council September 2015 School Capacity Figures and Forecast Numbers to 2021

*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 this table is subject to change.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030

Table 4.2 sets out forecast growth in terms of primary school places to 2021. The information should be considered in the context of the following key issues:

- Capacity and roll numbers indicate a positive position to accommodate future growth, with the council's programme of additional places providing an average county wide surplus of places by 2021.
- Certain pressure points will however, remain throughout the county and the surplus of places will not be uniform across all schools due to parental preference.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

- Expansion of Danetree Junior School, Epsom & Ewell to primary status.
- Expansion of Hawkedale Infant School, Spelthorne to primary status.
- Expansion at Worplesdon Primary School, Guildford
- Up to 2FE new primary school for Deepcut development, Surrey Heath
- 2FE primary expansion in Woking Town
- 1FE primary expansion in Runnymede

SECONDARY, SIXTH FORM & SEN



Surrey
54
Secondary
Schools

Surrey
50%
of schools
Academies

CURRENT SITUATION

Secondary schools in Surrey comprise maintained state schools, and academies and free schools which are independent of the local authority. It is important to recognise that the data represented does not capture secondary education provision offered by non maintained independent schools, which account for approximately 20% of secondary education in the county. Distribution / capacity is shown in Figure 4.6.

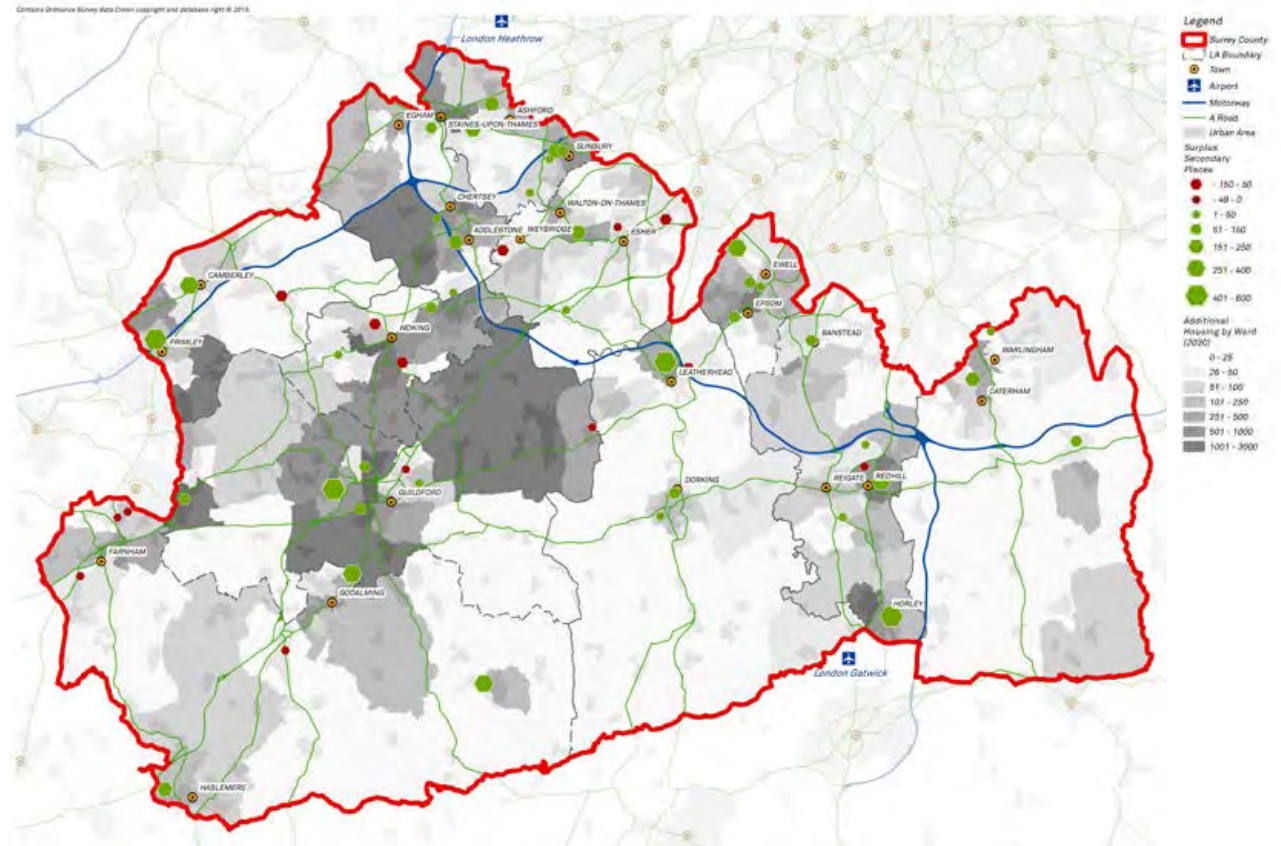
HEADLINES

- In May 2015, there was a 8% overall surplus of secondary school places across all year groups
- In May 2015, there was a 6% surplus of Year 7 places, compared to an 11% surplus of Year 8 places, showing the beginnings of a 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 a large surplus of places in Year 11, but a shortage of places in Year 7, or a deficit of secondary school places in Farnham town, but a surplus of places in Cranleigh town.

Figure 4.6

Secondary school capacity against housing growth



Source: Surrey County Council location and capacity data 2015

Table 4.3

Secondary school capacity and forecast pupil change

	LOCAL AUTHORITY WIDE PLACE DATA 2015			IDENTIFIED GROWTH IN PUPIL NUMBERS			
	TOTAL PLACES	TOTAL NUMBER ON ROLL	% SURPLUS	ADDITIONAL SECONDARY PUPILS BY 2025	% CHANGE IN	ADDITIONAL SCHOOL PLACES PLANNED BY 2025	% SURPLUS
			/ DEFICIT OF		SECONDARY		/ DEFICIT OF
			PLACES IN MAY 2015		PUPILS BY 2025		PLACES BY 2025
Elmbridge	4,575	4,722	-3%	2,332	49%	300	-38%
Epsom & Ewell	5,930	5,312	10%	1,337	25%	450	-5%
Guildford	8,510	7,699	9.5%	2,506	32.5%	750	-11%
Mole Valley	4,636	4,124	11%	1,047	25%	300	-5%
Reigate & Banstead	7,638	6,689	12%	2,758	41%	1,680	-4%
Runnymede	5,116	4,850	5%	1,494	31%	1,150	-2%
Spelthorne	5,986	5,431	9%	906	17%	450	2%
Surrey Heath	5,397	4,641	14%	823	18%	0	-1%
Tandridge	4,616	4,226	8%	352	8%	150	4%
Waverley	6,817	6,108	10%	1,053	17%	580	3%
Woking	4,429	4,462	-1%	1,811	40.5%	600	-1%
SURREY	63,650	58,264	8%	16,419	28%	6,410	-5%

Source: Surrey County Council September 2015 School Capacity Figures and Forecast Numbers to 2021

*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 this table is subject to change.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030

Table 4.2 sets out forecast growth in terms of secondary school places to 2025. The following points should be noted

- Table of local authority level capacity and pupil numbers masks local areas of pressure
- Analysis represents a snapshot in time. Detailed SCC education planning is underway to address pupil capacity.
- Analysis excludes impacts from bordering counties which will have an impact on service demands within Surrey particularly along border areas

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in secondary provision includes the following:

- 6FE secondary expansion in Elmbridge
- Up to 3FE secondary expansion in Guildford Town
- 3FE secondary expansion, Epsom and Ewell
- 2FE secondary school expansion, Mole Valley
- 6FE new school in the Reigate/Redhill area
- New secondary school at the Runnymede Centre
- Up to 3FE secondary expansion in Waverley
- 1FE secondary expansion in Spelthorne

Investment in SEN provision includes:

- Replacement of Portesbury Special School
- Provision of a new teaching block at Sunnydown Special School
- Change of age range at West Hill Special School
- Building of four new specialist centres at four existing secondary schools in Surrey, in partnership with National Autistic Society and the Cullum Family Trust

PRIMARY AND SECONDARY SCHOOL COSTS AND FUNDING

COSTS AND FUNDING

Surrey County Council have undertaken considerable work in updating the School Organisation Plan (SOP) which has fed directly into this Infrastructure Study.

Definitive school planning costs can only be provided to 2021 for both primary and secondary schools.

Funding Gap = £138,700,000*

An assessment of potential funding against planned education projects has been undertaken by Surrey County Council which has identified a combined funding gap of £138.7 million across primary and secondary education. It is important to note that this does not represent the full funding requirements from 2015 to 2030.

Costs and funding is set out for each local authority in Section 5. The funding estimates for primary and secondary projects at the local authority level presented in Section 5 have taken into consideration a high level estimate of potential CIL contributions as explained in Section 6. This is purely illustrative however and the overarching cost and funding picture presented here reflects the latest official cost and funding picture for SCC education.

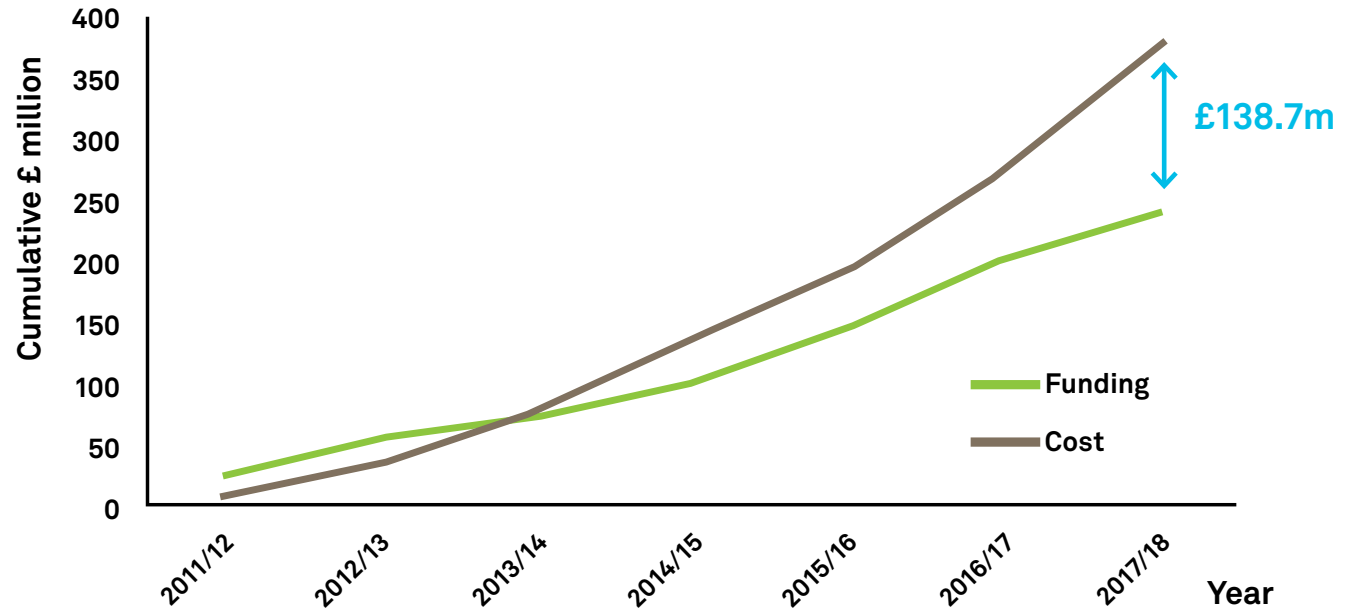


FIGURE 4.7 - PUBLISHED SCHOOL PLACE FUNDING GAP IN SURREY

Source: Surrey County Council



FURTHER EDUCATION, HIGHER EDUCATION AND ADULT LEARNING



Surrey
5
HE Campus

Surrey
14
FE Colleges

Surrey
7
Adult Learning
Enrolment Centres

CURRENT SITUATION

There are 26,091 16-18 year old Further Education places funded by the Education Funding Agency across Surrey. Of the 64 institutions delivering Further Education places across the county, there are; 26 Sixth Forms (captured on the previous page covering Secondary Education), 14 Colleges and 20 Special Schools, as well as 4 specialist training bodies.

HEADLINES

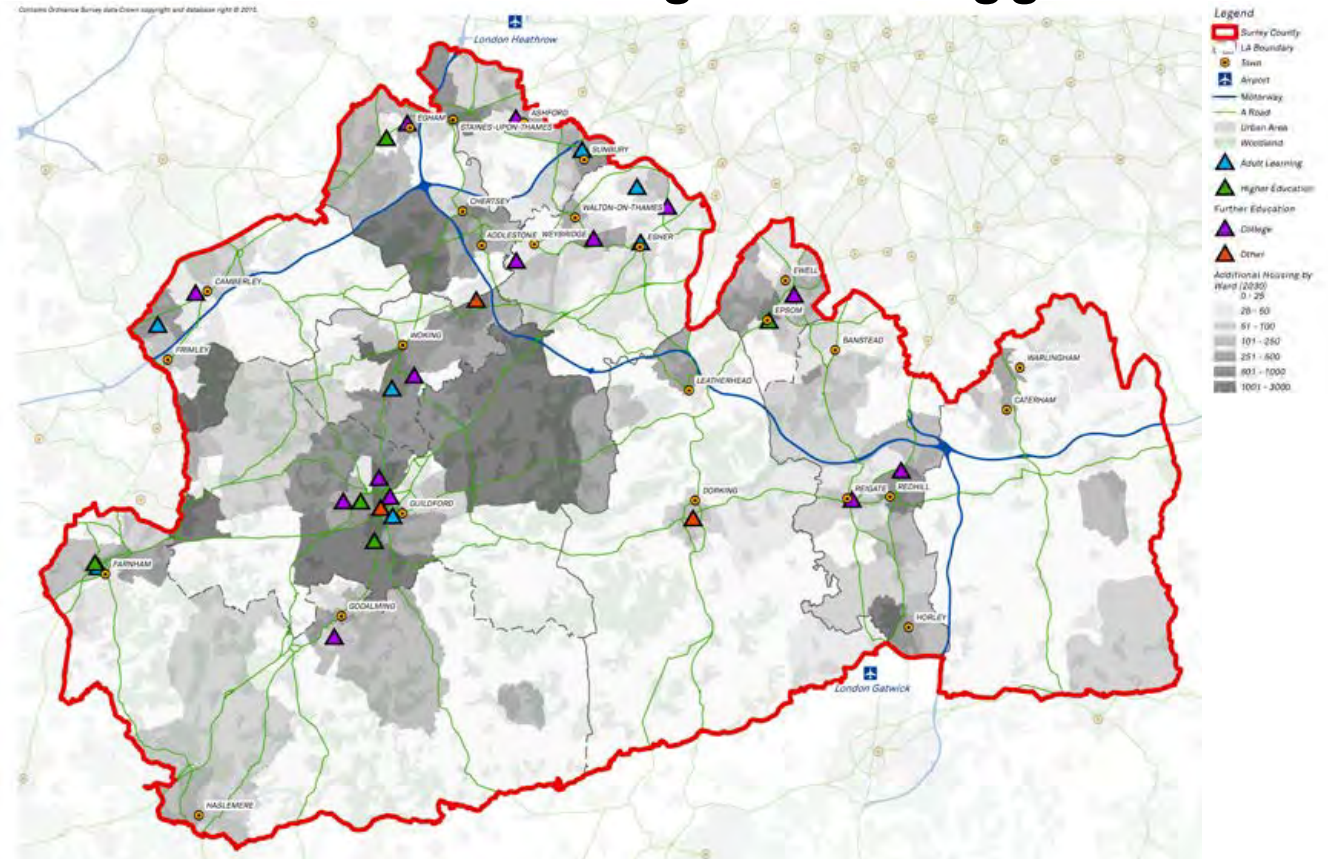
In order to properly evaluate capacity, and in particular Community Learning, an assessment of the current skills gap needs to be undertaken in conjunction with future housing developments to support growth. Moving forward a bespoke model needs to be developed to assess this, in which physical infrastructure to support community learning will continue to be important, while online training will play an increasing role.

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.

Surrey Adult Learning - run by Surrey County Council - is the key supplier of Adult Education provision across the county. There is a fairly even spread of enrolment centres with at least one centre located in 7 of the 11 local authorities within Surrey. Adult education courses in East Surrey are provided by East Surrey College.

Figure 4.8

Post 16 education facilities against housing growth



Source: Surrey County Council location data 2015

Table 4.4

Post-16 education facilities

	UNIVERSITY CAMPUS	COLLEGES	SCC ADULT LEARNING ENROLMENT CENTRES	TOTAL INSTITUTIONS
Elmbridge	0	3	2	5
Epsom & Ewell	1	1	0	2
Guildford	2	3	1	6
Mole Valley	0	0	0	0
Reigate & Banstead	0	2	0	2
Runnymede	1	1	0	2
Spelthorne	0	1	1	1
Surrey Heath	0	1	1	2
Tandridge	0	0	0	0
Waverley	1	1	1	3
Woking	0	1	1	2
SURREY	5	14	7	26

Source: Surrey County Council and AECOM web-based research

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030



Surrey

756

Additional Adult Learning sqm of space

Royal Holloway University of London,
Runnymede**12,000**

Forecast students (currently 9,000)

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Table 4.4 sets out the current spread of Post-16 Education facilities across Surrey. The IDPs identify the following significant Further Education and Higher Education projects:

- Relocation of Woking College to town centre and improvements to its sports provision
- £10m capital bid submitted by SCC, on behalf of a consortium, for University Technical College, sharing a site with Kings College, Park Barn.
- 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 = £117,830,000

Funding Gap = £12,250,000*

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

* (considering both secured and expected funding)



4.3 HEALTH + SOCIAL CARE

PRIMARY CARE SERVICES



Surrey
754
FTE GPs

Surrey
291
Dental
Practices

Surrey
229
Pharmacies

CURRENT SITUATION

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

HEADLINES - GPs

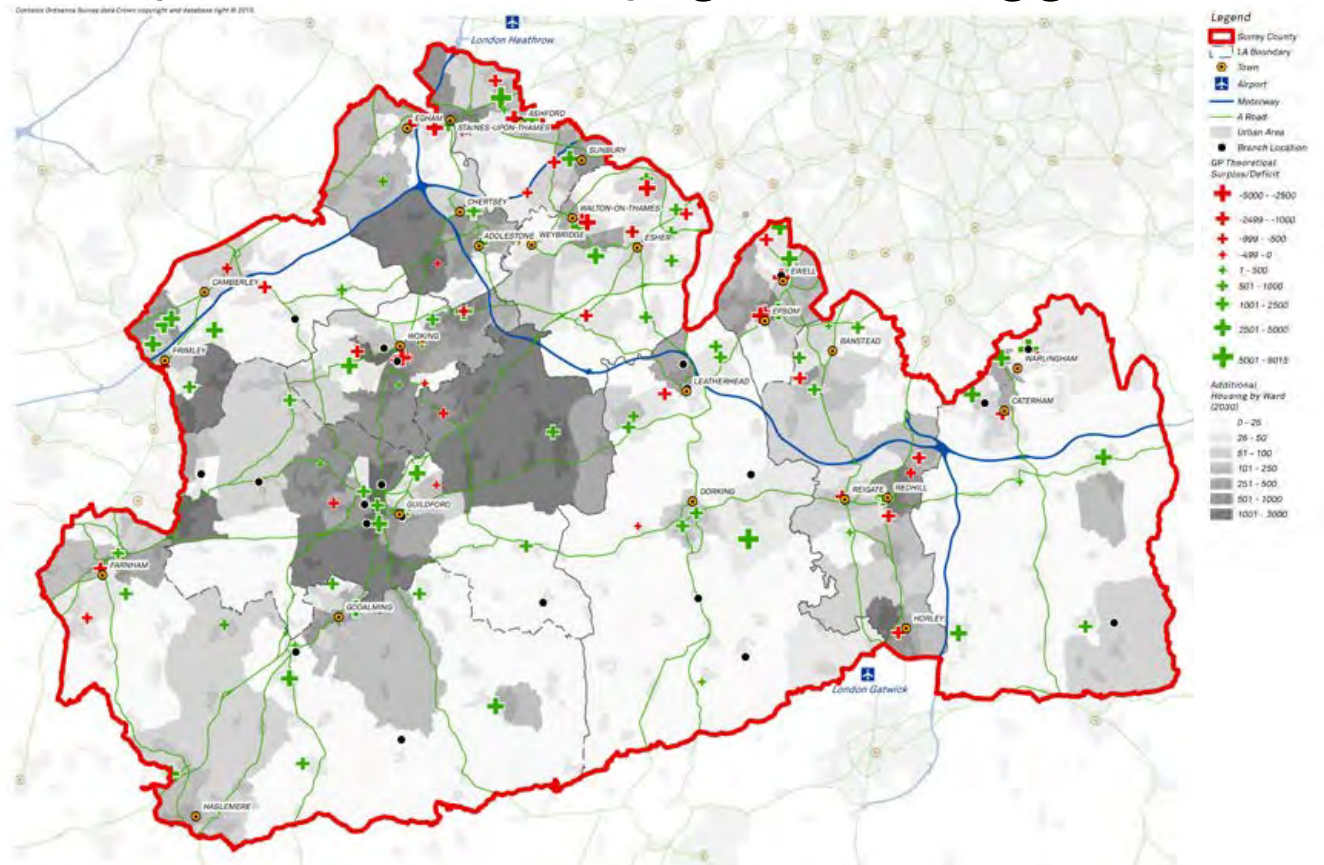
- In general the provision of GP services is in a very strong provision with all local authorities displaying a theoretical surplus in GP provision.
- Waverley appears to be in the strongest position to accommodate growth from a health perspective with a theoretical surplus of 26,861 patients.
- According to mapping of provision and GP numbers there remains a lack of capacity at certain practices, notably in the growth area of Woking.

HEADLINES - DENTISTS

- Guildford has the highest need for additional dentists to accommodate future growth
- Reigate & Banstead displays the lowest provision of dental practices across the county with a ratio of 2,964 residents per dental practice.

Figure 4.9

Primary healthcare capacity against housing growth



Source: MY NHS Website for location, workforce and patient list data 2015

Table 4.5

Primary healthcare capacity & theoretical future needs

	EXISTING PRIMARY CARE PROVISION 2015				2015-2030 ADDITIONAL REQUIREMENTS	
	NUMBER OF FTE GP	PATIENT LIST SIZE	THEORETICAL BALANCE PATIENTS	POPULATION PER PHARMACY	GPS	DENTISTS
Elmbridge	79	142,390	530	4,594	1	1
Epsom & Ewell	48	83,743	2,585	6,493	1	1
Guildford	67	108,719	13,902	6,163	11	12
Mole Valley	60	89,903	17,647	4,111	1	1
Reigate & Banstead	79	137,920	3,668	5,082	6	6
Runnymede	40	66,900	4,902	6,394	7	7
Spelthorne	60	101,038	7,016	4,453	1	1
Surrey Heath	72	114,084	15,678	4,582	2	2
Tandridge	59	85,226	20,794	5,646	0	0
Waverley	105	162,103	26,861	4,079	1	1
Woking	86	150,401	4,003	6,278	4	4
SURREY	754	1,242,427	117,586	5,075	36	37

Source: Primary healthcare capacity and patient list size according to MY NHS 2015 data, Pharmacy data from HSCIC 2015 data.

UK benchmark for GP provision is 1800 patients to 1 GP

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030



Surrey
5,947

Additional sqm of primary healthcare space by 2030



Surrey
1,849

Additional sqm of dental healthcare space by 2030

Future requirements are based on the application of best practise standards against population growth forecasts. 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.

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in primary healthcare provision as set out within the IDPs include the following;

- Satellite facility for Oxted Health Centre in Tandridge - £1,100,000
- Provision of a health centre at Princess Royal Barracks, Deepcut in Surrey Heath - £400,000

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 = £20,750,000

Funding Gap = £950,000*

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

* (considering both secured and expected funding)

HOSPITALS AND MENTAL HEALTH



Surrey
2,594
NHS Acute
hospital beds



Surrey
286
Mental health
hospital beds

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.

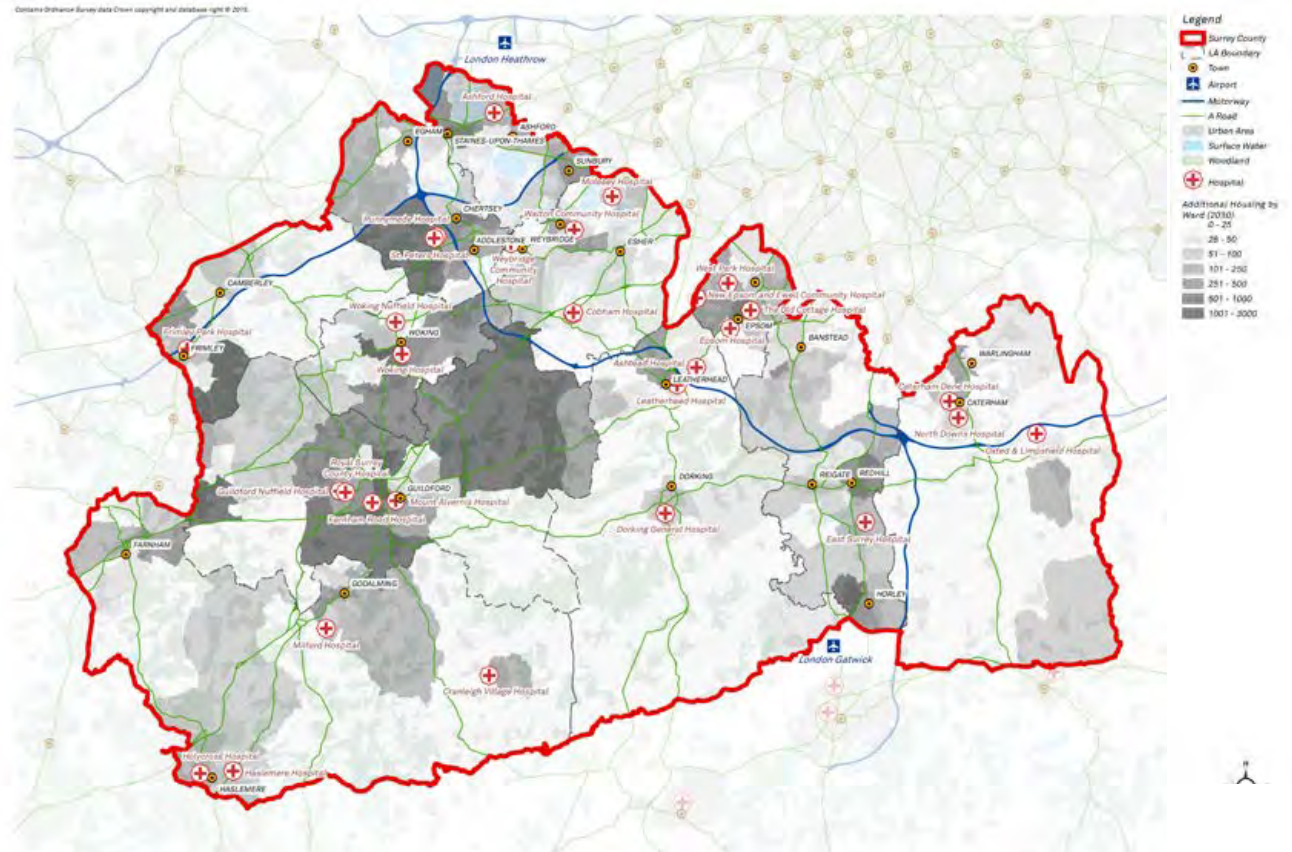
Surrey and Borders Partnership NHS Foundation Trust (SABP) is the mental health trust for Surrey providing community, inpatient and social care services for psychiatric and psychological illnesses.

HEADLINES - HOSPITALS

- Reigate & Banstead and Surrey Heath have the highest proportion of Acute/Specialist hospital beds across the county.
- 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.

Figure 4.10

Hospital locations against housing growth areas



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

Table 4.6

NHS hospital capacity and theoretical future need

	EXISTING HOSPITAL BED CAPACITY (2015)				2015-2030 ADDITIONAL REQUIREMENTS		
	GENERAL ACUTE	MATERNITY	MENTAL ILLNESS & LEARNING DISABILITY	TOTAL	ACUTE HOSPITAL BEDS	MENTAL HEALTH BEDS	
ROYAL SURREY COUNTY HOSPITAL NHS FOUNDATION TRUST	456	58	-	514	Elmbridge	5	1
FRIMLEY HEALTH NHS FOUNDATION TRUST	1,240	72	-	1,312	Epsom & Ewell	5	1
ASHFORD AND ST PETER'S HOSPITALS NHS FOUNDATION TRUST	520	53	-	573	Guildford	40	8
SURREY AND SUSSEX HEALTHCARE NHS TRUST*	633	42	-	675	Mole Valley	4	1
EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST*	763	97	-	860	Reigate & Banstead	21	4
SURREY AND BORDERS PARTNERSHIP NHS FOUNDATION TRUST	-	-	258	244	Runnymede	23	5
TOTAL*	3,611	322	258	4,192	Spelthorne	4	1
					Surrey Heath	6	1
					Tandridge	2	0
					Waverley	5	1
					Woking	14	3
					SURREY	127	26

Source: NHS England: Unify2 data collection - KH03 - Average daily number of available and occupied beds open overnight by sector (April to June 2015)

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 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.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030



Surrey

20,344

Additional sqm of acute hospital bed space by 2030



Surrey

2,225

Additional sqm of mental health bed space by 2030

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 provision as set out within the IDPs includes the following;

- Redevelopment of Cranleigh hospital in Waverley
- Maintenance at Milford Hospital
- Refurbishment of Caterham Dene Hospital in Tandridge

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 = £86,380,000

Funding Gap = £18,500,000*

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

* (considering both secured and expected funding)

ADULT SOCIAL CARE



Surrey
231
Nursing Homes

Surrey
497
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

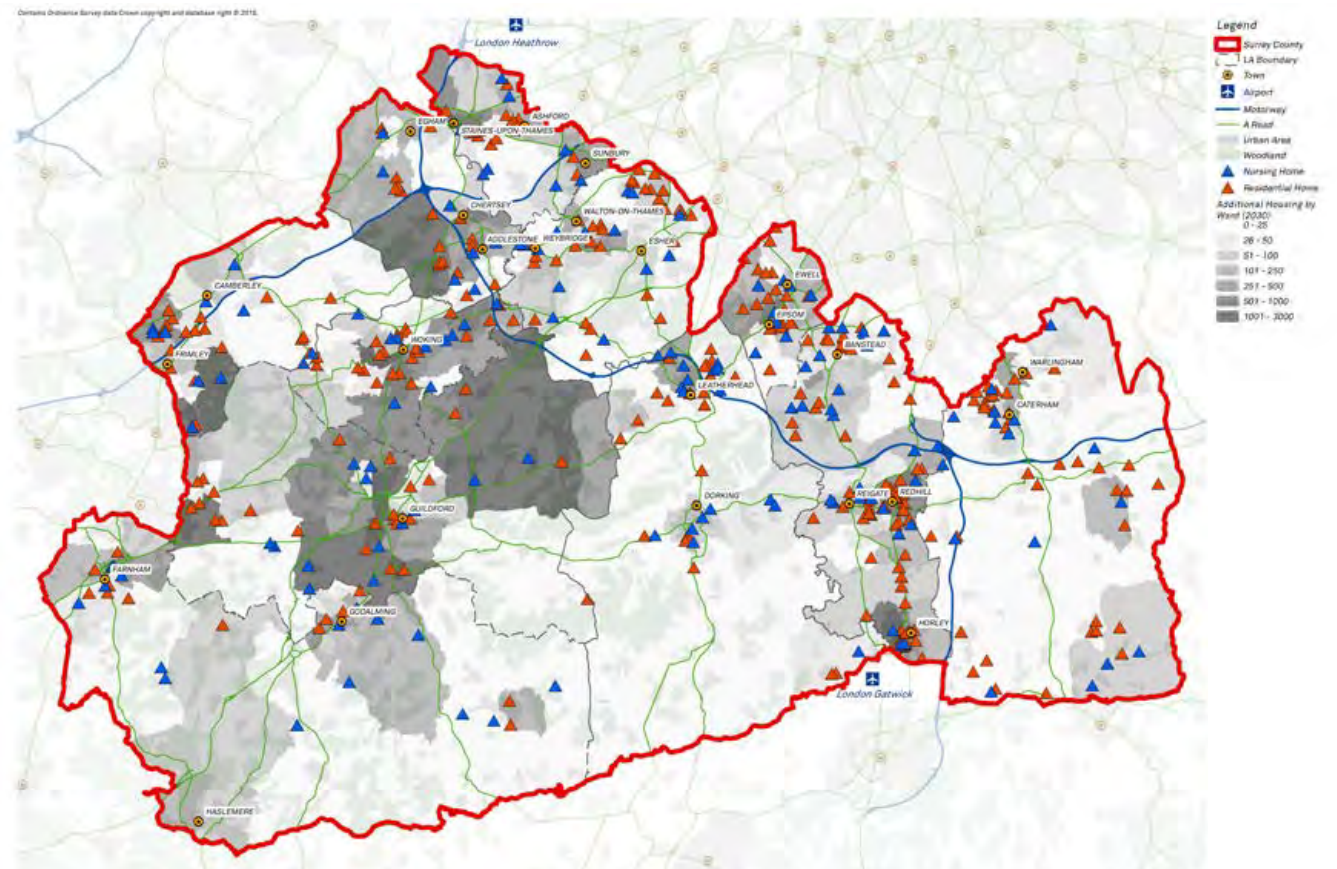
Surrey
-4%
Registered Care Deficit in
Bed Requirements

Surrey
-1,955
Bed Deficit in Residential
Care

- As of 2014, there were 11,341 registered care providers of Residential Care Homes and Nursing Care Homes.
- Of these; 6,702 were Residential Care Homes and 4,640 were Nursing Care Homes.

Figure 4.11

Social care accommodation against housing growth areas



Source: SCC and CQC Website for location and capacity data 2015

Table 4.7

Social care accommodation & theoretical future need

	NURSING AND RESIDENTIAL CARE		2015-2030 ADDITIONAL REQUIREMENTS		
	NURSING HOMES	RESIDENTIAL CARE	NURSING CARE BEDS	RESIDENTIAL CARE BEDS	EXTRA CARE BEDS
Elmbridge	18	41	190	146	107
Epsom & Ewell	14	43	108	83	63
Guildford	17	33	185	142	107
Mole Valley	25	44	158	122	95
Reigate & Banstead	42	105	245	188	137
Runnymede	21	26	131	101	68
Spelthorne	12	18	135	104	73
Surrey Heath	14	28	169	130	98
Tandridge	20	52	155	119	92
Waverley	34	50	215	166	142
Woking	14	57	147	114	83
SURREY	231	497	1,838	1,415	1,066

Source: CQC Database & AECOM Analysis of future demands using The Housing Learning and Improvement Network (LIN) SHOP TOOL

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030



Surrey

26

Additional Nursing Care Facilities (72 bed)



Surrey

20

Additional Residential Care Facilities (72 bed)



Surrey

14

Additional Extra Care Facilities (77 bed)

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

- Redevelopment of Queen Elizabeth House in Englefield Green to provide a 65 bedroom nursing and care home
- Redevelopment of the former Brunel University site to provide (amongst other things) 59 extra care units
- Provision of specialist accommodation for vulnerable young people in Woking.

COSTS AND FUNDING

AECOM has estimated accommodation costs based upon benchmark planning standards and the forecast age specific population forecasts. UK benchmark costs have been applied to those forecasts. This identifies the following costs for Surrey:

Cost = £318,680,000

Funding Gap = £31,870,000*

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

*(considering both secured and expected funding)



4.5 COMMUNITY

LIBRARIES



Surrey
42
SCC
managed
Libraries

Surrey
10
Community
Partnered
Libraries

Surrey
3
Community
Link
Libraries

CURRENT SITUATION

The nature of a library and what it really means today is changing all the time. The service is no longer about just books as Surrey County Council is increasingly looking at how traditional library buildings are used to ensure that space is used most effectively and to respond to changing service needs, including the impact of digital technology.

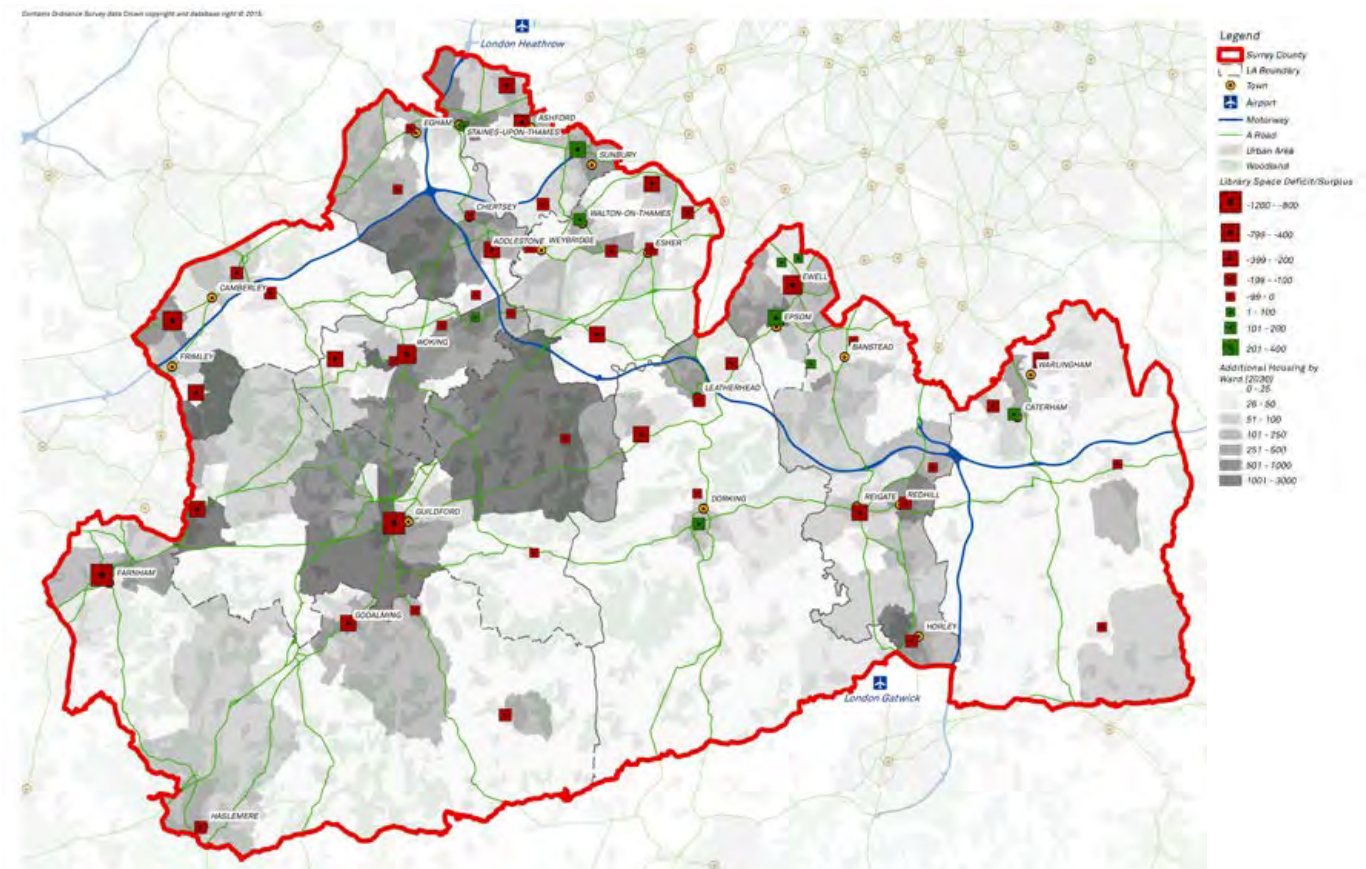
Whilst there has been an active programme of refurbishing libraries over the past 7 years a lot of the libraries in Surrey are still in old buildings in out of town locations and this proves itself to be difficult as the Council strives to deliver a truly modern service.

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.

Figure 4.12

Library capacity against housing growth areas



Source: Surrey County Council for location and capacity data 2015

Table 4.8

Library capacity & theoretical future need

	NUMBER OF LIBRARIES	FLOORSPACE(SQM)	SIZE REQUIRED FOR CATCHMENT (SQM)	SUM OF SURPLUS / DEFICIT FLOORSPACE (SQM)	2015-2030 ADDITIONAL LIBRARY SPACE (SQ.M) REQUIREMENT
Elmbridge	7	2,334	3,305	-971	65
Epsom & Ewell	4	2,084	2,123	-39	63
Guildford	4	1,202	2,752	-1,551	508
Mole Valley	6	1,355	1,849	-494	45
Reigate & Banstead	6	2,637	3,311	-674	264
Runnymede	5	1,330	1,904	-574	293
Spelthorne	5	2,110	2,429	-319	52
Surrey Heath	4	862	1,842	-980	79
Tandridge	5	1,116	1,640	-474	21
Waverley	5	1,426	3,028	-1,602	59
Woking	6	2,100	2,859	-759	173
SURREY	57	18,604	27,042	-8,437	1,622

Source: Surrey County Council & 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 library 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 2030



Surrey

1,622

Sq.m of additional library space required by 2030

Whilst our analysis identifies the need for 1,622 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:

- New build community hub in Merstham in 2016
- Relocation of Horley Library in January 2016
- A new Performing Arts Library within the next 3 years

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 = £10,730,000

Funding Gap = £8,780,000*

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

* (considering both secured and expected funding)

YOUTH SERVICES



Surrey
43
Total Number of
Youth Centres

Surrey
36
SCC
Facilities

Surrey
7
Non SCC
Facilities

CURRENT SITUATION

Youth services in Surrey are run by Surrey County Council, either by Surrey Youth Support Services (YSS) or on their behalf under contract with a range of commissioned providers. YSS staff work with partners including health professionals, schools, colleges, police and voluntary organisations so that support can be tailored to each individual.

HEADLINES

Tandridge
763

Fewest hours of service
provided March 2014-15

Reigate & Banstead
783

Highest number of clients
recorded March 2015

Epsom & Ewell - good provision

0.60

Youth service providers per 1,000 young people

Guildford - poor provision

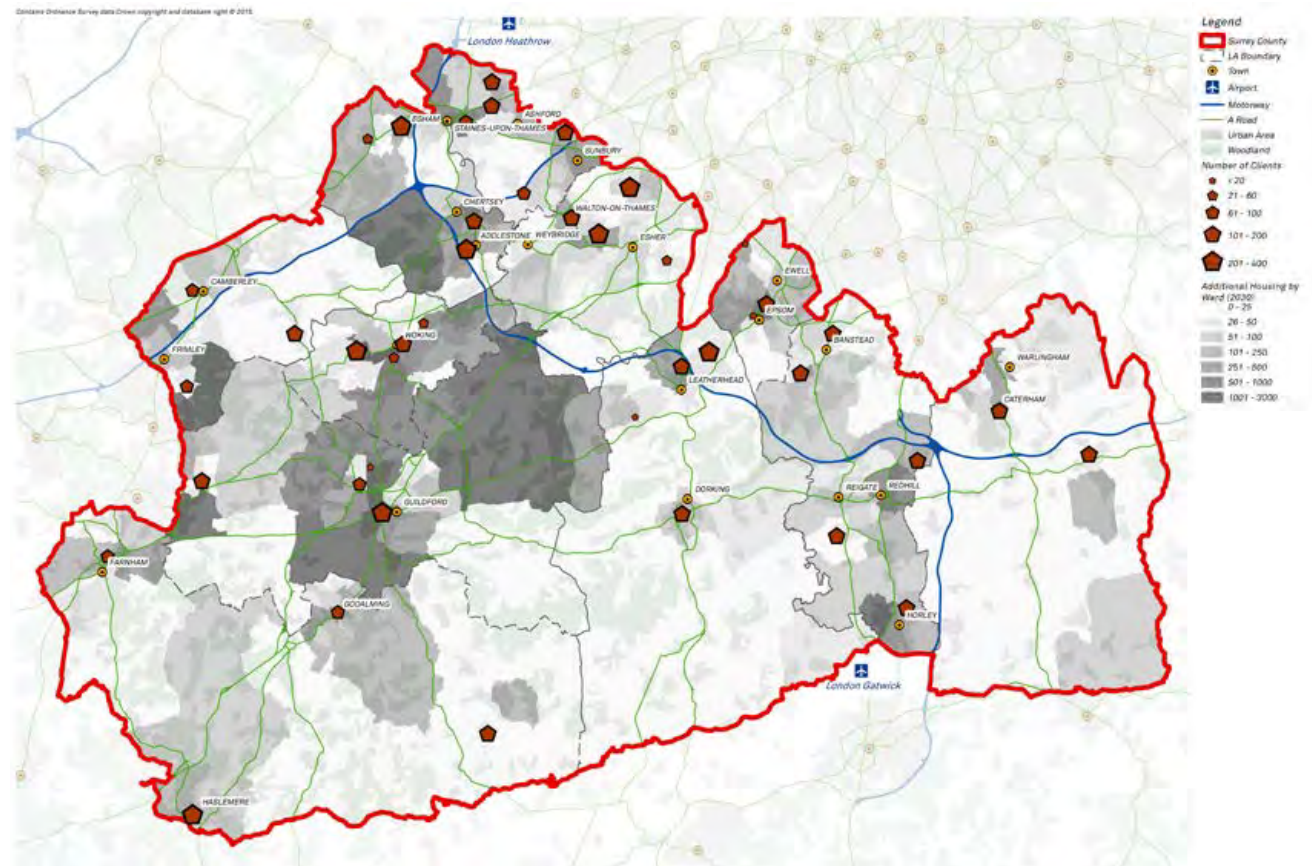
0.33

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.

Figure 4.13

Youth service provision against housing growth areas



Source: Surrey County Council for location and capacity data 2015

Table 4.9

Youth services capacity & theoretical future need

	NUMBER OF YOUTH CENTRES	CLIENTS RECORDED - MARCH 2015	HOURS OF DELIVERY - MARCH 2014 - 15	HOURS PER CLIENT	2015-2030 ADDITIONAL YOUTH FACILITY CLIENTS
Elmbridge	5	702	1,174	1.7	27
Epsom & Ewell	3	179	980	5.5	28
Guildford	4	620	1,048	1.7	88
Mole Valley	4	645	1,597	2.5	4
Reigate & Banstead	5	783	2,439	3.1	34
Runnymede	4	601	1,929	3.2	40
Spelthorne	5	620	1,755	2.8	16
Surrey Heath	3	306	1,308	4.3	3
Tandridge	2	327	763	2.3	15
Waverley	5	652	1,144	1.8	14
Woking	3	505	1,297	2.6	23
SURREY	43	5,940	15,434	2.6	292

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030



Surrey

5

additional youth facilities

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

- Horley Young People's Centre - £2.7m (recently complete)
- Development of neighbourhood skills centres within the local authorities' youth clubs

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 = £3,000,000

Funding Gap = £0*

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

* (considering both secured and expected funding)

COMMUNITY & INDOOR SPORTS FACILITIES



Community Facilities



Sports Facilities

CURRENT SITUATION

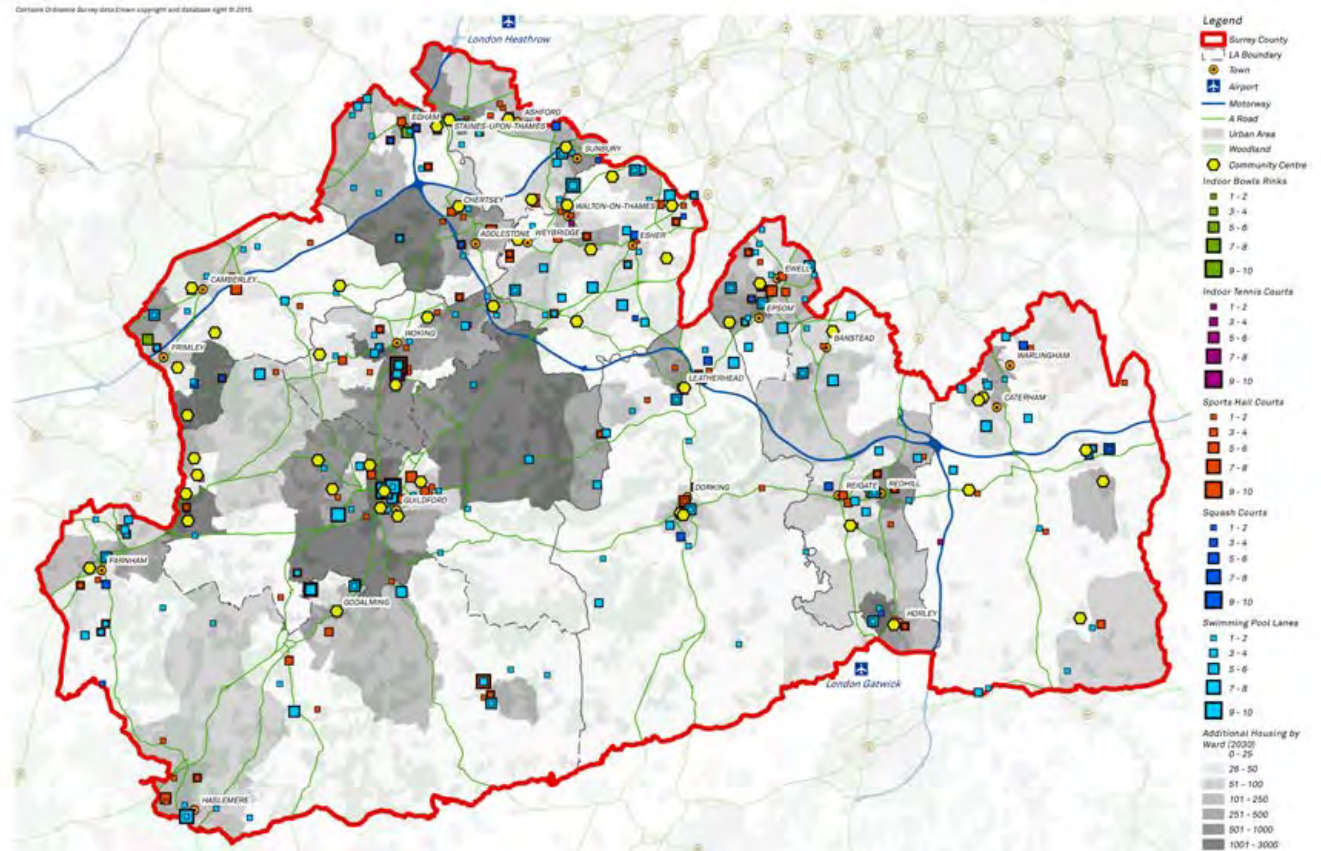
Community and Indoor Sports facilities in Surrey comprise both public and private facilities. Public facilities are provided and funded by the local authorities. This allows for anyone to access the facilities. Private facilities often require membership and payment for the use of those facilities.

HEADLINES

- Spelthorne has the largest gaps in indoor sports provision, with the supply below the Surrey average in 4 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 Reigate & Banstead.
- Elmbridge and Waverley have relatively strong provision of indoor sports provision where future housing growth is projected.

Figure 4.14

Community & leisure provision against housing growth



Source: Surrey County Council and Sport England Active Places for location and capacity data 2015

Table 4.10

Community and leisure provision

	COMMUNITY CENTRES	SPORTS HALL COURTS	SWIMMING POOL LANES	SQUASH COURTS	GYM STATIONS	INDOOR BOWLS RINKS	INDOOR TENNIS COURTS
Elmbridge	7	62	64	26	1,018	4	6
Epsom & Ewell	2	48	34	16	686	1	2
Guildford	11	81	51	14	785	6	4
Mole Valley	3	51	38	13	299	4	0
Reigate & Banstead	3	59	44	17	581	6	0
Runnymede	2	52	13	9	639	6	4
Spelthorne	4	39	22	7	756	0	0
Surrey Heath	5	34	10	10	666	6	0
Tandridge	6	39	36	12	323	0	3
Waverley	2	90	62	19	969	0	4
Woking	4	26	18	12	604	0	10
SURREY	49	581	392	155	7,326	33	33


Source: Surrey County Council and Sport England Active Places

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 2030

 Surrey
4,217 sqm
new flexible community space

 Surrey
11
new swimming pool lanes

 Surrey
21
new sports courts

 Surrey
3
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:

- New leisure centre in Preston / Tadworth
- 2 new community halls in Horley - £15,000,000
- Facility enhancement at Egham Leisure Centre - £7,000,000

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:

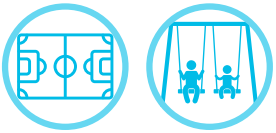
Cost = £59,180,000

Funding Gap = £10,150,000*

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

*(considering both secured and expected funding)

OUTDOOR SPORTS AND RECREATION



Outdoor Sports & Recreation

Children's Play Space

CURRENT SITUATION

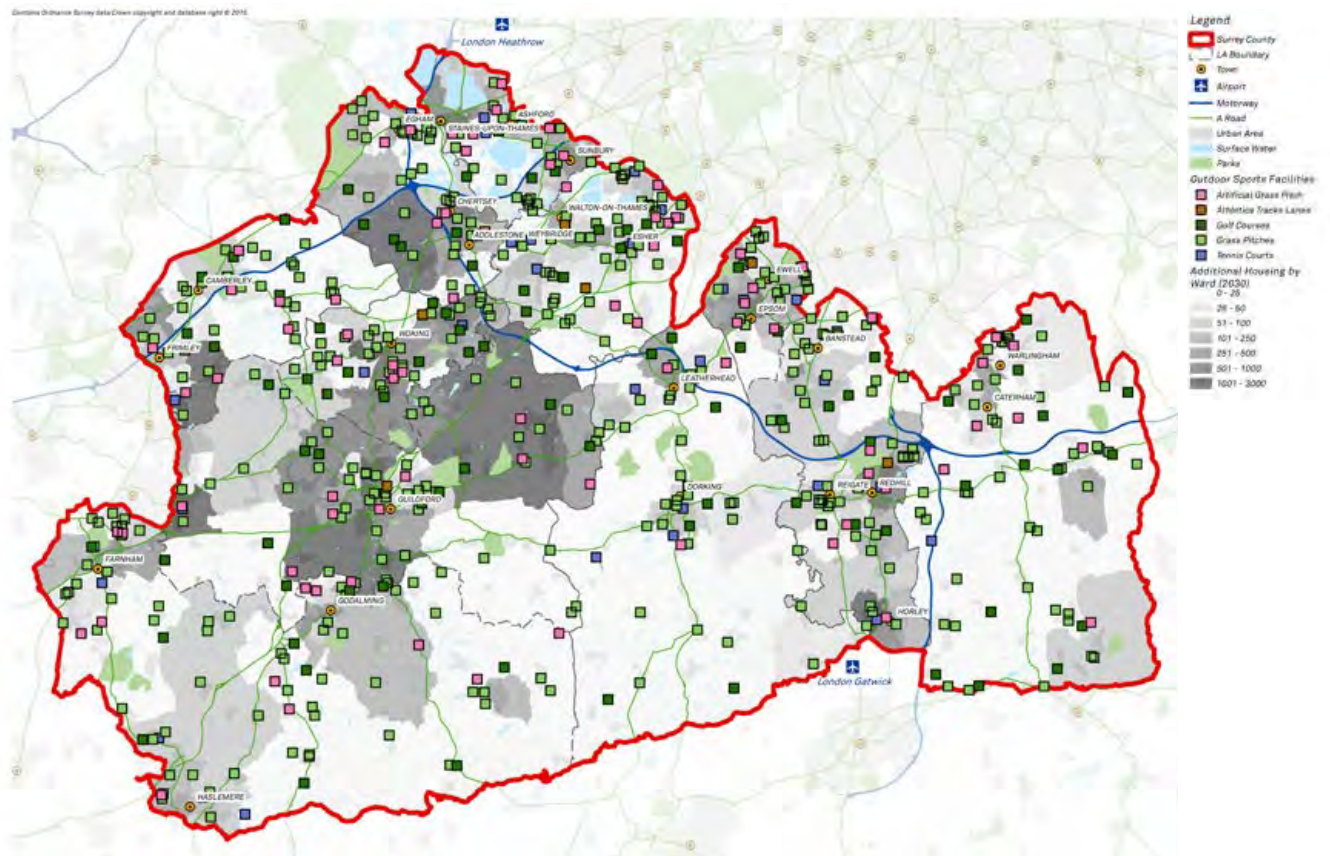
Surrey has a wide range of open spaces, outdoor sports pitches, outdoor sports facilities and children's playgrounds. Outdoor sports and playspace are owned and operated by a mixture of private sector and voluntary organisations and local authorities.

HEADLINES

- There is a significant gap in outdoor sports provision in Reigate & Banstead with capacity below Surrey's average supply to population ratio in all 5 categories.
- Guildford, Mole Valley and Spelthorne also display similar issues with capacity below the average in 4 of the 5 categories.
- The lack of sports provision is a particular concern around Guildford which is due to experience significant growth. However, the growth area of Runnymede is in a strong position to accommodate a larger population with additional capacity in all 5 outdoor sports categories.
- The larger urban centres of Elmbridge and Waverley similarly have strong provision of existing outdoor recreational facilities.

Figure 4.15

Outdoor sports and recreation against housing growth



Source: Surrey County Council and Sport England Active Places for location and capacity data 2015

Table 4.11

Outdoor sports and recreation

	GRASS PITCHES	ARTIFICIAL GRASS PITCH	TENNIS COURTS	ATHLETIC TRACKS LANES	GOLF COURSES
Elmbridge	232	14	92	12	11
Epsom & Ewell	147	7	46	6	5
Guildford	198	11	25	8	11
Mole Valley	112	4	19	0	7
Reigate & Banstead	181	7	46	6	9
Runnymede	130	14	37	8	12
Spelthorne	79	9	28	0	4
Surrey Heath	145	9	24	0	6
Tandridge	175	10	36	0	15
Waverley	229	21	68	6	13
Woking	78	9	51	6	15
SURREY	1,706	115	472	52	108

Source: Surrey County Council and Sport England Active Places

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030



Surrey

2

Artificial Turf Pitches



Surrey

78ha

Playing fields



Surrey

11ha

Children's Play-space

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:

- New pitch provision at Woking - £3,190,000
- Multi-purpose outdoor recreation space - £6,000,000
- Horley outdoor Sports provision - £4,500,000

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 = £56,850,000

Funding Gap = £20,320,000*

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

CURRENT SITUATION

Surrey's diverse natural and semi natural environment is a valuable asset. In addition to providing the basis for the agricultural sector, supporting biodiversity and providing an attractive character that draws residents, employers and visitors into the county, the environment performs a wider range of functions, such as air quality and climate regulation, flood mitigation and space for recreation which have tangible benefits to society and the economy.

The broader natural environment is supported by a network of more formal green infrastructure assets. Natural England defines GI as a strategically planned and delivered network 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.

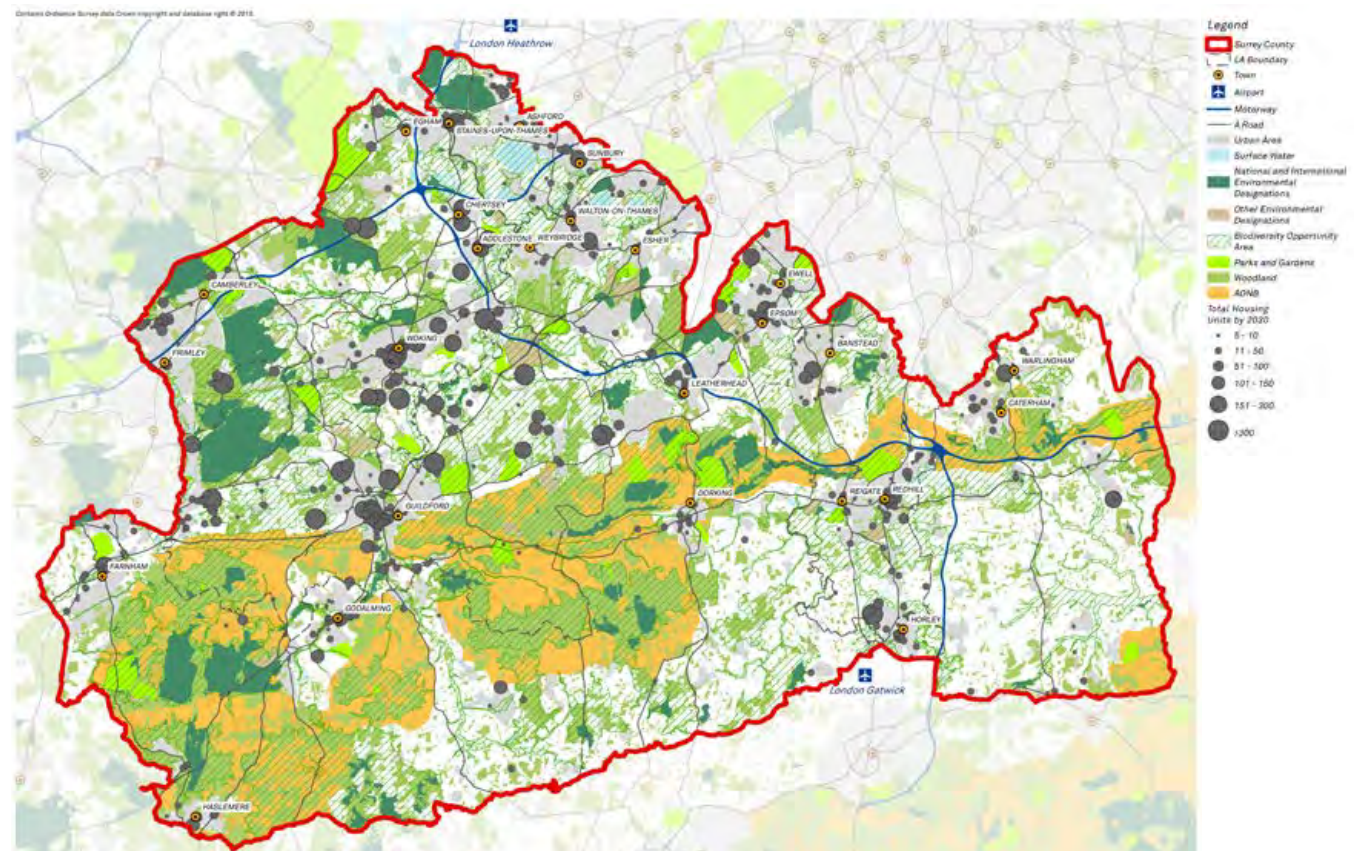
Surrey's assets are spread throughout the county; however there is a greater concentration to the west of the county, with a number of sites designated for their national and international importance for nature conservation, parks, gardens and woodland.

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 12,309 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

Figure 4.16
Green infrastructure & proposed housing sites



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

Table 4.12

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

GREEN INFRASTRUCTURE AND THE NATURAL ENVIRONMENT

The NPPF identifies the planning system as having an environmental role that contributes to 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 supporting 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 into the natural environment can be targeted to help leverage the value derived from these assets.

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.

To support this, 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 and direct investment into the natural environment where it can deliver most benefit. 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.

SUITABLE ALTERNATIVE NATURAL GREEN SPACE


Suitable Alternative Natural Green Spaces (SANGs) are green open spaces provided and managed to mitigate the harmful effects of new development on protected bird habitats. SANGs represent an important element of infrastructure in their own right as well as a facilitator for further housing development. The cost of delivering the SANGs 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).


EXAMPLE SPECIFIC PROJECTS IDENTIFIED


A large number of Green Infrastructure schemes have been identified within the local authority Infrastructure Delivery Plans. Delivering multiple benefits from GI are also central to delivering other strategic projects, such as those identified in river Catchment Plans, and within future development proposals. These cover new natural and semi-natural green space, amenity green space, parks and gardens, and allotments. Example projects include:

- Maintenance and enhancement of Hogsmill Local Nature Reserve - Epsom & Ewell - £650K
- SANG at Chantry Woods in Guildford - £7.3m
- Horley Riverside Green Chain - Reigate & Banstead - £2.5m
- Hawley Meadows & Blackwater Valley Park SANG (31ha) - £7.6m
- Farnham Park SANG - £2m

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030

- 

Surrey
65ha
Suitable Alternative Natural Green Space
- 

Surrey
26ha
New Parkland
- 

Surrey
13ha
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 = £35,770,000

Funding Gap = £9,090,000*

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



4.6 UTILITIES

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 4.13

UKPN Long Term Development Strategy (fully funded)

LOCAL AUTHORITY	REINFORCEMENTS & ASSET REPLACEMENT PROJECTS TO 2023	FUNDED INVESTMENT
Elmbridge	6	£5,983,170
Epsom & Ewell	4	£6,519,461
Guildford	11	£29,825,665
Mole Valley	7	£8,799,712
R & Banstead	3	£2,610,729
Runnymede	3	£2,959,205
Spelthorne	0	0
Surrey Heath	0	0
Tandridge	2	£3,324,533
Waverley	0	0
Woking	8	£14,585,204
Surrey	44	£74,607,679

Source: UKPN SPN Regional Development Plan - Chessington/Laleham / West Weybridge Version 3 June 2015

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 2030

Cost = £169,720,000

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

** (considering both secured and expected funding)*

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

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.

The key aims of the programme were to enable:

- Of those premises identified in 2012 as not having or not planned to have access to fibre broadband, at least 98.6% of those premises were to be connected to the fibre network.
- 93.9% of premises connected to the fibre network as part of the Superfast Surrey project to be able to access minimum download speeds of 15Mbps

In the past two years, more than 84,000 premises, mostly located in the more difficult to reach and rural areas of Surrey, have been covered by the fibre network as part of the Superfast Surrey Broadband Programme.

SCC is currently undertaking an Open Market Review (OMR) to identify all Surrey premises that are still unable to access Next Generation Access (NGA) broadband download speeds of 15Mbps or above with a view to defining the legal baseline of a potential new intervention area.

The first stage of the OMR, which involved requesting current and future broadband coverage information from existing infrastructure providers has finished and the methodology and outcomes of the analysis have been shared with Broadband Delivery UK (BDUK). Prior to progressing to the next stage in the OMR process, SCC must receive confirmation from BDUK of the European Commission's State Aid Funding re-negotiation. BDUK is responsible for negotiations with the European Commission, the outcome of which is now not anticipated until early 2016.

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:

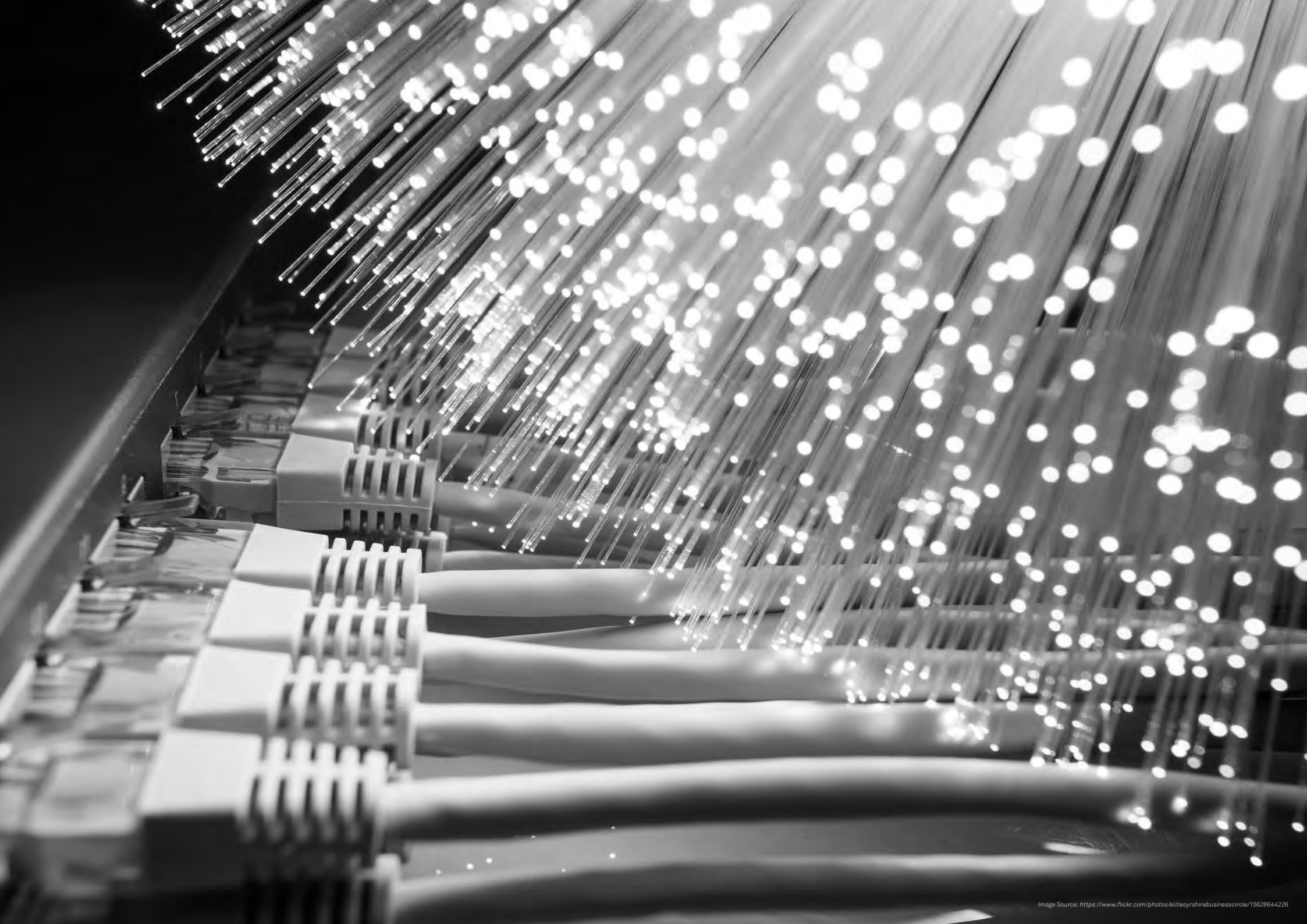
Cost = £15,760,000

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.

** (considering both secured and expected funding)*



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 4.14

Water Supply and Waste Providers

	VW	SEW	TW	SESW
Elmbridge	W		W	W
Epsom & Ewell	W		W	
Guildford	W	W	W	W
Mole Valley			W	W
Reigate & Banstead				W
Runnymede	W			
Spelthorne	W		W	
Surrey Heath	W	W		
Tandridge			W	W
Waverley		W	W	
Woking	W			

VW - VEOLIA WATER

SEW - SOUTH EAST WATER / TW - THAMES WATER

SESW - SUTTON & EAST SURREY WATER

W - PROVIDER

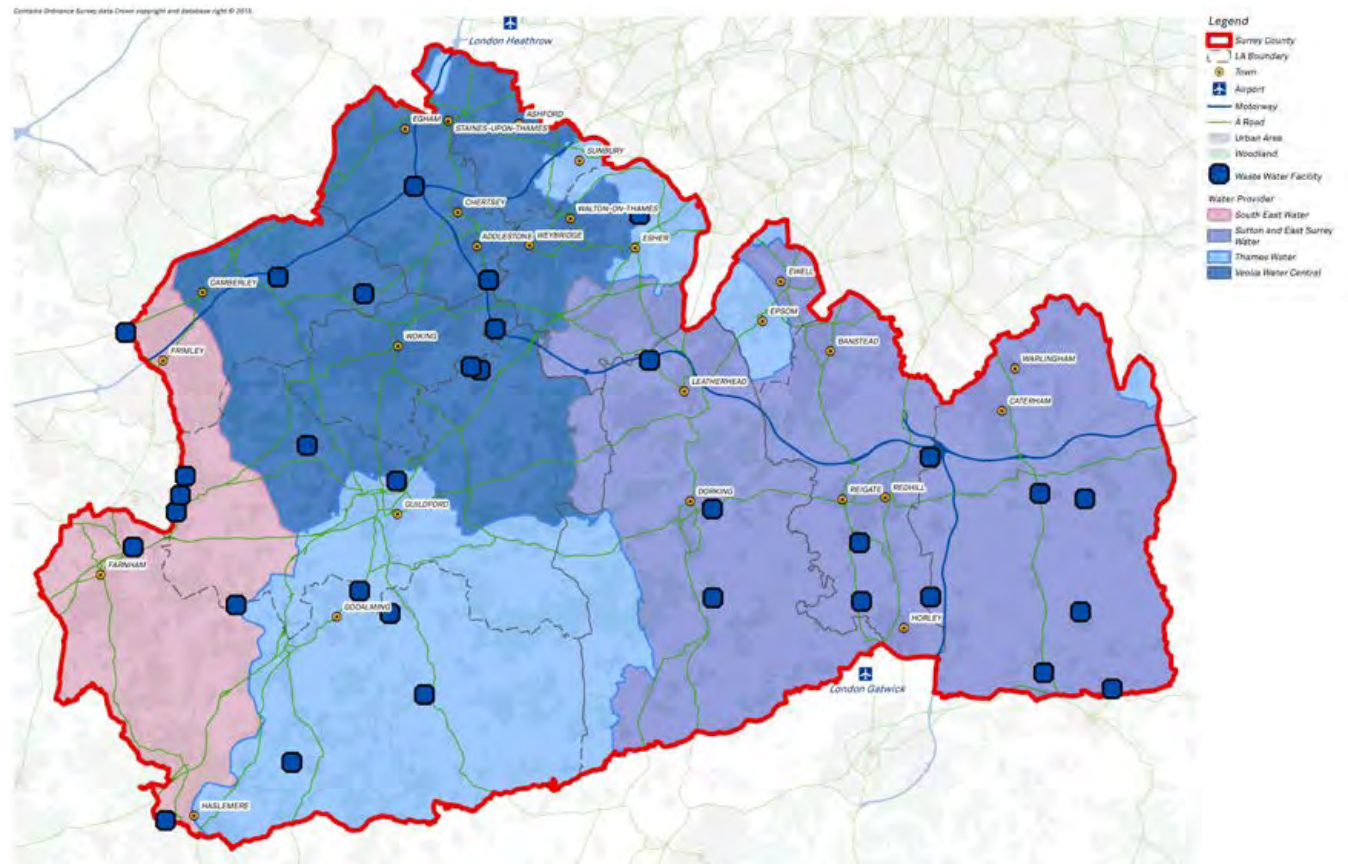
- Thames Water report that 80% of London's potable water is supplied from surface waters of the River Thames and the River Lee, via reservoirs, with the remaining 20% coming from groundwater.
- 30% of Thames Valley potable water comes from surface waters and 70% from groundwater.
- Southern Water's Sussex 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

Figure 4.17

Water companies & waste water treatment works



Source: DEFRA 2012

Table 4.15

Water Supply Provider Plans

PROVIDER	INFRASTRUCTURE INVESTMENT PLANNED	TIME FRAME
Affinity Water	Reductions in network leakage	2015-2020
	Universal metering programme;	2015-2020
	Implementation of water efficiency	2015-2020
	Increased water abstraction;	2015-2020
	Increase in bulk transfer of water.	2015-2020
South East Water	Developing groundwater source at Maytham Farm	2015-2020
	Developing a water re-use scheme at Aylesford (37.5 ML/d)	2020-2030
	Building a new reservoir at Broad Oak (13.5 ML/d)	2030-2035
	Developing six water transfer schemes to share water with adjoining areas	2020-2040
	Creation of 3 new WRZ transfers.	-
Southern Water	Additional leakage reduction required over the planning period.	-
	Water reuse scheme to commence	2027-2028
	Two desalination schemes	2027-2028
Sutton & East Surrey Water	Selective Metering across East Sutton & Surrey	2015-2020
	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 +
	Further development of small groundwater schemes	2020 +
	Larger scale projects to secure long-term resilience including 150 ML/d wastewater re-use scheme	2020 +

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 ML/d in 2021/22, increasing to 3.8 ML/d in 2039/40.
- TWU London WRZ: A dry year annual average (DYAA) deficit of 59 ML/d in 2014/15, increasing to 416 ML/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 2030 as highlighted in each plan are shown in Table 4.15.

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.

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 2030:

Cost = £116,590,000

Funding Gap = £0*

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

* (considering both secured and expected funding)

WASTE



Surrey

145,000

tonnes of household waste brought to CRCs (2013/14)

Surrey

408,000

tonnes of waste collected by LAs (2013/14)

Surrey

52%

recycled, reused or composted (2013/14)

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 municipal waste collection services arranged by the local authorities from the kerbside and local recycling banks.

The 15 CRCs in Surrey are operated by SITA Surrey Ltd on behalf of Surrey County Council. The County Council is in the process of considering changes to the CRC service 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 municipal 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 municipal 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 food waste from Reigate & Banstead and Tandridge.

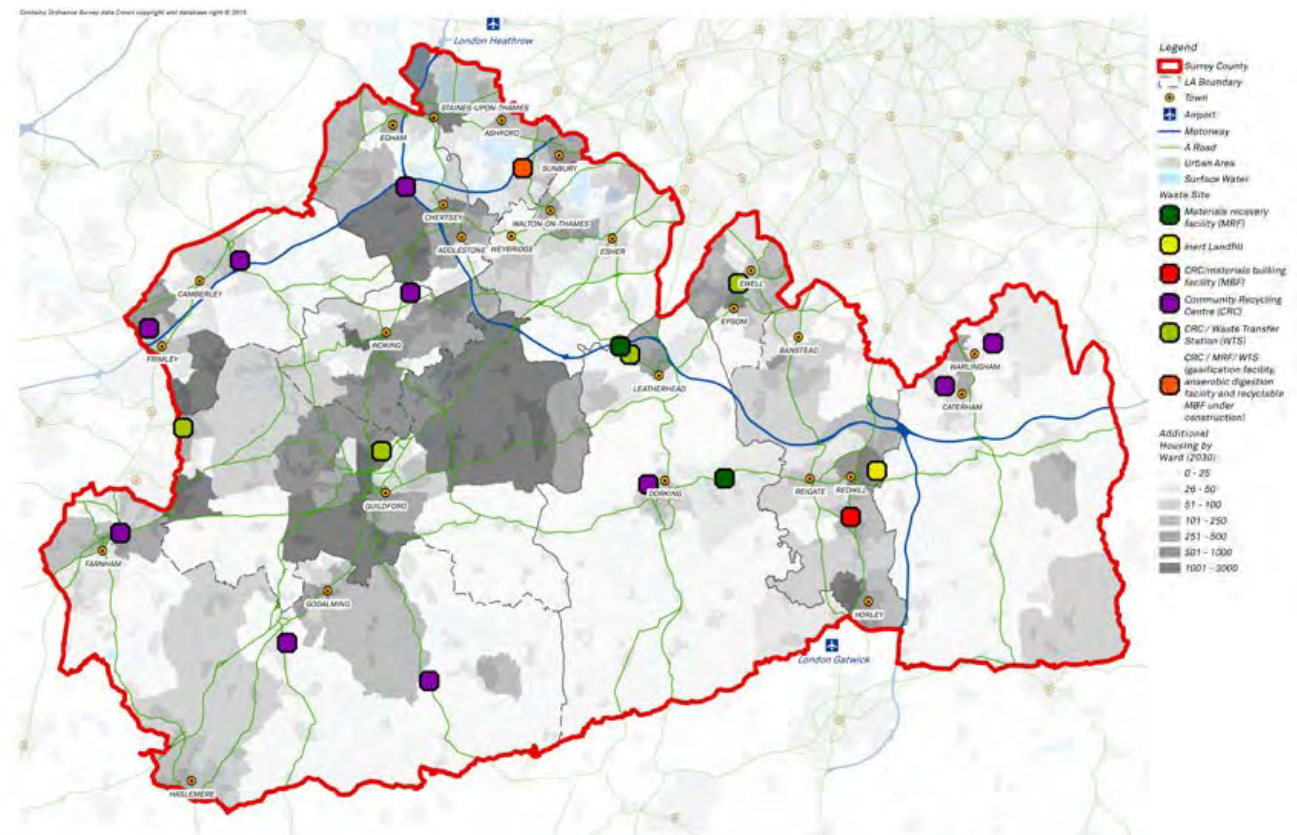
- Reigate Road MRF has planning permission for the receipt, bulking up and transfer of municipal waste as a contingency measure for when Leatherhead WTS is at full capacity and given there was no municipal waste transfer facility within Reigate & Banstead prior to the recent development of Earlswood MBF.
- Patteson Court Landfill is the only non-inert landfill remaining in Surrey and is required to be restored by 2030. The landfill receives around 500,000 tpa of

primarily C&I waste and inert waste, and also some municipal waste. In 2014/15, 34,351 tonnes of municipal waste arising in Surrey were landfilled 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 municipal waste sites including WTSs, MRFs, MBFs and CRCs. These are the facilities that bear the initial impact of housing growth.

Figure 4.18

Waste processing capacity against housing growth



Source: Surrey County Council

HEADLINES

- Surrey remains reliant on facilities outside the county for the treatment of residual municipal waste 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 municipal waste produced in the north of the county, as well as some waste from local businesses.
- Surrey sends a relatively large volume of its commercial & industrial waste to landfill due to the proximity and availability of significant landfill capacity at Patteson Court, Redhill.
- In 2014, 164,176 tonnes of both household and C&I waste were landfilled at Patteson Court, of which 87,735 tonnes arose in Surrey and 76,443 tonnes were imported.
- The amount of waste deposited at transfer sites in Surrey increased from 615,000 tonnes in 2013 to 692,000 tonnes in 2014. This comprised 616,000 tonnes of household, commercial and industrial and CRC waste and 53,000 tonnes of hazardous waste.
- The proportion of Surrey's municipal waste sent to landfill decreased slightly from 11% in 2013/14 to 6% in 2014/15.
- Planning permission has been granted for two new Anaerobic Digestion facilities for the treatment of commercial food waste at Trumps Farm, Egham and Dunsfold Park, Cranleigh. The 48,500 tpa capacity facility at Trumps Farm has been built and is operational. The 25,000 tpa capacity facility at Dunsfold Park has yet to be developed.
- During the Summer 2015, the County Council consulted on options on the future of CRCs. These included charging for non-household waste, reducing opening hours, closing CRCs on the least busy days and the full closure of some CRCs. The aim of the review is to make savings while maintaining this important service to residents.

- The Surrey Waste Plan 2008 seeks to facilitate a 60% rate of recycling and composting for municipal waste by 2025 and 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 144,000 tonnes of household waste in 2014/15
- 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
- Shepperton WTS which can manage 120,000 tpa 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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030

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 take around two years to complete. 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), SITA Surrey, working on behalf of the County Council, has plans to relocate Guildford CRC on Moorfield Road. The intention is to provide a larger more modern facility with more recycling containers and parking bays than can be accommodated on the current site. This will free up space on the current site to improve the existing WTS enabling Surrey districts to collect more materials from the kerbside."
- A review of the Surrey Waste Plan 2008 is due to commence in 2016.

COSTS AND FUNDING

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

Cost = £1,820,000

Funding 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. 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 £300million River Thames Scheme in the vicinity of the River Thames is also planned to mitigate flood risk across this part of Surrey.

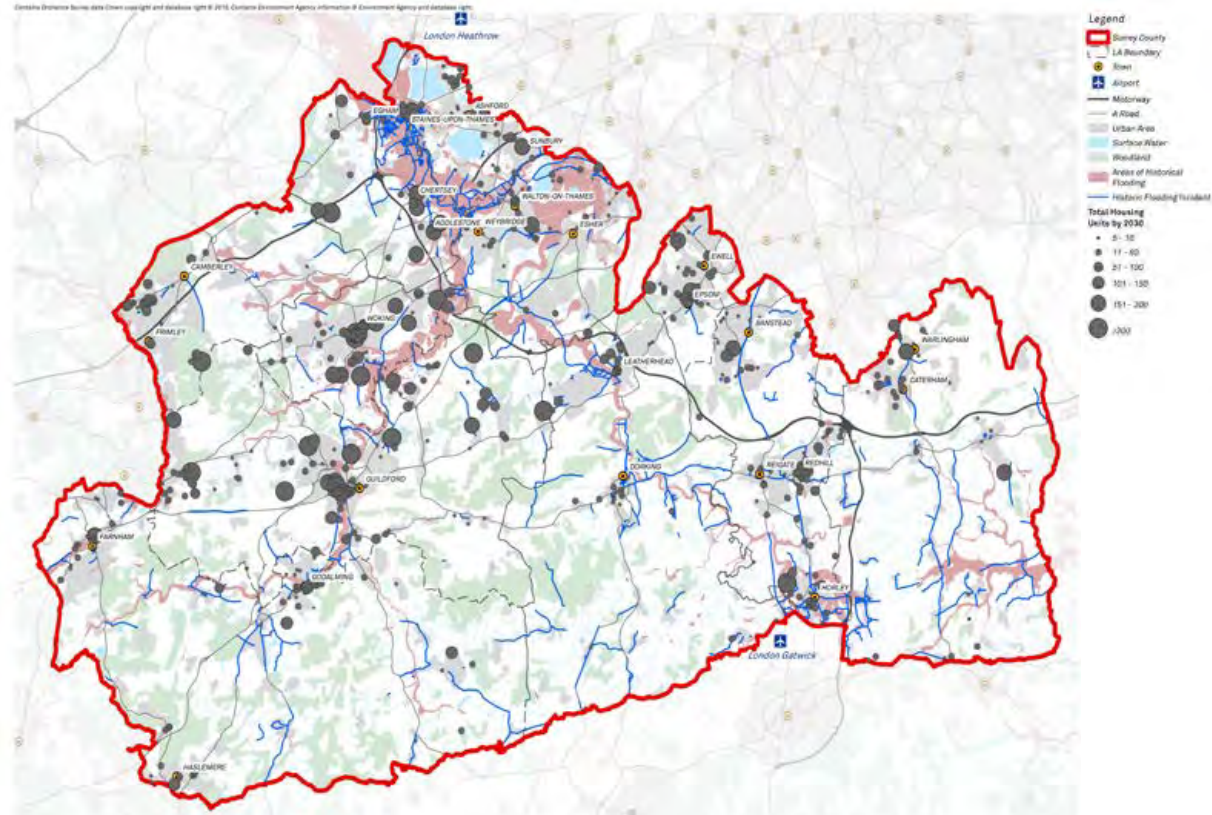
Horley has historically been affected by flooding and much of its outskirts are classified as Flood Zone 2 or 3, influenced by the River Mole and Burstow Stream. It is planned that approximately £21.8million will be invested in this area to reduce the risk of flooding in Horley and its surrounding area. This is primarily through investment in the Upper Mole Flood Alleviation scheme. Furthermore, two additional schemes (i.e. Horley Flood Relief Scheme and the Smallfield Alleviation Scheme) are scheduled to be implemented in the area to help reduce the risk of flooding.

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.

Figure 4.19

Historical flooding and proposed housing sites



Source: Environment Agency

The River Thames Scheme

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 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.

The scheme consists of:

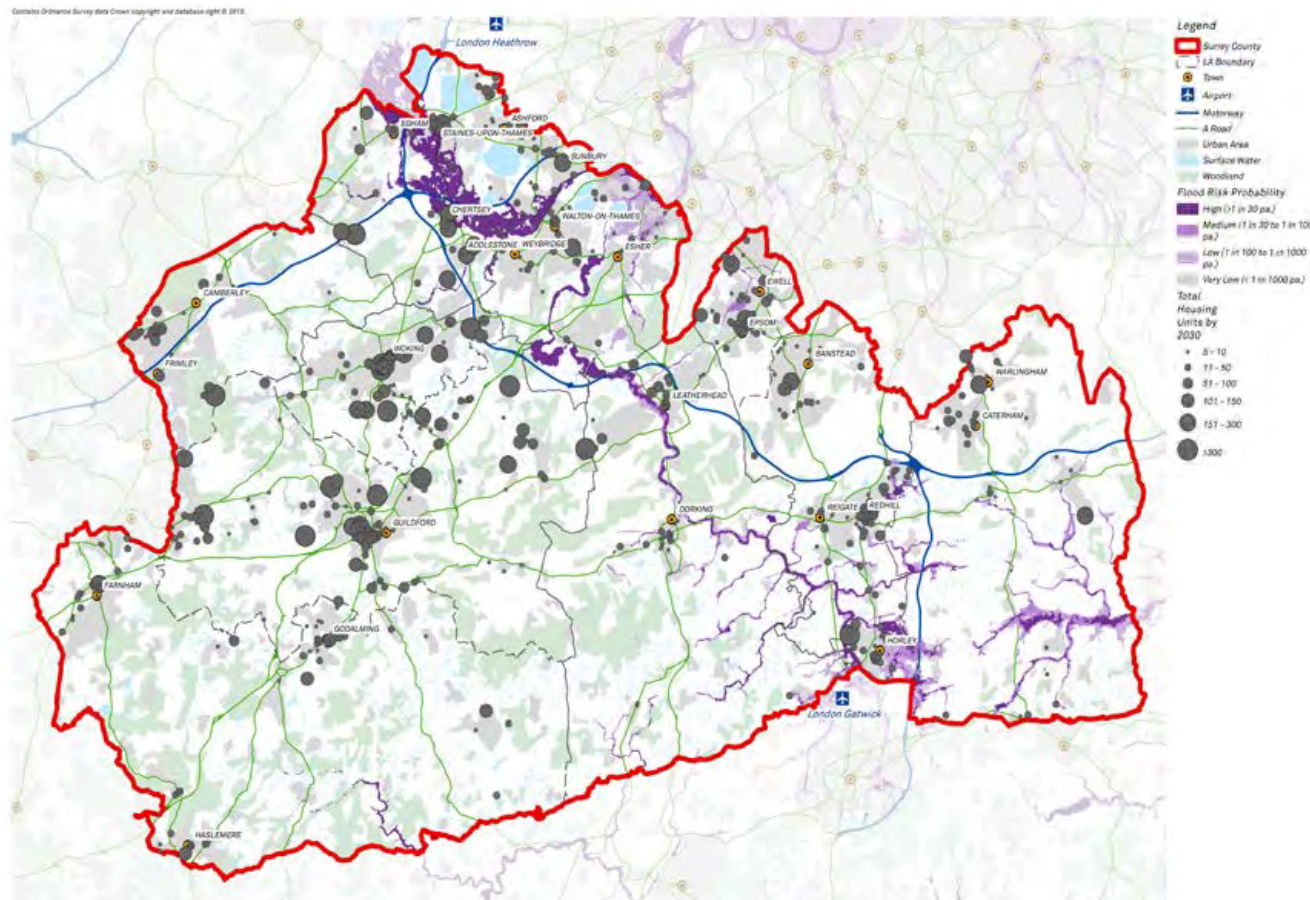
- Large scale engineering work to construct a new flood channel between 30 to 60 metres wide and 17 kilometres long, built in 3 sections:
 - Section 1: Datchet to Hythe End flood channel
 - Section 2: Egham Hythe to Chertsey flood channel
 - Section 3: Laleham to Shepperton flood channel
- Improvements 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.

Figure 4.20

Risk of flooding and proposed housing sites



Source: Environment Agency

FUTURE REQUIREMENTS TO MEET GROWTH TO 2030

The following projects represent examples of key investment identified within each authority's IDP and from Surrey County Council and the Environment Agency

- River Thames Scheme (see text to the left)
- Upper Mole Flood Alleviation
- The Woking Initial Assessment
- Byfleet flood alleviation scheme
- River Thames - Property Level Protection
- Hoe Valley FA and WFD scheme
- Caterham Bourne Flood Alleviation scheme
- Redhill Brook upstream storage investigations
- Leatherhead and Middle Mole Flood Alleviation scheme

COSTS AND FUNDING

Based upon information received from SCC and the Environment Agency, the following costs and funding have been identified:

Cost = £394,870,000

Funding Gap = £327,030,000*

Costs are set out for each Local Authority in Section 5

* (considering both secured and expected funding)



4.8 EMERGENCY SERVICES

EMERGENCY SERVICES



Ambulance Service



Police



Fire Service

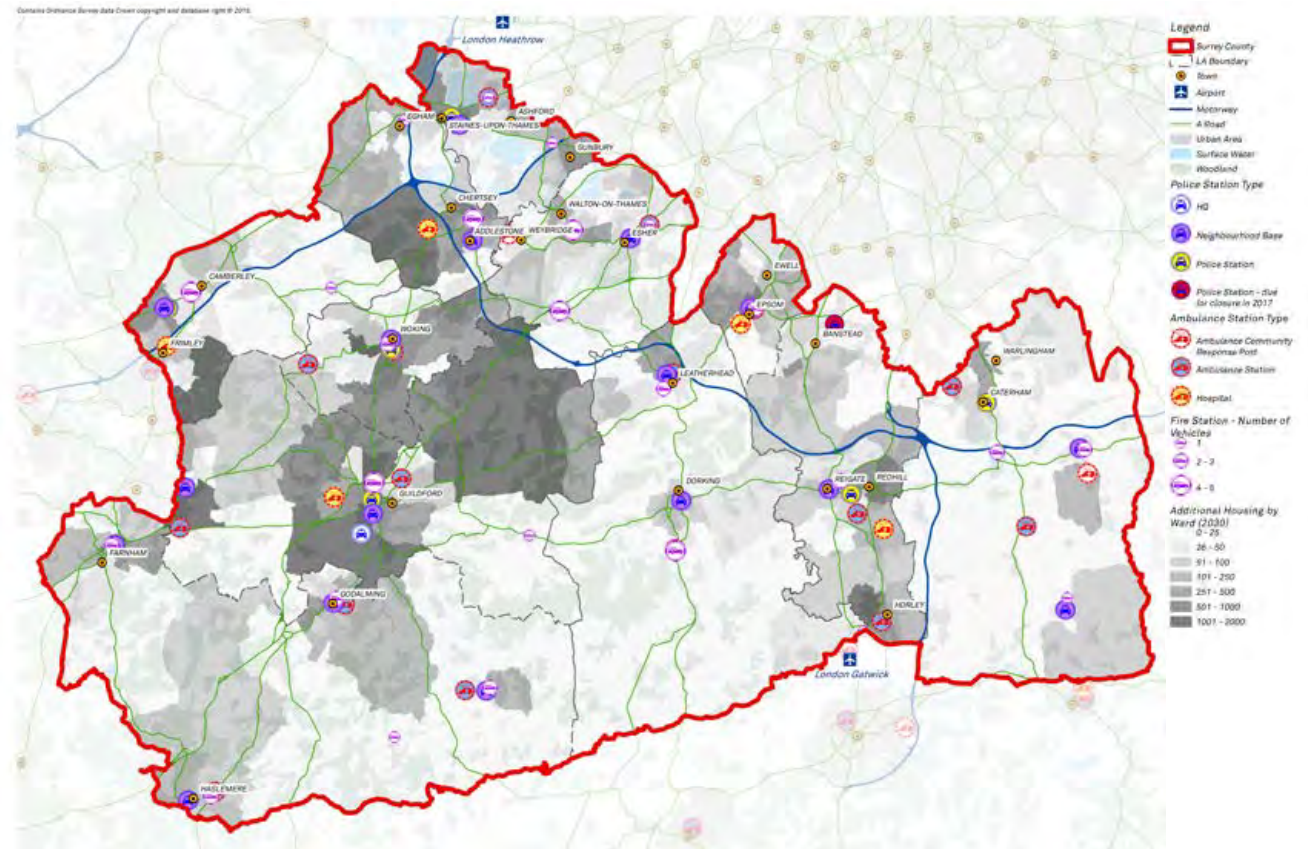
SURREY POLICE SERVICES

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; Guildford 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.

Figure 4.21

Emergency services facilities against housing growth



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

Table 4.16

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	9	1	2	0
Epsom & Ewell	1	0	0	1	1	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	3	0	2	1
Runnymede	1	0	2	2	6	0	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	57	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 26 (permanent and temporary) stations across the county. Similar to the police services, many fire facilities are becoming old and unfit for purpose. A 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.

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 2030

There are 32 Emergency Service projects identified within the local authority Infrastructure Delivery Plans. These cover new and expanded facilities for each service type in relation to growth requirements across Surrey. Projects include:

- Rationalisation of Police Estate in Woking
- Replacement of Chertsey Ambulance Station in Runnymede and redevelopment of Epsom Ambulance Station, moving to a new model of provision involving a fleet operation.
- 'Make Ready' ambulance sites to improve efficiencies in Reigate & Banstead and possible ambulance depot location in Godalming.
- New replacement fire station at Epsom to be built and funded by developers
- 2 fire stations to close in Spelthorne and reprovided through a new station (including a reduction of 1 appliance).
- New Woking fire station being developed to assist with the town's development.
- Joint shared premises planned for Fire and ambulance services at Horse Shoe Site in Banstead.

COSTS AND FUNDING

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

Cost = £36,560,000

Funding Gap = £1,360,000

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

* (considering both secured and expected funding)