

4.2 EDUCATION

EARLY YEARS & CHILDCARE

AC Surrey
1,160
 Early Year &
 Childcare Providers

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.

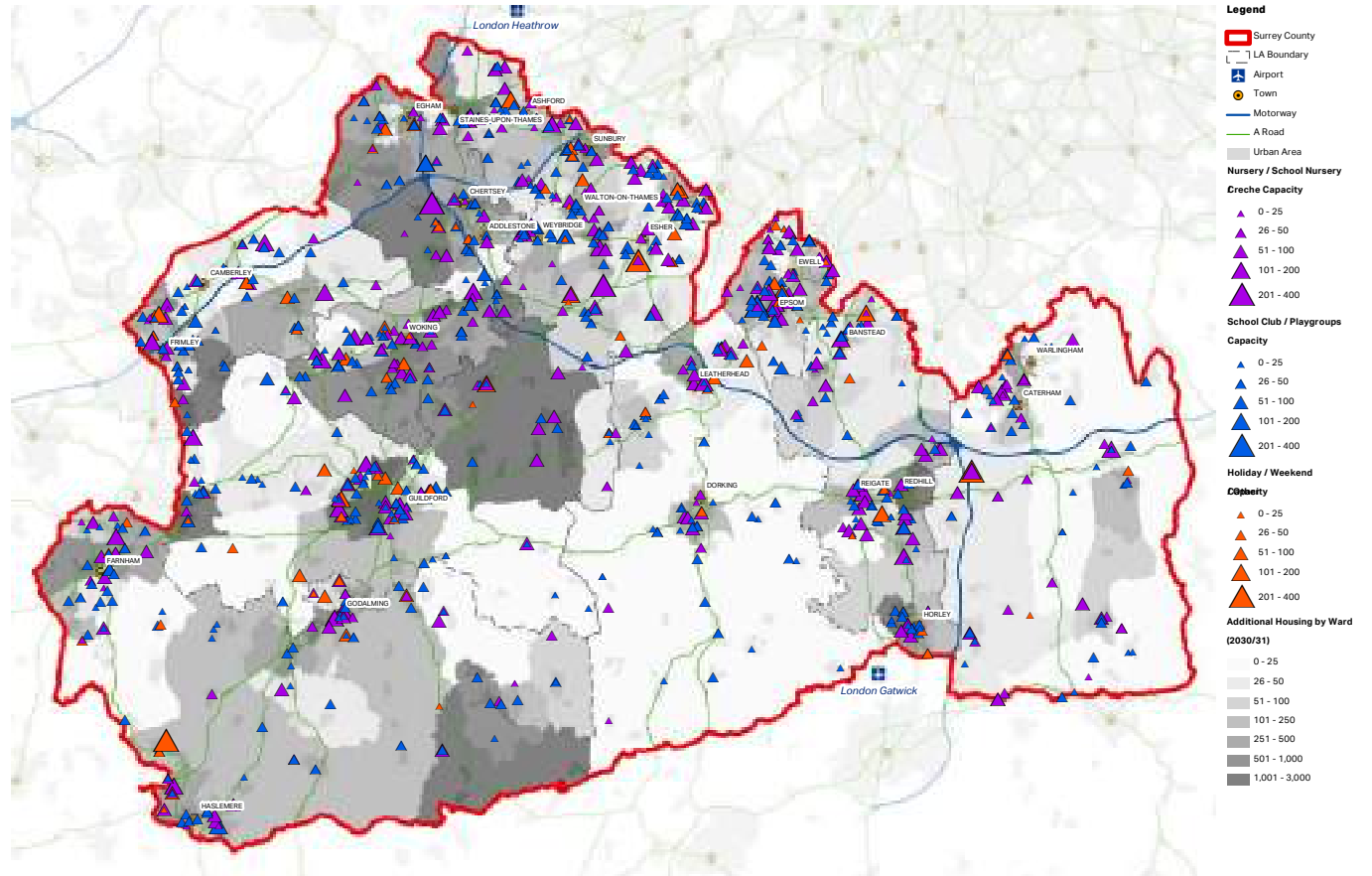
HEADLINES

- 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

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Source: Surrey County Council location and capacity data 2017

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

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

Table 4.1

Early years and childcare capacity

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

Source: Surrey County Council

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

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

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £23,020,000

Funding Gap = £1,610,000

Costs are set out for each local authority in Section 5

**(considering both secured and expected funding)*

PRIMARY EDUCATION



Surrey
300
Schools

Surrey
26%
of schools
Academies

CURRENT SITUATION

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

HEADLINES

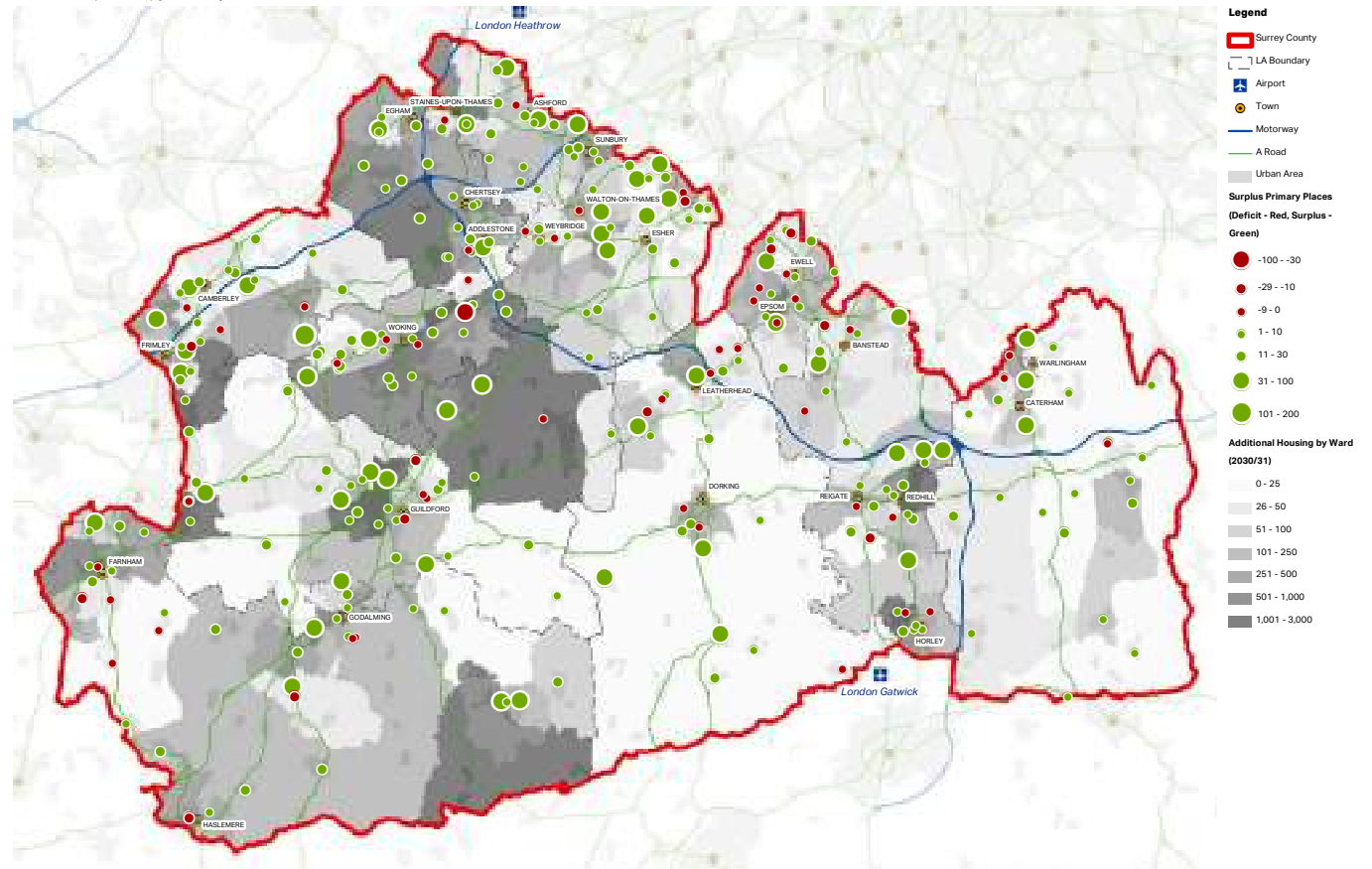
- In January 2017, there was a 5% overall surplus of primary places across all year groups, which is in line with DfE recommendations.
- In the 2016/17 academic year, SCC added an additional 937 places in Reception. Without this additional infrastructure, there would have been a shortage of 2% in Reception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

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

Figure 4.5

Primary school capacity against housing growth

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Source: Surrey County Council location and capacity data 2017

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

Table 4.2

Primary school capacity and forecast pupil change

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

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

*Surplus depicted in green, Deficit depicted in red

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

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2023

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

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £182,000,000

Funding Gap = £137,860,000*

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

SECONDARY EDUCATION



Surrey
53
Secondary
Schools

Surrey
72%
of schools
Academies

CURRENT SITUATION

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

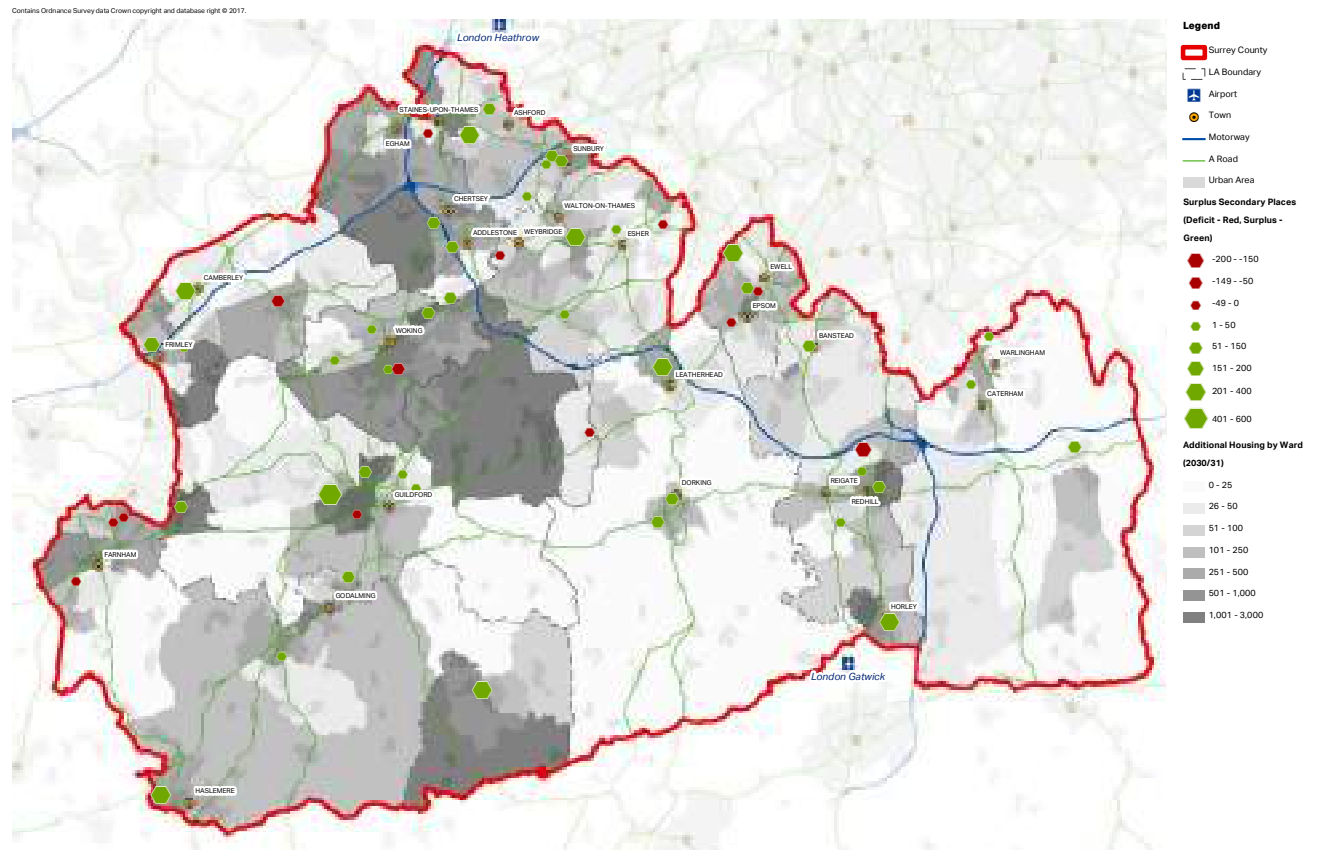
HEADLINES

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

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

Figure 4.6

Secondary school capacity against housing growth



Source: Surrey County Council location and capacity data 2015

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

Table 4.3

Secondary school capacity and forecast pupil change

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

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

*Surplus depicted in green, Deficit depicted in red

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2025

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

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in secondary provision includes the following:

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

COSTS AND FUNDING

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

Cost = 255,000,000

Funding Gap = £206,860,000*

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

SPECIAL EDUCATIONAL NEEDS AND DISABILITIES (SEND)



Surrey
22

Special Schools

Surrey
47

Specialist Centres attached to Mainstream School

CURRENT SITUATION

Years Reception - 14

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

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

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

Post-16 SEN

There are 11 maintained Special Schools, 6 non-maintained Special Schools and 2 Special Post-16 Institutions (SPIs) within Surrey delivering further education to high needs learners aged 16-25. There are 4 Surrey FE Colleges which also provide purpose built facilities and further education programmes specifically designed for learners with SEND. High needs learners who do not require specialist facilities or programmes but benefit from additional learning support are supported through additional high needs funding provided by the Education and Skills Funding Agency (ESFA). This enables them to access one of the 31 School Sixth

Forms, 5 Sixth Form Colleges, 4 Commercial and Charitable Providers (delivering across a number of locations), non-specialist programmes within the 4 FE colleges and 1 Higher Education Provider offering limited further education opportunities in Surrey. FE Colleges and some sixth-form colleges within Surrey also offer a range of adult education courses.

HEADLINES

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

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

Figure 4.7

SEND facilities against housing growth

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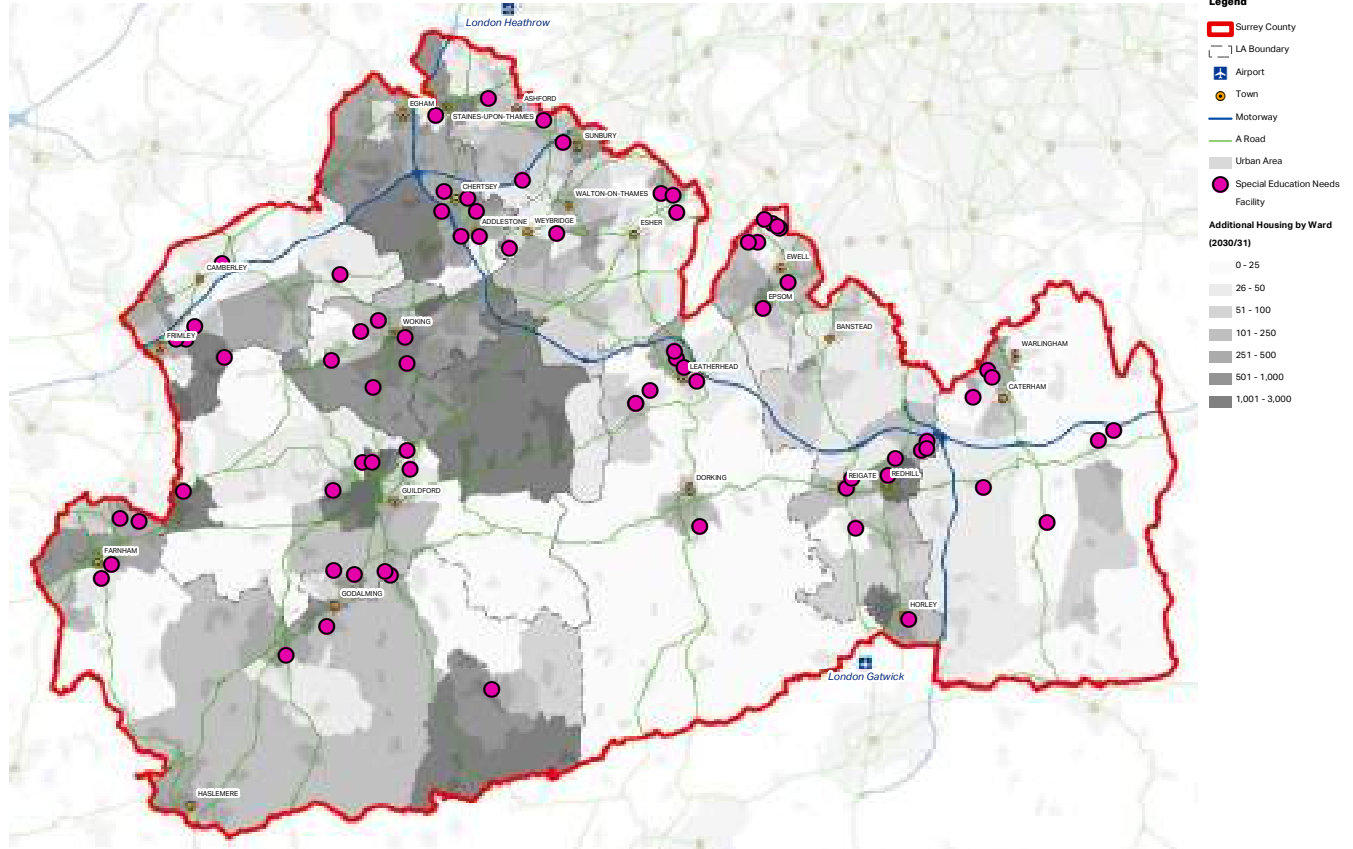


Table 4.4

Dedicated SEND facilities

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

Source: Surrey County Council

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

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

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

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

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

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

FURTHER EDUCATION, HIGHER EDUCATION AND ADULT EDUCATION



Surrey
31

School Sixth Forms

Surrey
4

CCPs

Surrey
5

Sixth Form Colleges

Surrey
3

HE Institutions

Surrey
4

FE colleges

Surrey
7

SCC Adult Education Centres

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

CURRENT SITUATION

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

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

HEADLINES

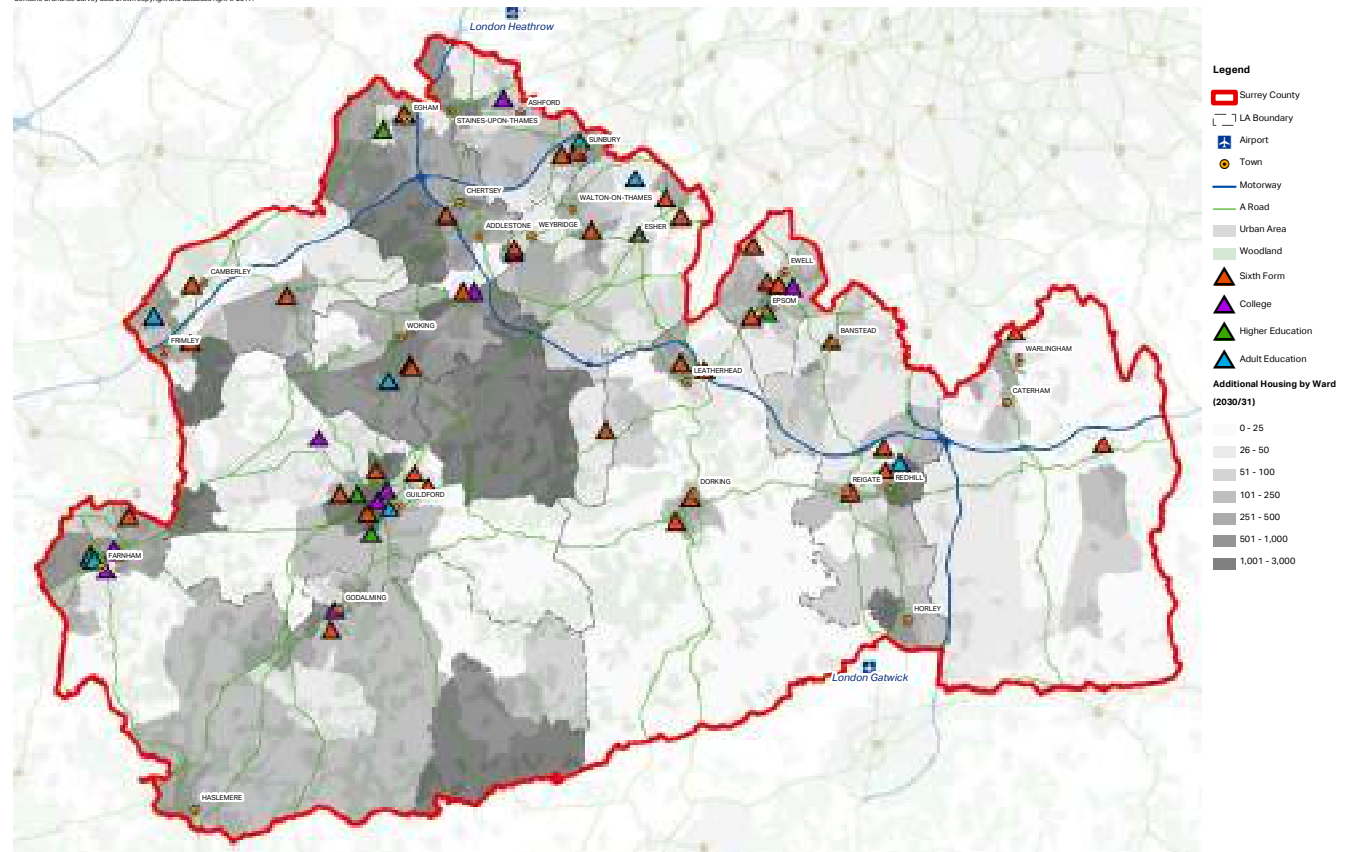
An increasing proportion of young people are choosing to continue their learning in the workplace, thus reducing the demand on physical sites dedicated to teaching and learning. As a result, most further education providers in Surrey have experienced reduced ESFA contracts, but have spare capacity and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

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

Figure 4.8

Post 16 education facilities against housing growth

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Source: Surrey County Council location data 2017

Table 4.5

Post-16 education facilities

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

Source: Surrey County Council and AECOM web-based research

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

531

Additional Adult Education Clients



Royal Holloway University of London,
Runnymede

12,000

Forecast students (currently 9,000)

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £112,030,000

Funding Gap = £3,340,000*

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

*(considering both secured and expected funding)



4.3 HEALTH + SOCIAL CARE

PRIMARY CARE SERVICES



Surrey
619
FTE GPs

Surrey
260
Dental
Practices

Surrey
212
Pharmacies

CURRENT SITUATION

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

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

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

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

HEADLINES - GPs

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

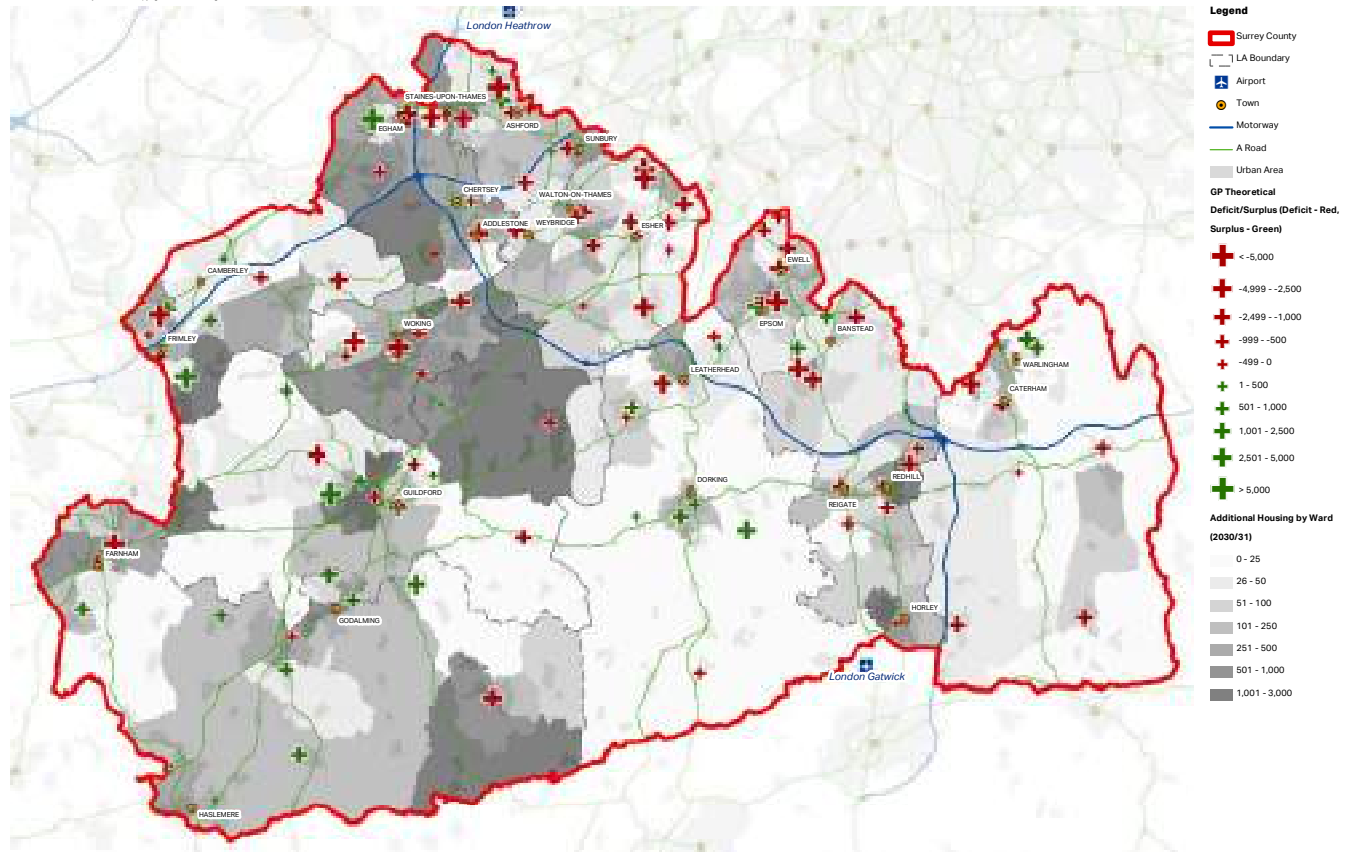
- Guildford, Mole Valley and Waverley appear to be in the strongest position to accommodate growth from a health perspective; and

- According to the mapping there remains a lack of capacity to the north of Surrey and in Guildford/Woking.

Figure 4.9

Primary healthcare capacity against housing growth

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Source: HSCIC GP Dataset (Sept 2016) for location, workforce and patient list data

Table 4.6

Primary healthcare capacity & theoretical future needs

	EXISTING PRIMARY CARE PROVISION 2017				2016-2031 ADDITIONAL REQUIREMENTS	
	NUMBER OF FTE GP	PATIENT LIST SIZE	PATIENTS PER GP	POPULATION PER DENTAL PRACTICE	GPS	DENTISTS
Elmbridge	56	146,420	2,594	4,160	2	3
Epsom & Ewell	43	85,877	1,982	3,300	7	8
Guildford	69	120,413	1,750	4,580	12	12
Mole Valley	53	91,678	1,731	4,307	1	1
Reigate & Banstead	67	141,300	2,109	5,576	6	6
Runnymede	40	80,799	2,040	4,798	6	6
Spelthorne	52	103,299	2,003	5,209	2	2
Surrey Heath	54	106,891	1,996	4,219	4	4
Tandridge	46	86,622	1,895	6,175	7	7
Waverley	88	154,609	1,763	4,756	9	9
Woking	53	116,808	2,220	3,578	4	4
SURREY	619	1,234,716	1,994	4,516	59	60

Source: Primary healthcare capacity and patient list size according to HSCIC 2016 data, Pharmacy and Denal data from HSCIC 2016 data.

UK benchmark for GP provision is 1800 patients to 1 GP, 165 sq.m per GP provision

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey
9,728

Additional sqm of primary healthcare space by 2031



Surrey
3,024

Additional sqm of dental healthcare space by 2031

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

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

Notable investment in acute health provision includes the following:

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

COSTS AND FUNDING

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

Cost = £30,600,000

Funding Gap = £1,800,000*

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

*(considering both secured and expected funding)

HOSPITALS AND MENTAL HEALTH



Surrey
3,683
NHS Acute
hospital beds



Surrey
197
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.

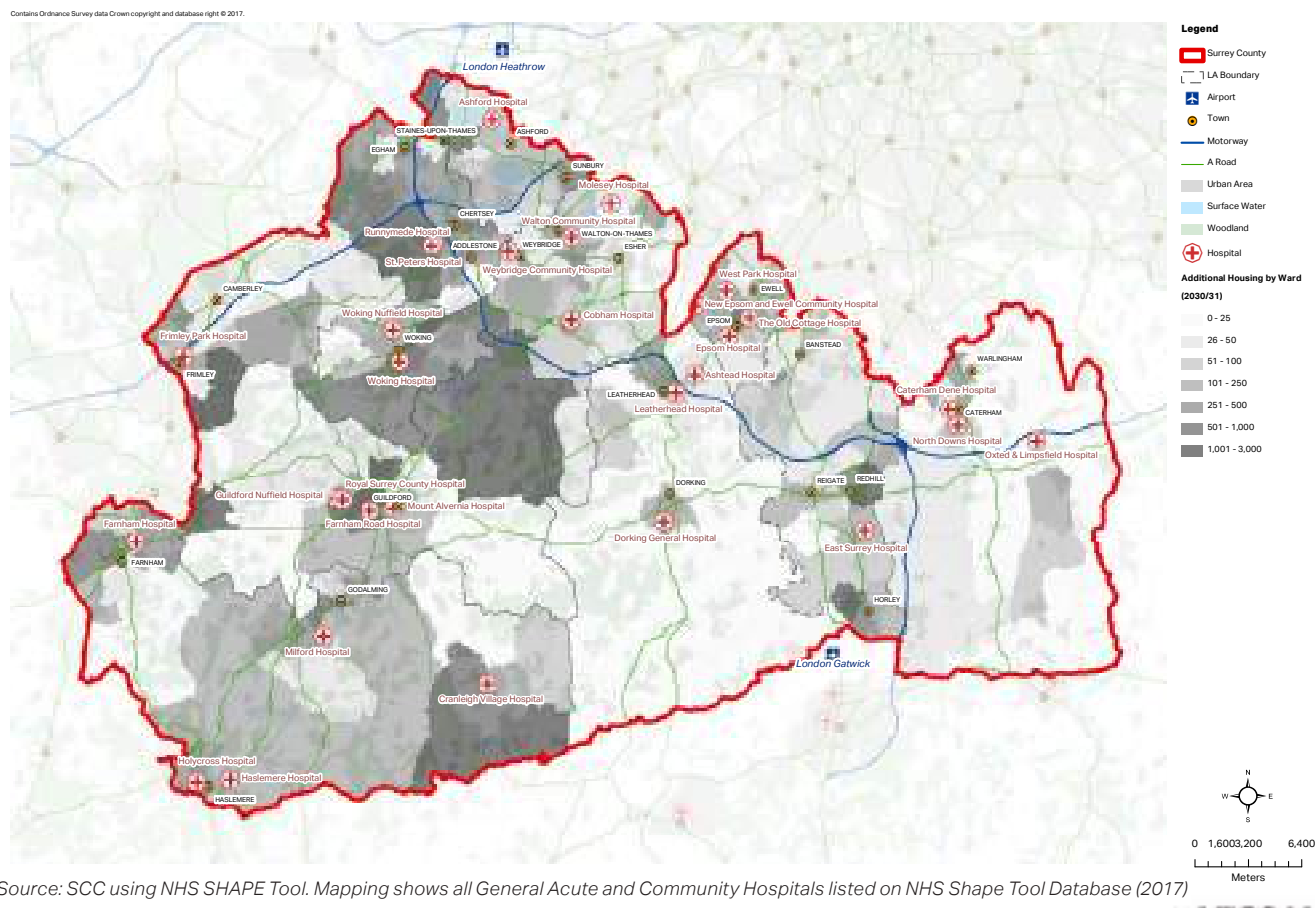
Surrey and Borders Partnership NHS Foundation Trust (SABP) is the mental health trust for Surrey providing community, inpatient and social care services for psychiatric and psychological illnesses.

HEADLINES - HOSPITALS

- 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 (2017)

Table 4.7

NHS hospital capacity and theoretical future need

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

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

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

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

* 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 2031



Surrey

33,280

Additional sqm of acute hospital bed space by 2031



Surrey

3,639

Additional sqm of mental health bed space by 2031

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

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £144,080,000

Funding Gap = £31,590,000*

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

* (considering both secured and expected funding)

ADULT SOCIAL CARE



Surrey
143
Nursing Homes

Surrey
300
Residential Care Homes

CURRENT SITUATION

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

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

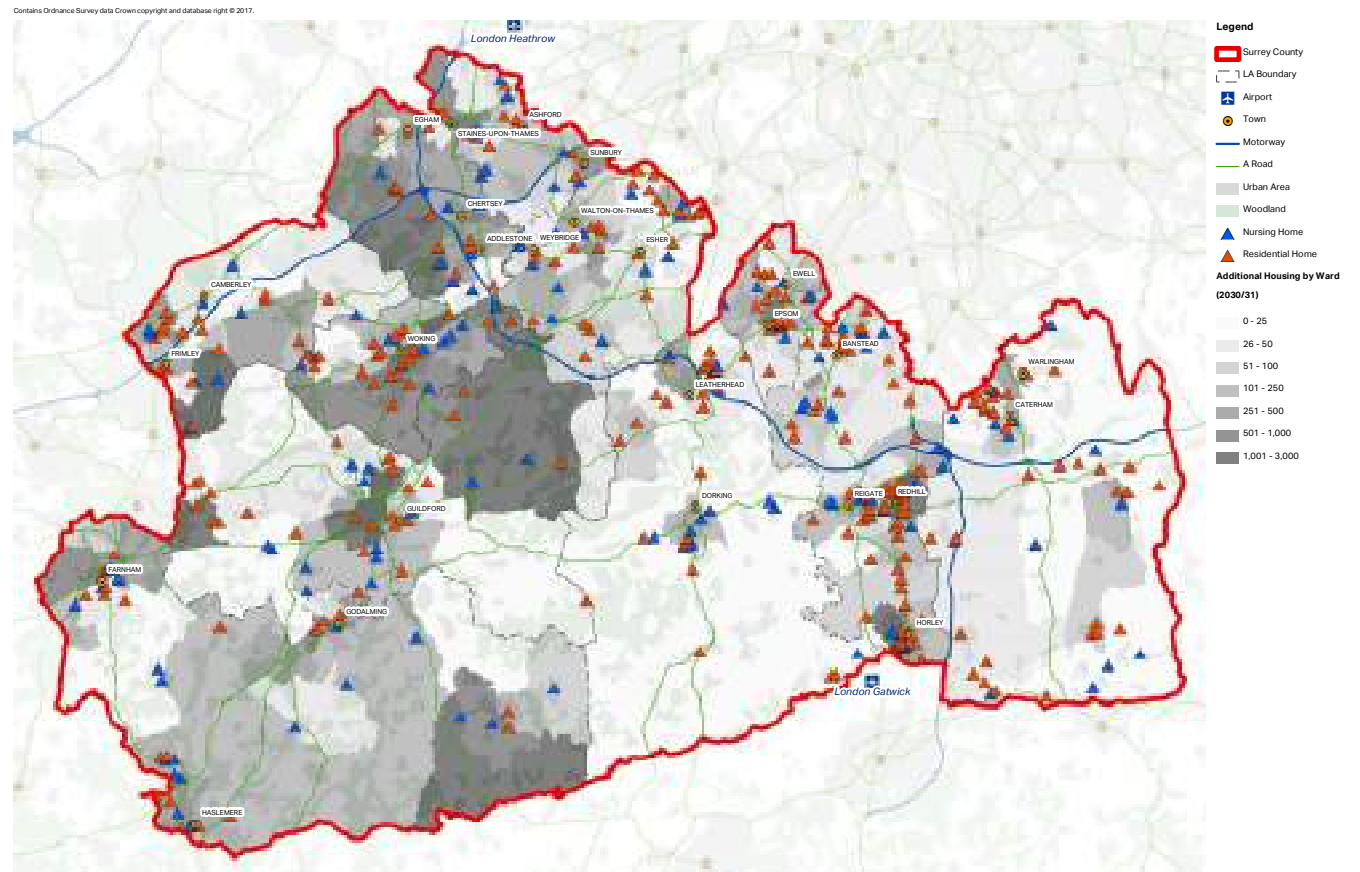
Adult Social Care client groups include: People with learning disabilities; people with mental health needs; people with physical disabilities; and older people (over 65 years).

HEADLINES

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

Figure 4.11

Social care accommodation against housing growth areas



Source: CQC Website for location data 2017

Table 4.8

Social care accommodation & theoretical future need

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

Source: Draft Accommodation With Care and Support Commissioning Statements 2016

FUTURE REQUIREMENTS TO MEET GROWTH TO 2025



Surrey

2,168

Additional Nursing Care beds



Surrey

1,378

Additional Residential Care beds



Surrey

750

Additional Extra Care beds/units

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £422,250,000

Funding Gap = £42,230,000*

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



4.4 COMMUNITY

LIBRARIES



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

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

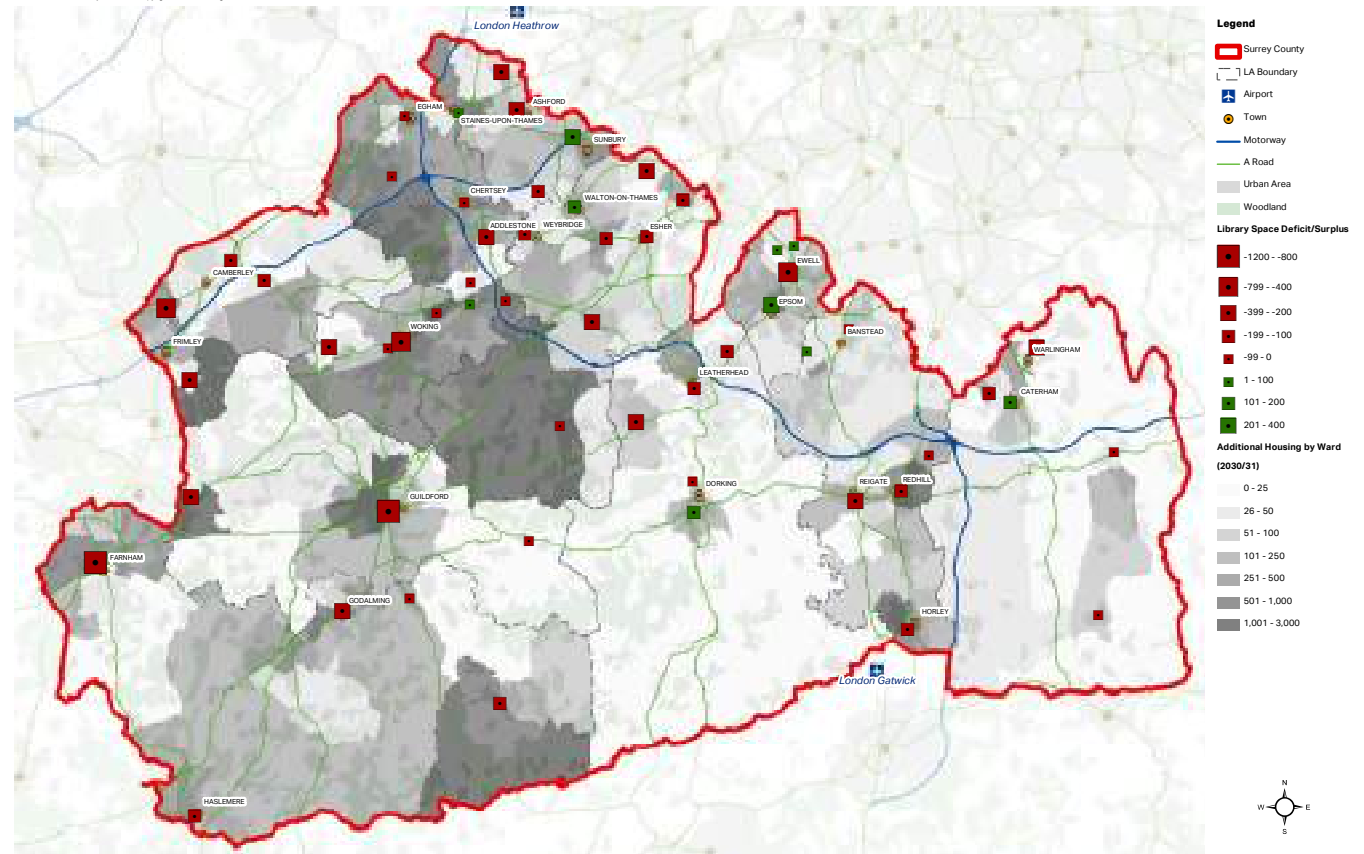
HEADLINES

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

Figure 4.12

Library capacity against housing growth areas

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Source: Surrey County Council for location and capacity data 2017

Table 4.9

Library capacity & theoretical future need

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

Source: Surrey County Council (2017) & AECOM analysis of future demands using benchmark of 25 sq.m per 1,000 people.

headlines on previous page will not match total libraries in table above as headline exclude specialist 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 2031



Surrey
2,653

Sqm of additional library space required by 2031

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £14,260,000

Funding Gap = £5,620,000*

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

HEADLINES

Tandridge

763

Fewest hours of service
provided March 2014-15

Reigate & Banstead

783

Highest number of clients
recorded March 2015

Runnymede & Spelthorne - most provision

0.24

Youth service providers per 1,000 young people

Tandridge - least provision

0.11

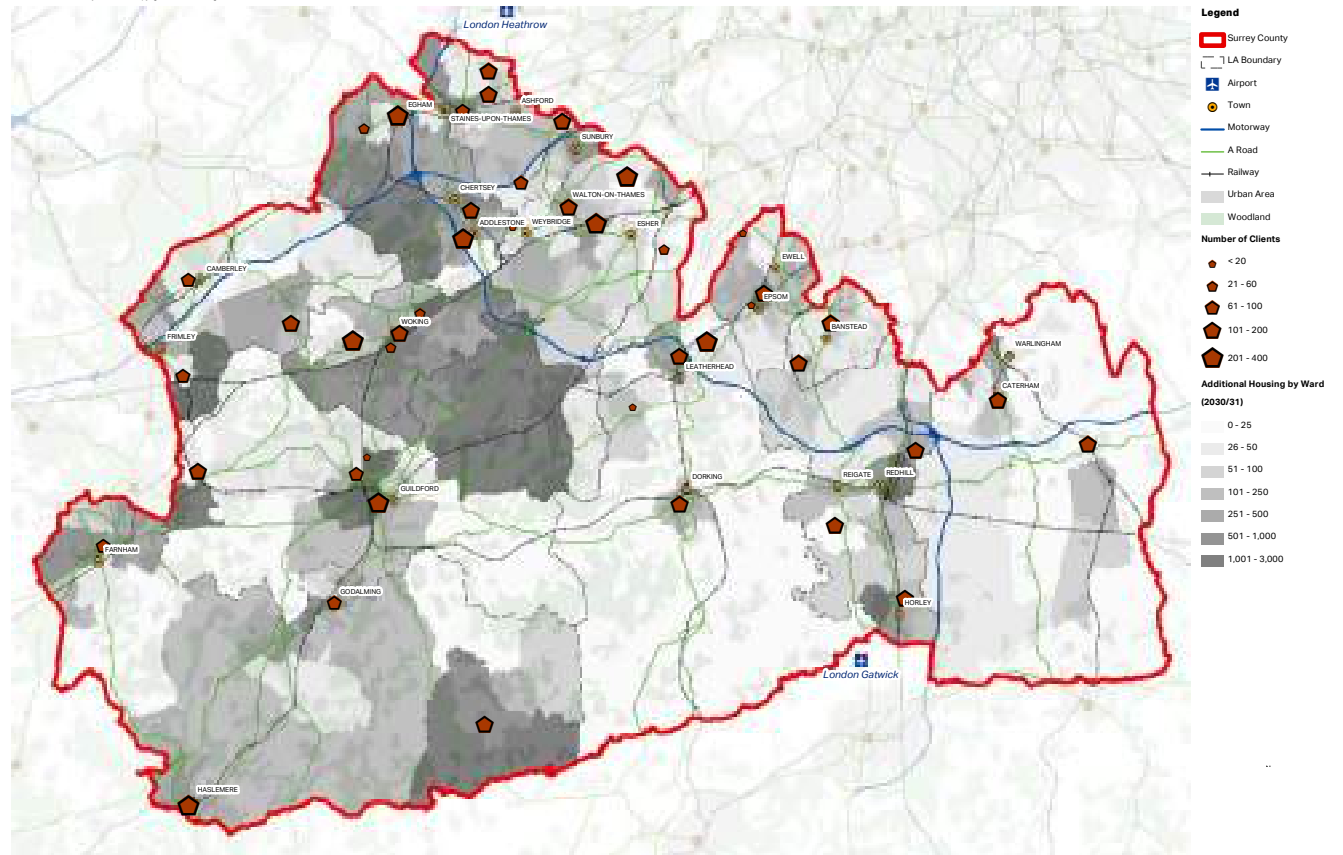
Youth service providers per 1,000 young people

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

Figure 4.13

Youth service provision against housing growth areas

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Source: Surrey County Council for location and capacity data 2015

Table 4.10

Youth services capacity & theoretical future need

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

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

8

additional youth facilities

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

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

Cost = £6,370,000

Funding Gap = £190,000*

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

* (considering both secured and expected funding)

COMMUNITY & INDOOR SPORTS FACILITIES



Community Facilities



Sports Facilities

CURRENT SITUATION

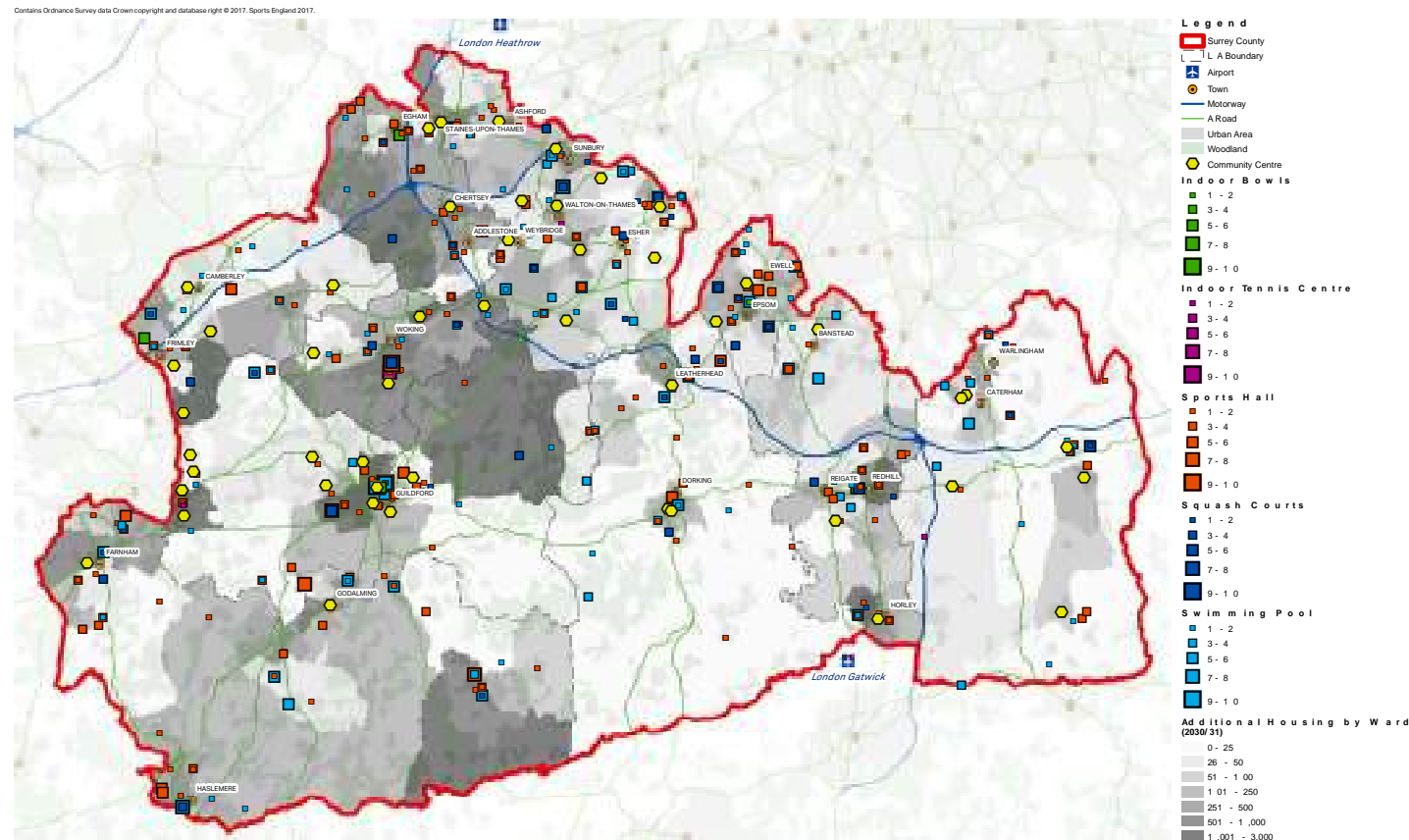
Community and Indoor Sports facilities in Surrey comprise both public and private facilities. Public facilities are provided and funded by the local authorities. This allows for anyone to access the facilities. Private facilities often require membership and payment for the use of those facilities.

HEADLINES

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

Figure 4.14

Community & leisure provision against housing growth



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

Table 4.11

Community and leisure provision

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

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

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

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

 Surrey
6,898 sqm
new flexible community space

 Surrey
20
new swimming pool lanes

 Surrey
31
new sports courts

 Surrey
6
new indoor bowls rinks

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

EXAMPLE INFRASTRUCTURE PROJECTS PROPOSED

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

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

COSTS AND FUNDING

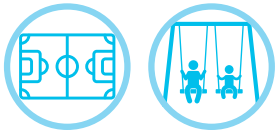
Based upon information contained within each local authority's IDP and theoretical benchmark modelling where no IDP analysis was undertaken, the following costs and funding have been recorded for Surrey:

Cost = £80,070,000

Funding Gap = £33,930,000*

*(considering both secured and expected funding)

OUTDOOR SPORTS AND RECREATION



Outdoor Sports & Recreation

Children's Play Space

CURRENT SITUATION

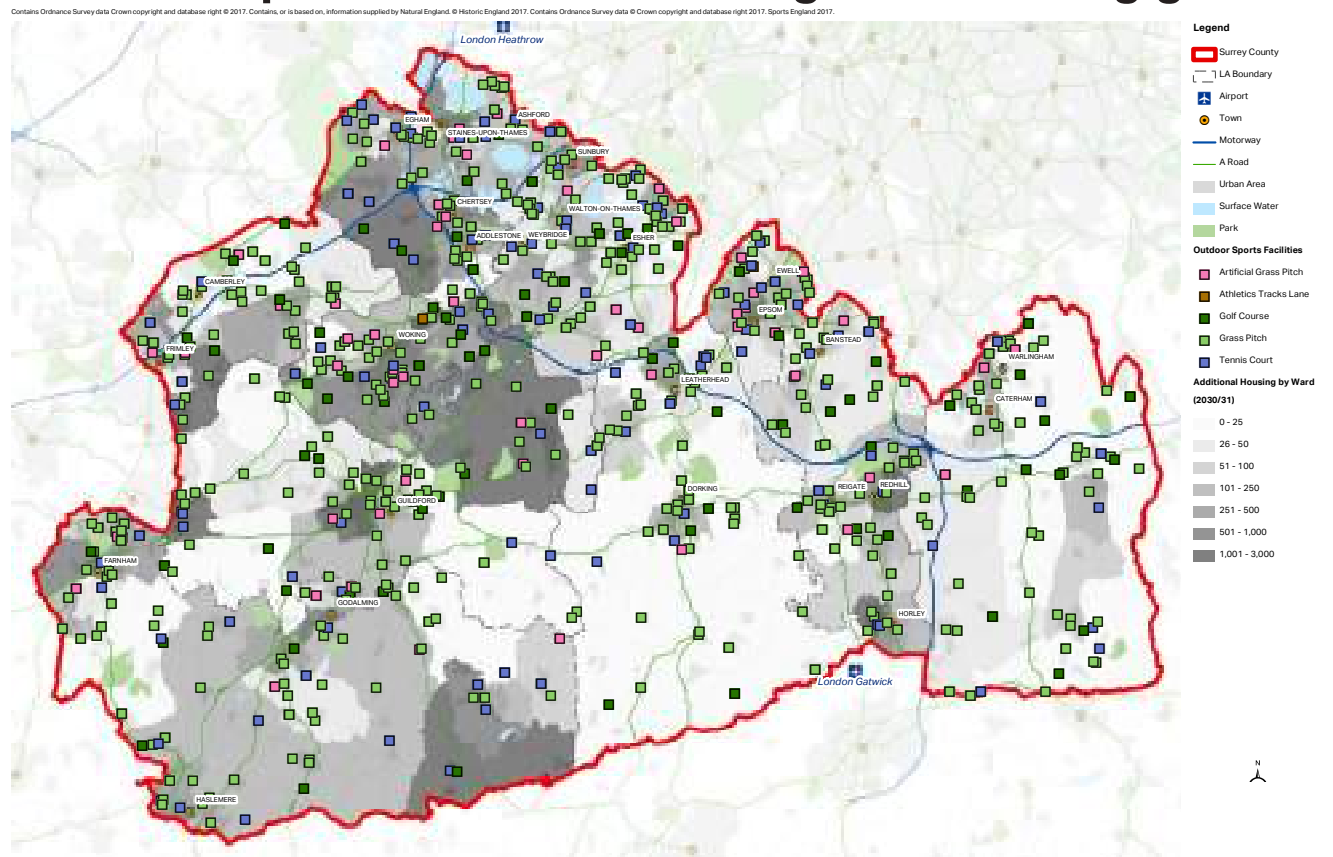
Surrey has a wide range of open spaces, sports pitches, sports facilities and children's playgrounds. Outdoor sports and playspace are owned and operated by a mixture of private sector, voluntary organisations and local authorities.

HEADLINES

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

Figure 4.15

Outdoor sports and recreation against housing growth



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

Table 4.12

Outdoor sports and recreation

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

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

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

3

Artificial Turf Pitches



Surrey

127ha

Playing fields



Surrey

18ha

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:

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

COSTS AND FUNDING

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

Cost = £76,160,000

Funding Gap = £32,900,000*

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

* (considering both secured and expected funding)



4.5 GREEN INFRASTRUCTURE

GREEN INFRASTRUCTURE



Natural Green Space & Strategic Projects



Parkland

HEADLINES

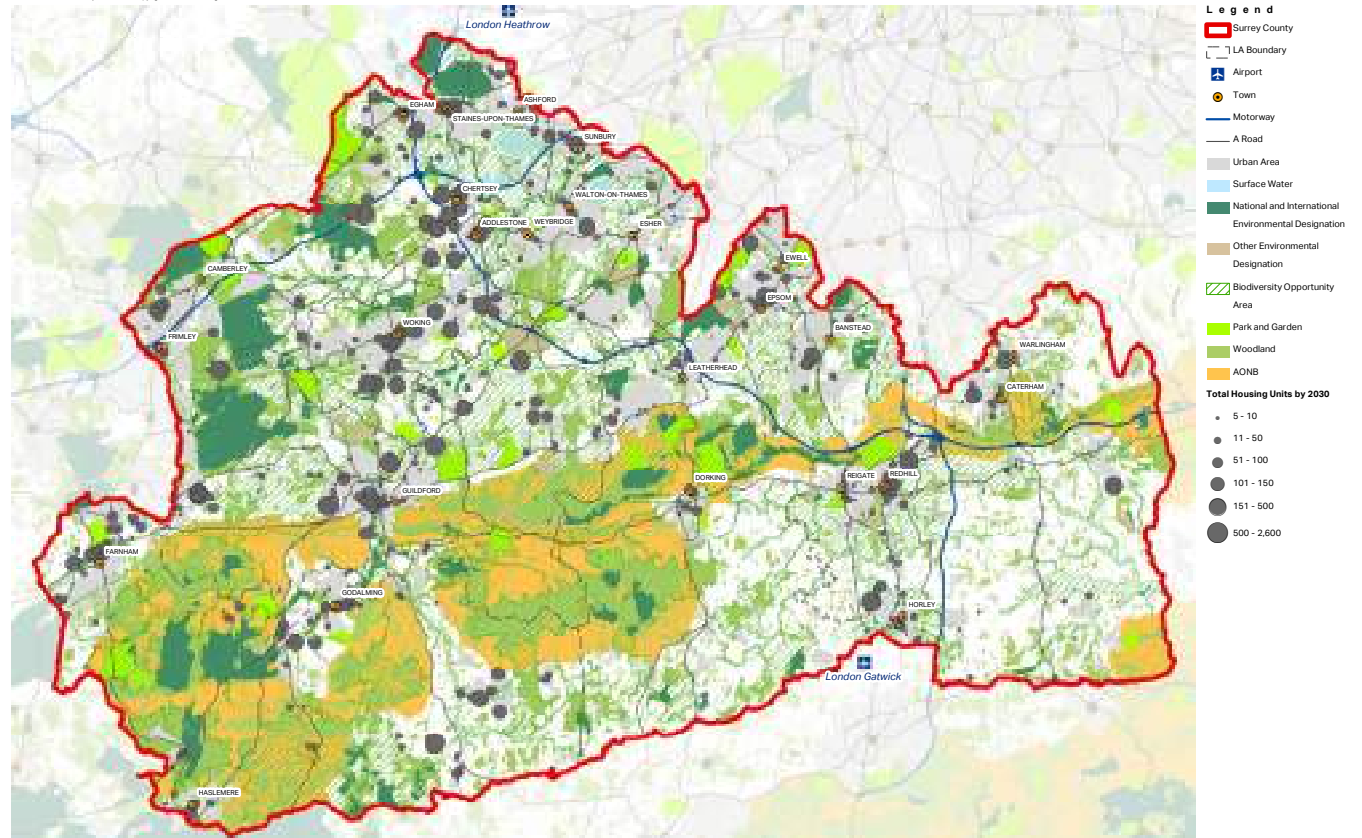
- AONB make up 43,260ha (26% of Surrey land area)
- Kent Downs, Surrey Hills, High Weald
- Woodland makes up 33% of the land area of Surrey
- 52 Parks and Gardens in Surrey (4,120ha)

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

Figure 4.16

Green infrastructure & proposed housing sites

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

CURRENT SITUATION

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

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

Table 4.13

Green infrastructure provision

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

INVESTING IN NATURAL CAPITAL

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

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

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

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

LANDSCAPE SCALE

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

SUITABLE ALTERNATIVE NATURAL GREENSPACE

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

HABITAT CREATION ASSOCIATE WITH DEVELOPMENT

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

SPACE FOR RECREATION

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

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

ACCESS TO THE COUNTRYSIDE

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031



Surrey

106ha

Suitable Alternative Natural Green Space



Surrey

42ha

New Parkland



Surrey

21ha

Allotments

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

COSTS AND FUNDING

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

Cost = £92,540,000

Funding Gap = £13,320,000*

Costs are set out for each local authority in Section 5

* (considering both secured and expected funding)



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 4.14

UKPN Long Term Development Strategy (fully funded)

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

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

GAS SUPPLY

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

CURRENT SITUATION

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

FUTURE REQUIREMENTS

Impacts of growth on supply

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

Summary of plans to support growth

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

COST OF CONNECTING THE GROWTH SITES

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

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

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

Cost = £191,480,000

Funding Gap = £0

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

BROADBAND



BROADBAND DELIVERY UK (BDUK) - SUPERFAST BROADBAND PROGRAMME

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

The programme is being delivered in three phases:

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

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

CURRENT SITUATION IN SURREY

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

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

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

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

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

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

COST OF CONNECTING THE GROWTH SITES

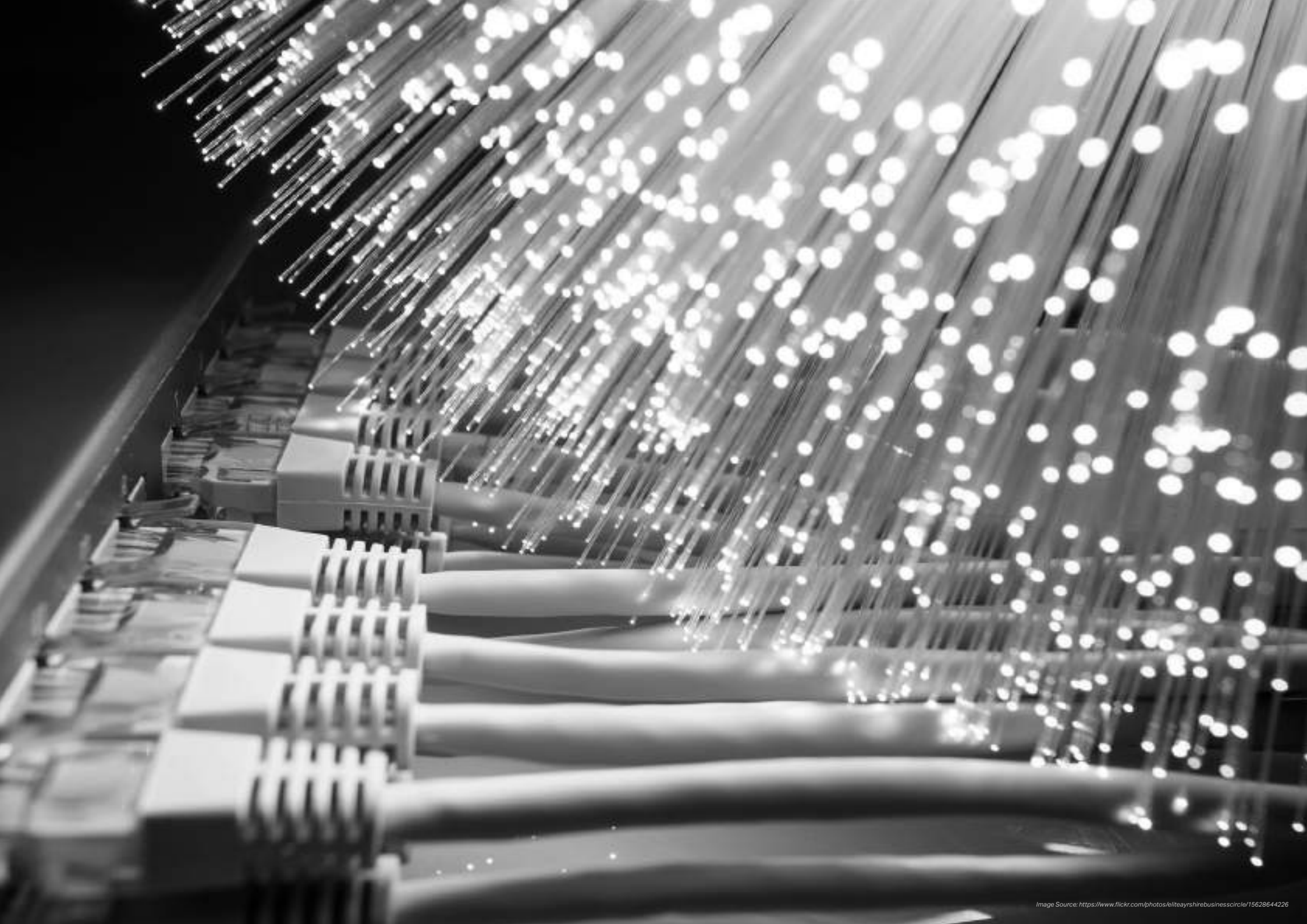
Per dwelling and commercial floorspace benchmark communication connection costs have been applied to the growth forecasts and based on these assumptions, AECOM estimates the following costs associated with connecting new dwellings and commercial development to the existing broadband network:

Cost = £25,490,000

Funding Gap = £0

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

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



WATER & WASTE WATER



CURRENT SITUATION

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

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

Table 4.15

Water Supply and Waste Providers

	VW	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

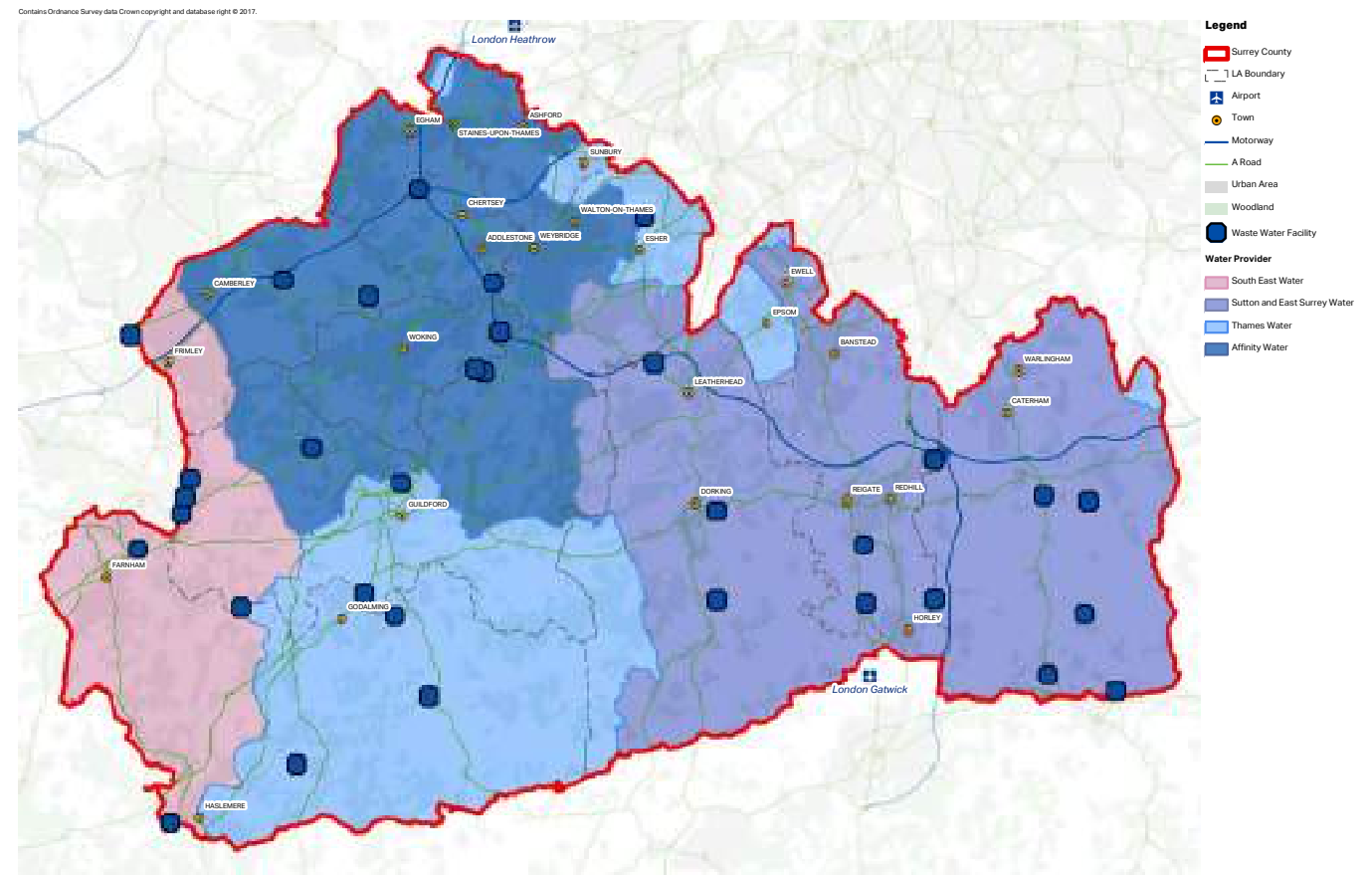
- Thames Water report that 80% of London's potable water is supplied from surface waters of the River Thames and the River Lee, via reservoirs, with the remaining 20% coming from groundwater.
- 30% of Thames Valley potable water comes from surface waters and 70% from groundwater.
- Southern Water's Sussex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

demands typically around 60 MI/d. The WRZ's own internal sources are supplemented by a bulk import from Portsmouth Water of 15 MI/d. However, the WRZ also provides a supply of 5.4 MI/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 2017

Current Capacity issues

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

FUTURE REQUIREMENTS

Impacts of growth on supply

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

Water Supply - Water Resource Management Plans

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

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

Catchment Plans

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

Table 4.16

Water Supply Provider Plans

PROVIDER	INFRASTRUCTURE INVESTMENT PLANNED	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 MI/d)	2020-2030
	Building a new reservoir at Broad Oak (13.5 MI/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 MI/d wastewater re-use scheme	2020 +

Summary of Water Company Plans to Support Growth

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

COST OF CONNECTING THE GROWTH SITES

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

Cost = £190,110,000

Funding Gap = £0

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

WASTE



Surrey

141,000
tonnes of household waste brought to CRCs (2015/16)

Surrey

430,000
tonnes of waste collected by LAs (2015/16)

Surrey

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

CURRENT SITUATION

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

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

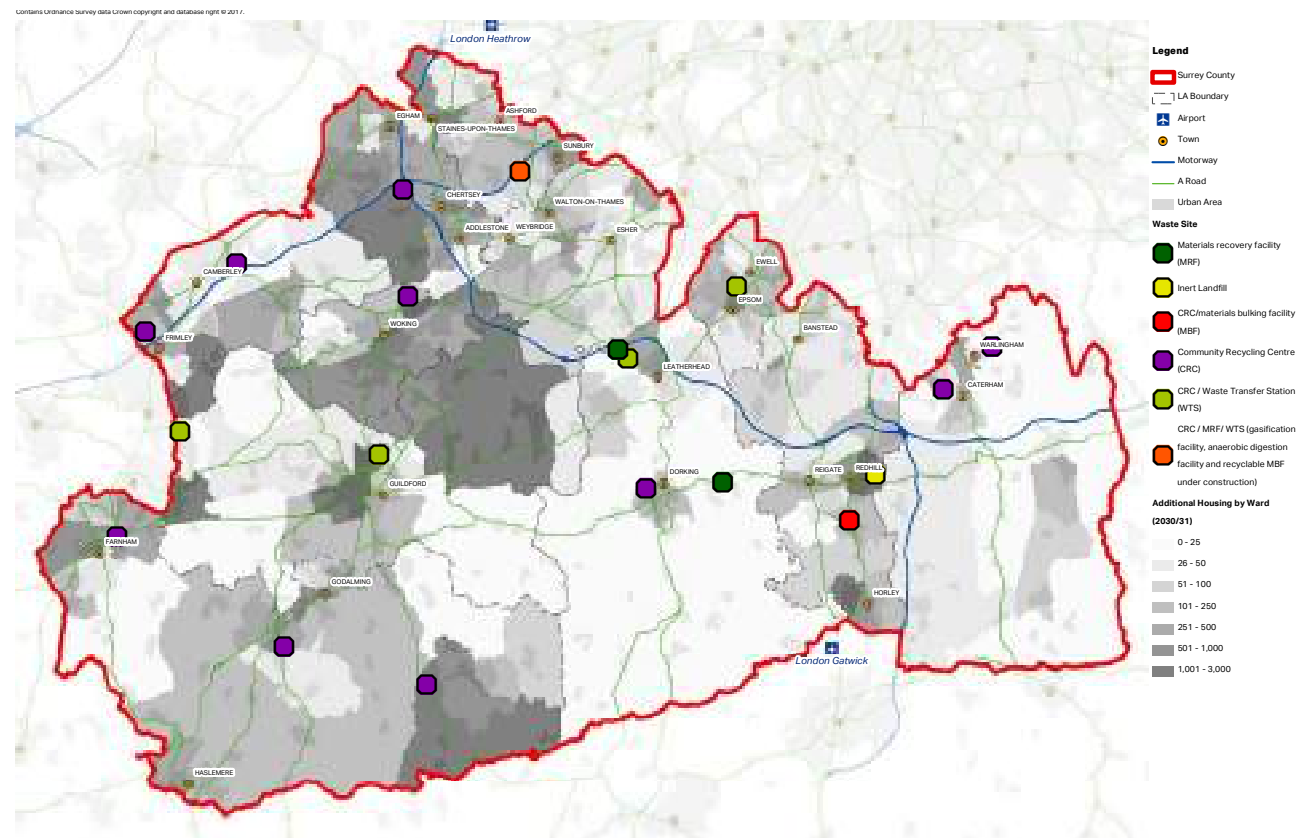
- Ash Vale WTS is partly operating as an overflow facility to relieve pressure on Guildford WTS for the receipt, storage and transfer of residual household waste sourced from district waste collections in Guildford and Surrey Heath.
- Earlswood MBF is used for the bulking, storage and onward transfer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

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

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

Figure 4.18

Waste capacity against housing growth



Source: Surrey County Council

HEADLINES

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

Key Sites Receiving Municipal Waste:

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

- 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.
- Agrivert, Trumps Farm which managed 12,863 tonnes of food waste in 2015/16.
- Colliers site at Trumps Farm which managed 3,767 tonnes of green waste in 2015/16.

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

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

In 2015 Surrey generated just under 571,000 tonnes of waste from households, an estimated 892,000 tonnes of Commercial and Industrial (C&I) waste and 1,972,000 of Construction, Demolition and Excavation (C,D&E) waste.

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

for sites for C,D&E Recycling, Energy Recovery, Composting and Non-inert landfill by 2033.

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

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

COSTS AND FUNDING

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

Cost = £1,820,000

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

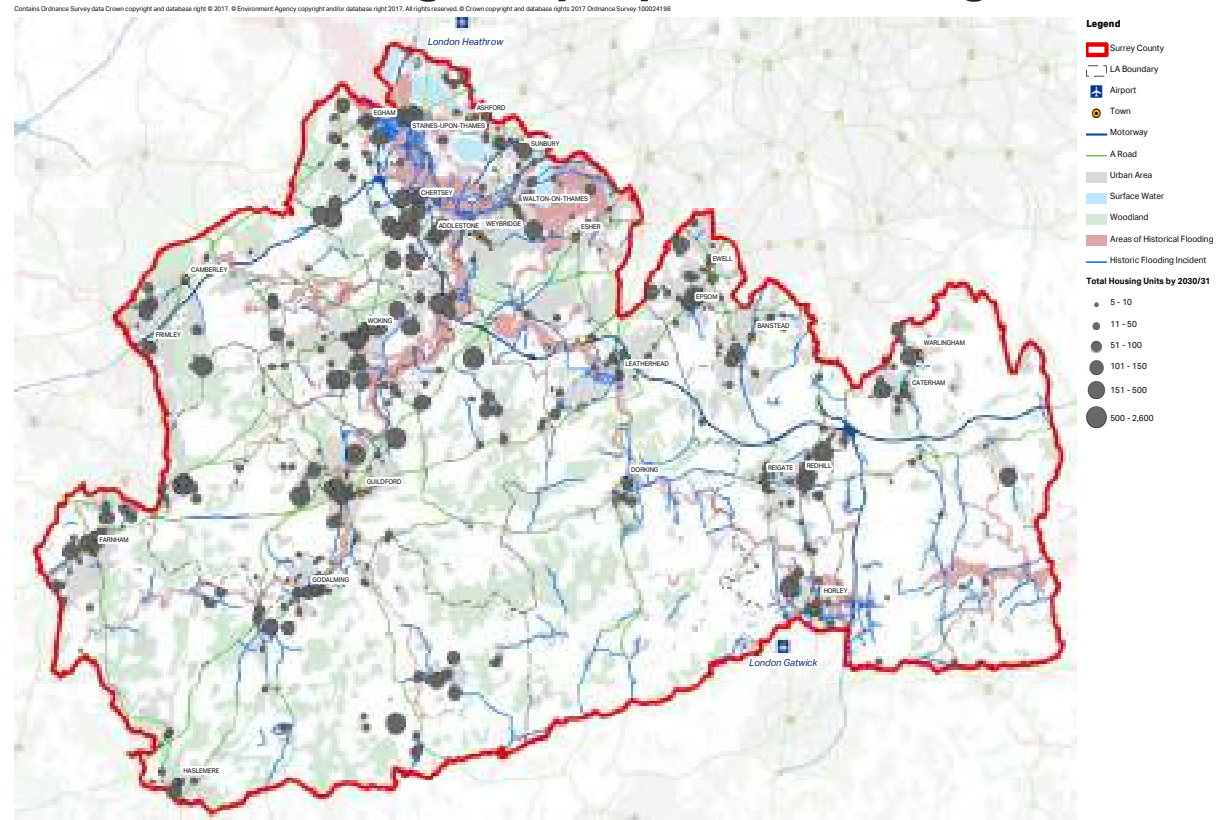
There is a high risk of flooding in Surrey from fluvial sources as it has several large rivers running through its boundaries. The highest fluvial flood risk is to the north along the River Thames and the River Wey. It is anticipated that the highest population growth in the county will be in Guildford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

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

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

Figure 4.19

Historical flooding and proposed housing sites



Source: Environment Agency

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

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

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

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

The River Thames Scheme

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

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

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

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

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

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

COSTS AND FUNDING

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

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

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

Cost = £549,250,000

Funding gap = £265,400,000*

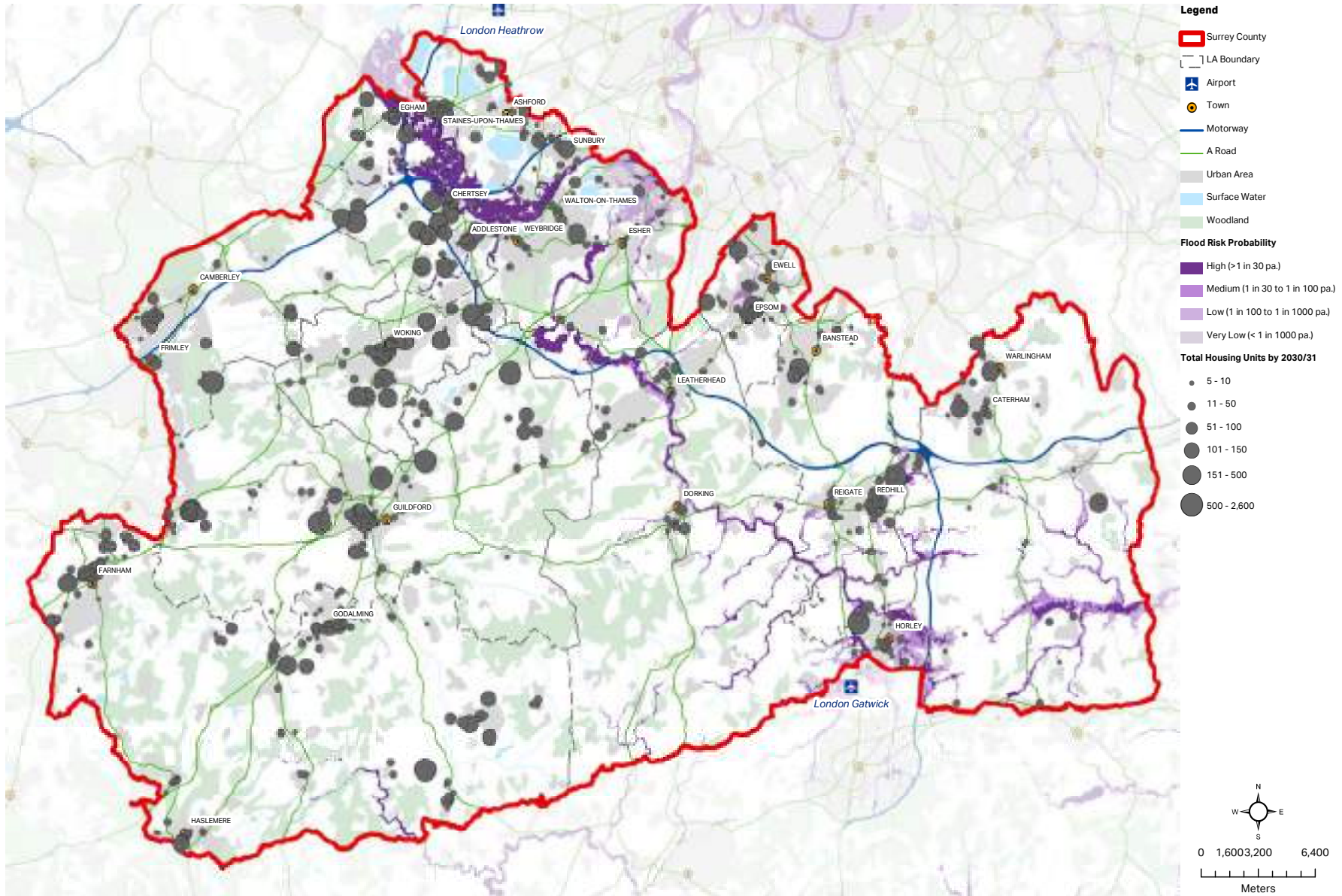
Costs are set out for each Local Authority in Section 5

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

**(considering both secured and expected funding)*

Figure 4.20

Risk of flooding and proposed housing sites



Source: Environment Agency



4.8 EMERGENCY SERVICES

EMERGENCY SERVICES



Ambulance Service



Police



Fire Service

SURREY POLICE SERVICES

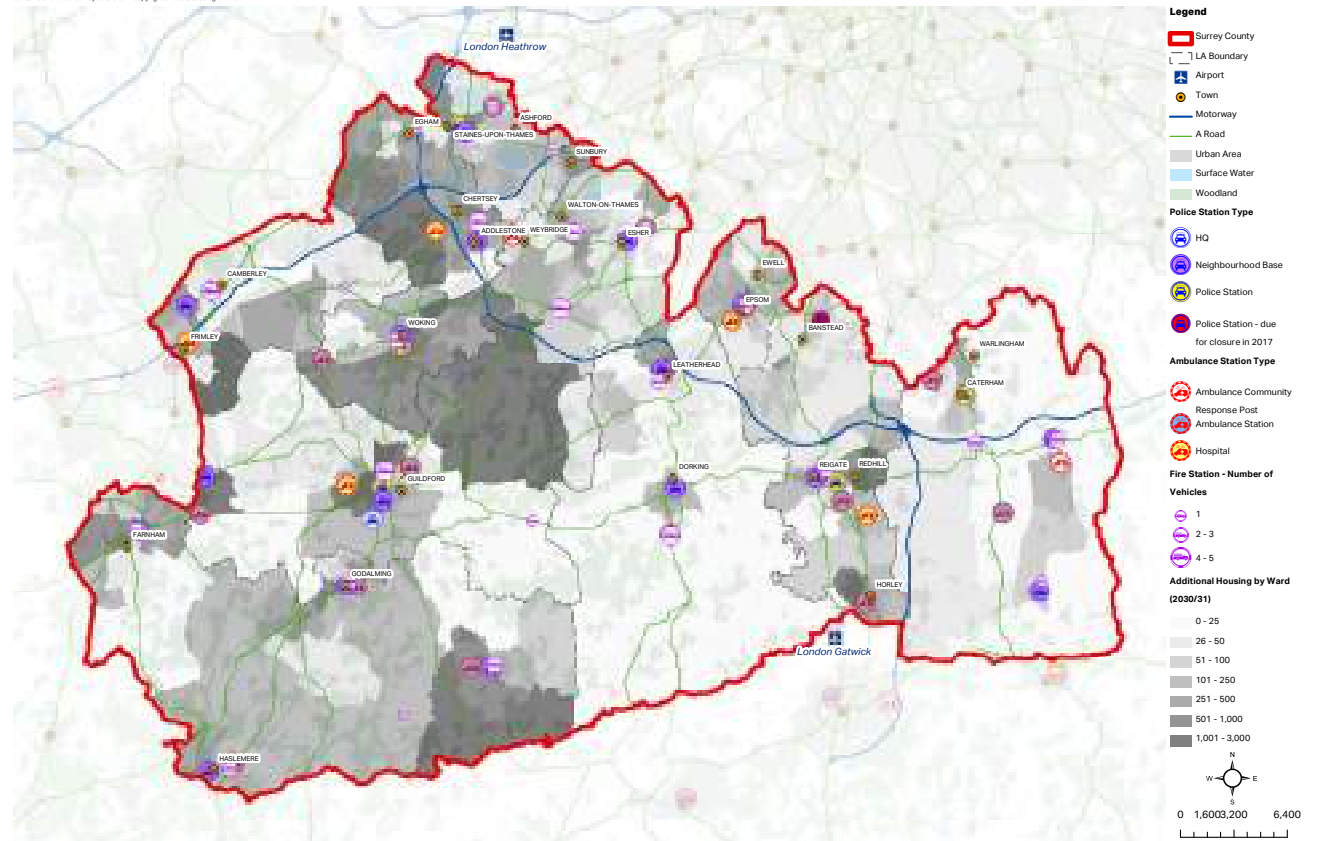
Surrey is policed by Surrey Police, with their headquarters located at Mount Browne just outside Guildford - accommodating the Chief Officer team, support services (ICT, HR, Training, Finance, Communications, Professional Standards etc), dog training function, the force contact, control and dispatch 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

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

Table 4.17

Emergency service capacity

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

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

SURREY FIRE SERVICES

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

AMBULANCE SERVICES

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

FUTURE REQUIREMENTS TO MEET GROWTH TO 2031

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

- Neighbourhood Policing Centre, Guildford - £100,000
- Policing on new settlement at Dunsford Aerodrome - £250,000
- Ambulance Community Response Post, Guildford
- Replacement of Epsom Fire Station
- Redevelopment of Ambulance station in Epsom and Ewell

COSTS AND FUNDING

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

Cost = £36,730,000

Funding Gap = £1,530,000

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

**(considering both secured and expected funding)*

05

DEVELOPMENT SUITABILITY ANALYSIS

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

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

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

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

Each area plan should be reviewed in conjunction with the universal legend below.

Universal Legend

Legend

- Surrey County
- L A Boundary
- Town
- Airport
- Railway Station
- Railway
- Motorway
- A Road
- B Road
- Minor Road
- Urban Area
- Surface Water
- Woodland

G P Theoretical

- Surplus/Deficit
- 5000 - - 2500
- 24 99 - - 1 000
- 999 - - 500
- 4 99 - 0
- + 1 - 500
- + 501 - 1 000
- + 1 001 - 2500
- + 2501 - 5000
- + 5001 - 901 5

Surplus Secondary Places

- 200 - - 0 5
- 1 4 9 - - 50
- 4 9 - 0
- 1 - 50
- 51 - 1 50
- 1 51 - 200
- 201 - 4 00
- 4 01 - 6 00

Surplus Primary Places

- 1 00 - - 30
- 29 - - 1 0
- 9 - 0
- 1 - 1 0
- 1 1 - 30
- 31 - 1 00
- 1 01 - 200

Employment Area Floor space (sq m)

- 500 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- > 20,000

Total Housing Units by 2030

- 5 - 10
- 11 - 50
- 51 - 100
- 101 - 150
- 151 - 500
- 500 - 2,600

Table 5.1

Project List Source

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

Table 5.2

Local Authority Project Schedule Source Documents

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

Technical Note on Local Authority figures on following pages:

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

5.1 ELMBRIDGE

4,535
new homes
(+8%)

4,437
new people
(+3%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

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

Total Infrastructure Costs: £205,930,000

Total Secured Funding: £3,360,000

Total Expected Funding: £80,400,000

Total Funding Gap: £122,160,000

Funding as % of Costs: 41%

TRANSPORT



- Motorways
- Highways
- Public transport
- Rail
- Other transport

EDUCATION



- Primary education
- Secondary education
- AE / FE / HE
- Early Year facilities

HEALTH



- Primary healthcare
- Acute healthcare
- Mental healthcare

COMMUNITY



- Adult social services
- Libraries
- Youth services
- Community centres

GREEN INFRASTRUCTURE



- Sports facilities
- Outdoor sport & Rec
- Green infrastructure

UTILITIES

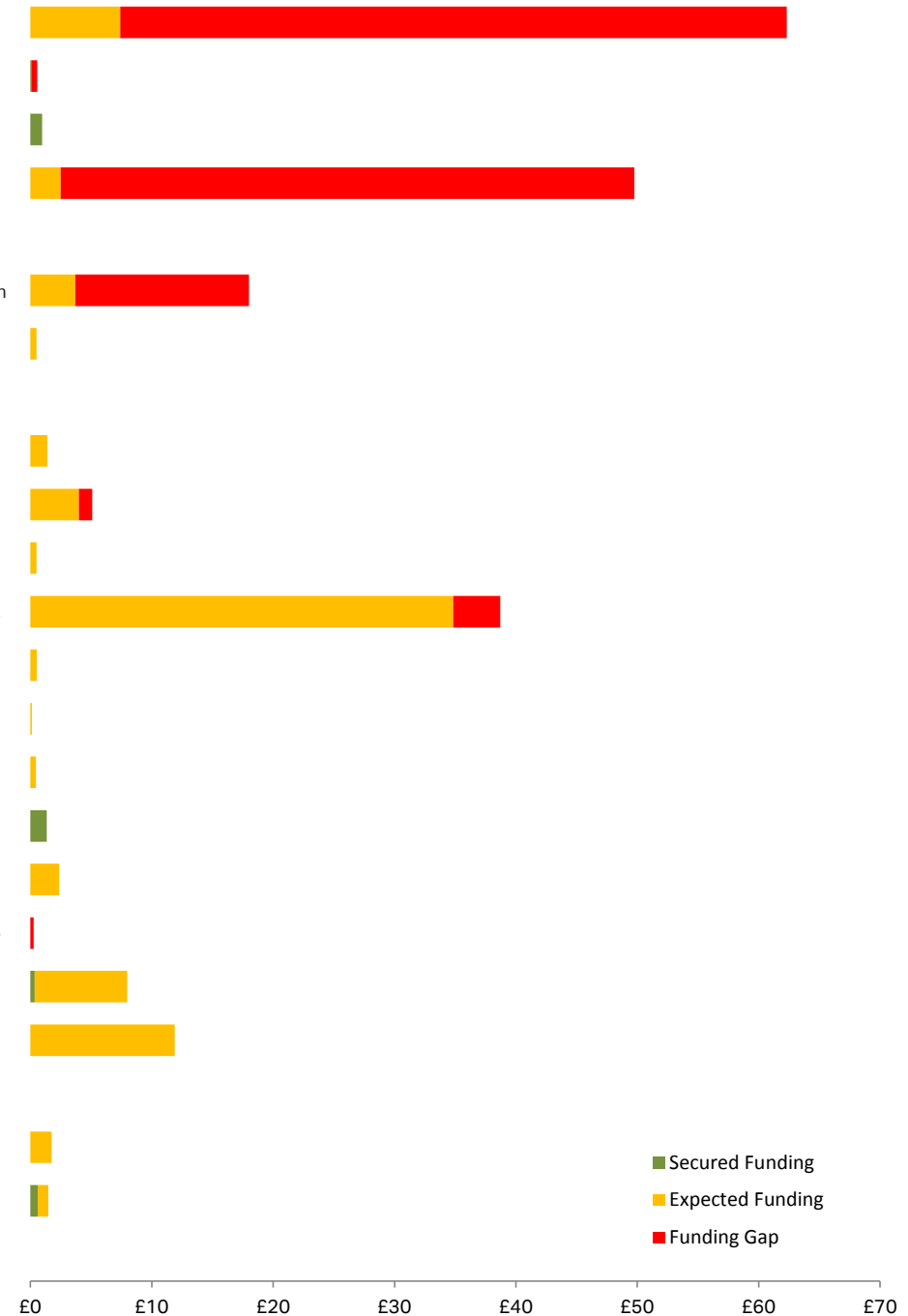


- Electricity & Gas
- Water & Sewage
- Waste
- Broadband

FLOOD DEFENCES



- Flood defences
- Emergency Services



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

Millions

MAJOR HOUSING DEVELOPMENT

- Three Rivers Academy & 6th Form College
- Stompond Lane Sports Ground
- Imber Court Trading Estate, East Molesey
- Rivernook Farm, Walton

COMMUNITY INFRASTRUCTURE PROJECTS

- New Athletics and football stadium in Walton on Thames

FLOOD DEFENCES

- River Thames Scheme

TRANSPORT PROJECTS

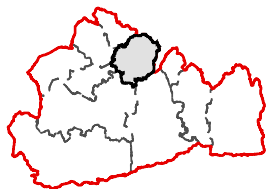
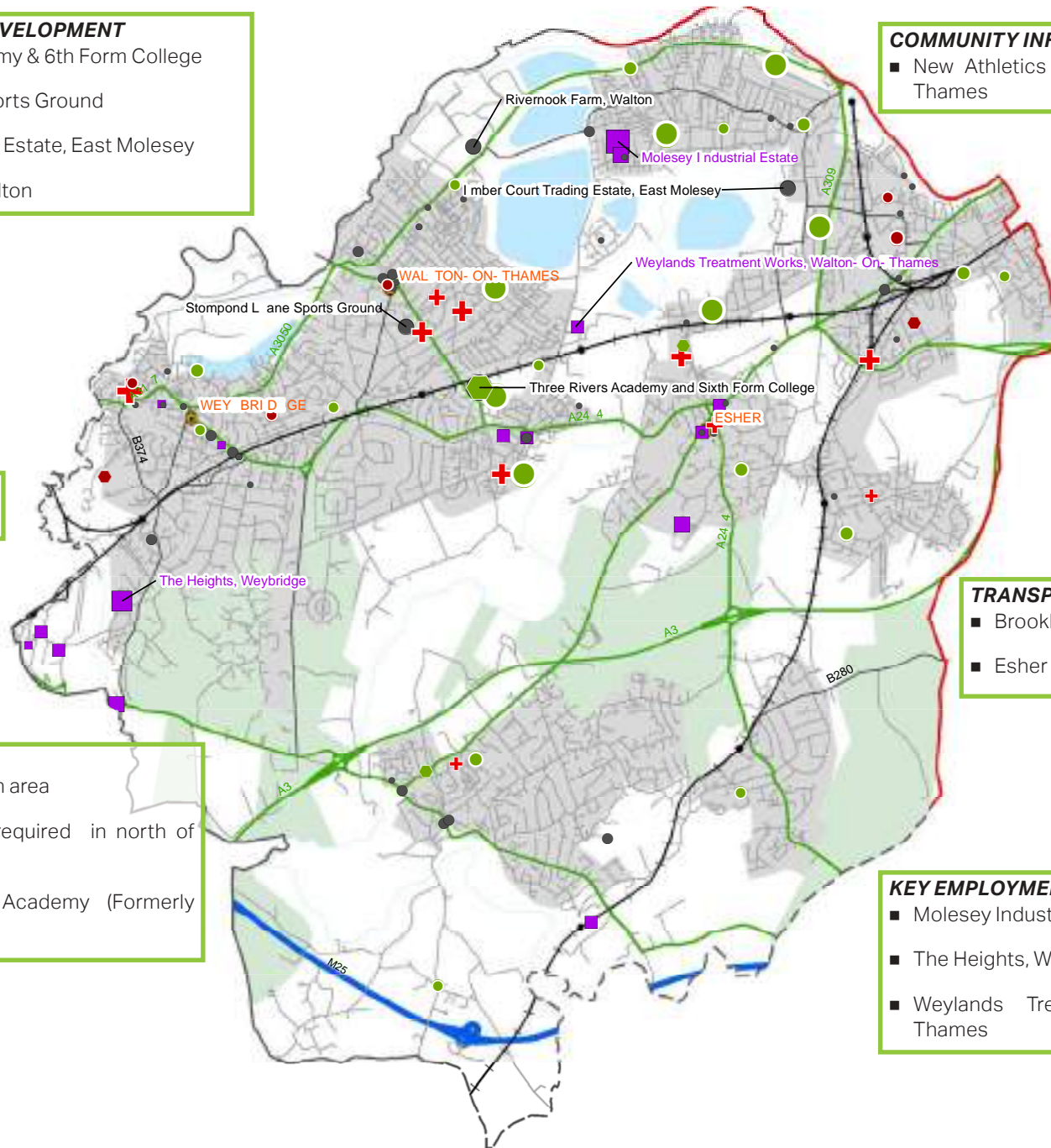
- Brooklands Access Improvements
- Esher Access Improvements

EDUCATION PROJECTS

- 1FE primary expansion in Walton area
- New Secondary Free School required in north of borough
- Rebuilding of Three Rivers Academy (Formerly Rydens Enterprise School)

KEY EMPLOYMENT SITES WITH CAPACITY

- Molesey Industrial Estate
- The Heights, Weybridge
- Weylands Treatment Works, Walton-On-Thames



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN ELMBRIDGE

Refer to Universal Legend at start of Chapter 5 to interpret Map icons

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

5.2 EPSOM AND EWELL

6,270
new homes
(+20%)

13,242
new people
(+17%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

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

Total Infrastructure Costs: £240,010,000

Total Secured Funding: £20,240,000

Total Expected Funding: £92,170,000

Total Funding Gap: £91,610,000

Funding as % of Costs: 55%

TRANSPORT



- Motorways
- Highways
- Public transport
- Rail
- Other transport

EDUCATION



- Primary education
- Secondary education
- AE / FE / HE
- Early Year facilities

HEALTH



- Primary healthcare
- Acute healthcare
- Mental healthcare

COMMUNITY



- Adult social services
- Libraries
- Youth services
- Community centres

GREEN INFRASTRUCTURE



- Sports facilities
- Outdoor sport & Rec
- Green infrastructure

UTILITIES

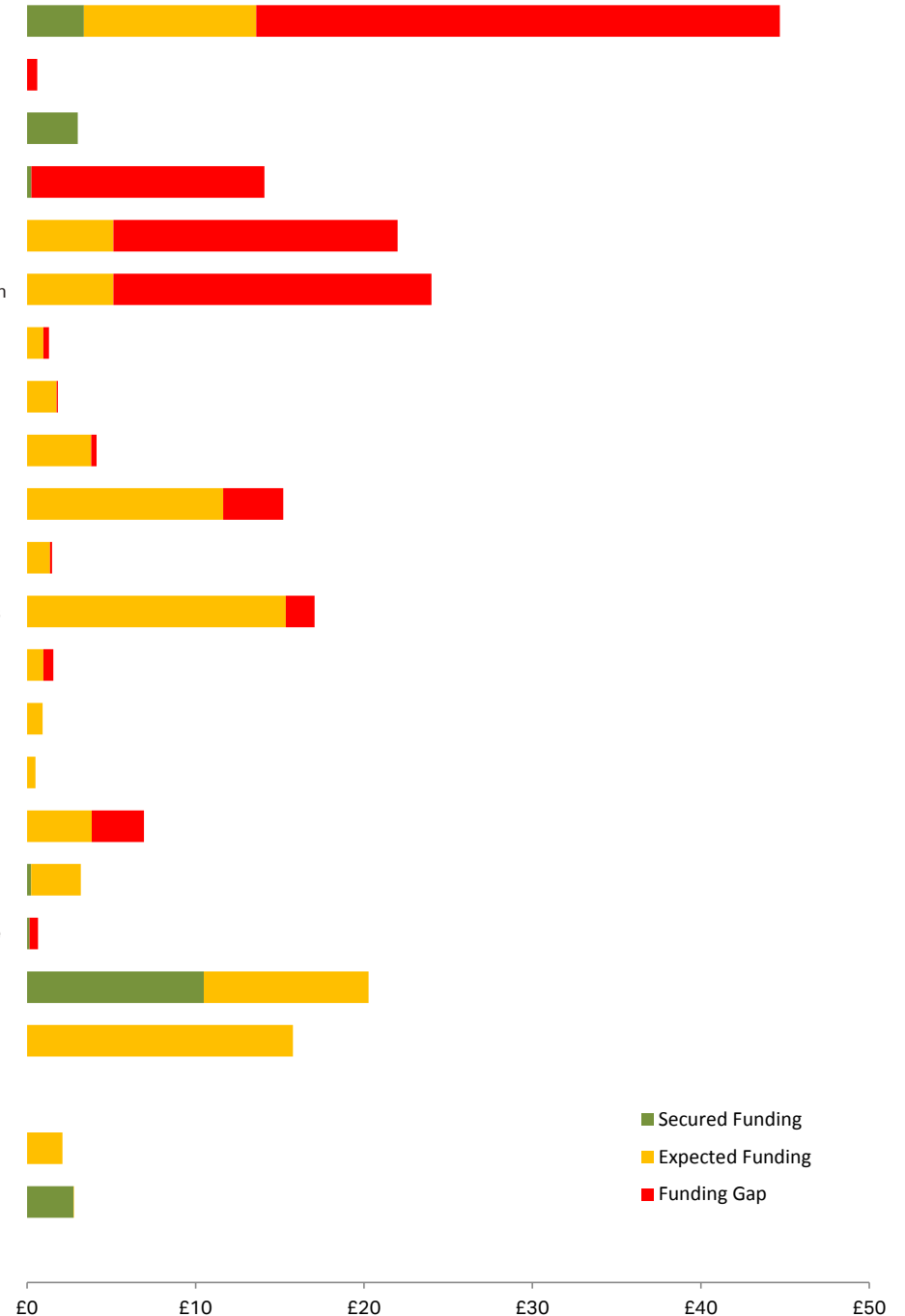


- Electricity & Gas
- Water & Sewage
- Waste

FLOOD DEFENCES



- Broadband
- Flood defences
- Emergency Services



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

Millions

MAJOR HOUSING DEVELOPMENT

- The Utilities Site
- Remaining West Park Sites
- Depot Road & Upper High Street Site

KEY EMPLOYMENT SITES WITH CAPACITY

- Longmead and Nonsuch Employment Sites
- Woodcote Grove, Ashley road, Epsom
- Epsom General Hospital
- Utilities Site, East Street, Epsom Town Centre

COMMUNITY INFRASTRUCTURE PROJECTS

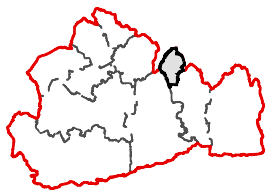
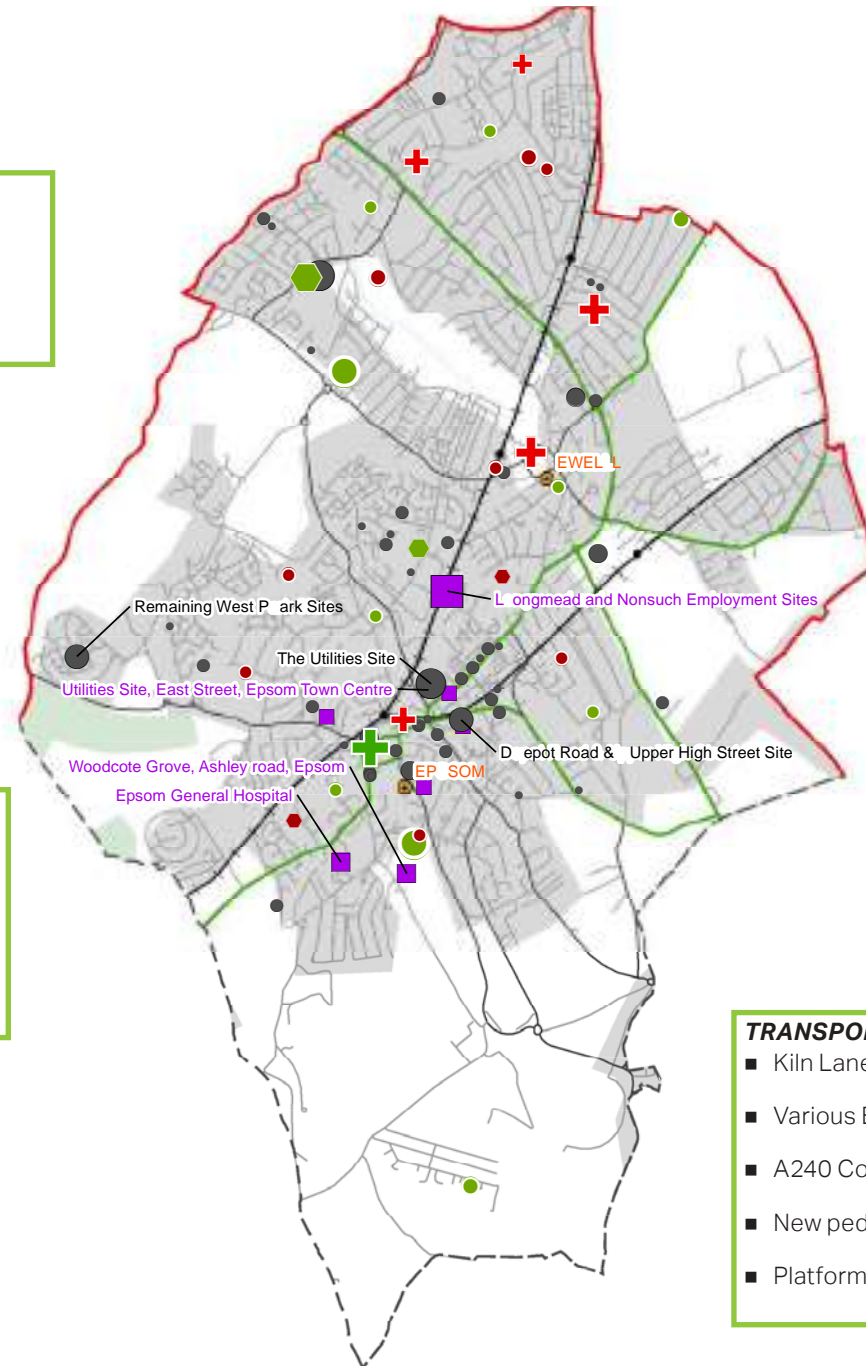
- Refurbishment of Alexander Recreation Ground and Court Recreation Ground
- Playground upgrades and improvements to Manor Estate, Shadbolt Park, Chessington Road, Clarendon Park, Gatley Avenue and Iris Road playgrounds

EDUCATION PROJECTS

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

TRANSPORT PROJECTS

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



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN EPSOM & EWELL

Refer to Universal Legend at start of Chapter 5 to interpret Map icons

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

5.3 GUILDFORD

9,810
new homes
(+17%)
to 2031

20,766
new people
(+14%)

INFRASTRUCTURE HIGHLIGHTS

- A3 road deficient in quality and capacity
- Guildford town centre improvements
- Vehicular demand on Local Road Network approaches or exceeds capacity of some junctions during peak periods
- Traffic congestion affects bus route efficiency
- Scope to improve pedestrian & cyclist provision
- Capacity issues on current rail infrastructure
- Need for new primary and secondary school places to secure urban extensions

Total Infrastructure Costs: £1,008,340,000
 Total Secured Funding: £98,340,000
 Total Expected Funding: £701,120,000
 Total Funding Gap: £208,880,000
 Funding as % of Costs: 79%

TRANSPORT



- Motorways
- Highways
- Public transport
- Rail
- Other transport

EDUCATION



- Primary education
- Secondary education
- AE / FE / HE
- Early Year facilities

HEALTH



- Primary healthcare
- Acute healthcare
- Mental healthcare

COMMUNITY



- Adult social services
- Libraries
- Youth services
- Community centres

GREEN INFRASTRUCTURE



- Sports facilities
- Outdoor sport & Rec
- Green infrastructure

UTILITIES

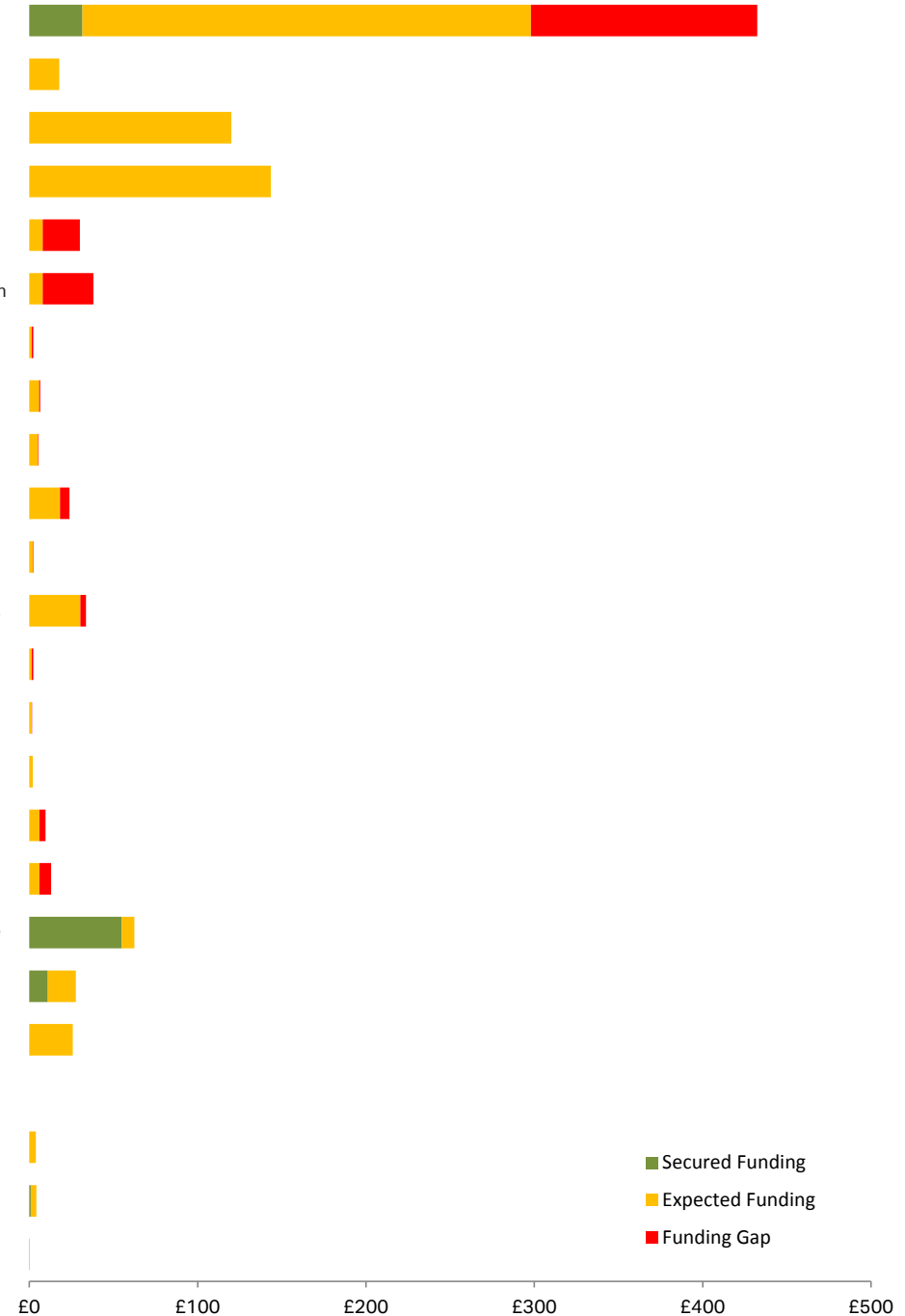


- Electricity & Gas
- Water & Sewage
- Waste

FLOOD DEFENCES



- Broadband
- Flood defences
- Emergency Services



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

Millions

EDUCATION PROJECTS

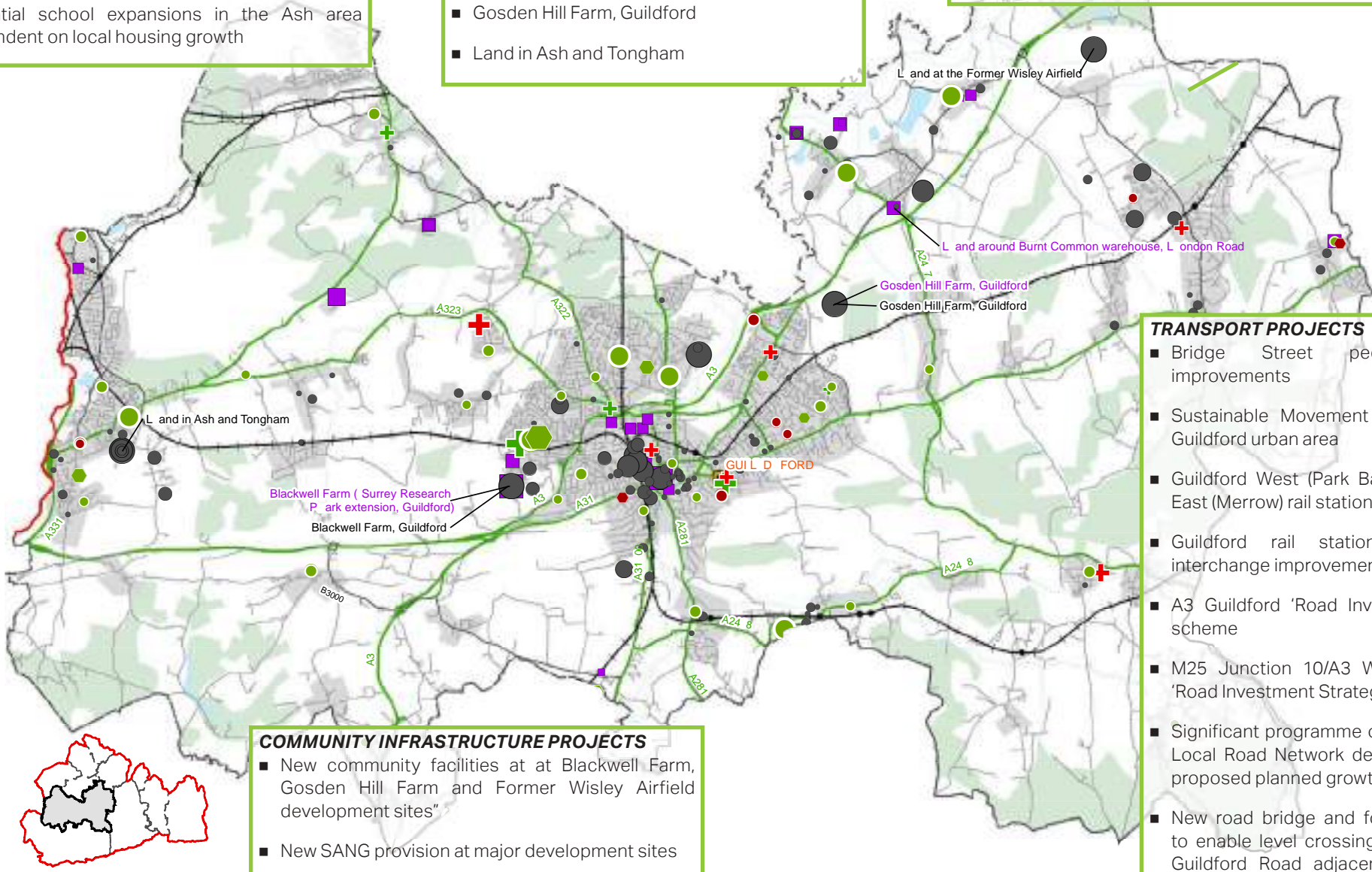
- Expansion at Worplesdon Primary School
- Primary and secondary provision for Blackwell Farm, Gosden Hill and Former Wisley Airfield development sites
- Potential school expansions in the Ash area dependent on local housing growth

MAJOR HOUSING DEVELOPMENT

- Blackwell Farm, Guildford
- Land at the Former Wisley Airfield
- Gosden Hill Farm, Guildford
- Land in Ash and Tongham

KEY EMPLOYMENT SITES WITH CAPACITY

- Blackwell Farm (Surrey Research Park extension, Guildford)
- Land around Burnt Common warehouse
- Gosden Hill Farm, Guildford



COMMUNITY INFRASTRUCTURE PROJECTS

- New community facilities at at Blackwell Farm, Gosden Hill Farm and Former Wisley Airfield development sites
- New SANG provision at major development sites

TRANSPORT PROJECTS

- Bridge Street pedestrian safety improvements
- Sustainable Movement Corridor through Guildford urban area
- Guildford West (Park Barn) and Guildford East (Merrow) rail stations
- Guildford rail station capacity and interchange improvements
- A3 Guildford 'Road Investment Strategy' scheme
- M25 Junction 10/A3 Wisley interchange 'Road Investment Strategy' scheme
- Significant programme of schemes on the Local Road Network delivered to support proposed planned growth
- New road bridge and footbridge scheme to enable level crossing closure on A323 Guildford Road adjacent to Ash railway station'

SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN GUILDFORD

Refer to Universal Legend at start of Chapter 5 to interpret Map icons

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

5.4 MOLE VALLEY

2,820
new homes
(+7%)

1,612
new people
(+2%)

to 2031

INFRASTRUCTURE HIGHLIGHTS

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

Total Infrastructure Costs: £140,080,000

Total Secured Funding: £21,850,000

Total Expected Funding: £55,680,000

Total Funding Gap: £62,550,000

Funding as % of Costs: 55%

TRANSPORT



- Motorways
- Highways
- Public transport
- Rail
- Other transport

EDUCATION



- Primary education
- Secondary education
- AE / FE / HE
- Early Year facilities

HEALTH



- Primary healthcare
- Acute healthcare
- Mental healthcare

COMMUNITY



- Adult social services
- Libraries
- Youth services
- Community centres

GREEN INFRASTRUCTURE



- Sports facilities
- Outdoor sport & Rec
- Green infrastructure

UTILITIES

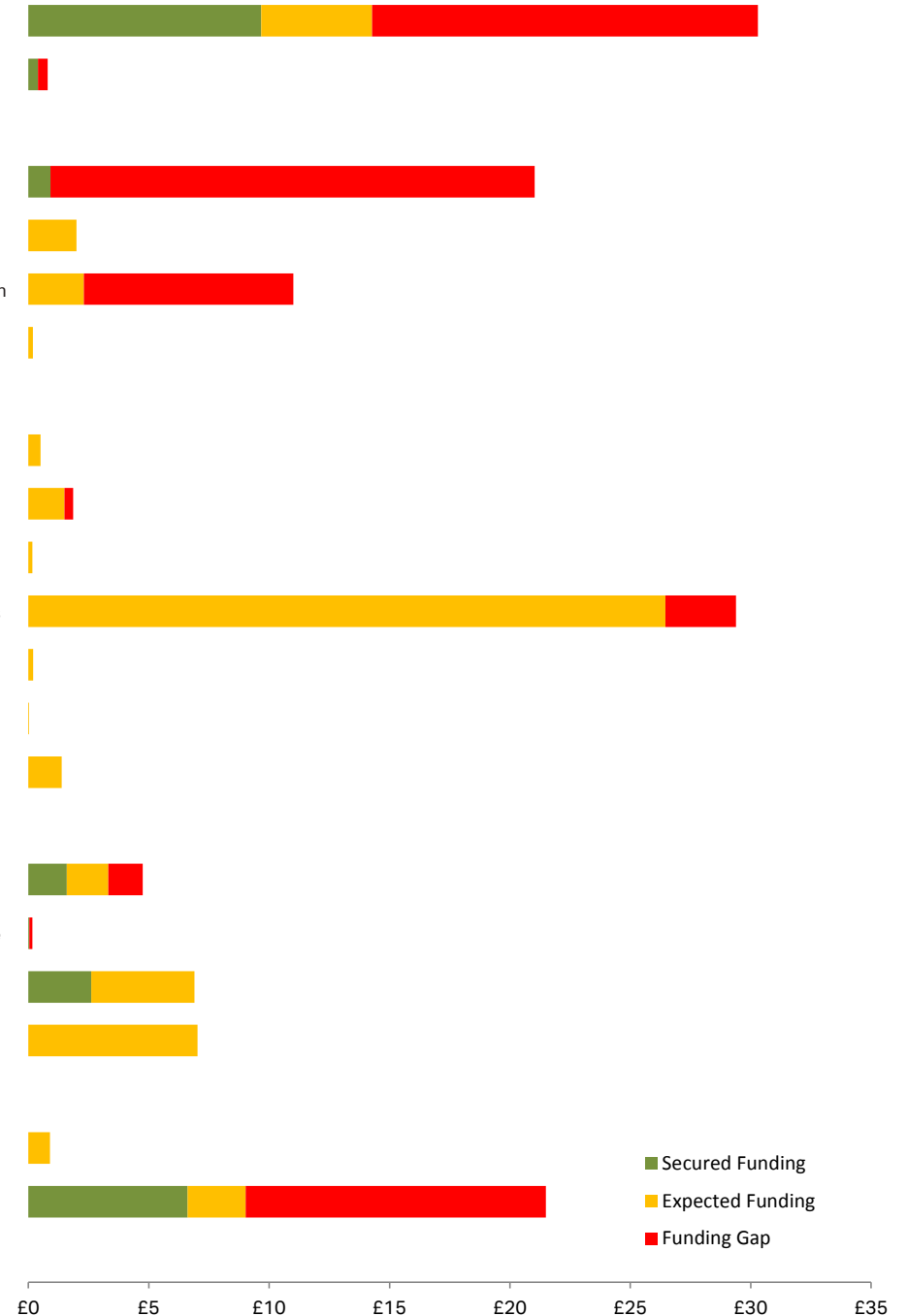


- Electricity & Gas
- Water & Sewage
- Waste

FLOOD DEFENCES



- Broadband
- Flood defences
- Emergency Services



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

Millions

MAJOR HOUSING DEVELOPMENT

- Preston Cross Hotel and Country Club
- Kuoni House and Deepdene Lodge
- QEF, Leatherhead
- Land at Therfield School and Cleeve Road, Leatherhead

COMMUNITY INFRASTRUCTURE PROJECTS

- Meadowbank Recreation Ground, Dorking
- Leatherhead & Epsom Hockey Club pitch provision
- Dorking and Mole Valley Athletics Club enhancements
- Dorking Town Centre and Leatherhead Town Centre public realm projects
- Middle Mole Flood Alleviation Scheme

TRANSPORT PROJECTS

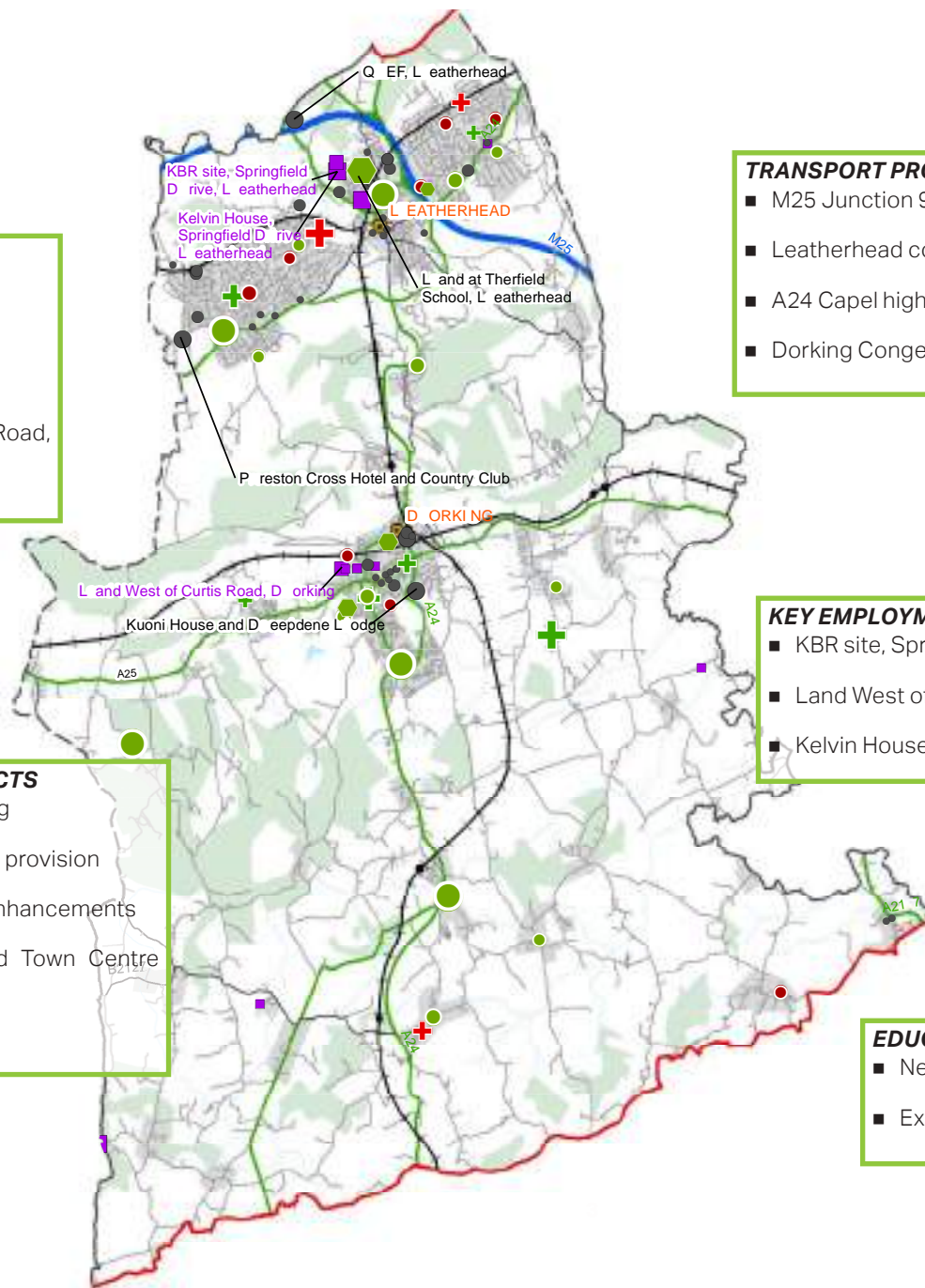
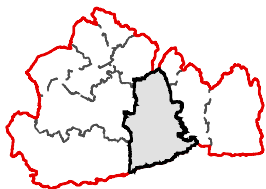
- M25 Junction 9 bottleneck relief
- Leatherhead congestion fixing package
- A24 Capel highways improvements
- Dorking Congestion Study

KEY EMPLOYMENT SITES WITH CAPACITY

- KBR site, Springfield Drive, Leatherhead
- Land West of Curtis Road, Dorking
- Kelvin House, Springfield Drive, Leatherhead

EDUCATION PROJECTS

- New early years provision in Beare Green Ward
- Expansion at the Priory School, Dorking



SUMMARY OF GROWTH + INFRASTRUCTURE ISSUES IN MOLE VALLEY

Refer to Universal Legend at start of Chapter 5 to interpret Map icons

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