Runnymede Infrastructure Delivery Plan

Runnymede Borough Council

December 2017

Quality information

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Revision History

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Abbreviations

A&E	Accident and Emergency
ALC	Active Leakage Control
AMR	Automated Water Reading
AQMA	Air Quality Management Area
BDUK	Broadband Delivery UK
CCG	Clinical Commissioning Groups
CCL	Climate Change Levy
CCTV	Closed Circuit Television
CFMP	Catchment Flood Management Plan
CIL	Community Infrastructure Levy
CMHRS	Community Mental Health Recovery Service
CRC	Community Recycling Centre
DfE	Department for Education
DI	Distribution Input
DO	Deployable Output
DtC	Duty to Cooperate
EA	Environment Agency
EM3	Enterprise M3
FCERM	Flood and Coastal Erosion Risk Management
FiT	Fields in Trust
FoE	Forms of Entry
FTE	Full Time Equivalent
GBR	Green Belt Review
GiA	Grant in Aid
GP	General Practitioner
GSP	Grid Supply Points
HUDU	Healthy Urban Development Unit
IDP	Infrastructure Delivery Plan
INA	Infrastructure Needs Assessment
IOPA	Issues, Options and Preferred Approaches
JSNA	Joint Strategic Needs Assessment
JSPB	Joint Strategic Partnership Board
LA	Local Authority
LDZ	Local Distribution Zones
LEP	Local Enterprise Partnership
LGF	Local Growth Fund
LLFA	Lead Local Flood Authority
LNRs	Local Nature Reserves
LPA	Local Planning Authority
LTDS	Long Term Development Statement
LTP	Local Transport Plan
M	million
m2	Square metres
Mb	Megabytes
Mbps	Megabytes per second
Ml/d	Millilitres per day
MSOA	Middle Super Output Areas
MUGA	Multi Use Games Areas
NGA	Next Generation Access
NGET	National Grid Electricity Plc
NHS	National Health Service
NPPF	National Planning Policy Framework
NSALG	National Society of Allotment and Leisure Gardeners
NTS	National Transmission System
OAN	Objectively Assessed Needs

OMR	Open Market Review
OSS	Open Space Study
PAN	Published Admission Number
PCC	Police and Crime Commissioner
PPG	Planning Policy Guidance
PRVs	Pressure Reducing Valves
PVRL	Public Value Review of Libraries
RBC	Runnymede Borough Council
RLPs	Residual Land Parcels
SAC	Special Area of Conservation
SAC	Special Area of Conservation
SAMs	Scheduled Ancient Monuments
SANG	Suitable Alternative Natural Greenspaces
SCC	Surrey County Council
SECAmb	South East Coast Ambulance Service
SEN	Special Educational Needs
SEPD	Southern Electric Power Distribution Plc
SFRA	Strategic Flood Risk Assessment
SFRS	Surrey Fire and Rescue Service
SGN	Southern Gas Networks
SHMA	Strategic Housing Market Assessment
SLAA	Strategic Land Availability Assessment
SNCI	Site of Nature Conservation Interest
SO	System Operator
SPA	Special Protection Area
SPN	South Eastern Power Networks
SR	Sustainability Reductions
SRN	Strategic Road Network
SS	Spatial Strategy
SSE	Scottish and Southern Electricity
SSSI	Special Site of Scientific Interest
SuDS	Sustainable Urban Drainage System
SWML	South West Main Line
SWTL	South West Train Line
TBHSPA	Thames Basin Heaths Special Protection Area
THR	Target Headroom
UKPN	UK Power Networks
USO	Universal Service Obligation
WAFU	Water Available For Use
WPA	Waste Planning Authority
WRMP	Water Resource Management Plan
WRZ	Water Resource Zone
WwTW	Waste water Treatment Works

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1. Introduction

1.1 Objectives and approach of the Infrastructure Delivery Plan

1.1.1 Runnymede Borough Council has appointed AECOM to produce an Infrastructure Delivery Plan (IDP) as part of its evidence base to support its Local Plan and identification of Site Allocations, to inform the development of CIL in accordance with National Planning Policy and Guidance, and to support the submission of future funding bids. The IDP and the evidence supporting it should therefore be robust enough to withstand scrutiny at Local Plan examination.

1.1.2 AECOM was appointed in 2016 to produce an INA and this report builds on this previous work as well as on existing infrastructure evidence, including the Surrey Infrastructure Strategy (2017)[1], RBC's earlier IDP (2013)[2] and relevant Local Plan studies such as the Open Space Study (2016)[3] and Strategic Highways Assessment Report (2017)[4].

1.1.3 It also reflects consultation carried out by Runnymede Borough Council with the eleven District and Borough Councils in Surrey and other providers under the Duty to Cooperate (DtC) to ensure that the INA and IDP take account of all relevant infrastructure typologies for the purposes of the Local Plan. In addition, as part of the INA and IDP, AECOM has consulted with key infrastructure planners and service providers, including relevant parts of RBC and SCC, as well as external partners such as those responsible for utilities, flood risk and healthcare. This IDP will be used as the basis to carry forward further discussions on cross boundary infrastructure issues and projects.

1.1.4 For the purposes of infrastructure planning within the INA and IDP, Runnymede's development trajectory and Local Plan horizon have been simplified into phases. The phases are as follows:

- 2015/16-2019/20
- 2020/21-2024/25
- 2025/26-2029/30

1.2 Scope

IDP Scope by Infrastructure Type

1.2.1 The scope and approach of the IDP reflects national planning policy and guidance, best practice in infrastructure planning and discussion with RBC officers. The infrastructure types addressed (listed in Table 1) reflect those covered in the INA and include both local services and those which are more strategic in nature and are provided across administrative boundaries.

[1] Surrey Infrastructure Strategy, (2017); AECOM
[2] Infrastructure Delivery Plan, (2013); Runnymede Borough Council
[3] Open Space Study, (2016); Runnymede Borough Council
[4] Strategic Highways Assessment Report (2017); Runnymede Borough Council

Table 1. Runnymede IDP Scope by Infrastructure Type

Infrastructure Type	Sub-category	Local Influence	Strategic Influence
Education	Early Years	✓	
	Primary	✓	
	Secondary	✓	
	Special Educational Needs	✓	
	Further Education	✓	
	Higher Education	✓	✓
	Adult Education	✓	
Health	GPs	✓	
	Dentists	✓	
	Secondary Healthcare	✓	✓
	Mental Healthcare	✓	✓
	Older Age Care	✓	
Community Facilities	Libraries	✓	
	Community Centres	✓	
Recreation	Outdoor Sports	✓	
	Indoor Sports and Leisure Centres	✓	
	Play facilities	✓	
Green Infrastructure	Natural and Semi-natural Greenspace	✓	✓
	Parks and Gardens	✓	
	Amenity Greenspace	✓	
	Allotments	✓	
	Cemeteries and Churchyards	✓	
Transport	Roads	✓	✓
	Rail	✓	✓
	Bus networks	✓	
	Cycle networks	✓	
Utilities	Electricity		✓
	Gas		✓
	Water		✓
	Waste water		✓
	Renewable Energy	✓	
	Broadband		✓
Waste	Landfill and Recycling	✓	
Emergency Services	Ambulance	✓	✓
	Police	✓	✓
	Fire	✓	✓
Flood Defences and Sustainable Drainage	Flooding	✓	✓

Source: AECOM analysis, 2017

1.3 Structure of the IDP

1.3.1 This IDP builds upon the INA and sets out the infrastructure prioritisation approach and the resulting total infrastructure cost and funding position across each of the infrastructure topics at a Borough-wide level, and for the 23 allocated sites identified by RBC. The document concludes with suggested governance arrangements and the recommended approach towards maintaining the IDP as a living document.

1.3.2 The IDP is structured as follows:

- Chapter 2 reviews the relevant policy context at national, regional and local level;
- Chapter 3 sets out the Local Plan Growth Scenarios upon which the IDP is based;
- Chapter 4 summarises the infrastructure requirements to support growth within Runnymede, including (but not limited to) the delivery of residential and employment growth, and identifies any gaps in provision;
- Chapter 5 presents the infrastructure project list and prioritisation approach developed in consultation with Runnymede Borough Council and stakeholders;
- Chapter 6 estimates the infrastructure cost and funding gap associated with meeting the identified requirements and possible future governance arrangements for managing the delivery of infrastructure; and
- Chapter 7 focuses on the infrastructure requirements of allocated sites
- Chapter 8 concludes with recommendations on potential governance and delivery arrangements

1.3.3 The IDP is accompanied by a number of important appendices which include detailed research, contacts, source documents and the Infrastructure Project Schedule itself.

- Appendix 1 - Detailed Infrastructure Project Schedule
- Appendix 2 - Benchmarks for Modelling
- Appendix 3 - Infrastructure Funding Sources

2. Context

2.1 Policy Framework

2.1.1 The NPPF (2012) includes a set of national planning policies and is supplemented by the National Planning Practice Guidance (PPG) (2014). Paragraph 151 of the NPPF states that that Local Plans must be prepared with the objective of contributing to the achievement of sustainable development with infrastructure planning forming an important component of this. The three dimensions of sustainable development (economic, social, and environmental) require the planning system to perform the following roles:

- Contribute to building a strong, responsive and competitive economy, which includes coordinating development requirements and ensuring the provision of infrastructure.
- Create a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being.
- Help to improve biodiversity, use natural resources prudently, minimise waste and pollution, mitigate and adapt to climate change including moving to a low carbon economy.

2.1.2 The NPPF sets out guidance on infrastructure planning in paragraph 162, highlighting the need for joint-working with infrastructure and service providers:

2.1.3 *"Local planning authorities should work with other authorities and providers to: assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and take account of the need for strategic infrastructure including nationally significant infrastructure with their areas"*.

2.1.4 Relevant regional and sub-regional policy frameworks and strategies include:

- the Surrey Local Strategic Statement, being produced by the Strategic Planning and Infrastructure Partnership;
- the Surrey County Council (SCC) waste and minerals plans; the Surrey Local Transport Plan (2011-2026); and
- the Joint Strategic Needs Assessment for Surrey.

2.1.5 Councils in Surrey are working together on the 3SC Devolution proposals and as part of the Enterprise M3 Local Enterprise Partnership (LEP), whose Business Plan (2012), Growth Strategy (2013) and Strategic Economic Plan (2014) are important elements of the strategic context for planning for growth in Runnymede.

2.1.6 RBC's current Local Plan – the Runnymede Local Plan (Second Alteration) - was adopted in 2001. The new 'Runnymede 2030' Local Plan will comprise a number of policies and proposals to guide future development in the Borough. It will also set out where future development is intended to take place, including land for new housing, community infrastructure and employment uses. In addition, the Local Plan will identify areas to be protected from development, including the Green Belt and Local Green Space. Once adopted, it is intended to be the key document used in the determination of planning applications in the Borough. Runnymede has recently concluded public consultation on its Issues, Options and Preferred Approaches document which sets out a number of options for the delivery of development within the Borough to 2030. Consultation on Additional Sites and Options has also been undertaken.

2.1.7 The Local Plan will also respond to the objectives within the Runnymede Corporate Business Plan (2016). Throughout the preparation of the Council's evidence base, the Council has engaged with partner organisations and other relevant LAs under the DtC, a requirement of the Localism Act 2011, and there are also on-going collaborative discussions with partner authorities and organisations such as the Surrey Joint Committee, the Surrey Planning Officers Forum, and the LEP.

2.2 Infrastructure Interrelationships

2.2.1 While infrastructure types are considered separately it is important to note that there are many interrelationships and dependencies which exist, both in terms of delivery and their impacts on the communities they serve. For example, the provision of green infrastructure can have indirect impacts on the health of a population, through the provision of opportunities for active recreation, spaces for community interaction and integration, and positive effects on mental health and wellbeing.

2.2.2 As such, the delivery of infrastructure to support residential and employment growth over the Local Plan period has a range of indirect and far ranging impacts on the Borough's population, some of which may not be immediately obvious. It is therefore critical to ensure that the phasing and delivery of infrastructure at relevant trigger points is carefully planned for.

2.2.3 An accurate appreciation of planned, secured, and committed funding also needs to be established to gain a thorough understanding of the types of infrastructure which may be at risk if funding is not made available and the potential effects this could have on populations.

2.2.4 For this reason, the use of an infrastructure prioritisation matrix is an important tool to inform and steer investment decisions within the Borough.

3. Local Plan Growth Scenarios

3.1 Introduction

3.1.1 The Local Plan provides a clear steer and key opportunity to enable sustainable development, identifying the types and amount of infrastructure required and where this should be located.

3.1.2 The Runnymede Local Plan represents the Borough's view on how sustainable development should be achieved in the period to 2030 and identifies new sites for housing and employment. It also includes a range of policies to ensure that new development is of the highest quality possible, ensuring that Runnymede is a thriving and attractive place to live, work and enjoy.

3.1.3 A draft of the Additional Sites and Options was the subject of formal public consultation between Friday 12 May and Friday 23 June 2017. The Planning Committee will give consideration to the Draft Plan on Wednesday 20th December and consultation is proposed to commence in January 2018, with target submission to the Secretary of State at the end of March 2018. Key findings from this IDP will also need to be considered as it reviews the local plan housing, employment and retail proposals covering the full plan period to 2030.

3.2 Growth in Runnymede

3.2.1 As part of the INA, work was undertaken by RBC to identify the scale and location of future growth in Runnymede in order to develop its new Local Plan to 2030. For housing growth, the INA considered three of the seven Spatial Strategy (SS) options with associated growth forecasts which are outlined in the Runnymede IOPA Local Plan consultation document (2016). For non-residential growth, RBC identified the current pipeline of sites over 500m^2 which will support economic growth in Runnymede.

Housing Growth

3.2.2 The three options considered are:

- **SS3**: 7,600 new homes to 2035, based on delivery of development within the Borough's existing urban areas and on previously developed sites in the Green Belt, as well as returning the village of Thorpe to settlement and the release of some of the Green Belt Residual Land Parcels (RLPs) identified in the Green Belt Review (GBR) for housing. The indicative plan target of 380 dwellings per annum reflects an assumption in the Strategic Land Availability Assessment (SLAA)[5] of discounting supply by 20%.
- **SS5**: 9,320 new homes to 2035 (a target of 466 dwellings p.a.), based on delivery of development as described under SS3 plus if necessary, release of additional land in the Green Belt for housing allocations. This would deliver a lower under delivery rate than options SS3 & SS4 and reflects the demographic-based Objectively Assessed Need (OAN) for housing identified within the Strategic Housing Market Assessment (SHMA)[6].
- **SS6**: 10,700 homes to 2035 (a target of 535 dwellings p.a.), based on delivery of development as described under SS3 plus if necessary, release of additional land in the Green Belt for housing allocations. Pursuing a strategy based on this option would deliver 100% of Runnymede's economically derived OAN.

[5] Interim SLAA (June 2016), Runnymede Borough Council
[6] Runnymede & Spelthorne Strategic Housing Market Assessment (2015), GL Hearn Limited.

3.2.3 Whilst this IDP covers the period from 2015-2035, since undertaking the Local Plan Additional Sites and Options consultation Runnymede has taken the decision to shorten the length of the Local Plan period from 2035 to 2030. As such, the annualised housing need for scenarios SS3, SS5 and SS6 in this IDP remain the same but run to 2030. Runnymede has also updated its Strategic Housing Market Assessment (SHMA) which identifies an objectively assessed housing need (OAN) of 498 dwellings per annum for the Borough. The demographic starting point of the OAN is 442 dwellings per annum, which is not too dissimilar to the 2015 SHMA demographic starting point of 434 dwellings per annum. As such, the demographic population projections from the SHMA 2015 which have been used to calculate infrastructure needs set out in the INA and Section 4 of this IDP are still considered to be appropriate and robust. In any event the 498 OAN figure sits comfortably between scenarios SS5 and SS6 for projecting future needs with SS6 acting as a worst case scenario.

3.2.4 These options are shown below including indicative phasing over the four five-year periods of the Local Plan.

Table 2. Spatial Strategy Options to 2035 Considered in the INA

Spatial Strategy Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	Total 2015/16- 2034/35
SS3	1,839	2,840	1,681	1,241	7,600
SS5	2,282	2,346	2,346	2,346	9,320
SS6	2,572	2,709	2,709	2,709	10,700

Source: AECOM analysis of RBC data, 2017

3.2.5 Table 3 summarises the distribution of growth across the Borough by town, with growth concentrated in the main urban centres of Egham, Chertsey and Addlestone.

Table 3. Residential Growth (sites over 10 Dwellings) by area

Town	Total
Addlestone (& Row Town)	938
Chertsey	1,995
Egham	841
Englefield Green	446
New Haw & Woodham	59
Ottershaw	297
Virginia Water	299
Thorpe	60
Longcross	1,751
Other	22
Estates (TBC)	144
Completions	561
Total	7,413

Source: RBC

3.2.6 Figure 1 below shows the current pipeline of housing sites over 10 dwellings in Runnymede, as identified by RBC for the purposes of this IDP.

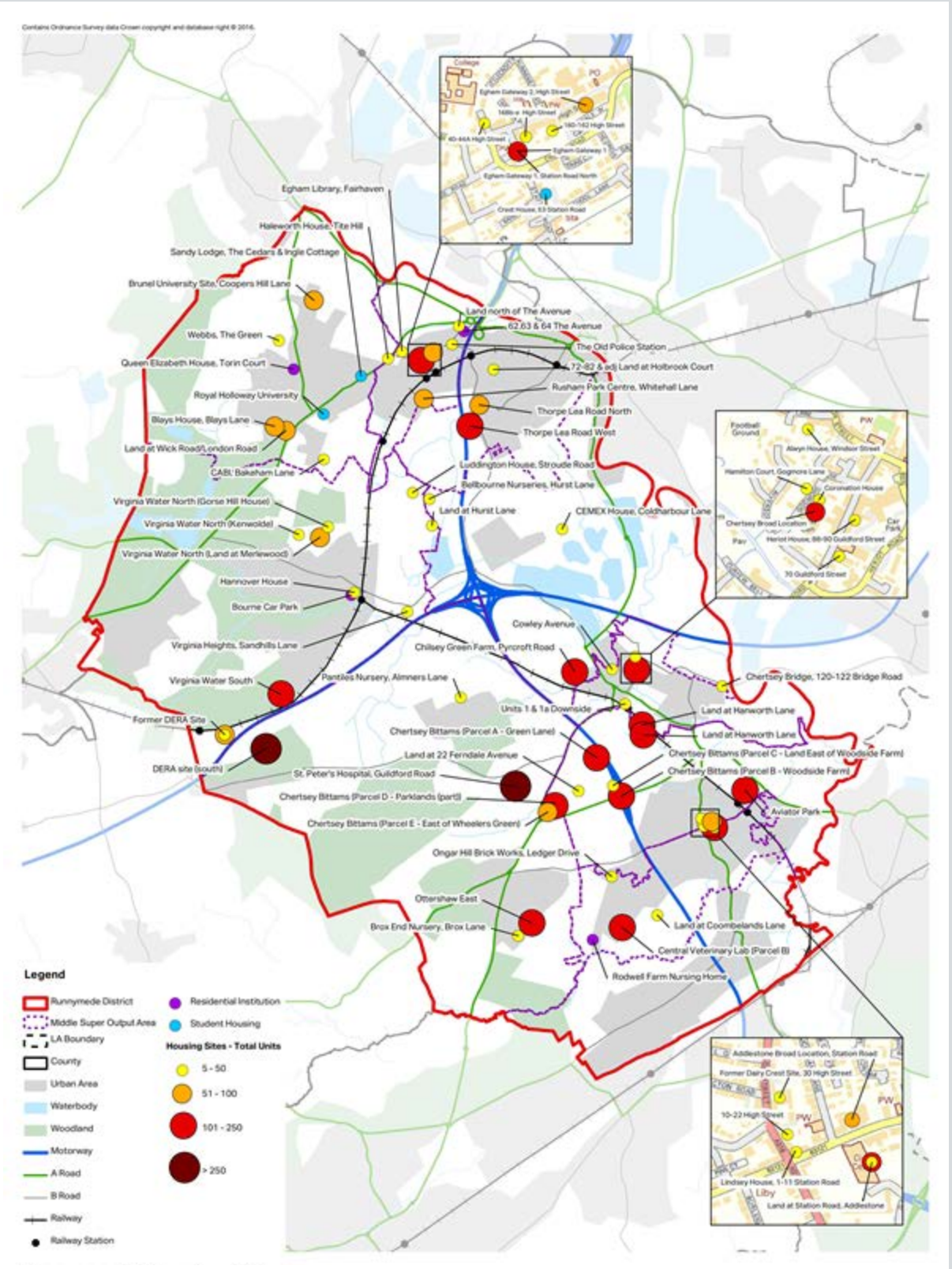

Figure 1. Current pipeline of housing sites over 10 dwellings in Runnymede

Non-residential growth

3.2.7 RBC has identified the current pipeline of sites over 500 m2 which will support economic growth in Runnymede. This totals 97,213m2 employment space (including office, industrial and storage and distribution) which could support around 5,100 jobs, and 20,801 m2 retail and leisure space (including hotel and a theatre) which could support around 550 jobs. Runnymede are also proposing to allocate a site at Byfleet Road for around 20,000sqm of B8 floorspace.

3.2.8 Pipeline sites are mapped in Figure 2 below. Once again, growth is concentrated in the main urban areas, apart from the former DERA site (north) at Longcross Garden Village.

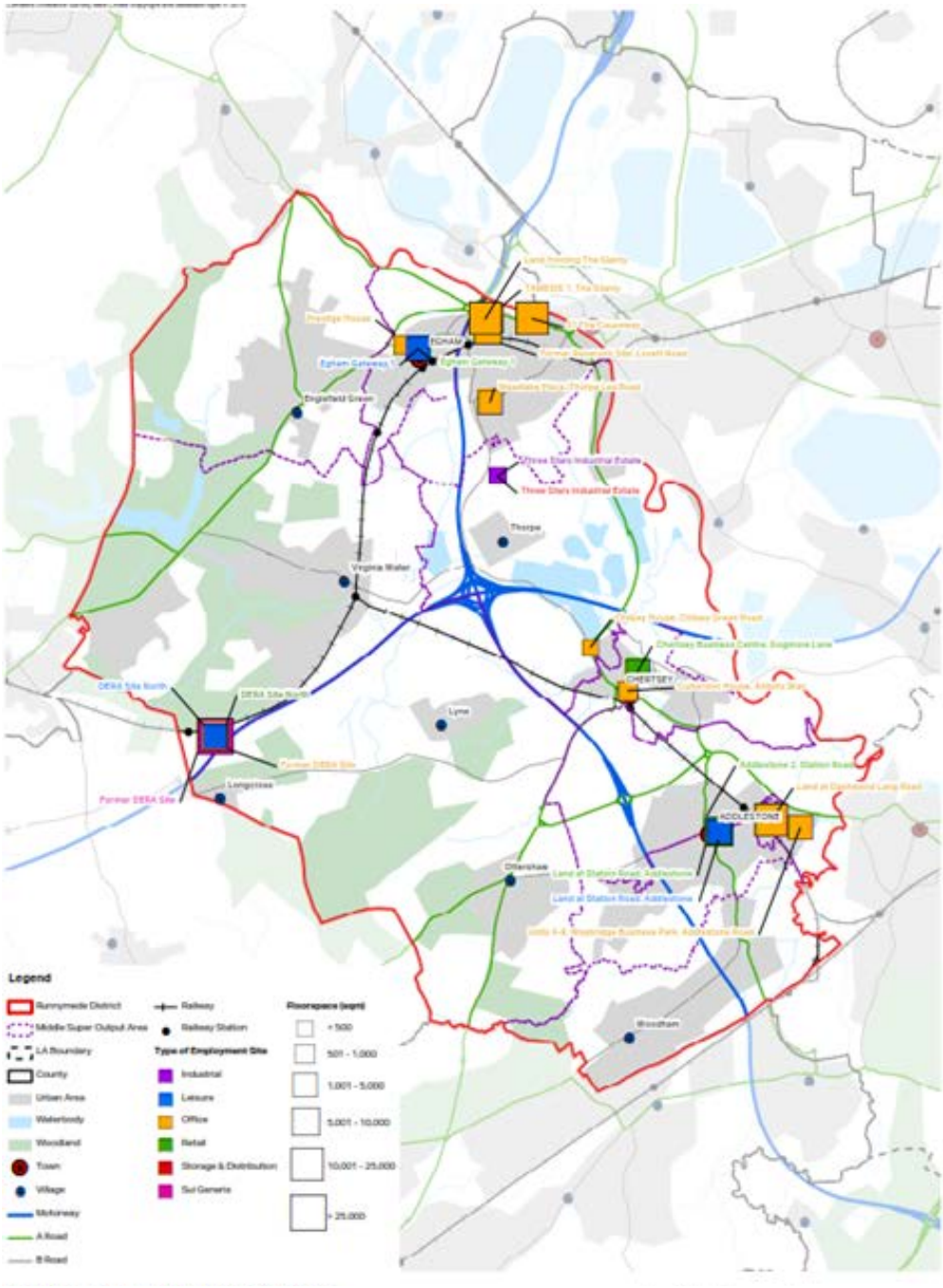

Figure 2. Current pipeline of Non-Residential Sites over 500m^2 in Runnymede

3.3 Population Change

3.3.1 In order for this IDP to review and confirm the infrastructure provision required to support the housing proposals, it is necessary to estimate the potential demographic impacts of the Local Plan and how the population will grow and change over the build out phase and into the future. This IDP uses the population projections from the INA, as shown in Table 4 below.

3.3.2 The Runnymede & Spelthorne SHMA (2015) sets out that the population of Runnymede is projected to increase by 16,640 people over a 20 year period and calculates a demographically based Objectively Assessed Need (OAN) of 434 dwellings per annum or 8,680 over the 20 years. However, in line with the Planning Practice Guidance note on undertaking housing needs assessments, the SHMA adjusted this need figure upwards to take account of market signals, affordability and London migration. This resulted in a demographic OAN of 466 dwellings per annum. The demographic OAN was adjusted to take account of affordability issues which already occur within the population projections not in addition to them. As such, whilst the demographic OAN as articulated in SS5 has been uplifted this does not change the overall population projection of 16,640.

3.3.3 It is therefore assumed that the population arising from Local Plan option SS5 is 16,640 over the plan period and the population for options SS3 and SS6 have been adjusted up or down accordingly using an assumed occupancy rate of 1.92 people per household (as per the ratio indicated by 16,640 population to 8,680 dwellings).

Table 4. Population Projections to 2035 used in the INA

Spatial Strategy Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	Total 2015/16- 2034-35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis of RBC data, 2017

4. Infrastructure Requirements Summary

4.1 Introduction

4.1.1 This section summarises the existing infrastructure position within Runnymede, including planned provision, infrastructure required to support growth, and consideration of planned capacity against future demand. It provides an update to the INA, incorporating information gathered through stakeholder consultation and through discussions with the Council.

4.1.2 An overview of the metrics used and calculations of gross and net demand and associated costs for each infrastructure type is provided at a Borough wide level for each of the three growth scenarios.

4.2 Education

Overview

4.2.1 Education is planned for at a county level, and SCC is required to ensure that there are sufficient early years, primary, and secondary places for children resident within Surrey. Factors which influence the demand for and capacity of education infrastructure include birth rates, migration, housing provision, and other considerations such as the popularity of schools, and their ratings.

Early Years Education

Existing Infrastructure Capacity

4.2.2 There are 22 early years providers within the Borough: 13 nursery schools, four pre-schools, and four children's centres. All the nursery and pre-schools in the Borough are privately operated, and SCC is responsible for the delivery of children's centres which provide support, health, and childcare education for parents as well as early years education. Figure 3 shows the location of the 22 early years facilities in the Borough.

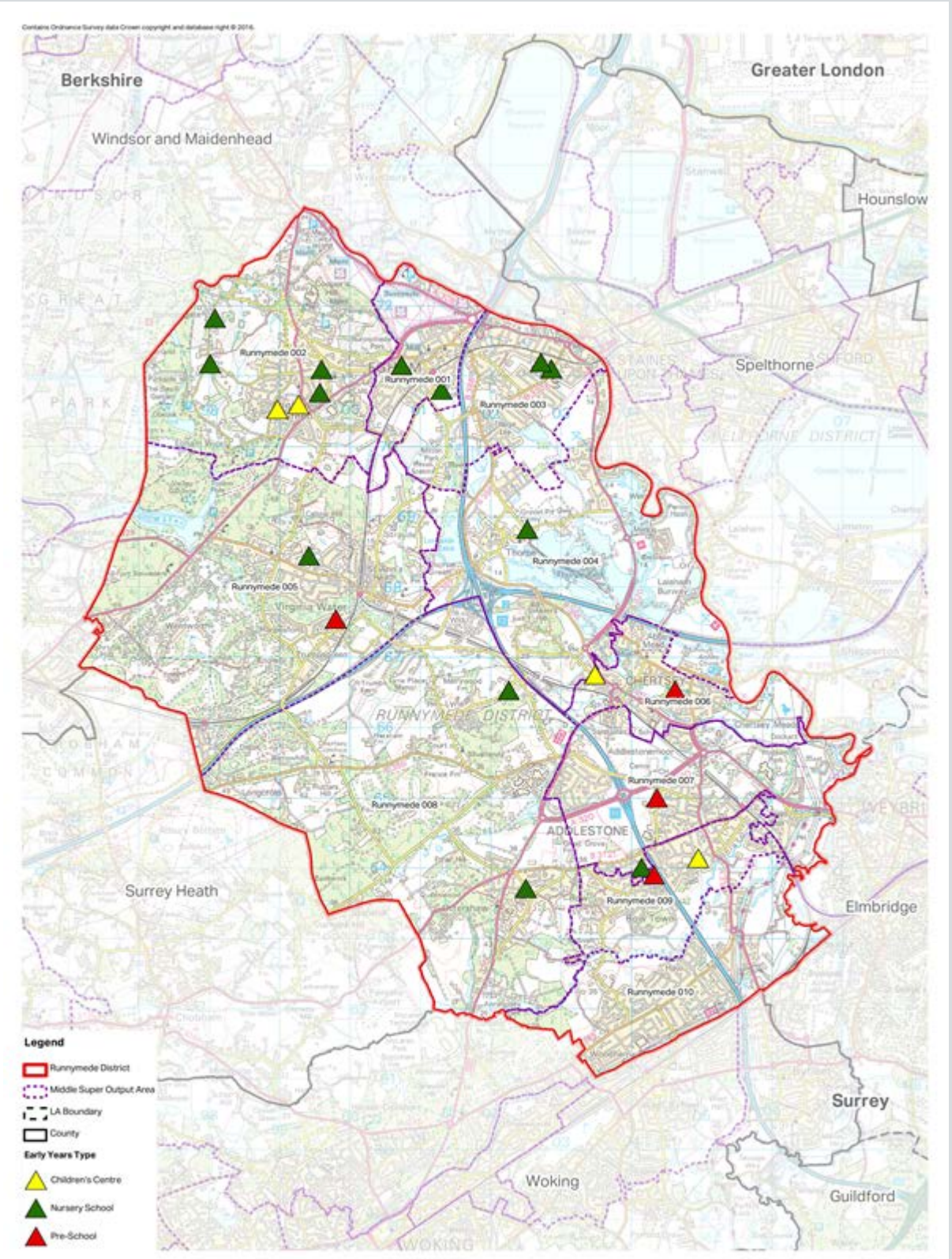

Figure 3. Early Years Education Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.2.3 Availability of early years places is varied across the Borough, and whilst there is still likely to be some spare capacity within certain locations, new provision will likely be required as a result of growth over the Local Plan period: the SCC Childcare Sufficiency Assessment projects that the Chertsey Meads and Chertsey St Ann's Wards in Runnymede will not be able to meet the future demand for early years education (including free places) over the Plan period, and that New Haw and Woodham Wards are currently at risk of not being able to meet demand.

4.2.4 Stakeholder consultation confirmed that new early years provision coming forward over the Plan period is expected to be delivered by the private sector, with no additional plans for SCC managed provision currently. A private nursery will be provided as part of the development at the Longcross Garden Village site, with the construction costs of the facility to be funded by the developer. There are no other planned projects which would assist in meeting demand. SCC emphasised that there is the potential to integrate early years education facilities within community hubs or other shared facilities, assuming there are no safeguarding issues with shared uses. This could present an opportunity for the delivery of new early years provision in conjunction with the delivery of other community infrastructure over the Plan period.

Review of Planned Infrastructure Capacity against Future Demand

4.2.5 The forecast future demand for early years places is outlined below for the three development scenarios, outlining the benchmark planning standards used to calculate the total gross and net demand for early years places and associated costs.

Table 5. Total number of 0-3 year olds forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	162	250	146	103	660
SS5	187	192	189	180	748
SS6	227	239	235	224	924

Source: AECOM analysis, 2017

Table 6. Benchmark Planning Standards - Early Years

Option	Metric	Source
% of 0-3 year olds will attend formal early years education facilities	50%	AECOM Cost Consultants and liaison with SCC
Places per early years facility	50	AECOM Cost Consultants and liaison with SCC
Square metres per 50 place facility	150	AECOM Cost Consultants and liaison with SCC

4.2.6 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of early years places required, as set out in Table 7 below. The associated number of early years facilities required is set out in Table 8.

Table 7. Demand and Costs for Early Years Places in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Gross demand (nursery places):					
SS3	81	125	73	51	330
SS5	94	96	95	90	374

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS6	113	119	117	112	462
Planned capacity:					50
Net demand (nursery places):					
SS3					280
SS5					324
SS6					412
Net costs (£):					
SS3					4,482,198
SS5					5,187,175
SS6					6,590,946

Source: AECOM analysis, 2017

Table 8. Additional Early Years Facilities Required over the Plan Period

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	1.62	2.50	1.46	1.03	6.60
SS5	1.87	1.92	1.89	1.80	7.48
SS6	2.27	2.39	2.35	2.24	9.24

4.2.7 Modelling indicates that gross demand for nursery places over the Local Plan period is 330 to 462 places, depending on the growth scenario, with associated costs of £5.3M to £7.4M. It is assumed that the nursery at the Longcross Garden Village site will provide 50 places in line with standard models; net demand is therefore estimated at 280 to 412 places (£4.5M to £6.6M). Over the Plan period there is anticipated to be a requirement for between 7 and 9 new early years facilities (rounding those figures outlined in Table 8).

Primary Education

Existing Infrastructure Capacity

4.2.8 There are 24 primary education facilities within the Borough: 14 primary schools, six infant schools, and four junior schools. Primary education is provided in a variety of settings including Academies, Academy Converter Schools, Free Schools, Local Authority Maintained, and Community Schools. Figure 4 shows the location of the 24 primary education facilities in the Borough.

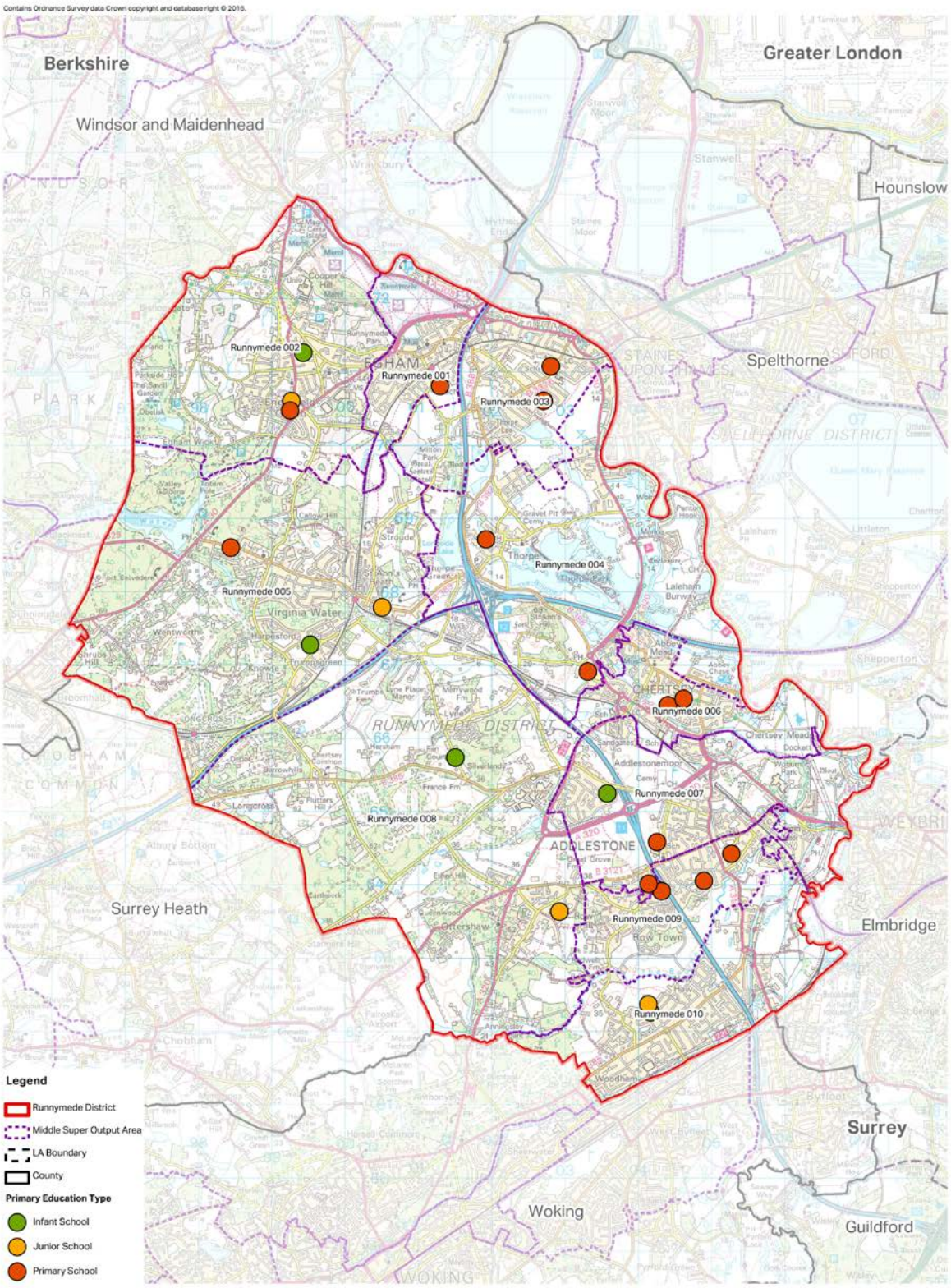

Figure 4. Primary Education Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.2.9 The County's strategy for school admissions and allocation of places is to allow pupils to attend their closest school where possible. The SCC Schools Organisation Plan is updated annually with up to date figures of rolls and capacities. While there is considerable available capacity within primary education facilities in Runnymede currently, population growth over the Plan period could result in a reduction in surplus places. Consultation with SCC has also revealed that within certain schools, there is a shortage of available places, with local authority infant and junior schools in Ottershaw noted as being at or near capacity by the County.

4.2.10 SCC has recently undertaken a programme of expansions to deliver additional primary education places within Trumps Green Infant, Thorpe C of E Infant, Darley Infant, and St Ann's Heath Junior Schools. Consultation with SCC has also confirmed that additional places will be delivered through school expansion plans, with further detail to be provided as the Capital Programme is progressed; updates are made on an annual basis with current plans for investment to 2022. Planned expansions currently identified are outlined in Table 9.

Table 9. Planned Primary School Expansions

School	Forms of Entry to be provided	Funding amount and source
Primary school expansion (school TBC)	1FoE	Unknown
Additional FoE in Chertsey or Addlestone	1FoE	Unknown
Infant school expansion (school TBC)	1FoE	Unknown
Infant to primary school expansion (school TBC)	TBC	Unknown

Source: Consultation with Surrey County Council

4.2.11 Consultation with stakeholders confirmed that there is planned delivery of a 2FoE primary education facility at the Longcross Garden Village site (an estimated 420 places) which will be constructed (or funded for construction) by the Developer and given to SCC following its construction. It is likely that SCC would look to lease the premises to an academy education provider; however this is to be confirmed.

Review of Planned Infrastructure Capacity against Future Demand

4.2.12 The forecast future demand for primary education places is outlined below for the three development scenarios, outlining the benchmark planning standards used to calculate the total gross and net demand for primary places and associated costs.

Table 10. Total number of 4-10 year olds forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	279	434	253	184	1,149
SS5	322	333	328	323	1,306
SS6	391	414	407	401	1,613

Source: AECOM analysis, 2017

Table 11. Benchmark Planning Standards – Primary Education

Option	Metric	Source
% of 4-10 year olds attending primary education facilities	80%	Surrey County Council Schools Organisation Plan 2015-16
Places per 1 Form of Entry (FoE)	210	DfE
Per pupil cost	£13,980	AECOM Cost Consultants and liaison

Option	Metric	Source
		with SCC

4.2.13 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of primary education places required, as set out in Table 12 below. The associated number of primary FoE required is set out in Table 13.

Table 12. Demand and Costs for Primary Places in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Gross demand (primary school places):					
SS3	223	347	202	147	919
SS5	258	267	262	258	1,045
SS6	313	331	326	321	1,290
Planned capacity:					420
Net demand:					
SS3					709
SS5					835
SS6					1,080
Net costs (£):					
SS3					9,918,558
SS5					11,672,787
SS6					15,099,385

Source: AECOM analysis, 2017

Table 13. Additional Primary Forms of Entry Required over the Plan Period

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	1.06	1.65	0.96	0.70	4.38
SS5	1.23	1.27	1.25	1.23	4.98
SS6	1.49	1.58	1.55	1.53	6.14

4.2.14 Modelling indicates that gross demand for primary education places over the Local Plan period is 919 to 1,290 places, depending on the growth option, with associated costs of £12.8M to £18M. Net demand and costs are estimated on the basis that 2 FoE at the Longcross Garden Village site are funded, as 709 to 1,080 places (£9.9M to £15M). Over the Plan period there is anticipated to be a requirement for between 4 and 6 new primary FoE (rounding those figures outlined in Table 13).

Secondary Education

Existing Infrastructure Capacity

4.2.15 There are four secondary education facilities within the Borough: one state run school, one voluntary aided school, and two academies. Figure 5 shows the location of the four secondary education facilities in the Borough.

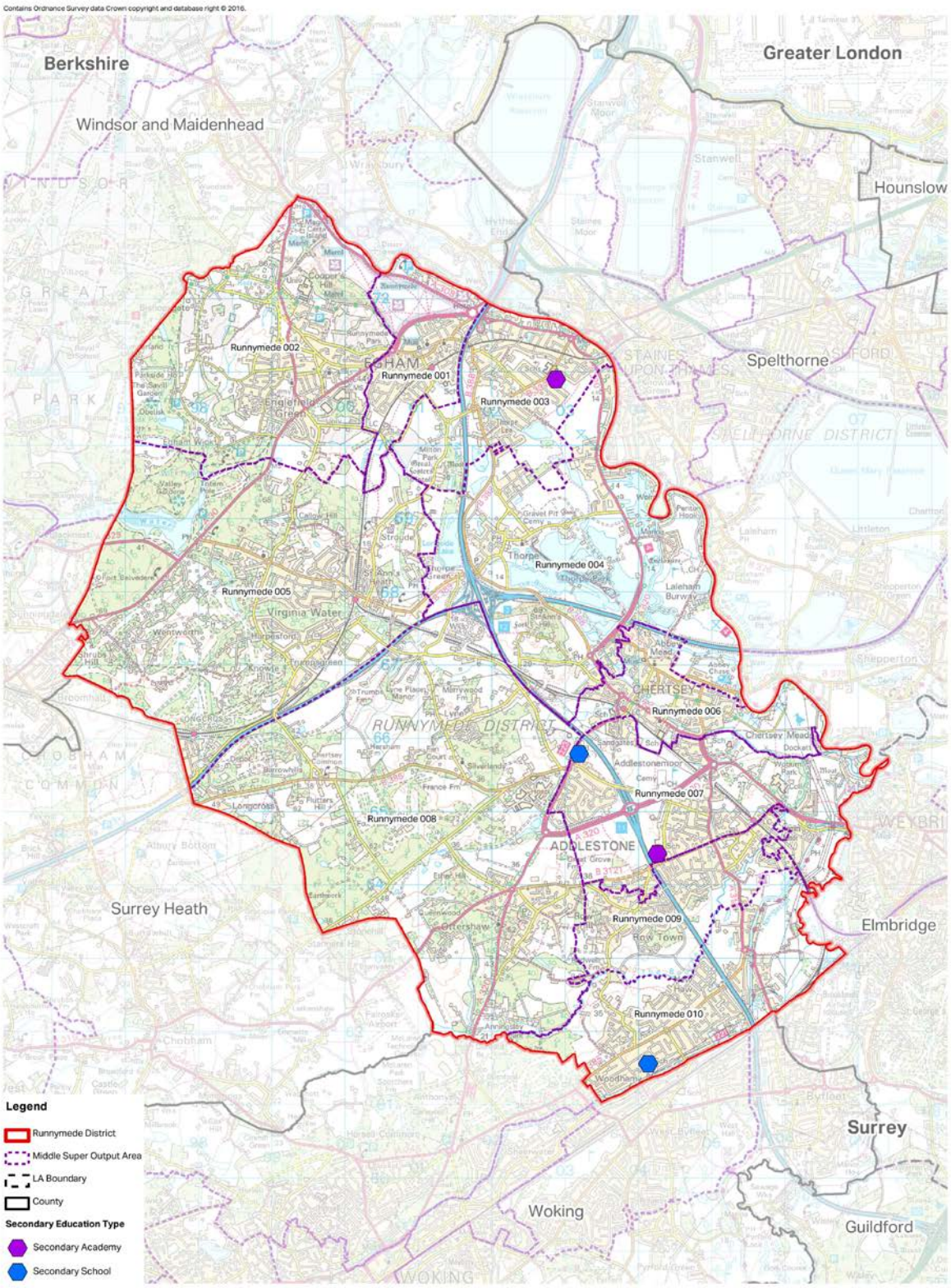

Figure 5. Secondary Education Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.2.16 While there is some available capacity within secondary education facilities in Runnymede currently, the SCC School Organisation Plan 2015/16[7] projects that there will be a shortage of secondary school places in the Borough by the end of the 2017/18 school year, and that by 2021 up to six additional FE facilities could be required in the Borough.

4.2.17 Consultation with SCC has confirmed that additional places will also be delivered through the delivery of a new 6 FoE Runnymede Free School and the development of additional FoE (assumed to be at least 1 FoE) within Salesian School. While the Longcross Garden Village site is expected to generate around 491 pupils of secondary school age, this is too small a number to generate the provision of an additional stand-alone Secondary School. As such, residents will be required to access existing secondary education provision within the surrounding Chertsey area. Whilst Salesian School is situated close to the Longcross Garden Village site and additional FoE are planned to be provided there, admissions are selective on the basis of Catholic faith making it unsuitable to accommodate all new pupils from the Longcross Garden Village site. Consultation with SCC has confirmed that expansion of an existing school to accommodate demand generated by the Longcross Garden Village site will be made within the Chertsey area, at a secondary school yet to be confirmed.

Review of Planned Infrastructure Capacity against Future Demand

4.2.18 The forecast future demand for primary education places is outlined below for the three development scenarios, outlining the benchmark planning standards used to calculate the total gross and net demand for primary places and associated costs.

Table 14. Total number of 11-17 year olds forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	238	395	248	177	1,056
SS5	274	303	321	310	1,209
SS6	333	377	399	385	1,493

Source: AECOM analysis, 2017

Table 15. Benchmark Planning Standards – Secondary Education

Option	Metric	Source
% of 11-17 year olds attending primary education facilities	80%	Surrey County Council Schools Organisation Plan 2015-16
Places per 1 FoE	210	DfE
Per pupil cost	£ 21,064	AECOM Cost Consultants and liaison with SCC

4.2.19 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of secondary education places required, as set out in Table 16 below. The associated number of secondary FoE required is set out in Table 17.

Table 16. Demand and Costs for Secondary Places in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (secondary school places):					
SS3	190	316	198	141	845

[7] Ibid

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS5	219	243	257	248	967
SS6	266	301	319	308	1,195
Costs (£):					
SS3	4,005,074	6,650,441	4,171,742	2,974,474	17,801,732
SS5	4,622,329	5,109,248	5,415,142	5,228,362	20,375,081
SS6	5,603,666	6,344,916	6,724,789	6,492,836	25,166,207

Source: AECOM analysis, 2017

Table 17. Additional Secondary Forms of Entry Required over the Plan Period

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	0.91	1.50	0.94	0.67	4.02
SS5	1.04	1.16	1.22	1.18	4.61
SS6	1.27	1.43	1.52	1.47	5.69

4.2.20 Modelling indicates that gross demand for secondary education places over the Local Plan period is 845 to 1,199 places, depending on the growth option, with associated costs of £17.8M to £2.2M. Net demand over the Local Plan period is assumed to be the same as gross demand given that there are no confirmed planned projects with associated costs or phasing information. Over the Plan period there is anticipated to be a requirement for 6 new secondary FoE (rounding those figures outlined in Table 17).

Adult Education

Existing Infrastructure Capacity

4.2.21 There is one adult education centre in the Borough - Runnymede Adult Learning Centre, situated in Chertsey (operated by SCC). Strodes College also operates a Community Learning Centre in Egham.

Planned Infrastructure and Infrastructure Required to Support Growth

4.2.22 Catchments to access adult education facilities are not restricted to the Borough or County. There is also understood to be a lower level of uptake for adult education places compared with other types of non-compulsory education, and enrolment numbers in adult education courses are reported to have dropped in recent years. There are no known plans for expansion of adult education facilities within the Borough.

Review of Planned Infrastructure Capacity against Future Demand

4.2.23 The forecast future demand for adult education places is outlined below for the three development scenarios, outlining the benchmark planning standards used to calculate the total gross and net demand for primary places and associated costs.

Table 18. Total projected adult population forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Table 19. Benchmark Planning Standards – Adult Education

Option	Metric	Source
% of population attending adult learning facilities	2%	AECOM Cost Consultants and liaison with SCC
Square metre space per student	2.33	AECOM Cost Consultants and liaison with SCC
Per pupil cost	£ 8,646	AECOM Cost Consultants and liaison with SCC

4.2.24 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of adult education places required, as set out in Table 20 below.

Table 20. Demand and Costs for Adult Education Places in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (additional adult learning clients):					
SS3	71	109	65	48	292
SS5	81	84	84	84	333
SS6	99	104	104	104	411
Costs (£):					
SS3	1,422,189	2,196,611	1,300,072	960,073	5,878,945
SS5	1,641,374	1,687,562	1,687,562	1,687,562	6,704,060
SS6	1,989,844	2,095,697	2,095,697	2,095,697	8,276,936

Source: AECOM analysis, 2017

4.2.25 Modelling indicates that gross demand for adult education places over the Local Plan period is 292 to 411 places, depending on the growth option, with associated costs of £5.9M to £8.3M. Net demand over the Local Plan period is assumed to be the same as gross demand given that there are no confirmed planned projects. It should be noted however that enrolment numbers in adult education courses are reported to have dropped in recent years and that stakeholder consultation has revealed that annual uptake of places remains low and steady.

4.3 Health

Overview

4.3.1 Within Runnymede, the North West Surrey CCG is the relevant statutory body (responsible for overseeing health care within the Boroughs of Runnymede, Elmbridge (West), Spelthorne, and Woking). A small area of Englefield Green within the northwest of the Borough (within MSOA Runnymede 002) falls within the Windsor, Ascot, and Maidenhead CCG area. A separate group, Surrey Community Health, runs community health services e.g. district and school nursing, health visiting and therapy services.

GPs

Existing Infrastructure Capacity

4.3.2 There are nine GP surgeries within the Borough, with a total of 37.7 Full Time Equivalent (FTE) GPs. The average patient list per GP within the Borough is 2,124[8]; significantly higher (i.e. worse) than the England average ratio of 1,800. Only two of the nine GP surgeries within the Borough (Packers Surgery in Virginia Water and The Bridge Practice in Chertsey) have a lower than average ratio of patients per GP, and may have some 'spare' capacity. Figure 6 shows the location of the nine GP facilities in the Borough.

[8] General Practice Bulletin Tables 2005 - 2015, (2016); Health and Social Care Information Centre

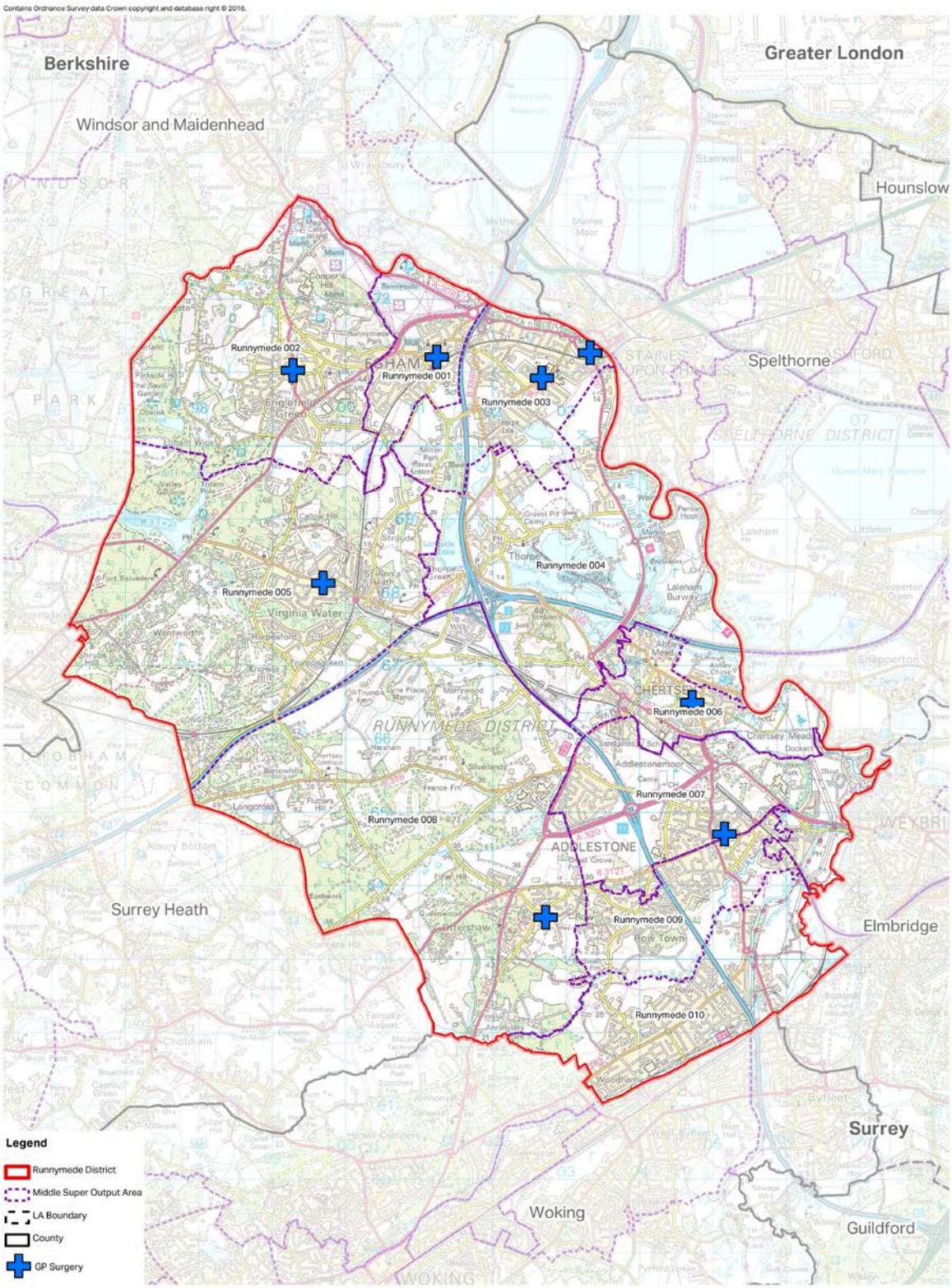

Figure 6. GP Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.3.3 There is little or no available capacity within GP surgeries in Runnymede currently and so population growth is likely to place considerable additional pressure on GP services. Consultation with the CCG has confirmed that local healthcare providers are developing a spatial infrastructure plan for healthcare services which will cover services in Runnymede. This work will include analysis of GP capacity and demand and identification of locations which are most appropriate to new provision required to accommodate projected growth in Runnymede. This is currently under development and due for publication in 2018.

4.3.4 Consultation emphasised the drive to deliver health services in community-based settings, with the development of integrated primary care facilities and health hubs (including shared community facilities), rather than a reliance on traditional stand-alone GP surgeries. Accessible locations which are well served by public transport were noted as key, particularly given limited available parking at many GP surgeries currently. By adopting an integrated approach to health provision, with the involvement of community and voluntary services (as well as a variety of health facilities in one setting) delivery of healthcare in communities will be more efficient and adopt a joined up, integrated approach to facilities planning and delivery.

4.3.5 There are no planned projects currently, despite the limitations of some existing premises and known need for expansion. Stakeholders identified the size and constrained nature of GP surgery sites which offer no opportunity to expand as one of the key barriers to increasing provision currently. Consultation suggests that a new GP surgery could be co-located at St Peter's Hospital, within an 'urgent care' centre, as part of planned redevelopment proposed at the site, , however this is yet to be confirmed. It is understood that the CCG is currently consulting with local GP surgeries to explore opportunities for expansion to the St Peter's Hospital site. The spatial infrastructure plan for healthcare services may also identify opportunities to expand and improve GP services in Runnymede once published.

Review of Planned Infrastructure Capacity against Future Demand

4.3.6 The forecast future demand for GP services is outlined below for the three development scenarios, outlining the benchmark planning standards used to calculate the total demand for GP services and associated costs.

Table 21. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 22. Benchmark Planning Standards - GPs

Option	Metric	Source
% of the population registering with a GP	100%	AECOM Cost Consultants (e.g. worst case scenario) and liaison with SCC
Number of registered patients per GP	1,800	Department for Health
Average square metres floorspace per FTE GP	165	NHS Healthy Urban Development Model
Cost per square metres floorspace for a new GP surgery	£2,500	AECOM Cost Consultants and liaison with SCC

4.3.7 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of GPs required, as set out in Table 23 below. The associated amount of GP floorspace required is set out in Table 24.

Table 23. Demand and Costs for GP Services in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (additional GPs required)					
SS3	1.96	3.03	1.79	1.32	8.11
SS5	2.26	2.33	2.33	2.33	9.24
SS6	2.74	2.89	2.89	2.89	11.41
Costs (£):					
SS3	808,955	1,249,453	739,493	546,099	3,344,000
SS5	933,629	959,901	959,901	959,901	3,813,333
SS6	1,131,842	1,192,053	1,192,053	1,192,053	4,708,000

Source: AECOM analysis, 2017

Table 24. Additional GP Floorspace Required over the Plan Period

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	324	500	296	218	1,338
SS5	373	384	384	384	1,525
SS6	453	477	477	477	1,883

4.3.8 Modelling indicates that demand for additional GPs over the Local Plan period is 8.1 to 11.4 FTE GPs, depending on the growth option, with associated costs of £3.3M to £4.7M. Over the Plan period there is anticipated to be a requirement for between 1,338m^2 and 1,883m^2 GP floorspace.

Dentists

Existing Infrastructure Capacity

4.3.9 There are nine surgeries within the Borough offering NHS treatment, with a total of 27 dentists. Dental surgeries are not required to publish data in the same way that GP practices are; as a result there is no information on FTE dentists, or the number of patients dentists have registered to them. All of the nine dental surgeries within the Borough are accepting new NHS patients. Figure 7 shows the location of the nine dental surgeries in the Borough.

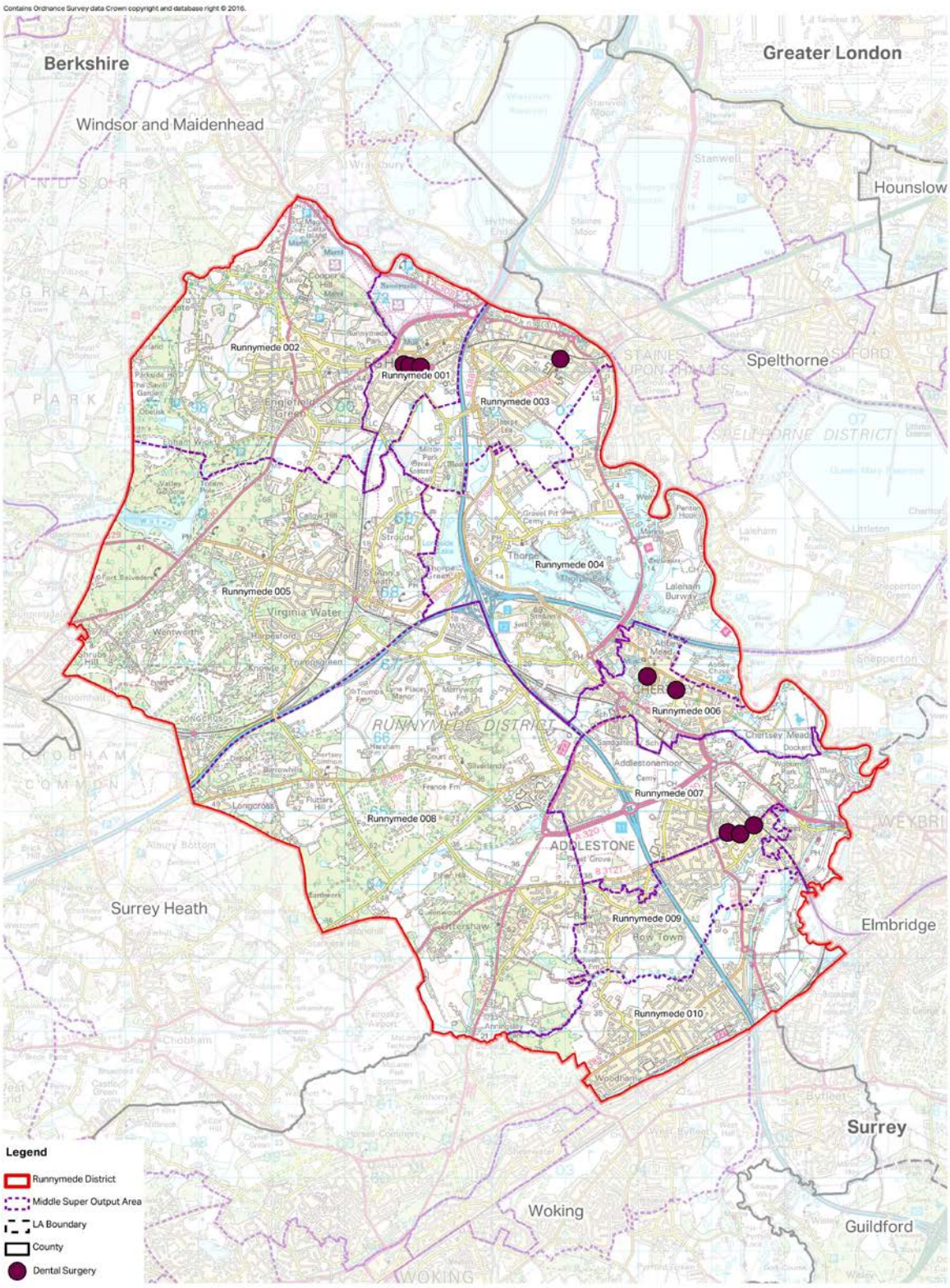

Figure 7. Dental Surgeries within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.3.10 There is no information available about the available spare capacity within dental surgeries in Runnymede currently. While all nine surgeries are currently accepting new patients, population growth is likely to place additional pressure on dental services over the Plan period. There are no known plans for new dental surgeries over the plan period, however there is a possibility that dental services could be provided in conjunction with the delivery of new GP services to serve the Longcross Garden Village site.

Review of Planned Infrastructure Capacity against Future Demand

4.3.11 The forecast future demand for dental services is outlined below for the three development scenarios, outlining the benchmark planning standards used to calculate the total demand for dental services and associated costs.

Table 25. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 26. Benchmark Planning Standards - Dentists

Option	Metric	Source
% of the population registering with a dentist	100%	AECOM Cost Consultants (e.g. worst case scenario)
Number of registered patients per dentist	2,000	General Dental Council
Average square metres floorspace per FTE dentist	50	AECOM Cost Consultants
Cost per square metres floorspace for a new dental surgery	£1,518	AECOM Cost Consultants

4.3.12 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of dentists required, as set out in Table 27 below. The associated amount of dental floorspace required is set out in Table 28.

Table 27. Demand and Costs for Dental Services in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (additional dentists required)					
SS3	1.8	2.7	1.6	1.2	7.3
SS5	2.0	2.1	2.1	2.1	8.3
SS6	2.5	2.6	2.6	2.6	10.3
Costs (£):					
SS3	133,963	206,909	122,460	90,434	553,766
SS5	154,609	158,960	158,960	158,960	631,488
SS6	187,433	197,404	197,404	197,404	779,645

Source: AECOM analysis, 2017

Table 28. Additional Dental Floorspace Required over the Plan Period

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	88	136	81	60	365
SS5	102	105	105	105	416
SS6	123	130	130	130	514

4.3.13 Modelling indicates that demand over the Local Plan period is for 7.3 to 10.3 additional dentists, depending on the growth option, with associated costs of £0.6M to £0.8M. Over the Plan period there is anticipated to be a requirement for between 365m^2 and 514m^2 dentist floorspace.

4.4 Acute Healthcare

Overview

4.4.1 The North West Surrey CCG oversees acute health care within the Boroughs of Runnymede, Elmbridge (West), Spelthorne, and Woking, and small area within the northwest of the Borough falls within the Windsor, Ascot, and Maidenhead CCG area. The Surrey and Borders Partnership NHS Foundation Trust also provides some services such as community mental health care.

Hospitals

Existing Infrastructure Capacity

4.4.2 Hospital care in Runnymede is provided by the Ashford and St Peter's Hospital NHS Foundation Trust, one of the five hospital trusts in Surrey. The Trust is the largest provider of acute hospital services in the County and serves a population of more than 410,000 people in the Boroughs of Runnymede, Spelthorne, Woking and parts of Elmbridge, Hounslow, Surrey Heath and beyond.

4.4.3 The hospital does not work to a set capacity, and provides emergency and routine medical care within the community, with waiting times and appointment availability being the most affected by the numbers of users at one time. The following hospital and community based health services are provided by the Trust:

- Admitted patient care for planned surgery and emergency medicine and surgery;
- Accident and emergency services;
- Critical care;
- Outpatient services, both in the hospitals and across a number of community settings; and
- Community midwifery services.

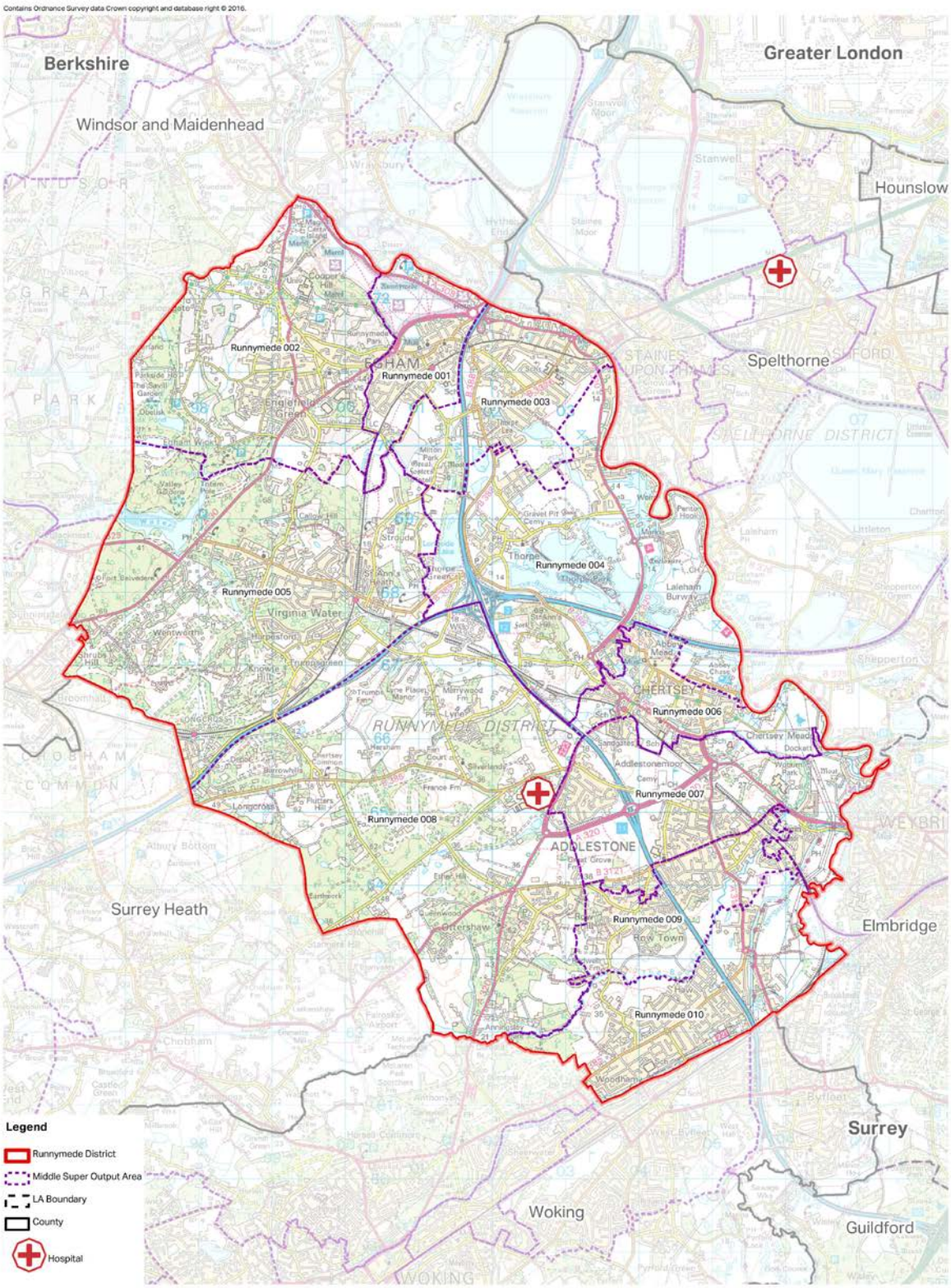

Figure 8. Location of Ashford Hospital and St Peter's Hospital

Planned Infrastructure and Infrastructure Required to Support Growth

4.4.4 While there is no available information confirming a shortfall in hospital provision, and the Ashford and St Peter's Hospital NHS Foundation Trust provides a wide range of services across the County, it is likely that population growth in Runnymede will place additional pressure on hospital services over the Plan period; in particular St Peter's Hospital which is situated in the Borough. Consultation with local healthcare providers confirmed that there was little spare capacity and that the growth projected in Runnymede would lead to capacity issues in some parts of the Borough where there are existing 'hotspots' of need.

4.4.5 In 2010, the Borough Council approved a masterplan for the redevelopment of parts of the St Peter's hospital campus, for the development of new purpose-built healthcare facilities to replace some of the existing buildings, including hospital and mental health services. The cost of the works at St Peter's Hospital are unknown, however it is understood that funding would be provided by the Hospital Trust.

Mental Health

Existing Infrastructure Capacity

4.4.6 While hospital care in Runnymede is provided by the Ashford and St Peter's Hospital NHS Foundation Trust, as an acute healthcare provider they do not provide mental health services. Mental health services are instead provided and overseen by The Surrey and Borders Partnership NHS Foundation Trust[9].

4.4.7 The Surrey and Borders Partnership NHS Foundation Trust operates a Community Mental Health Recovery Service (CMHRS) in Runnymede (and each of the Boroughs in Surrey) providing mental health treatment and support. Services are provided in the community by health and social care professionals, including doctors, nurses, psychologists, social workers and therapists, and community organisations[10].

Planned Infrastructure and Infrastructure Required to Support Growth

4.4.8 There is no information to evidence a current shortfall in mental healthcare provision, and the Borough has relatively low rates of mental health need compared with other areas in the County. However, population growth will likely place additional pressure on mental health services over the Plan period.

4.4.9 There are currently no known plans for additional delivery or expansion of the CMHRS service provided by Surrey and Borders Partnership NHS Foundation Trust, however it was noted during stakeholder consultation that there is a desire to expand community mental health services and outpatient clinics to town centre locations which are accessible to patients, with Chertsey town centre identified as a potential location for service delivery.

Review of Planned Infrastructure Capacity against Future Demand

4.4.10 The forecast future demand for acute care services is outlined below for the three development scenarios, setting out the benchmark planning standards used to calculate the total demand for hospital and mental health services and associated costs.

Table 29. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592

[9] http://www.ashfordstpeters.nhs.uk/about-us
[10] http://www.sabp.nhs.uk/services/mental-health/adult/community

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 30. Benchmark Planning Standards – Acute Care

Option	Metric	Source
Hospital beds required per 1,000 population	1.96	Information from CCG
Average square metres floorspace per hospital bed	160	AECOM Cost Consultants and liaison with SCC
Cost per square metres hospital floorspace	£3,200	AECOM Cost Consultants and liaison with SCC
Mental health beds required per 1,000 population	1.96	Information from CCG
Average square metres floorspace per mental health bed	85	AECOM Cost Consultants and liaison with SCC
Cost per square metres mental health floorspace	£2,850	AECOM Cost Consultants and liaison with SCC

4.4.11 The application of these benchmark standards to the population forecasts suggests a potential increase in the amount of acute care space required, as set out in Table 31 below.

Table 31. Demand and Costs for Acute Healthcare within Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (m^2 hospital space) for acute physical needs					
SS3	1,107.00	1,709.80	1,011.95	747.30	4,576
SS5	1,277.61	1,313.56	1,313.56	1,313.56	5,218
SS6	1,548.85	1,631.25	1,631.25	1,631.25	6,442
Demand (m^2 hospital space) for acute mental health needs					
SS3	588.10	908.33	537.60	397.00	2,431
SS5	678.73	697.83	697.83	697.83	2,772
SS6	822.83	866.60	866.60	866.60	3,422
Costs (£) for acute physical needs					
SS3	3,542,410	8,378,007	4,958,553	3,661,776	22,422,651
SS5	6,260,300	6,436,463	6,436,463	6,436,463	25,569,690
SS6	7,589,384	7,993,116	7,993,116	7,993,116	31,568,732
Costs (£) for acute mental needs					
SS3	1,881,905	2,906,656	1,720,314	1,270,412	7,779,287
SS5	2,171,941	2,233,059	2,233,059	2,233,059	8,871,117
SS6	2,633,052	2,773,122	2,773,122	2,773,122	10,952,417

Source: AECOM analysis, 2017

4.4.12 Demand for hospital facilities for physical acute healthcare is estimated to be 4,576 m^2 to 6,442 m^2 (£22.4M to £31.6M) depending on the growth option. Demand for hospital facilities for mental healthcare is estimated to be 2,431 m^2 to 3,422 m^2 (£7.8M to £11.0M) depending on the growth option.

Services for Older People

Existing Infrastructure Capacity

4.4.13 At the current time there are 15 known residential homes in the Borough which provide for elderly people: 10 care homes and five nursing homes. Of these homes, 11 cater for people with dementia and 10 care for people with Alzheimer's. In total, up to 571 elderly people can be cared for in the Borough's residential care homes. There are five sheltered housing schemes owned and managed by the Borough Council, and seven schemes owned and managed by Housing Associations. Additional schemes are operated and managed by private operators.

Planned Infrastructure and Infrastructure Required to Support Growth

4.4.14 The Adult Social Care Integrated Commissioning Statements evidence a current shortfall in the supply in both nursing and residential care for older people. This shortfall is set to increase further in the period to 2025. The current availability of bed spaces within nursing and residential care facilities is unknown, however it is understood that some are currently accepting new residents; indicating some level of available capacity. At the moment, an estimated 27% of adults aged 65 years and over within the NHS North West Surrey CCG area are in receipt of adult social care; the fourth lowest rate of the seven CCG areas that encompass Surrey[11].

4.4.15 There are currently no known plans for additional delivery or expansion of sheltered housing managed by RBC. A new private care home is due to open in Chertsey in winter 2017 providing 93 new bed spaces and dementia care facilities in a purpose built facility at Parklands Manor[12]. Additionally, the Queen Elizabeth Care Home is currently undergoing expansion, adding an additional 47 bed spaces to the facility which are likely to come forward in 2017. Planning permission has also been given for the following new developments, due to come forward over the next five years:

- 59 luxury retirement properties (planned to open in 2019) on the former Brunel University Runnymede campus;
- 58 assisted living apartments in Virginia Water;
- 70 bedroom care home and 50 extra care apartments in Chertsey; and
- A six bedroom care home in Egham.

Review of Planned Infrastructure Capacity against Future Demand

4.4.16 The forecast future demand for older age care is outlined below for the three development scenarios, setting out the benchmark planning standards used to calculate the total demand for older age services and associated costs.

4.4.17 There are currently no known plans for additional delivery or expansion of sheltered housing managed by RBC. A number of planned private projects are described above; in total these schemes will see a total of 216 care beds and 167 assisted living units coming online within the next five years. These projects will assist in meeting new demand arising over the Local Plan period. However, there will be older people who cannot afford these private facilities and meeting their needs will require public sector provision. For this reason, supply represented by these planned projects is not factored into the demand estimates presented below.

[11] North West Surrey CCG Place Based Profile – Social Care, (2017); North West Surrey CCG
[12] http://www.carehome.co.uk/carehome.cfm/searchazref/signature-parklands-manor

Table 32. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 33. Benchmark Planning Standards – Older Age Care

Option	Metric	Source
Nursing home places per 1,000 population	45	The Housing Learning and Improvement Network (LIN) SHOP TOOL
Residential care places per 1,000 population	65	The Housing Learning and Improvement Network (LIN) SHOP TOOL
Extra care places per 1,000 population	25	The Housing Learning and Improvement Network (LIN) SHOP TOOL
Typical Nursing Care Unit Bed Number per facility	72	Kent and Medway Social Care Research and liaison with SCC
Typical Residential Care Unit Bed Number per facility	72	Kent and Medway Social Care Research and liaison with SCC
Typical Extra Care Unit Bed Number per facility	77	AECOM Cost Consultants Extra Care Facility Planning Guidelines 2015
60 Bed Nursing Care Unit Build Cost	£5,400,000	AECOM Cost Consultants and liaison with SCC
60 Bed Residential Care Unit Build Cost	£3,600,000	AECOM Cost Consultants and liaison with SCC

4.4.18 The application of these benchmark standards to the population forecasts suggests a potential increase in the number of older age care bed spaces required, as set out in Table 34 below.

Table 34. Demand and Costs for Services for Older People within Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand - nursing care beds					
SS3	13	21	14	11	60
SS5	15	16	18	19	69
SS6	18	20	23	24	86
Demand - residential care beds					
SS3	19	31	20	16	86
SS5	22	24	27	28	100
SS6	27	29	33	35	124
Demand - extra care housing units					
SS3	7	12	8	6	33
SS5	8	9	10	11	39
SS6	10	11	13	13	48
Costs (£) - all older peoples accommodation					

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	744,934	1,201,721	802,482	626,608	3,375,745
SS5	859,742	923,231	1,041,664	1,101,415	3,926,052
SS6	1,042,268	1,146,513	1,293,589	1,367,792	4,850,162

Source: AECOM analysis, 2017

4.4.19 Modelling indicates that demand over the Local Plan period is for 60 to 86 nursing care beds, 86 to 124 residential care beds, and 33 to 48 Extra Care Housing units, depending on the growth option. Associated costs are £3.4M to £4.9M.

4.5 Community Infrastructure

Overview

4.5.1 For the purposes of the IDP, community infrastructure includes libraries, community centres, halls, and meeting rooms (including facilities for young people, and day centres).

Libraries

4.5.2 The 1964 Public Libraries and Museums act sets out the duty of LAs to provide a comprehensive and efficient library service to all local residents and employees[13]. While libraries offer book lending in a traditional library setting, their operation and service model is evolving in line with current trends and technology; for example the need to provide access to virtual resources.

Existing Infrastructure Capacity

4.5.3 There are five libraries in Runnymede: Addlestone Library; Chertsey library; Egham Library; Virginia Water Library; and New Haw Library. All are managed by SCC with the exception of New Haw Library which has been community managed since 2012. A range of services are provided within the Borough's libraries including internet access and printing facilities, photocopying and faxes, reading groups for adults and children, community events such as police drop in sessions, arts and stationary materials for sale, and assistance for elderly and disabled people with applications for bus passes. Figure 9 shows the location of the five libraries in Runnymede.

[13] *Comprehensive, Efficient and Modern Public Libraries'*, (2001); Department of Culture, Media and Sport

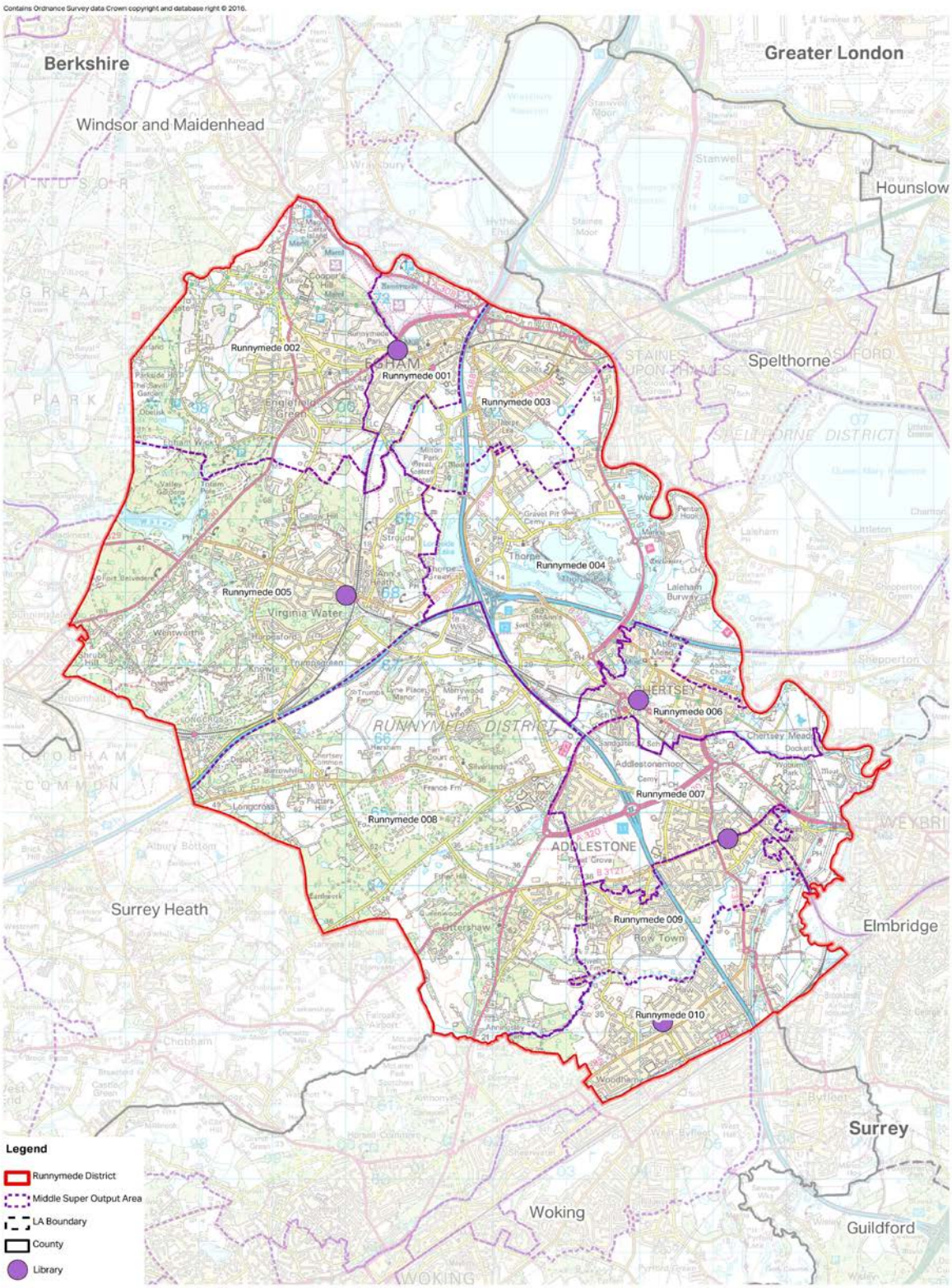

Figure 9. Libraries within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.5.4 It is understood that all five libraries in Runnymede are in a good condition and well maintained. Addlestone Library was co-located with the Council Offices in 2008 and refitted with new facilities, and Egham Library has recently undergone a full refurbishment. Virginia Water, New Haw, and Chertsey Libraries have had recent maintenance by the County, and also have volunteer networks who undertake fundraising and regular maintenance.

4.5.5 In 2011 SCC undertook a review of its libraries; the Public Value Review of Libraries[14], which determined that a number of libraries should be staffed by volunteers as community managed facilities; a process which is currently ongoing

Review of Planned Infrastructure Capacity against Future Demand

4.5.6 Consultation and a review of the existing provision within Runnymede has confirmed that SCC do not consider expansion of Runnymede's libraries as appropriate or required to cater for future demand which may arise from growth over the Local Plan period.

4.5.7 SCC's strategy on library provision is centred on maximising capacity within existing infrastructure rather than the addition of new physical infrastructure. Consultation has also emphasised that SCC is seeking to deliver additional choice to all residents across Surrey through a shift from physical facilities to online services such as e-books and electronic information.

4.5.8 Any future provision of new facilities is anticipated to be delivered as part of a hub or shared facility in line with the RBC's desire to incorporate community services in easily accessible, shared locations. Therefore, it is not considered appropriate to include additional library space within this IDP - rather it is assumed that any such requirements would be reflected within the estimate of demand and costs for multi-use community space below.

Community Centres

Existing Infrastructure Capacity

4.5.9 There are a variety of community centres in Runnymede the majority of which are overseen and managed by the Borough, and some of which are run as not for profit or charity facilities. There are nine community centres / halls, five youth centres, and seven day centres in the Borough. See Figure 10 for details of their locations.

[14] Public Value Review of Libraries, (2011); Surrey County Council

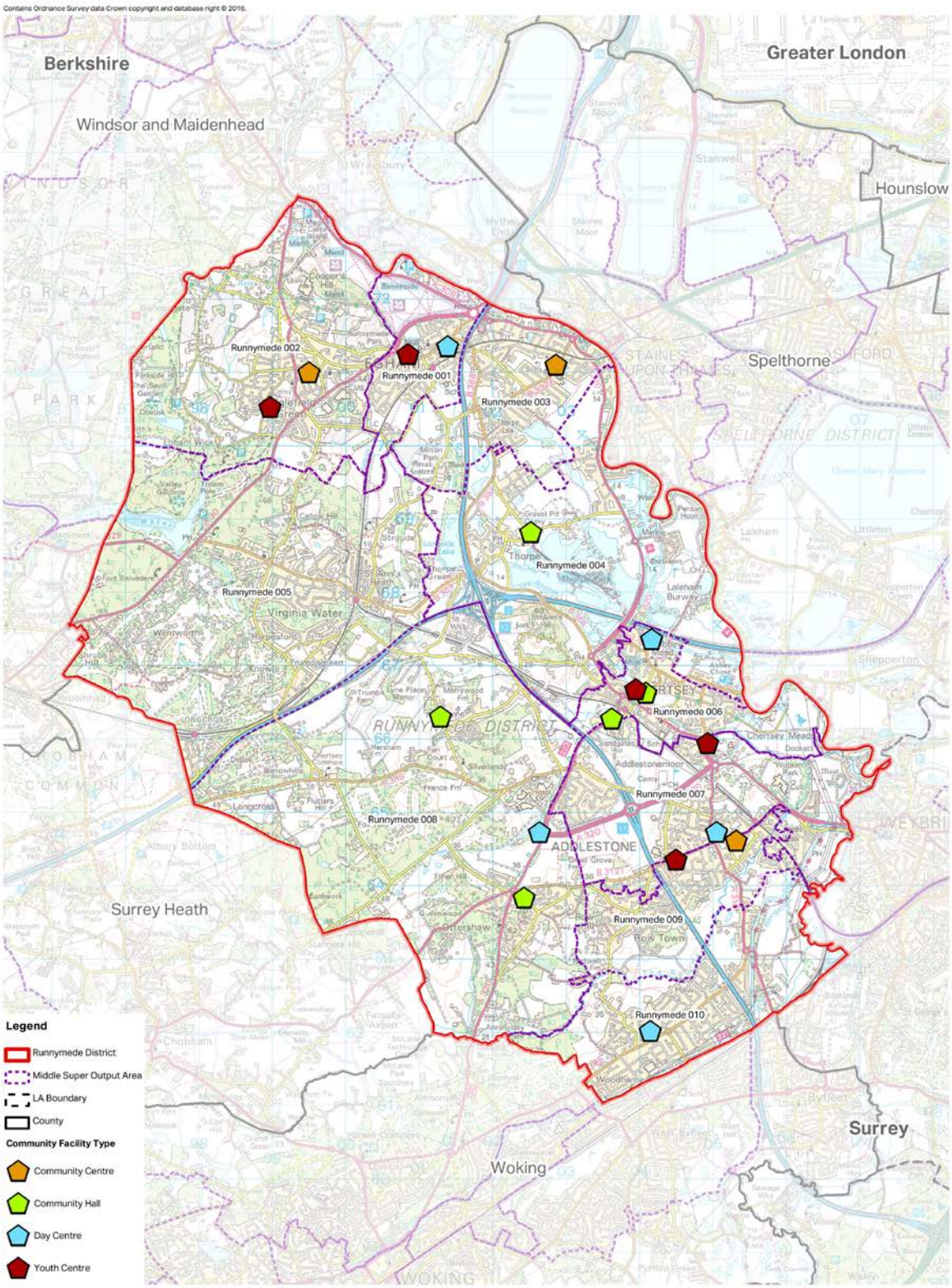

Figure 10. Community Centres within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.5.10 Runnymede currently appears relatively well-served by a range of community centres, distributed throughout the Borough. However population growth over the Plan period, in particular amongst youth or older age groups, could lead to a requirement to provide additional services or facilities. It is likely that groups who use community centres will seek greater levels of funding and access to facilities, and there will be more volunteers and financial resources required from the Borough to deliver services to support facilities in the local community.

4.5.11 Ten of the Borough's community centres and services for youths and older people are run and managed by volunteers, without whom the range of centres and activities in the Borough could not be offered.

4.5.12 Stakeholder consultation has confirmed that the Longcross Garden Village site includes 500m^2 D1 space, and it is likely that this space will be for flexible or shared community uses. Otherwise, it is understood that there is no planned expansion of either relevant physical infrastructure or services at this time, as it is understood that existing facilities are not considered to be at capacity.

Review of Planned Infrastructure Capacity against Future Demand

4.5.13 The forecast future demand for community space is outlined below for the three development scenarios, setting out the benchmark planning standards used to calculate the total gross and net demand for community floorspace and associated costs.

Table 35. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 36. Benchmark Planning Standards – Community Space

Option	Metric	Source
Square metres of community space per 1,000 residents	65	AECOM Cost Consultants and liaison with SCC
Cost per square metres community space	£11,428	AECOM Cost Consultants and liaison with SCC

4.5.14 The application of these benchmark standards to the population forecasts suggests a potential increase in the amount of community space required, as set out in Table 37 below.

Table 37. Demand and Costs for Community Space in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Gross demand (m^2 flexible community space required):					
SS3	229	354	210	155	948
SS5	265	272	272	272	1,082
SS6	321	338	338	338	1,335
Planned capacity (m^2):					500
Net demand (m^2):					

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3					448
SS5					582
SS6					835
Net costs (£)					
SS3					640,470
SS5					830,578
SS6					1,192,971

Source: AECOM analysis, 2017

4.5.15 Net demand and costs over the Local Plan period are somewhat lower than gross demand and costs because it is assumed that provision at the Longcross Garden Village site is committed and will come forward as planned. Net demand is 448m^2 to 835m^2, depending on the growth option. Associated costs are £0.6M to £1.2M.

4.6 Recreation

Overview

4.6.1 For the purposes of this IDP, indoor and outdoor sports facilities (e.g. courts and pitches) and equipped child play space are considered as recreational facilities. These can accommodate a variety of activities and can be grouped together in a leisure centre or a standalone outdoor space. It is acknowledged that in addition to the facilities considered in this INA, some people may choose to use privately operated facilities as part of health clubs or fitness centres (such as Virgin Active and LA Fitness) or may conduct sports matches using parks or open spaces not formally designated for sports use; these facilities are not included in this baseline.

Outdoor Sports

Existing Infrastructure Capacity

4.6.2 The Runnymede Open Space Study[15] identifies that there are 56 outdoor sport facilities in the Borough, with a total area of 671.35 hectares (ha), however only 28.78ha of this space was publically accessible (offering non-fee paying facilities which were publically managed).

4.6.3 There are 19 publically accessible outdoor sports facilities within the Borough which provide a range of pitches and courts for sport, including: five junior or youth football pitches; 13 adult football pitches; 13 tennis courts; four cricket pitches; four mini pitches; eight five-a-side courts; four bowling greens; two netball courts; one BMX tracks; and eight Multi Use Games Areas (MUGA).

[15] Open Space Study 2016-2035, (2016); Runnymede Borough Council

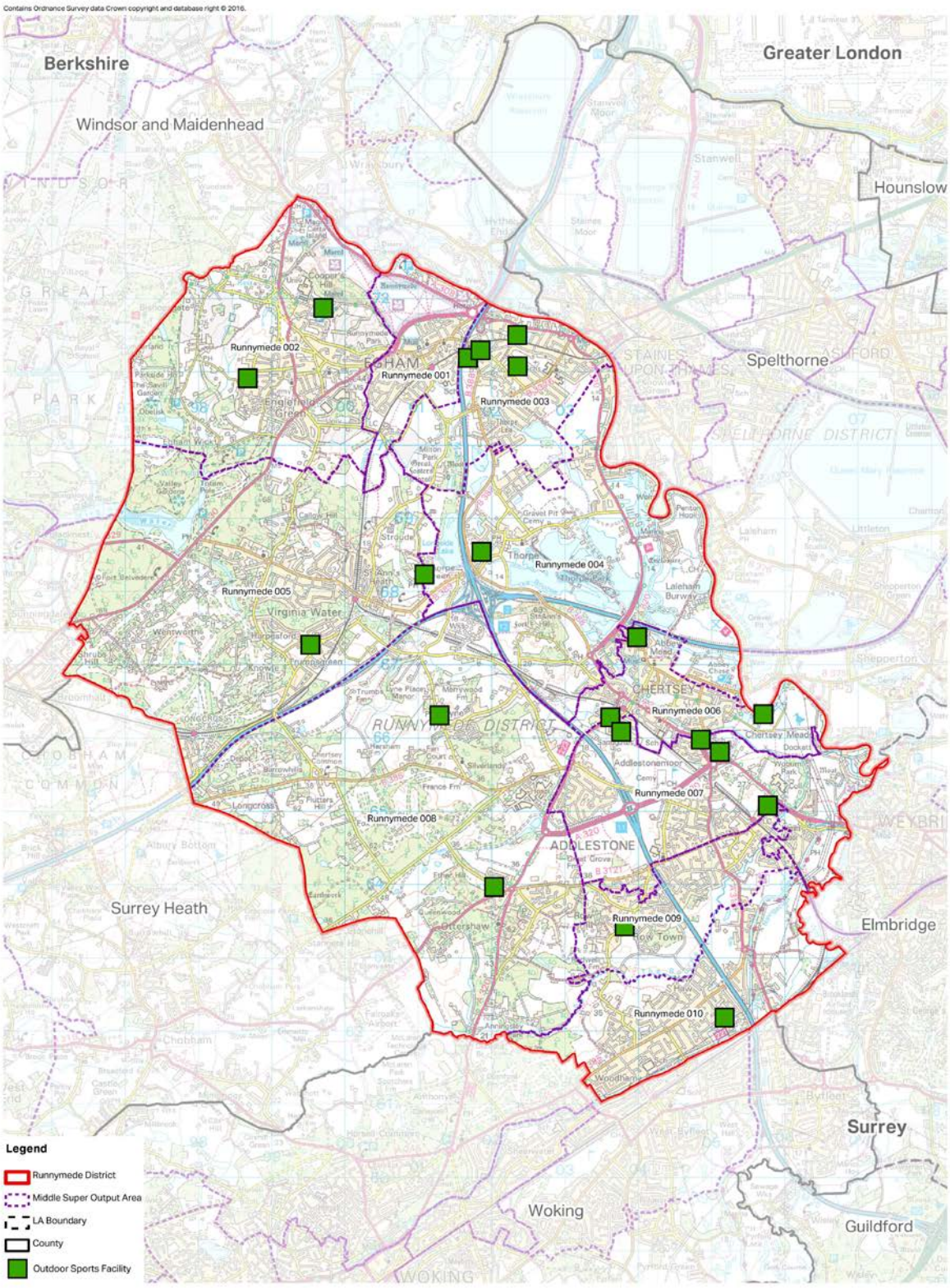

Figure 11. Outdoor Sports Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.6.4 The Runnymede Open Space Study[16] identifies that there is a deficiency of outdoor sports facilities across the majority of Runnymede, with Addlestone having the most severe levels of under provision. It is reasonable to assume that population growth in Runnymede will increase demand, with pressure on particular types of facilities resulting from growth in particular age groups (e.g. bowling greens tend to be frequented by older people and MUGA tend to cater to younger people).

4.6.5 At the current time there are no known plans to provide new outdoor leisure facilities in the Borough. However stakeholder consultation has confirmed that there are a number of improvements planned to existing spaces, as shown in Table 38 below. It should be noted that while the Borough is expected to provide funding for many of the improvements to outdoor sports facilities outlined above, there is no committed funding currently available.

Table 38. Planned Improvements to existing Outdoor Sports Facilities within Runnymede

Name of Facility	Type of improvement	Funding amount and source
Egham Leisure Centre	Resurfacing of the 5-a-side football pitches.	£TBC; Runnymede Borough Council / Achieve Lifestyle
Chertsey Recreation Ground	Replacement of cricket/football pavilion and provision of larger changing facilities.	£75,000; Source TBC
Gogmore Farm	Provision of trim trail/fitness equipment	£15,000; Runnymede Borough Council
Heathervale Recreation Ground	• Extension/improvement of sports pavilion. • Replacement of skate park	£TBC; Runnymede Borough Council
Ottershaw Memorial Fields	• Resurfacing of tennis courts to include marking out. • Re-fencing and division of tennis courts. • Addition of drainage to football pitches.	£40,000; Runnymede Borough Council
Victory Park	• Improvement of the drainage at the football pitch. • Resurfacing works to tennis courts, to include re marking out, re-fencing and division of tennis courts to include kick boards.	£110,000; Runnymede Borough Council
Barsbrook Farm	• Development of a junior football hub	£TBC; Runnymede Borough Council
Aviator Park	Improvement/extension to skate park	£130,000; Runnymede Borough Council

Source: Consultation with Runnymede Borough Council

4.6.6 It is considered reasonable to assume that as part of the development of the Longcross Garden Village site, outdoor sports facilities to support the population of the new settlement will be provided and funded by the developer. Stakeholder consultation has confirmed that provision will be made for outdoor sports and recreation as part of the development; however no detail on the amount or type of provision is currently available.

[16] Open Space Study 2016-2035, (2016); Runnymede Borough Council

Review of Planned Infrastructure Capacity against Future Demand

4.6.7 The forecast future demand for outdoor sports facilities is outlined below for the three development scenarios, setting out the benchmark planning standards used to calculate the total demand for outdoor sports (parks and pitches) and associated costs.

Table 39. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 40. Benchmark Planning Standards – Outdoor sports

Option	Metric	Source
Playing pitches – hectares per 1,000 population	1.2	RBC Open Space Study 2016
Parks – hectares per 1,000 population	0.4	RBC Open Space Study 2016
Cost per hectares – playing fields	£348,315	AECOM Cost Consultants and liaison with SCC
Cost per hectares - parks	£232,210	AECOM Cost Consultants and liaison with SCC

4.6.8 The application of these benchmark standards to the population forecasts suggests a potential increase in the amount of outdoor sports facilities required, as set out in Table 41 below.

Table 41. Demand and Costs for Outdoor Sports in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Gross demand (ha)					
SS3	5.65	8.72	5.16	3.81	23.4
SS5	6.52	6.70	6.70	6.70	26.6
SS6	7.90	8.32	8.32	8.32	32.9
Planned capacity (ha)					3.1
Net demand (ha)					
SS3					20.2
SS5					23.5
SS6					29.7
Net costs (£)					
SS3					6,364,272
SS5					7,410,518
SS6					9,404,923

Source: AECOM analysis, 2017

4.6.9 Gross demand is estimated 23.4ha to 32.9ha of additional outdoor sports space (parks and pitches), depending on the growth option. The net demand and costs assume that provision at the Longcross Garden Village site comes forward but do not factor in other planned improvements as funding is not committed. Net demand is estimated as 20.2ha to 29.7ha of additional outdoor sports space, depending on the growth option. Net costs are £6.4M to £9.4M.

Indoor Sports

Existing Infrastructure Capacity

4.6.10 Runnymede Borough Council owns two leisure centres which are operated by an external trust, Achieve Lifestyle, under a 15 year lease. Additionally there are several privately operated clubs and facilities in the Borough, which include Fulbrook School dual use centre (which has a sports hall, gymnasium, and weekly sports clubs). Figure 12 shows the location of the two leisure centres in the Borough.

4.6.11 A new gym has recently opened at the Addlestone One development, operated by Achieve Lifestyle who have fully funded the fit-out costs of the facility. There has also been recent investment at the Borough's two leisure centres to provide additional services and improve the quality of facilities; this includes a £3M extension to Addlestone Leisure Centre undertaken in 2006, and investment of £600,000 at Egham Leisure Centre in 2006 for a range of improvements including refurbishment and improvements to pitches. In 2015 the Egham Centre's gym was refurbished at a cost of approximately £300,000, shared between Runnymede Borough Council and Achieve Lifestyle (the gym operator).

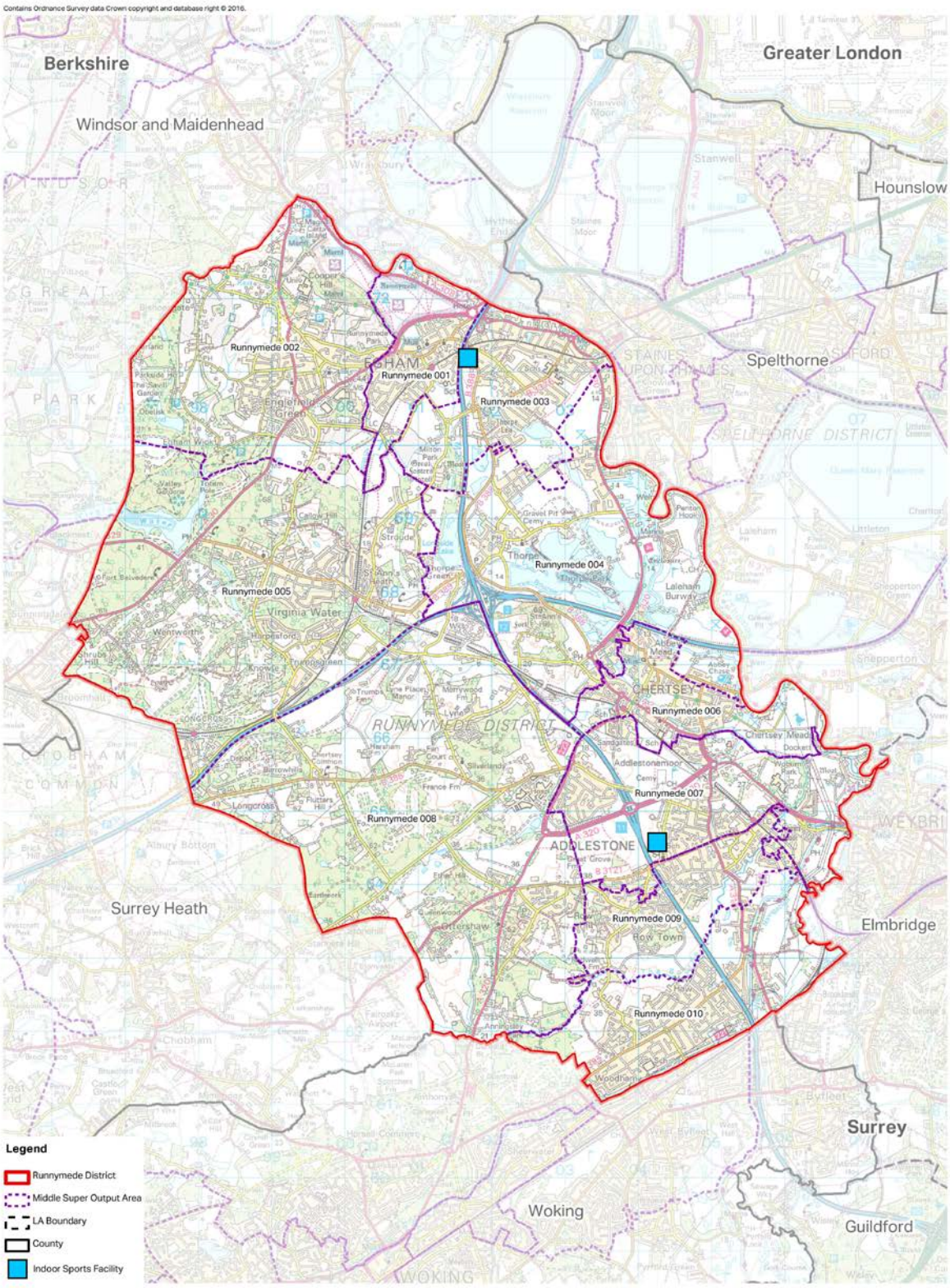

Figure 12. Indoor Sports Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.6.12 Consultation has confirmed that there are currently proposals for a number of improvements at the Borough's leisure centres:

- Redevelopment of Egham Leisure Centre, including installation of a swimming pool and replacement of fitness equipment commenced in autumn 2017, with an estimated cost of £19M, committed by the Borough.
- Replacement of fitness equipment at Addlestone Leisure Centre at an estimated cost of £135,000, funded by Achieve Lifestyle (at no cost to the Borough).

4.6.13 Additionally, a gym will be provided at the Longcross Garden Village site to serve the new population residing there and will be funded by the developer. There are no known plans for further expansion to indoor leisure facilities in the Borough over the Plan period.

Review of Planned Infrastructure Capacity against Future Demand

4.6.14 There has been recent investment at the Borough's two leisure centres to provide additional services and improve the quality of facilities. In addition, there are plans for a number of further improvements at the Borough's leisure centres. Consultation has confirmed that the Borough's existing indoor leisure facilities are generally meeting levels of demand currently, however that over the Local Plan period demand is likely to increase, particularly among certain user groups e.g. older people.

4.6.15 Plans for improvements at the Borough's leisure centres (outlined above) are assumed to have been identified by providers as required to meet the needs arising from forecast growth in Runnymede over the Local Plan period. Stakeholder consultation has confirmed that funding is secured for both the planned improvements, and as such, there is no known infrastructure funding gap associated with indoor leisure provision over the Plan period.

Play Space

Existing Infrastructure Capacity

4.6.16 Play space can include equipped play provision, or more informal areas for creative play, and relaxation areas for older children. The Open Space Study identifies that there are 41 play facilities in the Borough, with a total area of 4.92ha. Figure 3 shows the location of play facilities in the Borough.

4.6.17 The Runnymede Open Space Study 2016[17] identified that there is a considerable deficiency of play facilities across the majority of Runnymede. The Open Space Study refers to the FiT benchmark for provision of play facilities; a target of 0.8 ha per 1,000 population. This is broken down as 0.25ha of equipped play space, and 0.55ha of informal play space. It found however, that provision in the Borough equated to approximately 0.06ha per 1,000 population; considerably less than the 0.8ha target. Provision in Addlestone was found to be the most limited, with approximately 0.04ha play provision per 1,000 population.

[17] Open Space Study 2016-2035, (2016); Runnymede Borough Council

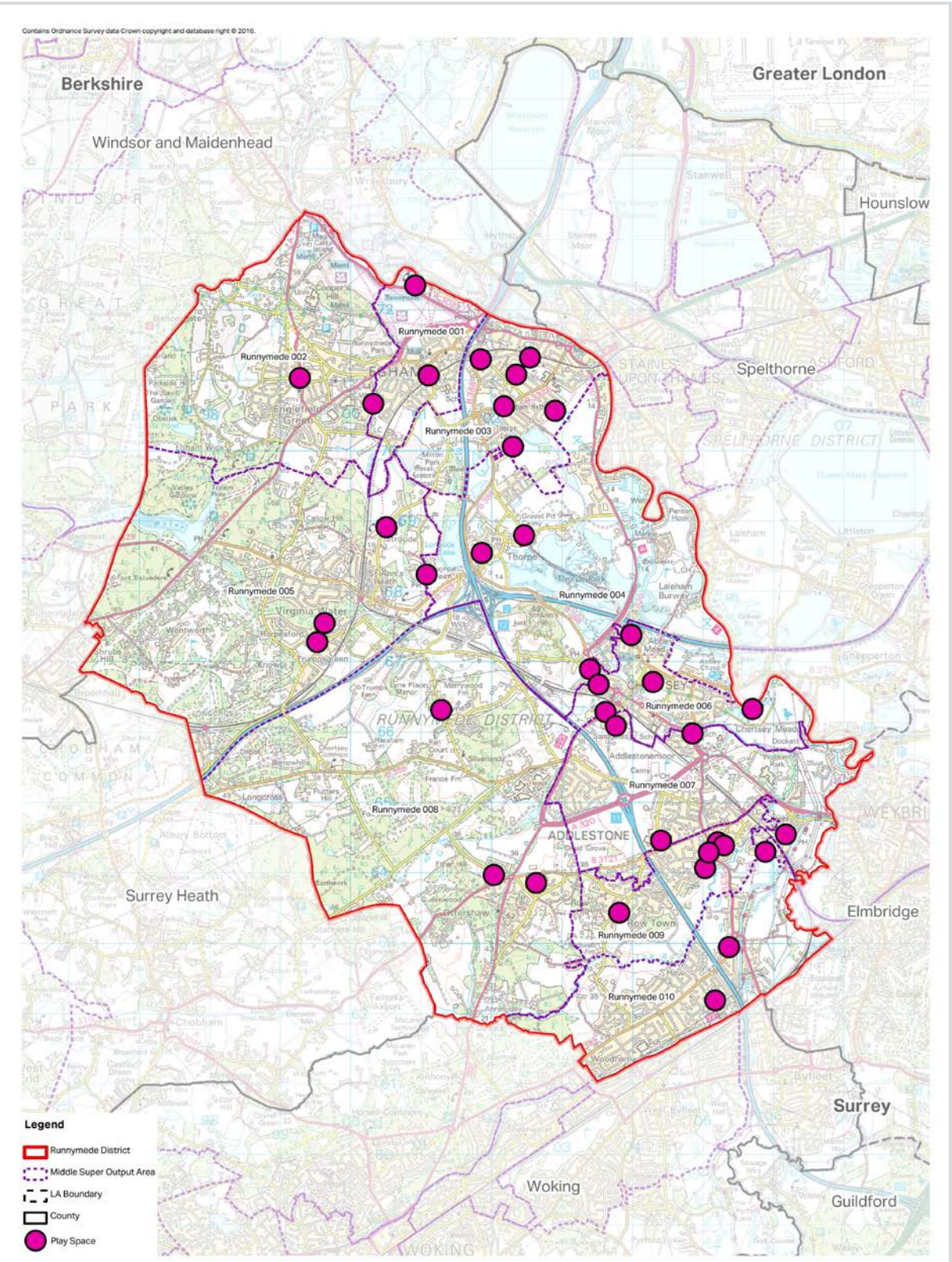

Figure 13. Play Facilities within Runnymede

Planned Infrastructure and Infrastructure Required to Support Growth

4.6.18 Consultation emphasised the lack of playspace within the Borough, and desire to improve existing facilities in a number of locations. There are two projects to improve playspaces currently being undertaken: provision of bow top fences to the play area at Heathervale Recreation Ground, and Chertsey Recreation Ground. In addition there are a number of improvements planned to existing play facilities, and the delivery of two new play areas.

Table 42. Planned Improvements to existing Play Facilities or new Play Facilities to be delivered within Runnymede

Name	Type of improvement / works	Funding amount and source
Heathervale Recreation Ground	Provision of two 3G pitches and two grass pitches	£3,00,000; Runnymede Borough Council
The Orchard and Abbeyfields	Bow top fencing to play area	£10,000; Runnymede Borough Council
Kings Lane Open Space	New play equipment to be installed - improved play facilities for older children	£28,000; 50% S106, 50% SCC grant funded
Marshall Place	New play area to be delivered	£80,000; S106 funded
Fernlands Open Space	New play area to be delivered	£80,000; S106 funded
Various – TBC	Refurbishment / replacement of old / out of date play equipment at various Council owned parks and open spaces	£400,000; Runnymede Borough Council

Source: Consultation with Runnymede Borough Council

4.6.19 It should be noted that while the Borough is expected to provide funding for these improvements, there is only committed funding currently identified for the works at Heathervale Recreation Ground. As part of the development of the Longcross Garden Village site, play facilities to support the population of the new settlement will be provided and funded by the developer, comprising 2.07ha informal playspace and 3.02 formal playspace, with an associated cost of £0.8M.

Review of Planned Infrastructure Capacity against Future Demand

4.6.20 The forecast future demand for playspace is outlined below for the three development scenarios, setting out the benchmark planning standards used to calculate the total demand for the amount of playspace and associated costs.

Table 43. Total number of residents forecast to reside in new developments

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
SS3	3,530	5,452	3,227	2,383	14,592
SS5	4,074	4,189	4,189	4,189	16,640
SS6	4,939	5,202	5,202	5,202	20,544

Source: AECOM analysis, 2017

Table 44. Benchmark Planning Standards - Playspace

Option	Metric	Source
Hectares of informal playspace per 1,000 population	0.55	RBC Open Space Study 2016
Hectares of equipped playspace per 1,000 population	0.25	RBC Open Space Study 2016
Cost per hectares informal playspace	23	AECOM Cost Consultants and liaison

Option	Metric	Source
		with SCC
Cost per hectares equipped playspace	348	AECOM Cost Consultants and liaison with SCC

4.6.21 The application of these benchmark standards to the population forecasts suggests a potential increase in the requirement for playspace, as set out in Table 45 below.

Table 45. Demand and Costs for Playspace in Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Gross demand (ha) formal play space and equipped play space					
SS3	2.8	4.4	2.6	1.9	11.7
SS5	3.3	3.4	3.4	3.4	13.3
SS6	4.0	4.2	4.2	4.2	16.4
Planned capacity (ha)					4.2
Net demand (ha)					
SS3					7.5
SS5					9.1
SS6					12.2
Net costs (£)					
SS3					11,152,025
SS5					13,196,959
SS6					17,095,114

Source: AECOM analysis, 2017

4.6.22 Modelling indicates that gross demand for additional playspace over the Local Plan period is 11.7ha to 16.4ha, depending on the growth option, with net demand of 7.5ha to 12.2ha. Associated costs are £11.2M to £17.1M.

4.7 Green Infrastructure

Overview

4.7.1 Runnymede has a rich network of green infrastructure across the Borough, including larger areas of woodland and open space, as well as smaller more formal parks and gardens and green corridors which link the Borough together. The Borough contains a number of nationally and internationally important nature conservation sites including Windsor Forest and Great Park to the north-west and the Runnymede Meadows to the north. The western side of the borough is close to the Thames Basin Heaths Special Protection Area (TBHSPA) and the South West London Waterbodies SPA also partially lies within Runnymede. There are also two Local Nature Reserves (LNRs) at Chertsey Meads and the Riverside Walk at Virginia Water. Runnymede is in the county of Surrey which has a number of bodies that look to maintain and improve its green infrastructure. This includes the Surrey Local Nature Partnership, which champions the value of the natural environment in decision making.

4.7.2 For the purposes of this work, green infrastructure has been classified into a number of different typologies: natural and semi-natural greenspace, parks and gardens, amenity greenspace, green corridors, allotments, as well as churchyards and cemeteries. Where possible, provision of these typologies have been assessed using standards for quantity, quality and accessibility; and demand has been assessed based on growth scenarios and

compared with planned projects for these typologies.

4.7.3 Green infrastructure is a network formed of a variety of highly multifunctional greenspace. While the exercise gone through for this IDP is split up by different topics, it is important to bear this in mind. This could mean that investment in green infrastructure can address demand in a number of other topics, including health, community infrastructure, recreation, transport, as well as flood defences and sustainable drainage.

Natural and Semi-Natural Greenspace

Existing Infrastructure Capacity

4.7.4 According to the Runnymede Open Space Study[18], there is approximately 12.50ha per 1,000 people of accessible natural and semi-natural greenspace. Based on the Fields in Trust (FiT)[19] quantity standard of 1.80ha per 1,000 people, this provision significantly exceeds what is recommended. While quality and accessibility is fairly good on average, the baseline implies that there are accessibility issues around Foxhills and Woodham. Accessibility was assessed using Accessible Natural Greenspace Standards (ANGST), which include buffer zones for different greenspaces depending on their size (see Figure 14).

4.7.5 There is a fairly even distribution of natural and semi-natural green space across the Borough, some of which are designated sites. The designated areas of nature conservation in the Borough include areas of European designation such as one Ramsar site, one SAC, and one Special Protection Area (SPA). There are also areas which have national and local designation such as five SSSIs, two LNRs, and 35 SNCIs.

[18] Runnymede Borough Council, 2016. *Runnymede 2035 – Open Space Study 2016*. [pdf] Runnymede Borough Council. Available at: https://www.runnymede.gov.uk/CHttpHandler.ashx?id=14704&p=0
[19] Fields in Trust, 2015. *Guidance for Outdoor Sport and Play – Beyond the Six Acre Standard*. [pdf] Fields in Trust. Available at: http://www.fieldsintrust.org/Upload/file/PAD/FINAL%20ONLINE%20Planning%20Guidance%20for%20Outdoor%20Sport%20and%20Play%20Provision%20Oct%202015.pdf

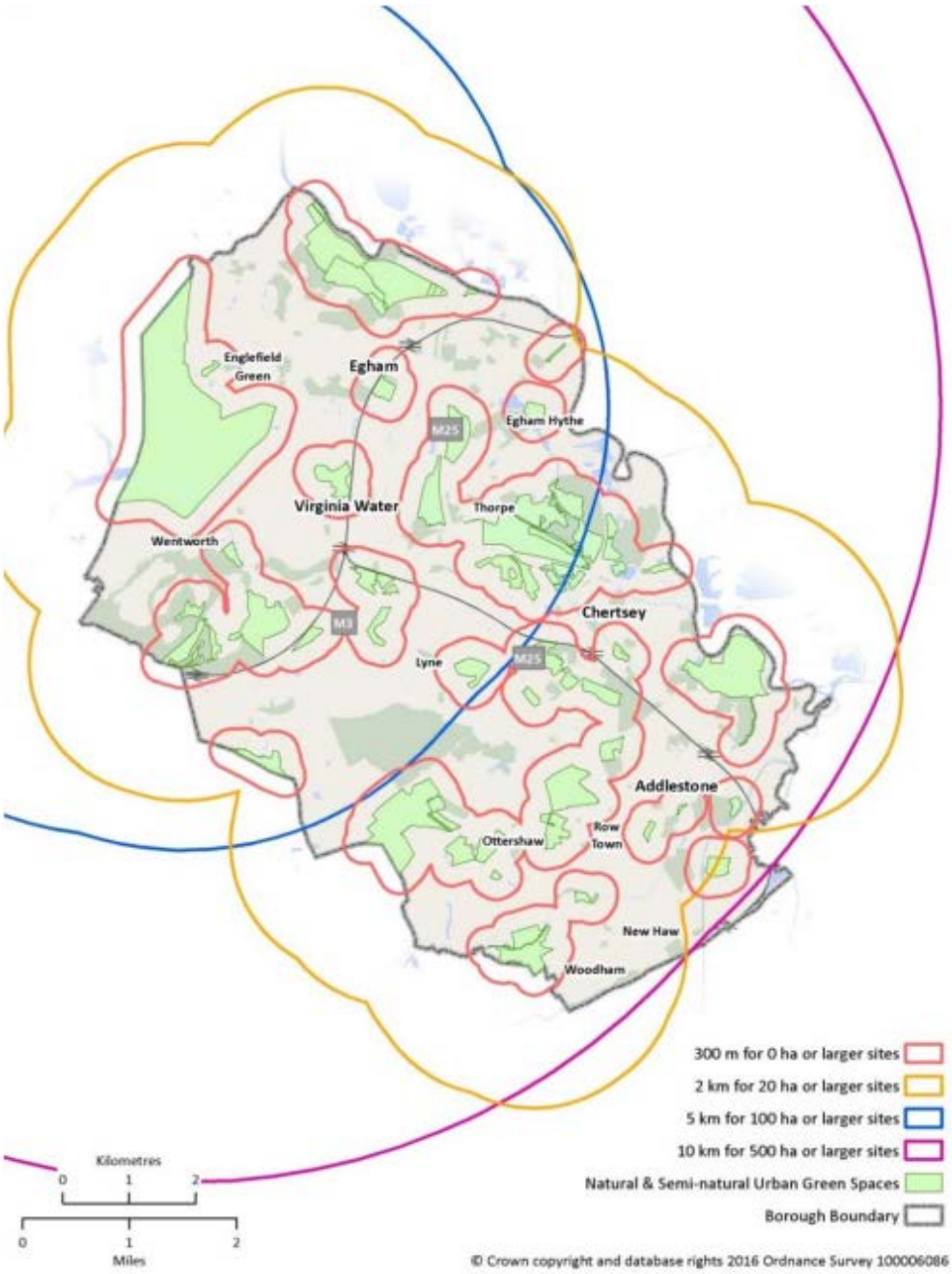

Figure 14. Provision of Accessible Natural and Semi-Natural Greenspaces in Runnymede with ANGST Buffer Zones

4.7.6 It has been established that net additional housing development within 5km of the Thames Basin Heaths Special Protection Area (TBHSPA) has given rise to adverse effects on the numbers of three ground nesting bird species dependent on the SPA: the Woodlark, Nightjar and Dartford warbler. Mechanisms set out to avoid impact on the SPA include: no new net additional dwellings within 400m of the SPA, and provision of alternative recreational land to attract new residents away from the SPA known as Suitable Accessible Natural Greenspace (SANG). SANGs should be provided as an avoidance measure for residential development within 5km of the TBHSPA at a rate of 8ha per 1,000 people, and potentially for larger sites further than 5km from the SPA. As of 2013, existing SANG in Runnymede include: St Ann's Hill Open Space, Ether Hill / Queenwood, Ottershaw Chase / Timber Hill / Chaworth Copse, Hare Hill Open Space and Homewood Park. The provision of a new shared SANG solution at Chertsey Meads has been agreed with Natural England but this has yet to be implemented.

Infrastructure Required to Support Growth

4.7.7 There is a significant amount of natural and semi-natural greenspace in Runnymede, which far exceeds FiT standards. After liaising with RBC and other stakeholders, it has been confirmed that there are no natural and semi-natural greenspace projects planned.

4.7.8 As of 2013 there were five areas of SANGs in the borough. SANGs are to be provided through financial contributions from net residential development which is within 5km of the TBHSPA and are managed by the Borough Council. The TBHSPA Delivery Framework states that SANGs should be provided on the basis of at least 8ha per 1,000 people after discounting any other publically accessible open space. According to RBC, there are three SANGs projects planned across Runnymede over the Plan period with a total funding gap of approximately £3.92M. These include the SANG planned on and off-site at Longcross Garden Village, at Chertsey Meads, and at Ottershaw East.

Review of Planned Capacity against Future Demand

4.7.9 As the current natural and semi-natural greenspace baseline is high, modelling demand based on the FiT recommended standard of 1.80ha per 1,000 people would result in a lower quantity than the current level. Therefore, the future requirement for natural and semi-natural greenspace is to maintain the current quantity, quality, and accessibility of natural and semi-natural greenspace assets.

4.7.10 The residual amount of development requiring SANG (after taking into account planned provision at Chertsey Meads and the Longcross Garden Village site) is as follows for the different options considered within this INA:

- SS3: indicative requirement for between approximately 25.6ha and 55ha of SANG
- SS5: indicative minimum requirement for 85.5ha of SANG
- SS6: indicative minimum requirement for 111ha of SANG.

Parks and Gardens

Existing Infrastructure Capacity

4.7.11 There is currently approximately 378ha of accessible parks and gardens in Runnymede, amounting to about 4.7ha per 1,000 people. Based on the FiT recommended quantity standard of 0.80ha per 1,000 people, there is sufficient provision of parks and gardens in Runnymede.

4.7.12 The parks and gardens seem to be fairly evenly distributed across the Borough, but with large area to the north-west which forms part of the Windsor Forest and Great Park (see Figure 15). The parks and gardens available are on average high quality and fairly accessible, but there is also demand for more parks and gardens across the borough according to the Open Space Study. Therefore, new parks and gardens should be situated around Woodham and Virginia Water.

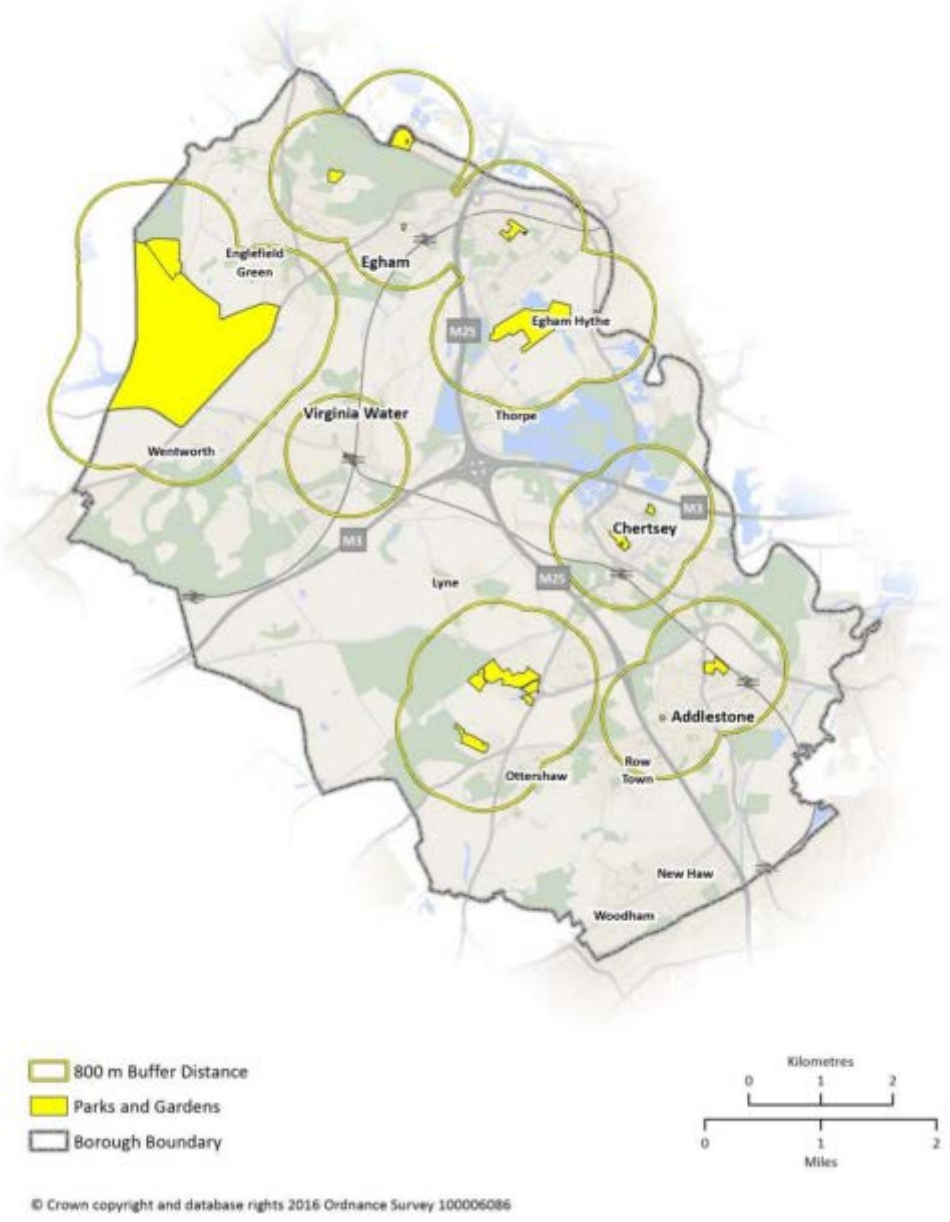

Figure 15. Parks and Gardens Accessibility in Runnymede

Infrastructure Required to Support Growth

4.7.13 Current provision level of parks and gardens is higher than FiT recommended standard, indicating good levels of supply. No planned projects which could offset gross demand have been identified.

Review of Planned Capacity against Future Demand

4.7.14 Future needs have been modelled by applying the FiT recommended level of 0.80ha per 1,000 people to additional population and the additional assumptions. Demand for parks and gardens across Runnymede over the Local Plan period is estimated at 11.7ha to 16.4ha, depending on the growth option. Associated costs are estimated at £2.7M to £3.8M. Table 46 below provides details.

Table 46. Demand and Costs for Parks and Gardens within Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (ha parks and gardens):					
SS3	2.8	4.4	2.6	1.9	11.7
SS5	3.3	3.4	3.4	3.4	13.3
SS6	4.0	4.2	4.2	4.2	16.4
Costs (£):					
SS3	655,758	1,012,837	599,451	442,681	2,710,727
SS5	756,822	778,119	778,119	778,119	3,091,180
SS6	917,498	966,306	966,306	966,306	3,816,418

Source: AECOM analysis, 2017

Amenity Greenspace

Existing Infrastructure Capacity

4.7.15 There are approximately 67.41ha of amenity greenspace in the borough, amounting to about 1.39ha per 1,000 people. Based on the FiT recommended quantity standard of 0.60ha per 1,000 people, there is sufficient provision of amenity greenspace. The amenity greenspace in the Borough is deemed to be of medium quality, but a large part of the borough does not meet the recommended accessibility standard of 400m or a five minute walk away (see Figure 16). Therefore there is a requirement for amenity greenspace situated in Virginia Water.

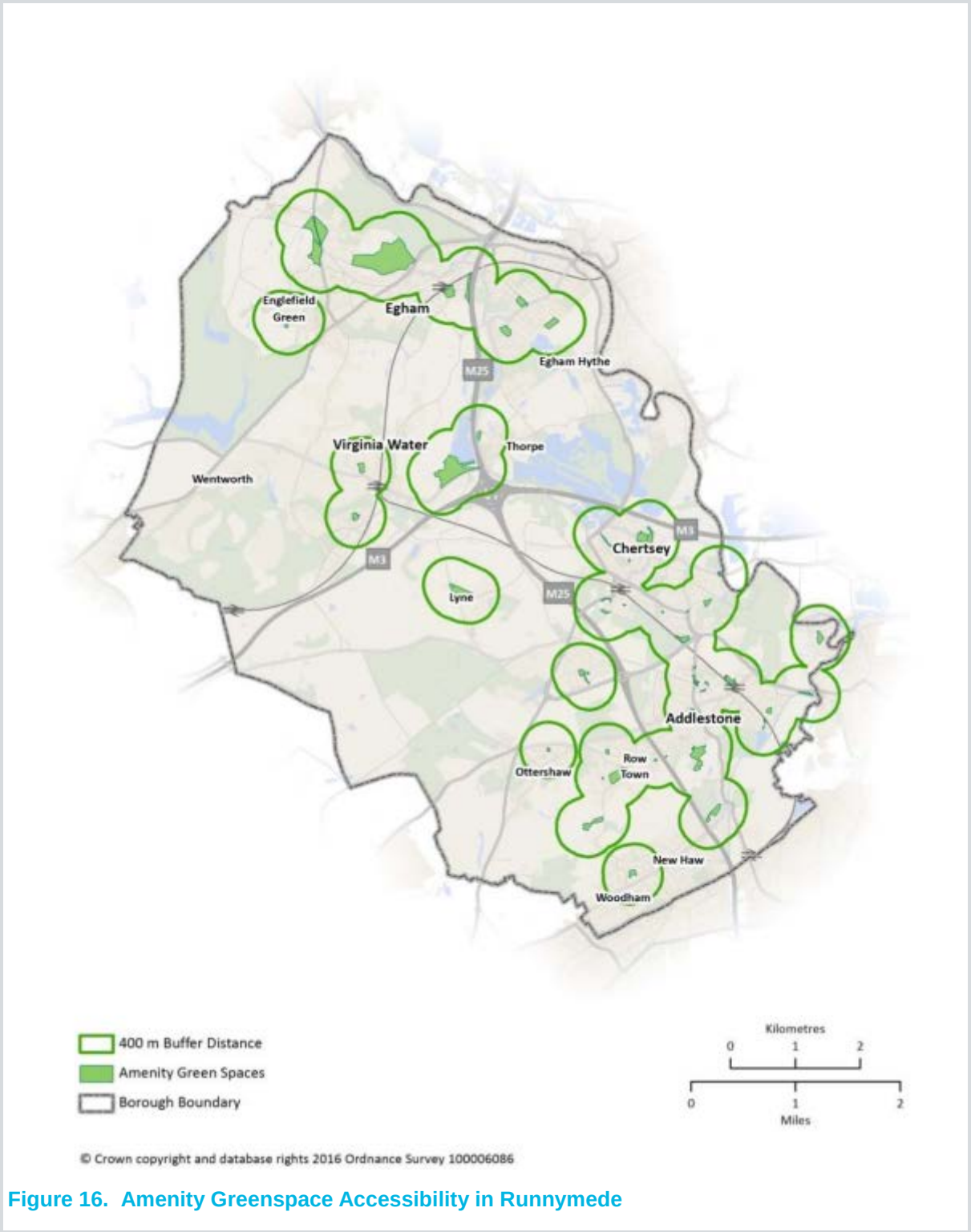

Figure 16. Amenity Greenspace Accessibility in Runnymede

Infrastructure Required to Support Growth

4.7.16 Current provision of amenity greenspace within Runnymede is higher than the FiT recommended standards. Amenity greenspace is to be provided at Longcross Garden Village, but the scale of provision and the status of the investment relating to this provision are currently unknown.

Review of Planned Capacity against Future Demand

4.7.17 Future needs have been modelled by applying the FiT recommended level of 0.60ha per 1,000 people additional to the population, along with additional assumptions. Modelling to determine the future requirement for amenity greenspace in Runnymede indicates that there is an estimated demand of 8.8ha to 12.3ha, depending on the growth option. Associated costs are £1.0M to £1.4M. Table 47 below provides details.

Table 47. Demand and Costs for Amenity Greenspace within Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Demand (ha amenity space):					
SS3	2.1	3.3	1.9	1.4	8.8
SS5	2.4	2.5	2.5	2.5	10.0
SS6	3.0	3.1	3.1	3.1	12.3
Costs (£):					
SS3	245,909	379,814	224,794	166,005	1,016,522
SS5	283,808	291,795	291,795	291,795	1,159,192
SS6	344,062	362,365	362,365	362,365	1,431,157

Source: AECOM analysis, 2017

Green Corridors

Existing Infrastructure Capacity

4.7.18 Green corridors are deemed to be among the most important spaces across the borough for the role they play in connecting other areas of greenspace and residential areas with nature. While there is no set provision standard for green corridors, there is around 112ha worth in the borough, or 1.39ha per 1,000 people. The current supply of green corridors is considered to be of medium quality. For green corridors, a set accessibility standard irrespective of other open space typologies is less appropriate, and as such there is no set accessibility standard. Instead, the focus is on linking areas together in the right locations, where residents and wildlife need to be connected between them.

Infrastructure Required to Support Growth

4.7.19 Green corridors are important for their connectivity role in the environment. Ensuring an additional quantum of provision per planned dwelling is not an appropriate approach for forward planning. However, it is important that the current provision of 112ha of green corridors across the Borough is maintained. Provision of green corridors should be decided based on location of residents and wildlife.

Allotments

Existing Infrastructure Capacity

4.7.20 In the Borough there are 36.60ha of allotments, which is equivalent to 0.45ha or 15.6 plots per 1,000 households. Based on The National Society of Allotment and Leisure Gardeners (NSALG) quantity standard of 20 allotment plots per 1,000 households (assuming 250m^2 per plot), there is insufficient allotment provision currently. This shortage of provision is particularly the case in the areas of Addlestone and Egham, as provision of allotments is concentrated mainly in the eastern half of the borough (see Figure 17).

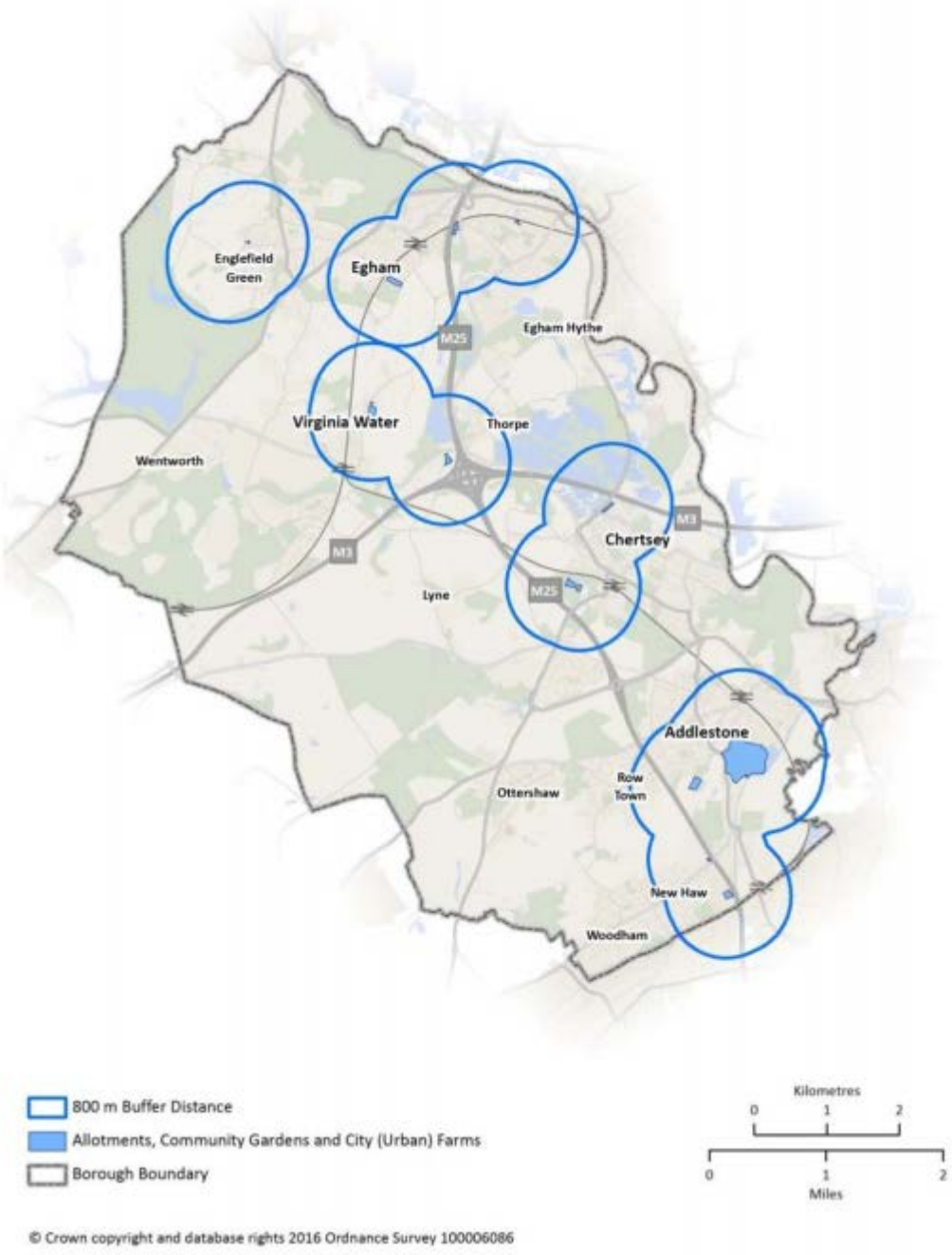

Figure 17. Allotment Accessibility in Runnymede

4.7.21 According to the Runnymede accessibility standards of 800m and 10 minute walk away, many allotments are not accessible enough across the Borough, especially in Ottershaw and Virginia Water (see Figure 17). However, on average those allotments that are available are of good quality. Therefore, new provision could be required across the areas of Addlestone, Egham, Ottershaw and Virginia Water.

Infrastructure Required to Support Growth

4.7.22 Current allotment provision level across Runnymede is lower than the recommended NSALG standard, which states that there should be 20 plots per 1,000 households assuming 250m^2 per plot.

4.7.23 There is planned provision of 0.67ha of allotments at the Longcross Garden Village site (26 plots, with 0.43ha off-site at Trumps Farm). RBC has also confirmed that there will be allotment plots provided in four different locations: Hythe Park, Hamm Moor Lane, Pinewood Allotments, and Stroude Road. However, the scale of provision and the status of the investment relating to this provision is currently unknown.

Review of Planned Capacity against Future Demand

4.7.24 The NSALG standard is applied to additional growth in Runnymede to estimate demand arising over the Local Plan period. Modelling to determine the future requirement for allotments in Runnymede indicates that there is an estimated gross demand of 3.1ha to 4.7ha, depending on the growth option, with associated costs of £0.7M to £0.9M. Table 48 below provides details.

Table 48. Demand and Costs for Demand and Costs for Allotments within Runnymede

Option	2015/16 - 2019/20	2020/21- 2024/25	2025/26- 2029/30	2030/31- 2034/35	2015/16- 2034/35
Gross Demand (ha):					
SS3	0.9	1.4	0.8	0.6	3.8
SS5	1.1	1.2	1.2	1.2	4.7
SS6	1.3	1.4	1.4	1.4	5.4
Gross costs (£):					
SS3	213,462	329,699	195,133	144,101	882,398
SS5	264,933	272,388	272,388	272,388	1,082,098
SS6	298,664	314,552	314,552	314,552	1,242,323
Planned provision:					0.7
Net demand (ha allotments):					
SS3					3.1
SS5					4.0
SS6					4.7
Net Costs (£):					
SS3					726,817
SS5					882,398
SS6					882,398

Source: AECOM analysis, 2017

Cemeteries and Churchyards

Existing Infrastructure Capacity

4.7.25 While this typology acts as green infrastructure informally, provision would be assessed differently as it does not use simple quantum per population, but would instead use capacity for burial space for provision assessment. There is currently 0.17ha per 1,000 population of current supply, but according to projected burial capacity in the Runnymede Open Space Study[20] from council-owned cemeteries, there is a limited quantity available. Current provision of cemeteries within Runnymede is constrained, with Addlestone Cemetery at capacity and Thorpe Cemetery with only two to three years' capacity remaining.

4.7.26 In terms of accessibility, a large part of the borough does not meet the Runnymede Open Space Study[21] recommended standard of 800m and 10 minutes' walk away, particularly across Woodham & New Haw, Virginia Water, and Addlestone (see Figure 18). While provision is insufficient currently, the existing supply of cemeteries and churchyards is deemed to be of medium quality on average.

[20] Runnymede Borough Council, 2016. *Runnymede 2035 – Open Space Study 2016*. [pdf] Runnymede Borough Council. Available at: https://www.runnymede.gov.uk/CHttpHandler.ashx?id=14704&p=0
[21] Ibid

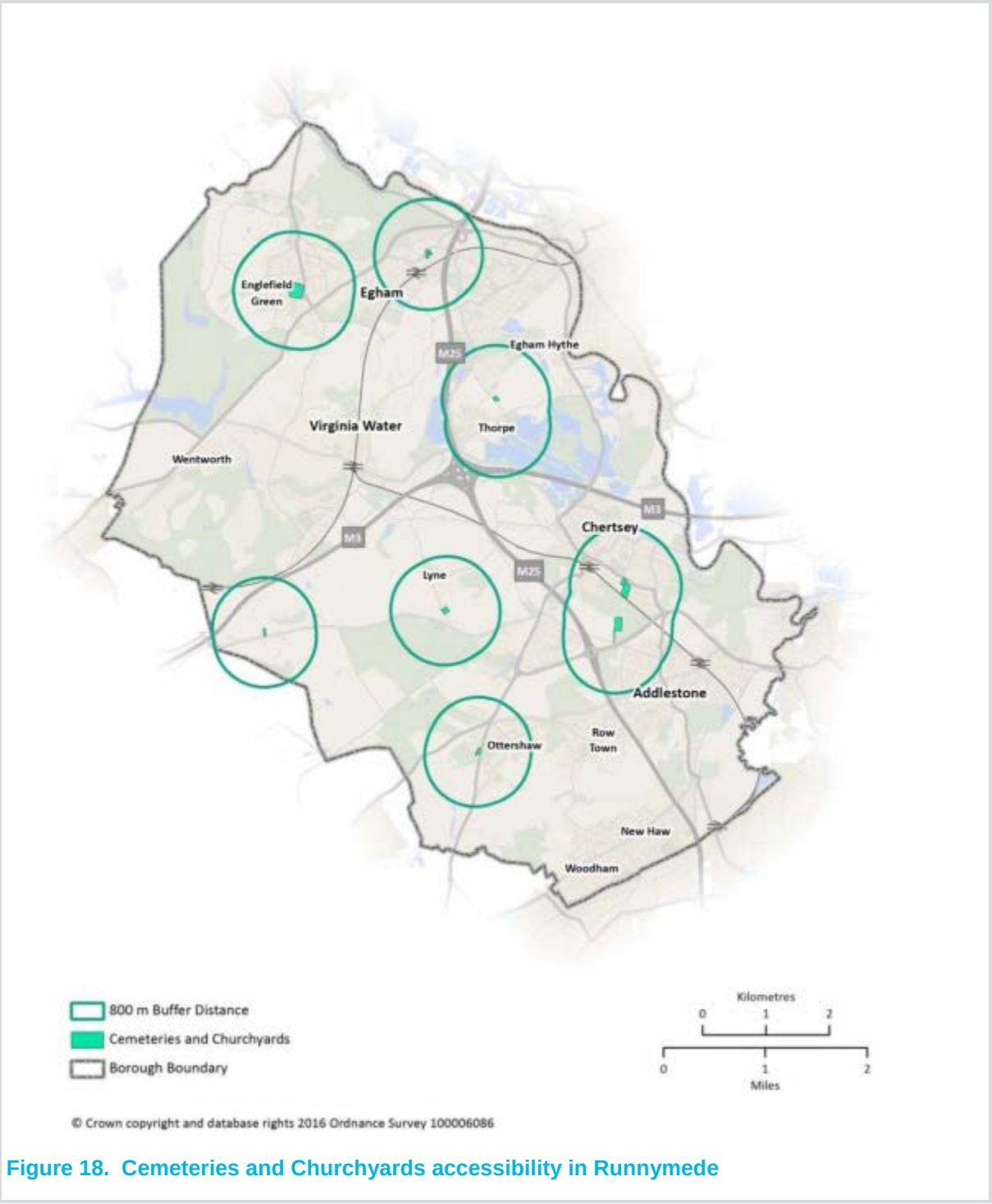

Figure 18. Cemeteries and Churchyards accessibility in Runnymede

4.7.27 While churchyards can be used as areas for passive recreation, their primary purpose is for burial and this is dependent on projected future demand. As such, from a green infrastructure perspective, the current quantity of cemeteries and churchyards should be maintained across the Borough.

Infrastructure Required to Support Growth

4.7.28 Looking at this typology from a green infrastructure perspective, there are quantity and accessibility issues across the Borough. It should be noted, however, that as cemeteries and churchyards are primarily needed as provision for burial, future needs are therefore dependent on this projected demand rather than on the secondary function of green infrastructure suitable for quiet contemplation.

4.7.29 RBC has provided information on cemetery capacity, which states that Addlestone Cemetery ran out of capacity in 2011/2012 and that Thorpe Cemetery has only two to three years' capacity. RBC also outlines that in order to accommodate the lack of capacity at Addlestone Cemetery; Chertsey and Englefield Green cemeteries (which have 30 to 40 years' capacity) have been used. As Thorpe Cemetery has a lack of availability, there is a project in the pipeline to extend this site into land owned by Thames Water to increase capacity.

Review of Planned Capacity against Future Demand

4.7.30 RBC has confirmed that purely from a green infrastructure perspective, the minimum quantity of cemeteries and churchyards should be maintained at the current level of 13.37ha across the Borough.

4.8 Transport

Overview

4.8.1 The Infrastructure Needs Assessment (INA) set out the needs arising from forecast growth in Runnymede relating to transport infrastructure, and identifies pipeline projects planned to meet those needs as well as potential gaps in the network which might emerge in 2030 without further investment.

4.8.2 Information on future needs and planned projects is drawn from the following list of documents:

- Draft for Consultation London South East Market Study, Network Rail, April 2013
- Long term Planning Process: London and the South East Market Study, Network Rail, October 2013
- Southern Rail Access to Heathrow Feasibility Study, Network Rail, December 2015
- Wessex Route Study, Network Rail, August 2015
- Surrey Rail Strategy, SCC 2013
- Surrey Transport Plan Runnymede Draft Local Transport Strategy and Forward Programme, Surrey County Council, October 2015
- Runnymede Infrastructure Development Plan, Runnymede Borough Council, 2013
- Runnymede 2035 Issues, Options and Preferred Approaches Consultation, Runnymede Borough Council, July 2016
- Surrey Local Transport Plan, Surrey County Council, February 2016
- Census data, Office of National Statistics, 2011
- LTP3 Annex Runnymede Forward Programme, October 2016
- Runnymede Transport Strategy Draft October 2016
- Road Investment Strategy for the 2015/16 – 2019/20 Road Period, DfT
- M25 South West Quadrant Strategic Study: Stage 3 Report, DfT and Highways England
- Franchise Delivery Plan - South West Trains

4.8.3 Furthermore, as part of the INA, consultation with Surrey County Council (SCC) has taken place to confirm the schemes that are being brought forward.

Existing Infrastructure Capacity

Roads

4.8.4 The M25 which is located outside of the borough provides a good connection to the M23/Gatwick Corridor and Heathrow/ M4 corridor but is often congested resulting in increased pressure on surrounding routes within the borough. Junctions 11 (A317/A320) and 12 (M3) are located within the Runnymede. Key local access routes to the motorway network includes the A320 and A317, which often experience high levels of congestion and journey delays at peak periods. Furthermore, Runnymede roundabout, located on the northern boundary of the borough, provides access to the M25 and also experiences very high level of congestion and journey delays at peak times[22].

4.8.5 Despite providing excellent strategic road connections to the rest of South-East and beyond, the two motorways are also important physical severances across the borough dividing it into four distinct sections and creating congestion pinch points at crossing points. Other key pinch points include:

- The A30 (Egham By-Pass);
- A308 Windsor Road/The Causeway; and
- Staines Upon Thames and Chertsey bridges.

Rail

4.8.6 Runnymede is served by six railway stations, namely Egham, Virginia Water and Longcross station located on the Waterloo to Reading line, Chertsey and Addlestone station on the Chertsey Branch Line (both of which form part of the 'Windsor Line') and Byfleet Station located on the South West Main Line (SWML). At present rail travel in Runnymede only represents 8% of all work trips. This mode share for rail is lower than England's average (9%) and Surrey's (15%)[23]. At present Egham has the highest station usage, linked with the high density and important catchment of this station including students of the Royal Holloway University of London. Longcross shows very low usage and frequencies. This situation may evolve with the regeneration of the Longcross site. Key rail challenges include:

- There is a projected 40% increase in passenger demand on the SWML route from 2015 to 2043 and a 37% increase on the Windsor Line.[24]
- Despite the close proximity to Heathrow, no direct link by rail exists between Runnymede and Heathrow, resulting in passengers and staff driving to Heathrow instead of choosing the more convoluted rail route via London Paddington, which adds pressure onto the M25 and M3.

Bus

4.8.7 Eight bus routes operate throughout the borough, serving the settlements of Egham, Englefield Green, Addlestone, Chertsey and Virginia Water and Ottershaw. There are also several school bus services and employer shuttle buses to various stations and the Yellow Bus Transport Scheme which is subsidised through funding from developer funding and sponsorship. Bus or coach travel in Runnymede represents 2% of all work trips, a mode share similar to that of Surrey (3%)[25].

4.8.8 Key challenges for bus-based public transport in Runnymede are identified below:

- A high standard of living across the county, resulting in high level of car ownership therefore limiting the attractiveness of bus based transport

[22] Runnymede's Local Transport Plan (draft October 2016)
[23] ONS - https://www.ons.gov.uk/
[24] South East Market Study October, Network Rail, 2013
[25] ONS - https://www.ons.gov.uk/

- High levels of congestion identified on the local and strategic road networks making journey times unreliable resulting in delays particularly on key routes such as the A30, the A320, the A317 and the B3121
- A lack of bus priority infrastructure on key road corridors
- Limited provision of evening and weekend services
- Limited bus services in rural areas of the borough

Cycling / Walking

4.8.9 The main town centres are well served by a network of footways / key town routes whilst more rural areas such as the western part of the borough have an extensive network of bridleways. However, heavy congestion and narrow roads often leads to a conflict between road users.

4.8.10 The borough is served by the National Cycle Network route four between London and Fishguard, Route 233 between Shoreham-by-Sea (West Sussex) and Chertsey, West London Thames Ride (London to Oxford) and Thames Valley route (Kingston to Staines-upon-Thames). Existing dedicated cycle lanes towards Virginia Water Lake on the A30 and A308 provide good quality cycle links to this major leisure destination within the borough. Other cycle infrastructure includes shared footways/cycleways on key link roads such as the A30, the A320, the A318, Vicarage Road and Stroud Road. The latter infrastructure allows urban areas in Runnymede to be connected by cycle infrastructure. Census 2011 analysis shows that 13% of all work related trips in Runnymede are undertaken by either walking or cycling (broken down respectively 10% and 3% for the latter). This share is higher than that of Surrey (11%) and in line with England's average (14%).[26]

Infrastructure Required to Support Growth

4.8.11 There is one national strategic scheme planned within the borough: the M25 Junction 10 - 16 improvements. This scheme will upgrade the M25 to Smart Motorway between junctions 10 (A3) and 16 (M40), as well as widen Junction 11 at Chertsey to provide at least four lanes on the M25 between J10 to J16. This scheme was committed in the Autumn Statement 2014 with an estimated cost of £100-250 million.

4.8.12 There are two planned schemes which are considered to be of regional importance within Runnymede:

- Runnymede Roundabout, which as set out earlier is a key pinch point on the highways network. A scheme has been identified to improve this roundabout which includes enhancing its overall layout (road re-alignment and additional lanes), providing additional signalling and improved pedestrian and cyclist accessibility to neighbouring areas in order to reduce journey times and accident risk. The scheme will cost £7,225,000 and will be completed in 2018[27].
- The A320 Corridor upgrade from J11 of M25 to Woking Town Centre. The details of the schemes and the timeframe are to be identified by a study. However, the total project cost identified to be £100 million. [28]

4.8.13 Other local planned highways schemes include:

- A317 St Peter's Way- dedicated M25 lane
- Chobham Lane / Burma Road Highway Improvements

[26] ONS - https://www.ons.gov.uk/
[27] https://www.surreycc.gov.uk/roads-and-transport/roads-and-transport-policies-plans-and-consultations/major-transport-projects/runnymede-major-transport-schemes#runnymede
[28] Runnymede 2035 locally Led Garden Villages, Towns and Cities Longcross Garden Village, July 2016 and M3 LEP bid

- High Street Widening and Improvements
- Junction improvements at Station Rd/High St/Church Rd
- Staines upon Thames Bridge Improvements
- Staple Hill / Longcross Road Improvements
- Trumps Green Road / Wellington Avenue junction improvements
- Vicarage Road level crossing

4.8.14 Of the local highways schemes above Chobham Lane / Burma Road Highway Improvements, Staple Hill / Longcross Road Improvements and Trumps Green Road / Wellington Avenue junction improvements have been identified to support the major housing site at Longcross Garden Village (as well as Chobham Lane with Longcross Station Longcross Lane with Lyne Lane as set out below.)

4.8.15 Furthermore, the Strategic Transport Assessment Report (SHAR)[29] has identified a series of junction and link hotspots where mitigation is required to support growth in the borough but no specific schemes or costs have been identified:

Junction Hotspots

- Junction improvements at southbound approach from A317 Chertsey Road, eastbound approach from A317 St Peters Way, westbound approach from A317 Woburn Hill, approach from Addlestone Moor
- A318 Brighton Road/New Haw Road/Liberty Lane/Crockford Park Road
- A320 Chilsey Green Road with Cowley Avenue/Pyrcroft Road
- A320 Staines Road/B388 Thorpe Road/ St Ann's Road/Chilsey Green Road
- B386 Holloway Hill with Hardwick Lane and B386 with St Peter's Hospital access
- St Peter's Hospital roundabout access with A320 Guildford Road
- A30 London Road with A328 St Jude's Road/Bakeham Lane
- Chobham Lane with Longcross Station
- Longcross Lane with Lyne Lane
- A320 Staines Road, B386 Holloway Hill, Pyrcroft Road and A308 Causeway
- B386/Callow Hill/Wellington Avenue

Link Hotspots

- Silverlands Close (St Peter's Hospital)
- A308 Windsor Road
- B386 Longcross Road
- A319 Chobham Road
- A320 Guildford Road
- Wellington Avenue

[29] Runnymede Borough Council Local Plan Strategic Highway Assessment Report, October 2017

Rail

4.8.16 There are two major rail schemes of national significance that fall within Runnymede. Crossrail 2 will connect Surrey to London and Hertfordshire and providing additional capacity on the SWML in its regional option. The cost of this scheme is about £31 billion and is projected to be completed in 2033. Southern Rail Access to Heathrow has been identified by Network Rail to provide direct access to Heathrow from the Wessex route. The scheme will cost in the region of £10 billion and be completed in 2024.[30]

4.8.17 A regionally significant scheme identified within Runnymede is the increase in the number of trains to Egham and Virginia Water to support the planned growth set out in the existing infrastructure section. This scheme will cost £1.5 million and will be implemented post 2018. In order to facilitate the increased service provision there is a planned scheme to close of Egham and Addlestone level crossings. [31]

4.8.18 To support the planned growth at Longcross Garden Village increased frequency of the service and station enhancements are planned at Longcross which will cost £1.5 million and will be implemented between 2018 and 2024. This will be supported by the provision of real time information at the station.[32]

4.8.19 Feltham re-signalling will give the opportunity for potential future 12-car operation on the network, facilitating a turnback facility at Virginia Water station[33]. Platform lengthening is planned at Addlestone station between 2017 and 2021 to enable 10 car trains and accommodate growth in the borough.

Bus

4.8.20 There are several significant local bus schemes that are planned in Runnymede to support growth:

- Egham Sustainable Transport Package phase two: a multi-modal scheme including walking, cycling and bus improvements to local, education and leisure based movements. Bus related schemes in this package include priority measures and bus corridor improvements. Funding for this scheme has been secured from the LEP[34].
- Wider Staines Quality Bus Corridor Improvements which is funded by the LGF (£4.3M) to improve bus reliability, passenger information and waiting facilities on the bus corridor used by several bus routes between Runnymede and Staines[35].
- Runnymede-wide Yellow Bus Service: scheme to ensure the continuation in time of this service across the borough. Estimated cost of £354,900 per year currently funded by fares, private sponsors, Section 106 funding with the shortfall being made up by the borough[36].
- Longcross Garden Village Shuttle bus service: developer funded scheme providing an internal shuttle bus service to serve and connect the different parts of the major development site at Longcross Garden Village, as well as to provide a link with the

[30] https://www.ft.com/content/a1257c0a-a4f2-11e7-b797-b61809486fe2
[31] Franchise Delivery Plan - South West Trains
[32] Section 106 agreement for Land at Longcross North (i.e. The Former DERA Site Chobham Lane, Longcross, Surrey KT16 0EE
[33] Wessex Route Study, Network Rail, August 2015
[34] https://mycouncil.surreycc.gov.uk/documents/s36680/Runnymede%20LC%20Major%20Schemes%20TABLED%20130317.pdf

[35] https://www.surreycc.gov.uk/__data/assets/pdf_file/0020/104870/E-and-I-Staines-STP-v1-approved_Nov16.pdf

[36] https://www.runnymede.gov.uk/article/5608/The-Yellow-Bus-Service and RBC

station[37].

4.8.21 A series of junction improvements, bus infrastructure and the provision of bus priority are planned at various locations throughout the borough to support the increase in patronage associated with the planned growth.

Active Travel

4.8.22 To improve the existing walking and cycling networks across the borough in both rural and urban areas, the following schemes have been identified:

- Egham Sustainable Transport Package phase two which includes a crossing over the A30 for pedestrians walking from Egham town centre to the Meadows, footway widening along the A308 The Causeway / The Glanty, raised tables at The Causeway / Hawthorn Road / Claremont Road / Avenue, improved safety for pedestrians and cyclists near Woodhaw Roundabout with provision of new toucan crossing, off road cycle routes on the A308 The Causeway, improved walking and cycling connectivity and accessibility between Egham station and the Town centre, and a cycle hire scheme at Egham Station. This scheme will be delivered post 2018 and will cost £5 million[38];
- Bridge Road / Weir Road junction, Chertsey: capacity and pedestrian improvements which will be completed in 2017;
- Chobham Lane to Kitsmead Lane provision of a cycle link to support planned growth at Longcross Village. This scheme will be delivered post 2018;
- Creation of two multi user routes - A320 through Homewood Park to Stonehill Road and the northern boundary of Longcross Garden Village;
- Remove two existing pedestrian bridges and install three new pedestrian and cyclist crossings on the A30 London Road;
- The development of borough wide station travel plans;
- Improvements to River Bourne cycle path (where it crosses Chertsey Bridge). This is part of the national cycle route four;
- Wider Staines transport package which includes several pedestrian and cycling infrastructure improvements. This will be delivered by 2020 and will cost £4.3 million[39].

Review of Planned Capacity against Future Demand

4.8.23 The planned scheme list was developed using the base of INA and then consolidated through a Stakeholder workshop held on 31st October 2017 including RBC, South West Trains, Surrey County Council, Highways England, Surrey Heath Borough Council, Spelthorne Borough Council and M3 LEP. This list with the stakeholder inputs was then refined by RBC and has been utilised in this report.

4.8.24 At this stage there is not enough information to determine the infrastructure capacity of the schemes against AECOM calculated future demand. However it is anticipated that based on the level of growth and the challenges set out in the previous sections there will be some level of constraints experienced by each mode's network. To determine the levels of capacity and exactly where the constraints lie detailed modelling would be required.

[37] Section 106 agreement for Land at Longcross North (i.e. The Former DERA Site Chobham Lane, Longcross, Surrey KT16 0EE

[38] https://mycouncil.surreycc.gov.uk/documents/s36680/Runnymede%20LC%20Major%20Schemes%20TABLED%20130317.pdf

[39] https://www.surreycc.gov.uk/__data/assets/pdf_file/0020/104870/E-and-I-Staines-STP-v1-approved_Nov16.pdf

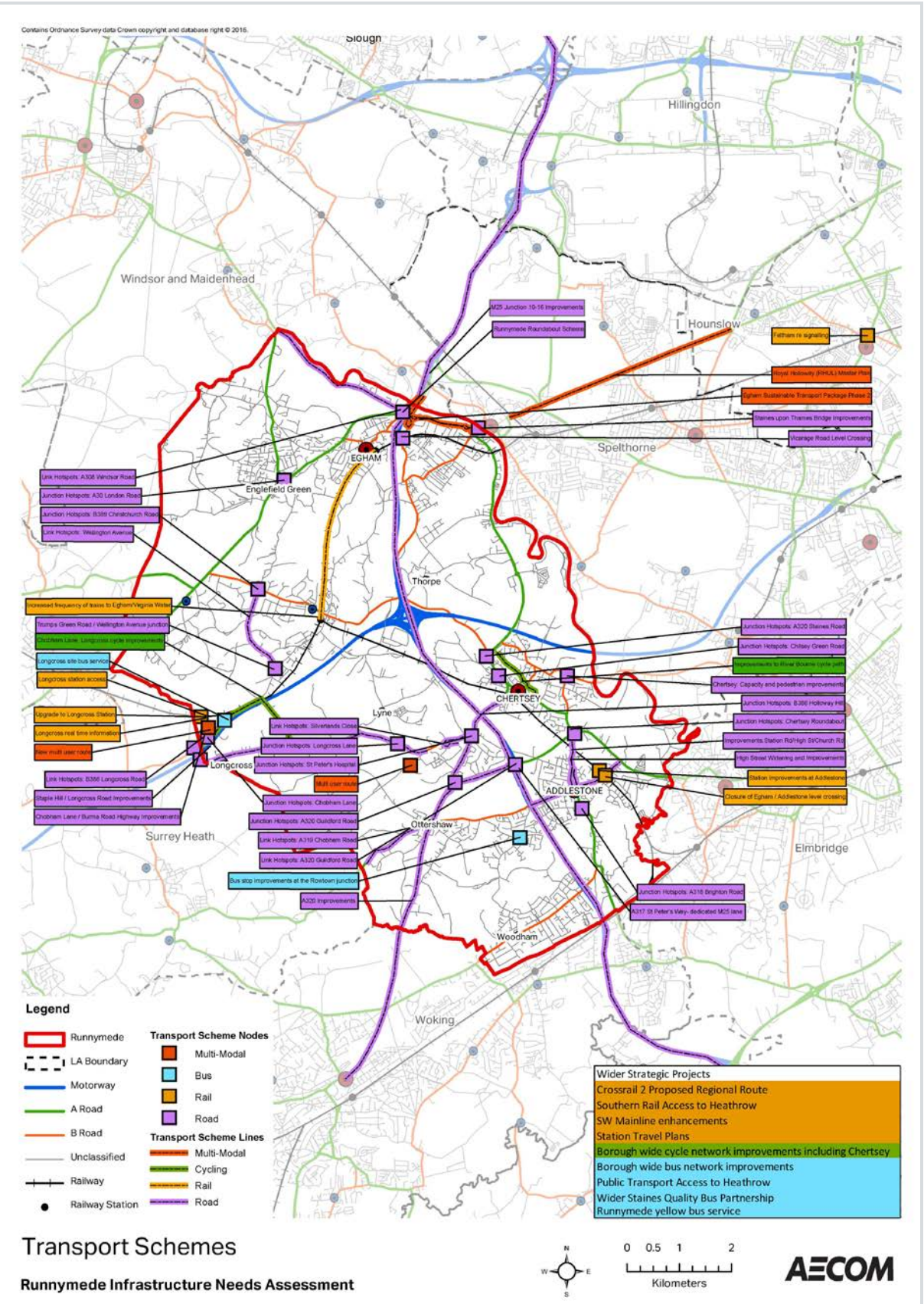

Figure 19. Planned Transport Schemes

4.9 Utilities

Existing Infrastructure Capacity

Electricity

4.9.1 Runnymede lies on the boundary of two main Regional Energy Distributors - UK Power Networks (UKPN) and Scottish and Southern Electricity Networks (SSE) - and is served by both. These are responsible for the network of power lines, underground cables, and substations.

4.9.2 UKPN's South Eastern Power Networks PLC (SPN) electricity network, covering the Surrey area, is supplied from three GSPs that have an aggregate demand of 759.9MW (Winter-W) and 519MW (Summer-S) across 10 132kV substations and 34 33kV primary substations. The GSPs that are in the vicinity of Runnymede Borough are the following:

- Chessington 275/132kV
- Laleham 275/132kV
- West Weybridge 275/132kV

4.9.3 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. According to the UKPN's most recent LTDS, SPN Plc's network is a mature and stable power system successfully supplying the needs of 2.3m customers.

4.9.4 SSE's Southern Electric Power Distribution Plc (SEPD) Long Term Development Statement (LTDS) May 2016 covers the period 2015/16 - 2019/20 and assesses opportunities available to make new or additional use of the distribution system for existing and prospective users. SEPD serve just over three million customers in the south of England with 78,000 km of overhead and underground network cables as stated in their Distribution Business Plan Commitment Report 2015/16.

4.9.5 The most recent SSE LTDS states that there are constraint areas for accepting new generation or load, as well as background fault levels at most voltages being generally high. The addition of generation to the network impacts the system fault levels, which means that network reinforcement works are necessary to continue to support connections. This must be properly monitored and controlled to avoid system overload. To ensure that the distribution system has adequate capacity to meet system demand, voltage and current flows are constantly monitored and where shortfalls in network capacity are identified, reinforcements or alternative solutions are planned accordingly.

Gas

4.9.6 Gas is transmitted through a National Transmission System (NTS) managed by National Grid, from where it is then supplied to towns through Local Distribution Zones (LDZ). National Grid covers the overall UK supply position and security of supply assessment in detail for the NTS within its 10-year statement.

4.9.7 SGN manages a gas network that distributes natural and green gas to 5.9m homes and businesses across parts of south of England and Scotland. According to SGN's LTDS 2016 - 2025, the UK primary energy consumption has reflected the economic levels of growth of the UK economy over the last few years. Commercial and industrial demand drivers include the Climate Change Levy (CCL), Carbon Reduction Commitment, generation through renewable sources, combined heat and power capacity, and the EU emissions trading scheme.

4.9.8 The annual gas demand forecast is based on gas prices, environmental legislation and government energy policy, and levels of household growth. There is an expected UK supply capacity surplus that is forecast to be sustained over the period of the LTDS. The LTDS outlines the following factors as the main causes for this:

- Lingering impact of the economic recession
- Changes in gas consumption by customers as a result of energy efficiency improvements
- Introduction of government targets for renewable energy
- Policies to decarbonise the energy economy
- Growing low-carbon economy
- Smart metering.

Potable Water

4.9.9 Affinity Water is responsible for potable water in Runnymede Borough. Affinity Water has a Water Resource Management Plan (WRMP) that covers the period from 2015 to 2040 with strategies in place that define how they will meet customer demand over the next 25 years. The potential increase in demand from new development must be accommodated and the existing supply of water must be managed whilst accounting for future changes due to climate change. Affinity Water's base population has reached 3.6m customers and is projected to increase by 17% by 2040 according to the WRMP with an associated increase in demand for water. WRMPs are updated every 5 years with the current review being completed in 2014.

4.9.10 Runnymede falls within the Affinity Water central region in Water Resource Zone 6 (Wey). This region provides water to north London, parts of Essex, Hertfordshire, Buckinghamshire, and a small part of Surrey, making up a population of 3.2m. Affinity's central region abstracts 60% of its water supply from groundwater sources with boreholes abstracting from chalk and gravel aquifers, and 40% from surface water sources and imports from neighbouring water companies including Thames Water, Anglian Water, and Cambridge Water. Some water is exported to South East Water and Cambridge Water. Affinity has a well-connected network in place that is made more resilient as a result of a number of connections with neighbouring water companies as well as the capacity to transfer water between zones to permit operational flexibility.

4.9.11 The Environment Agency (EA) sets limits on water companies to restrict the amount of water that can be abstracted from certain water sources during certain months of the year at certain flow conditions. These are called 'sustainability reductions' and are notified by the EA when there is a potential risk that current levels of abstraction can have adverse impacts on the water course's flow condition. Sustainability reductions are the biggest challenge in Affinity Water's water resource planning. For all of Affinity Water's supply area, the EA has issued a list of 'confirmed' and 'likely' reductions of almost 70 Ml/d from the existing groundwater sources under average conditions (over 6% of available deployable output). The WRMP identifies that there are supply / demand deficits in five of the eight water resource zones at the beginning of the planning period. With planned sustainability reductions, the total deficit across all WRZs is 170.04 Ml/d. This means that without further consideration, there would not be sufficient water for the whole of the 25-year planning period to meet customers' need.

4.9.12 Figure 20 below shows the supply / demand balance assuming no intervention measures are implemented, where:

- Demand = distribution input + target headroom; and
- Supply = water available for use – sustainability reductions.

4.9.13 The supply / demand balance is calculated by:

- Deployable output (DO)
- minus climate change impacts
- minus sustainability reductions (SR)
- minus outage and process losses (water available for use, WAFU)
- minus water demand (distribution input, DI)
- minus target headroom (THR)

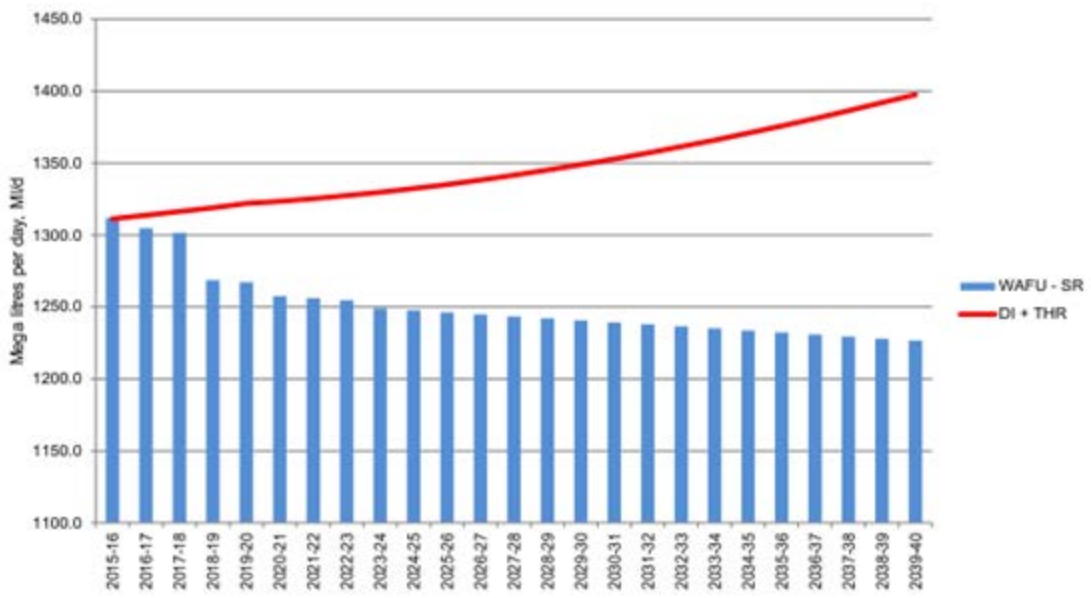

Figure 20. Supply / Demand Balance with No Intervention

4.9.14 The table below summarizes the baseline supply / demand balance for WRZ 6 for the duration of the planning period.

Table 49. Surplus or Deficit available in WRZ 6

Year	DYAA (average)	DYCP (peak)
2015	Deficit 0-1 Ml/d	Surplus 1-10 Ml/d
2020	Deficit 1-10 Ml/d	Surplus 1-10 Ml/d
2040	Deficit > 10 Ml/d	Deficit > 10 Ml/d

DYAA = Dry Year Annual Average / DYCP = Dry Year Critical Period

Wastewater

4.9.15 Thames Water is the statutory undertaker for wastewater drainage in Runnymede. While they are a private company, they are also responsible for dealing with flooding from the public foul and surface water sewer network. Thames Water removes and treats more than 4 billion litres of sewage for 15m customers in areas in and around London and the Thames Valley.

4.9.16 The European EA provides data on Urban Waste Water Treatment Plants across Europe. Figure 21 is based on this data to show the Waste Water Treatment Plants within Runnymede Borough. Sewage catchments do not follow authority boundaries, so some wastewater originating from Runnymede may be served by other Treatment Works that are outside the Borough. The two works identified within the Borough currently have sufficient capacity to treat the entering load.

4.9.17 Recent upgrades to the Chertsey Sewage Treatment Works occurred in 2011 with the construction of a new sludge dewatering plant and in 2002 with improvements to the activated sludge plant, to improve treatment quality and meet growing demand. According to the IDP 2013 for Runnymede, Thames Water invested a further £9M between 2010-2015 in the Chertsey Sewerage Works for improvements. Detailed information about the Weybridge Works is not publicly available but it is likely that similar upgrades have taken place to meet the increasing volumes.

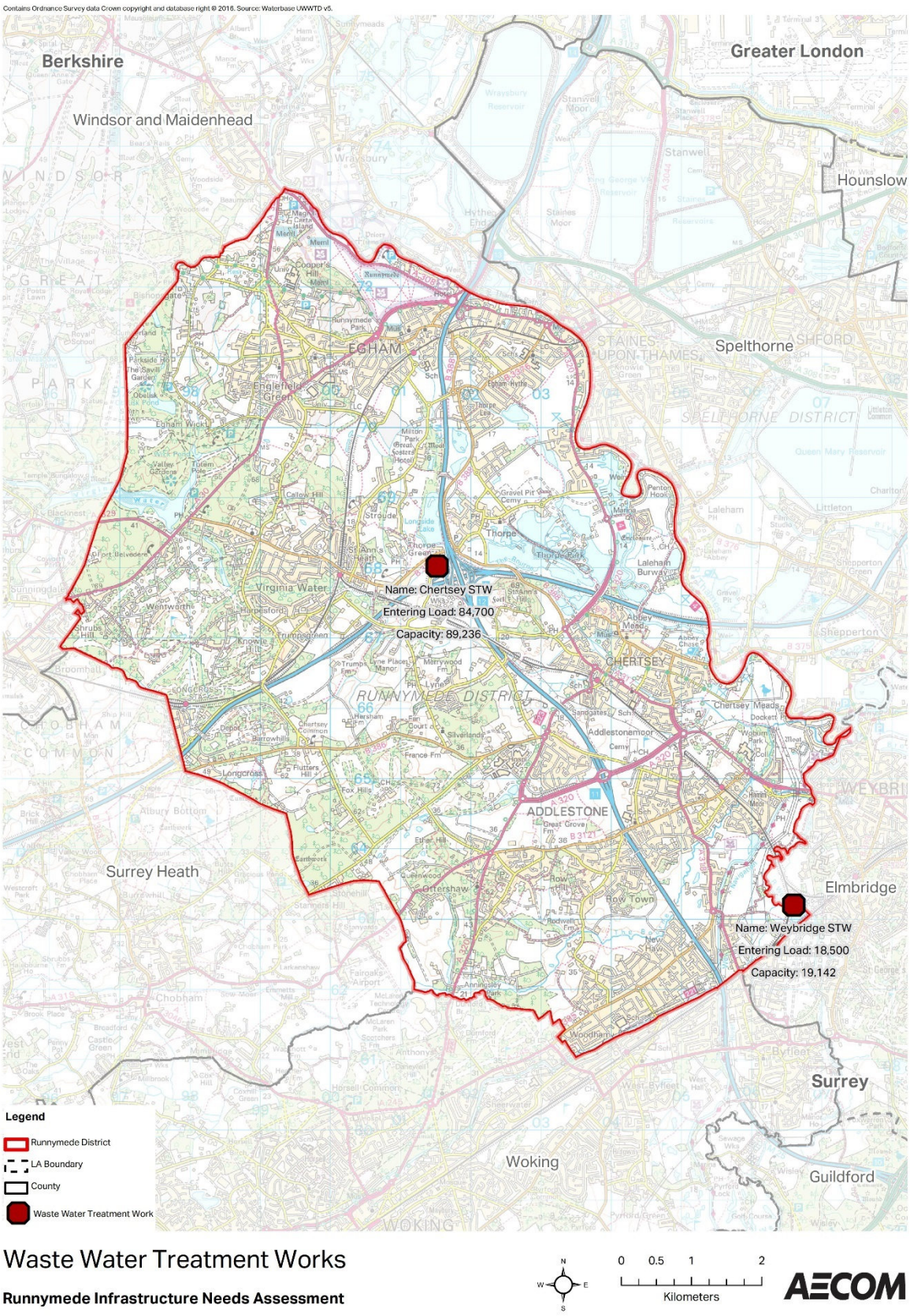

Figure 21. Wastewater Treatment Works within RBC (data from European Environment Agency)

Renewable Energy

4.9.18 RBC is involved in promoting the sustainable use of resources to tackle the causes and effects of climate change, encouraging among other things renewable energy provision as highlighted in the Runnymede Corporate Business Plan 2016-2020 (RBC 2015).

4.9.19 It is a corporate priority in Runnymede to take opportunities to make the local environment more sustainable (Corporate Business Plan 2012-2016), with a key associated objective to increase awareness of energy efficiency opportunities through a range of means by 2016/17.

4.9.20 There are a number of renewable energy facilities in and around Runnymede Borough. All renewable energy facilities in the country are collated in a public database, from which the map in Figure 22 below was created.

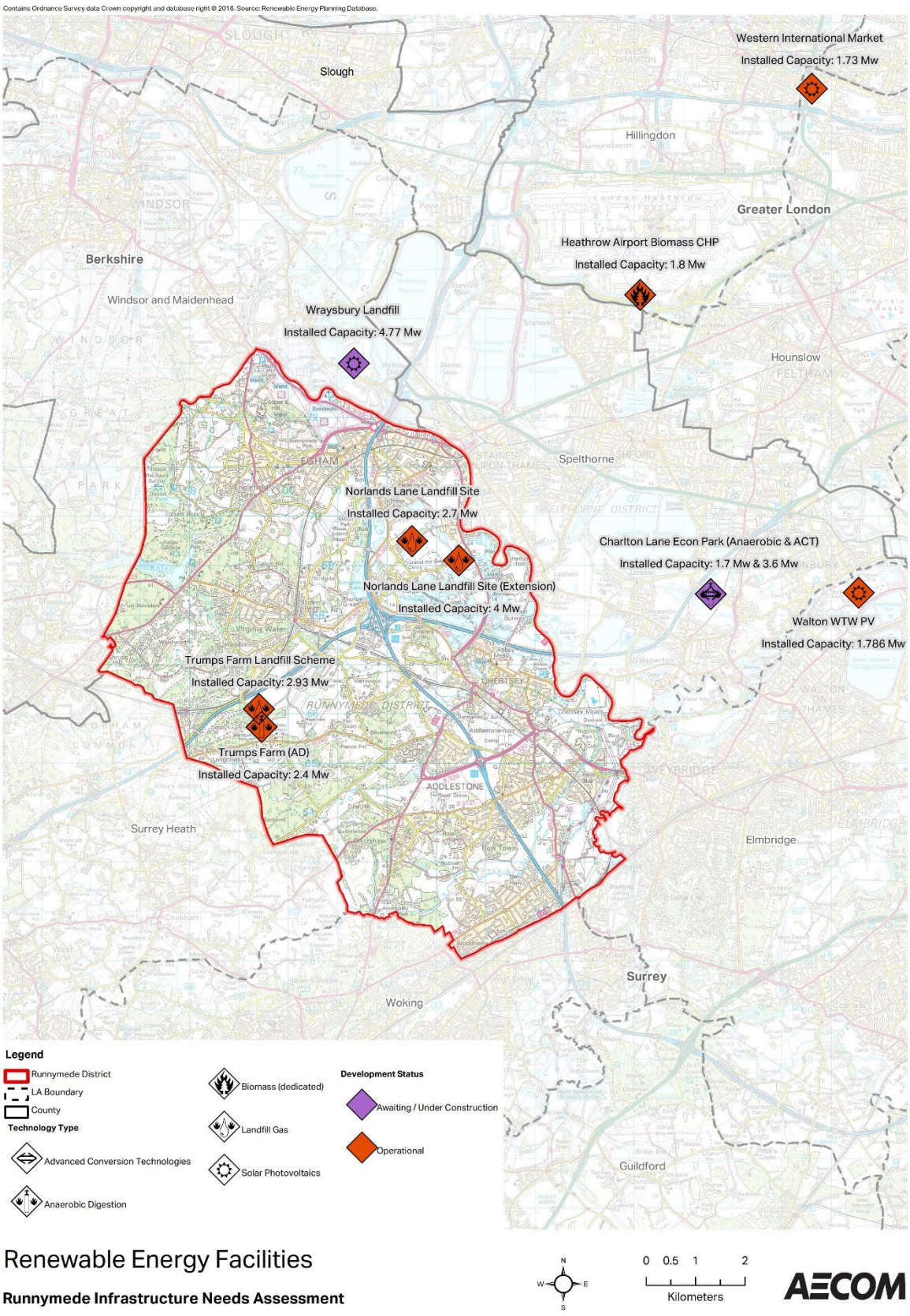

Figure 22. Renewable Energy Facilities in and around RBC (data from Renewable Energy Planning Database

4.9.21 The Borough's website describes a number of projects and requirements in place that are promoting renewable energy use or reducing standard energy use.

4.9.22 The renewable energy sites in and around Runnymede are described in more detail in the tables below.

Table 50. Renewable Energy Facilities in Runnymede

Technology Type	Site Name	Installed Capacity (MWelec)	Operator	Site Address	Development Status
Anaerobic Digestion	Trumps Farm	2.4	Agrivert	Longcross, Chertsey	Operational
Landfill Gas	Norlands Lane Landfill Site	2.7	Thames Waste Management Ltd	Norlands Lane, Thorpe, Egham	Operational
Landfill Gas	Trumps Farm Landfill Scheme	2.9	Renewable Power Systems	Kitsmead Lane, Longcross, Chertsey	Operational
Landfill Gas	Norlands Lane Landfill Site (Extention)	4.0	Thames Waste Management Ltd	Norlands Lane, Thorpe, Egham	Operational

Source: Renewable Energy Planning Database Sep 2016 https://www.gov.uk/government/collections/renewable-energy-planning-data)

Table 51. Renewable Energy Facilities near Runnymede

Technology Type	Site Name	Installed Capacity (MWelec)	Operator	Site Address	Development Status
Anaerobic Digestion	Charlton Eco Park	1.7	Surrey County Council	Charlton Lane Waste Management Facility, Charlton Lane, Shepperton	Under Construction
Advanced Conversion Technologies	Charlton Lane Eco Park (ACT)	3.6	SITA UK	Charlton Lane Waste Managment Facility , Charlton Lane, Shepperton	Awaiting Construction (Planning Permission Granted)
Solar Photovoltaics	Walton WTW PV	1.8	Thames Water	Walton Water Treatment Works, Hurst Road, Walton On Thames	Operational
Solar Photovoltaics (Floating)	London's Queen Elizabeth II reservoir	6.3	Lightsource Renewable Energy	London's Queen Elizabeth II reservoir, Walton-on Thames	Operational

Source: Renewable Energy Planning Database Sep 2016 https://www.gov.uk/government/collections/renewable-energy-planning-data)

Broadband

4.9.23 The Superfast Surrey September 2016 Newsletter provides updates on the status of broadband connectivity in Surrey and information about subsidy and community funded initiatives. Surrey County Council (SCC) has signed a contract with BT to deliver fibre broadband infrastructure to those homes and business in Surrey that were determined not to be benefitting from commercial rollouts, known as the Superfast Surrey Programme. The Superfast Surrey Programme is funded through SCC, BT, and Broadband Delivery UK (BDUK) and has allowed more than 86,000 premises to now be covered by the fibre broadband network. The programme alongside commercial rollouts has enabled 96% of all Surrey residents to access fibre download speeds of 15mbps or above.

4.9.24 The project is expected to have a positive impact on the economic and social development of Surrey; an economic benefit of more than £30M every year, according to a World Bank estimate based on GDP.

4.9.25 Approximately 20,000 premises in Surrey are still unable to obtain a Next Generation Access (NGA) download speed of 15Mbps or more, of which 15,300 are not included in any further commercial rollout plans. The main reason for this is long telephone lines between the upgraded cabinet and the property. Some telephone cabinets and other structures serving premises in Surrey have not yet been upgraded to the fibre network due to engineering complexity or associated high cost.

Infrastructure Required to Support Growth

Electricity

UK South Eastern Power Networks

4.9.26 To allow for the increasing power demand due to population growth, UKPN is involved in both reinforcement and demand side response measures. In Runnymede specifically, the LTDS describes three reinforcements and asset replacement projects planned until 2023 with a funded investment of £2,959,205.

4.9.27 SPN Plc has development proposals for reinforcement, switchgear upgrading, and new substation construction in place for 18 sites across the entire network that are anticipated to be in progress during 2016-2019. The following developments are underway or planned in the National Grid Connection points relevant to Surrey / Runnymede area:

- Brookwood 11kV – Reinforcement & ITC (2014-2017)
- Chertsey 11kV – ITC (2015-2018)
- Weybridge 11kV – ITC (2015-2016)
- West Weybridge 33kV – Reinforcement (2015-2017)
- Byfleet 132kV – Reinforcement (2016-2017)

4.9.28 These developments will provide an increase in network capacity or demand side response. Apart from these projects, assets are under constant review and maintenance to ensure supply to customers. Looking forward, the LTDS states that they are happy to consider alternative proposals that achieve net load reductions if they can be implemented in a cost effective, safe, and environmentally friendly manner.

Scottish and Southern Energy

4.9.29 The LTDS describes SEPD's understanding of the growth within the generation area, and their responsibility to provide information and support to potential distributed generation customers and operators wishing to connect to their network. They are also supporting the government's push for greener energy generation and attractive feed-in-tariffs. Going forward, SEPD will work together with new developers to produce the best possible connection package for optimum benefit.

4.9.30 To deal with growing demand, SEPD is also undertaking / planning network developments. The table below shows the developments proposed in the period 2016-2018, and although not all in Runnymede Borough, the works will strengthen and affect the whole network. See Table 52 for details.

Table 52. Network Development Proposals

Name	Purpose	Estimated Completion
Dorchester Town System Reinforcement	Increase Capacity	Jul 2017
Salisbury Central 33/11 kV Installation of 3rd Transformer	Increase Capacity	Jul 2016
Canal Bank 66/11kV System Reinforcement	Increase Capacity	Jul 2018
Cowley – Headington – Yarnton – Witney 132 kV Network Substation and Supply to Bicester and Surrounding Areas	Increase Capacity	Jul 2019
Maybush to Shirley System Reinforcement	Increase Capacity	Jul 2016
Cowes to Wootton 132kV System Reinforcement	Increase Capacity	Dec 2016
Velmore Bishopstoke Hedge End System Reinforcement	Increase Capacity	Mar 2018
Cirencester – Fairford System Reinforcement	Increase Capacity	Sep 2017
Wymering 33kV Switchgear Replacement	Network Security	Sep 2016
Fleet – Coxmoor Wood 132 kV Circuit Reinforcement	Network Security	Mar 2017
Kingsclere 11 kV Switchgear Replacement	Network Security	Jul 2016
Hayes 11 kV Switchgear Replacement	Network Security	Jul 2017

Source: SEPD LTDS 2016

Gas

4.9.31 Regardless of the forecast reduction in demand and the resulting expected surplus, SGN is required to invest in major projects to meet the demand of existing and new customers to ensure safe and high quality supply to new developments.

4.9.32 SGN is also looking for alternative ways to improve energy supply and reduce the cost of gas for customers to promote environmentally friendly measures. For example:

- Full roll-out of smart meters, which are an effective means to reduce domestic energy demand, planned for the end of 2020.

- Undertaking trials to show that widening the regulations of gasses allowable for import into the UK would still provide a clean, secure, and affordable source of gas. This is still underway, but could demonstrate that using gas from a wider set of sources without expensive processing can still be used for safe and efficient transport and use of gas.

4.9.33 National Grid Gas Distribution Limited's Network Strategy Team has performed a high-level capacity analysis on their network based on key proposed development schemes in Runnymede Borough. Their results are presented in Table 53.

Table 53. High-Level Capacity Analysis based on key development schemes in Runnymede

Site Name	Pressure	Phasing Period	Capacity Available	Reinforcement Required
Hanworth Lane	LP	2016/17 – 2020/21	YES	NO
Chilsey Green Farm	Not available	2021/22 – 2025/26	Not available	Not available
DERA Site South	LP	2016/17 – 2030/31	NO	YES
Egham Gateway 1	LP	2016/17 – 2020/21	YES	NO
Chertsey Broad Location	LP	2016/17 – 2020/21	NO	YES
Egham Gateway 2	LP	2021/22 – 2025/26	YES	NO
Parcel B, Veterinary Laboratory Site	LP	2021/22 – 2025/26	NO	YES
Parcel A, Chertsey Bittams	LP	2016/17 – 2020/21	YES	NO
Parcel B, Chertsey Bittams	LP	2026/27 – 2030/31	NO	YES
Parcel C, Chertsey Bittams	LP	2026/27 – 2030/31	YES	NO
Parcel D, Chertsey Bittams	LP	2016/17 – 2020/21	NO	YES
Parcel E, Chertsey Bittams	LP	2016/17 – 2020/21	NO	YES
Thorpe Lea Road North	LP	2026/27 – 2030/31	YES	NO
Thorpe Lea Road West	LP	2021/22 – 2025/26	YES	NO
Merlewood, Virginia Water North	LP	2021/22 – 2025/26	YES	NO
Kenwolde, Virginia Water North	LP	2026/27 – 2030/31	YES	NO
Gorse Hill House, Virginia Water North	LP	2026/27 – 2030/31	YES	NO
Virginia Water South	LP	2021/22 – 2025/26	NO	YES
Ottershaw East	LP	2026/27 – 2030/31	NO	YES
Addlestone Broad Location	LP	2021/22 – 2025/26	YES	NO

Source: Correspondence with Network Strategy - Planning Team, National Grid Gas Distribution Limited

4.9.34 This high level analysis shows that regardless of the forecast reduction in demand nation-wide, a number of the proposed key development schemes in Runnymede cause a deficit in available supply and require reinforcement. It has been noted in correspondence with National Grid Gas Distribution that as *"the gas networks are dynamic, the capacity stated is available today; may not be available when the official connections requests are received, meaning reinforcements may still be required".*

4.9.35 National Grid is committed to invest in network upgrades to meet the demand of existing and new customers to ensure safe and high quality supply to new developments. This involves promoting sustainable gas connections.

4.9.36 RIIO-GD1 is the price control determined by Ofgem that sets out the outputs that the UK's gas distribution companies must deliver for the 8 year period from 2013 to 2021. As part of this, Ofgem has introduced Network Innovation Allowance (NIA) and Network Innovation Competitions (NICs), where network companies compete for funding for research, development and trialling new technologies, operating and commercial arrangements. This will ensure all distribution companies are active in providing environmental benefits and security of supply at value for money to their customers as the UK moves towards a low carbon economy.

4.9.37 National Grid is aiming to facilitate new connections to the gas distribution network that will enable biomethane producers to inject their renewable gas into the pipeline and grid network. The addition of biomethane into the grid will help the UK minimise its carbon footprint and avert from unsustainable fossil fuels. Biomethane provides a sustainable, flexible and economic solution that could provide a significant contribution to the UK's heat demand by 2050. By supporting this, National Grid is involved in increasing the security and diversity of energy supplies into the UK market. They have further helped develop the industry by:

- Supporting the government and convincing them of the long term need for gas used as heating
- Responding on the consultation regarding the Renewable Heating Incentive (RHI)
- Reducing costs through policy evolution
- Driving innovation by working closely with customers to trial new ways of working
- Removing barriers and obstacles to make connecting to the grid easier

4.9.38 In collaboration with the other networks and the Energy Networks Association, National Grid has developed the 2050 Energy Scenarios report, which shows a range of plausible pathways for the future of energy from today until 2050. To ensure the 2050 energy system is sustainable and affordable, National Grid must continue to gain funding for innovation projects such as the development of the BioSNG Plant in Swindon and undertake testing for new renewable technologies. Together with Southern Gas Networks and Wales & West Utilities, National Grid is involved in investigating the effects of and potential obstacles to introducing new sources of gas such as biomethane, shale and coal bed methane into the UK distribution network. This would increase the security of supply for customers looking forward.

4.9.39 In Our Innovation Strategy – RIIO GD1, National Grid Gas Distribution (April 2012), National Grid outline possible large-scale innovation projects, some of which, for example the Bio-SNG Production, have received funding and are already underway:

Table 54. Possible Large-Scale Projects

Possible Project	Output Commitment
Optimisation of Gas Smart Grids	Dynamic fuel switching to manage heating in the most efficient and economical way
CNG / LNG Refuelling Network	Review potential of establishing a national / regional network of fuelling stations open to the public for refuelling with CNG and LNG as well as other fuelling options for other market users such as Hydrogen vehicles.
Gasification / Bio-SNG Production and Distribution	Develop the process of converting waste material into grid quality gas.
Hydrogen Injection / Enrichment	Assess concept feasibility and economic analysis of hydrogen injection directly into the gas network.

Source: Our Innovation Strategy - RIIO GD1, National Grid Gas Distribution (April 2012)

4.9.40 In addition, National Grid Distribution has identified five innovation themes and projects within these they plan to progress during the RIIO-GD1 period. The relevant themes and the corresponding output commitments set for the RIIO-GD1 period are listed in Table 55.

Table 55. Innovation Themes and Output Commitments

Innovation Theme	Output Commitment
Efficient and Safe Work Delivery and Removal of Risk / Transition to Low Carbon Economy & Minimise Environmental Impact	Reduce risk of iron mains by 55% and deliver customer benefit through the mains replacement programme
	Minimise impact that operations have on the environment reducing leakage by 1% and Business Carbon Footprint Emissions by 20%
Asset Condition and Network Optimisation	Maintain the performance of key operational assets such as the accuracy of our offtake meter errors and timely response to asset faults
Enhanced Industry Frameworks and Commercial Services	Lead in shaping future energy policy and facilitate sustainable gas resources to connect to the network

Source: Our Innovation Strategy – RIIO GD1, National Grid Gas Distribution (April 2012)

Potable Water

4.9.41 Affinity Water has an overall strategy of leakage reduction, universal metering coupled with enhanced water efficiency activities, and making best use of their existing supplies and sharing resources with other water companies in South East England. To deal with increasing demand, new developments are governed by legislation that requires developers to build water efficient properties such that occupants use a maximum of 125 litres per person per day.

4.9.42 Affinity Water has a preferred plan, which calls for measures to aid the demand / supply deficits in the immediate 5 years 2015-2020 for their whole supply area. The population is projected to grow by 15% within the Wey WRZ. Affinity Water is implementing and/or planning measures to ensure this growing demand can be met as well as fulfilling the sustainability reductions throughout the planning period to 2040, as set out in the WRMP. The measures planned for the Wey WRZ are outlined in Table 56 below.

Table 56. Schemes Selected in Wey WRZ

Option Type	Option Description	Delivery Year
Leakage	Leakage reduction through increased Active Leakage Control (ALC) – 2.23 Ml/d during 2015-40	2015
Water Efficiency	Water audits commercials (non-process & process)	2020
Metering	Community integrated Automated Water Reading (AMR) &	2024

	water efficiency	
Water Efficiency	Additional Water Efficiency for households	2033
Leakage	Pressure management with new Pressure Reducing Valves (PRVs)	2035
Water Efficiency	Dual flush WCs for households	2035
Supply	Increased import from Thames Water	2036
Supply	Local Source Recommissioning	2038

Source: Affinity Water, WRMP 2014

4.9.43 These measures coupled with measures throughout the other seven WRZs will impact the supply / demand balance positively. The figure below shows the demand falling during the first 10 years of the planning period as a result of metering and water efficiency programmes, after which it increases alongside population growth.

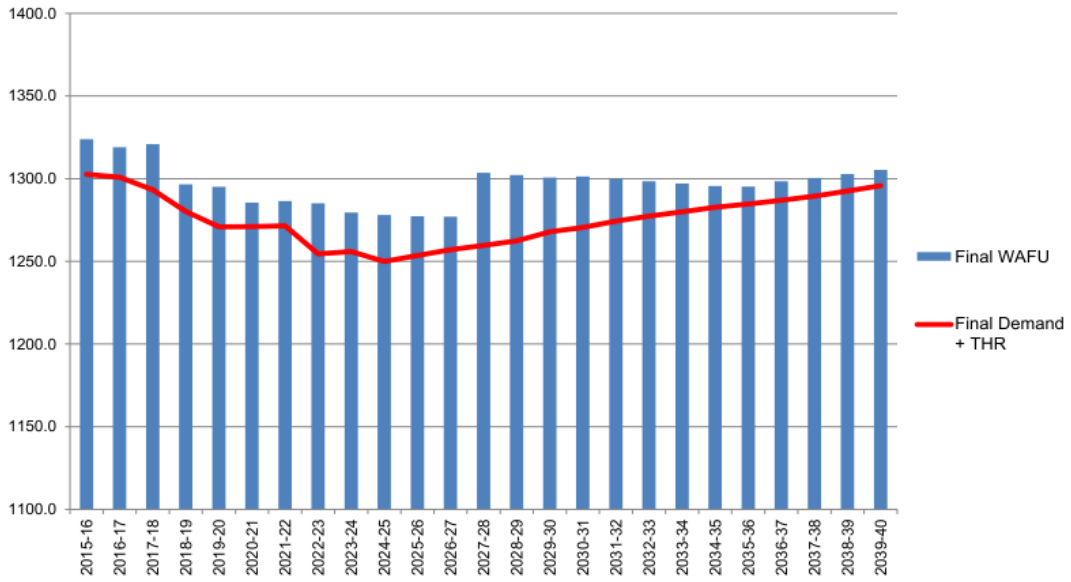

Figure 23. Supply / demand balance with Affinity Water's Preferred Plan Implemented

Source: Affinity Water WRMP, 2014

4.9.44 Affinity Water will have to make future investment in projects like these and in other water saving measures in order to reduce environmentally unsustainable water abstractions, combat climate change and allow for future growth. The shortfall in deployable output is expected to be mitigated by reductions in leakage and demand management, however further future investment will be required to achieve the positive supply / demand balance in the figure above.

4.9.45 Affinity Water has provided a high-level capacity check for some of the proposed developments identified as site allocations by RBC to identify whether reinforcement works will be required to ensure supply. The sites have been split into four main areas and network performance assessed for a) current demand and b) future demand, including future developments both in Affinity Water records and the preliminary list of allocated sites provided to them.

4.9.46 Proposed reinforcements will aim to recover the current level of service and the loss of capacity in the network due to the additional load. Each developer will contribute to the required reinforcements depending on the relative impact on the network. Results are summarized in the table below.

Table 57. Summary of Affinity Water potable water demand / supply simulation

Area	Sites	Estimated demand increase	Simulation results
1	Egham Gateway 1 Egham Gateway 2 Merlewood, Virginia Water North Kenwolde, Virginia Water North Gorse Hill House, Virginia Water North	Sunningdale Village 0.07 Ml/d Egham Town 0.05 Ml/d	Major reinforcements in the network in the Sunningdale Village area will be required when all future developments are taken into account due to pressure drop at critical points.
2	Hanworth Lane Chilsey Green Farm DERA Site South Chertsey Broad Location Parcel B, Veterinary Lab Site Parcel A, Chertsey Bittams Parcel B, Chertsey Bittams Parcel C, Chertsey Bittams Parcel D, Chertsey Bittams Parcel E, Chertsey Bittams Virginia Water South Ottershaw East	Parcel A,B,C,D,E Chertsey Bittams 0.645 Ml/d Chertsey Broad Location 0.130 Ml/d Chilsey Green Farm 0.130 Ml/d DERA Site South 2.127 Ml/d Hanworth Lane 0.127 Ml/d Ottershaw East 0.178 Ml/d Parcel B, Veterinary Lab 0.136 Ml/d Virginia Water South 0.139 Ml/d	Major reinforcements in the network in the area will be required when all future developments are taken into account due to pressure drop at critical points.
3	Thorpe Lea Road North Thorpe Lea Road West	Thorpe Lea Road North 0.065 Ml/d Thorpe Lea Road West 0.124 Ml/d	Major reinforcements in the network in the Thorpe Lea Road area will be required when all future developments are taken into account due to pressure drop at critical points.
4	Addlestone Broad Location	Station Road, Addlestone 0.05 Ml/d	Major reinforcements in the network in the Station Road, Addlestone area will be required when all future developments are taken into account due to pressure drop at critical points.

Wastewater

4.9.47 There is no Water Cycle Study or similar document available for Surrey or the South East of England. As Thames Water is the undertaker for sewage in Runnymede, its plans for the future will affect the Borough. Thames Water has a five-year plan 2015-20 and a Sustainable Future Plan for the next 25 years outlining how they intend to maintain and improve wastewater services and achieve the targets agreed with Ofwat (the Water Services Regulation Authority). The population in Thames Water's wastewater area is forecast to rise from 15m to 16m by 2040. Additionally, climate change will cause additional strains on the system. The figure below taken from their sustainability plan shows how climate change will impact the business. In Runnymede Borough, Thames Water is responsible for the 'Wastewater to sewer', 'Wastewater treatment', and 'effluent discharge' parts of the diagram.

Figure 24. Climate change impacts on Thames Water Business

Source: Thames Water Sustainable Future Plan

4.9.48 Some measures Thames Water intends to implement to mitigate the future pressures on pipes, treatment works, and the natural environment to move towards long-term resilience are:

- 150 Ml/d wastewater re-use scheme
- Improvements to the sewer system to prevent sewage flooding at 2,127 properties
- Upgrades to 18 sewage treatment works are planned, including the following in Surrey: Merstham WwTW, Mogden WwTW, Old Woking WwTW, Hogsmill WwTW, Guildford WwTW, and Loxwood WwTW
- Increases in sewer capacity to serve new developments
- Taking ownership of 3,000 pumping stations, assessing them and if required improving them to meet standards (October 2016).
- Adapting treatment processes to manage changes in wastewater volume and composition caused by climate change and other trends.
- Generating 33% of their power needs from renewable sources using their own treatment process, reduce what they take from the watercourse, and educate 20,000 pupils about the environment by 2020.

Renewable Energy

4.9.49 Runnymede Borough continues to push for renewable energy sources, as outlined on the Borough website and in the 2001 Local Plan. This will be replaced by the emerging 2035 Local Plan, which is currently under consultation.

Broadband

4.9.50 SCC is committed to getting faster broadband to as many of the remaining premises as possible. An Open Market Review (OMR) and State Aid Public Consultation has recently been undertaken to understand the broadband landscape of Surrey before further decisions are taken.

4.9.51 The percentage of Surrey residents that have access to superfast broadband is anticipated to increase to 97% due to additional commercial deployment plans. Additionally, SCC has requested BT to model possible options within the programme's cost constraints and available funding. This will determine which premises will benefit from publicly funded deployment by the end of this year.

4.9.52 Superfast Surrey provides some alternative options for improvement looking ahead:

- Community Funded Initiatives
- Better Broadband Scheme, a UK government subsidy scheme for homes and businesses that are unable to access a broadband service with a download speed of at least 2 Mb per second (Mbps). It is funded by BDUK and will run until the end of 2017.
- Universal Service Obligation (USO), a proposal by UK government to give people the legal right to request a connection to broadband with download speeds of 10Mbps from a supplier in 2020. This is still being drafted and details are not available to date.

4.9.53 Looking forward, options for ultrafast technology are being explored. Ultrafast is defined, depending on the supplier, as delivering between 300Mbps and 1,000Mbps and will be the next step in providing broadband service to customers.

Review of Planned Capacity against Future Demand

4.9.54 The details of the allocation sites were provided to utility providers to seek their views on any gaps in infrastructure and the future infrastructure required to support this growth in the network.

4.9.55 National Grid Gas Distribution Limited's Network Strategy Team provided a high-level capacity check for the proposed developments to identify whether reinforcement works will be required to ensure supply. National Grid Gas Distribution Limited indicated that for 11 of the allocation sites capacity is available and no reinforcements are therefore required. However, for 8 of the allocation sites no capacity is available and so reinforcements will be required.

4.9.56 Affinity Water also provided a high-level capacity check for the proposed developments which established that major reinforcements to the network will be required, based on the increase in demand for portable water forecast for each site. Network upgrades will be funded by service providers with contribution from developer according to impact of the scheme.

4.9.57 UKPN confirmed, during the Stakeholders workshop, that it would not build in capacity in response to allocations unless asked to do so. UKPN noted that the aim will be to maintain capacity at current standards. The point was made that if EV charging points were required in developments this could have a big impact on energy demand and capacity in the network.

4.9.58 Similarly to UKPN, Thames Water (TW) also confirmed that capacity would not be built in and their aim would be to maintain standards. Furthermore, TW has noted an obligation not to object to development; however they need an early view of what is coming forward. A number of growth studies have been undertaken in the current pricing period and further growth studies are being considered for the next pricing period 2020-2025. A growth study is currently underway at Fairoaks in Surrey Heath and the possibility of a growth study at Longcross Garden Village but nothing has been timetabled yet. Modelling of network was raised as a requirement at a number of sites. Anything that can benefit the quality of the existing sewer network will be supported with the application of SuDS.

4.10 Waste

Overview

4.10.1 Waste is defined as including waste disposal and recycling services, which is managed and planned for by SCC as the Waste Planning Authority (WPA) for Surrey. SCC is responsible for the removal and treatment of both domestic and commercial waste and Runnymede is responsible for the collection of domestic waste and the provision of wheeled bins and food caddies to domestic properties.

4.10.2 The strategy for the management of the household, commercial and industrial waste is set out by the Joint Municipal Waste Management Strategy[40] and is consistent with the 2014 National Planning Policy for Waste, which states that WPAs are responsible for preparing Waste Local Plans and identifying the needs and solutions for waste management in their area.

Existing Infrastructure Capacity and Infrastructure Required to Support Growth

4.10.3 There is no landfill site in Runnymede, and most of the Borough's commercial and industrial waste is transported to a landfill site in Redhill. Similarly, there is no facility for the processing of recyclable materials, and these are also transported outside the Borough, to a number of centres elsewhere in Surrey.

4.10.4 There are two waste facilities within Runnymede:

- A Community Recycling Centre (CRC) in Chertsey: SITA Surrey Ltd operates 15 CRCs on behalf of SCC. Runnymede residents also have access to two additional CRCs located outside the Borough's borders, in Woking (Woking Borough Council) and Shepperton (Spelthorne Borough Council).
- An anaerobic digestion facility for the treatment of commercial food waste is situated in Egham.

4.10.5 The expected demographic changes and economic growth within Runnymede over the Plan period are likely to place additional pressure on the current capacity of waste facilities within Surrey. The 2016 Surrey Infrastructure Study estimated that the funding gap for waste management at a County level will amount to £310,000[41] over the Plan period.

Review of Planned Capacity against Future Demand

4.10.6 The Surrey Waste Plan 2008 is currently being reviewed, and consultation on the Draft Plan is expected for 2018. As such, and until the new Plan is accessible, there is currently no planned provision of new waste facilities within Runnymede.

[40] Surrey County Council, (2016); Surrey Waste Local Plan 2018-2033 – Policy Paper No.1: Context and Issues
[41] AECOM, (2016), Surrey Infrastructure Study

4.11 Emergency Services

4.11.1 It is the responsibility of emergency service providers to manage, maintain and deliver expansion of facilities required to support services. Within Runnymede, different bodies oversee the provision and management of emergency services, depending on the targeted service.

Ambulance

Existing Infrastructure Capacity

4.11.2 The South East Coast Ambulance Service (SECAmb) NHS Trust provides emergency, urgent care, and patient transport services across six counties (Brighton & Hove, East Sussex, West Sussex, Kent, Surrey, and North East Hampshire) and also provides non-emergency patient transport services within Surrey.

4.11.3 Within Runnymede there is one Ambulance Community Response Post inside Chertsey Fire Station, which is described as a *"small base with facilities where ambulance crews can wait between calls"*[42]. There is no ambulance station within Runnymede; the former Chertsey Ambulance Station was replaced by a 'Make Ready Centre', which is a "*large depot where ambulance crews start and end shifts and where vehicles are cleaned, maintained and restocked"*[43].

Planned Infrastructure and Infrastructure Required to Support Growth

4.11.4 The SECAmb 2015-2016 Annual Report and Accounts[44] identified some gaps in the supply of ambulance services, including: limited resources; levels of staff overtime; and the existence of more private ambulance providers threatening the current service[45]. Consultation has also noted that access from the ambulance response post to emergency calls is sometimes made difficult by the existing road network and traffic light operation outside the station and can create access issues during peak traffic hours.

4.11.5 The 'Make Ready Centre' within the Borough is understood to accommodate existing ambulance needs currently, and there is no planned provision within Runnymede for additional physical infrastructure.

Review of Planned Infrastructure Capacity against Future Demand

4.11.6 There is limited information relating to existing levels of service and capacity within SECAmb. It was raised during consultation that the service faces challenges in terms of emergency services delivery, with the growth of NHS activities as a potential risk for ambulance services efficiency and provision[46]. While SECAmb acknowledged the future demand which will be created due to population growth, and the development of NHS services, it indicated that The 'Make Ready Centre' is able to accommodate ambulance needs with Runnymede over the Plan period. As such, there is no planned provision within Runnymede for additional physical infrastructure.

[42] South East Coast Ambulance Service NHS, website: www.secamb.nhs.uk
[43] South East Coast Ambulance Service NHS, website: www.secamb.nhs.uk
[44] South East Coast Ambulance Service NHS, website: www.secamb.nhs.uk
[45] South East Cost Ambulance Services, (2016); Annual Report and Account 2015-2016
[46] South East Cost Ambulance Services, (2016); Annual Report and Account 2015-2016

Police

Existing Infrastructure Capacity

4.11.7 Surrey Police is responsible for providing policing services for the eleven boroughs within Surrey. It is overseen by the Office of the Police and Crime Commissioner (PCC) for Surrey. There is only one police station located within Runnymede, in Addlestone. Consultation suggests that existing police services are able to serve the Borough's needs, with provision and models of policing evolving to include more out of office work and a greater community presence.

Planned Infrastructure and Infrastructure Required to Support Growth

4.11.8 Though natural population growth is likely to place additional pressure on the capacity of police services in Surrey, currently no additional provision has been planned in terms of physical infrastructure. Consultation suggests that the existing premises are fit for purpose, with additional need likely to be focused on staff provision rather than expansion of premises. It was noted during stakeholder engagement sessions that the opportunity to co-locate a policing hub within community facilities at the Longcross Garden Village site would be welcomed, however this would depend on the availability of community floorspace within the site.

Review of Planned Infrastructure Capacity against Future Demand

4.11.9 There is limited information relating to existing levels of service and capacity within Surrey Police, and consultation has revealed that the service acknowledges the context of future population growth may place additional demands on policing; particularly staffing. Physical infrastructure provision is assumed to be sufficient to existing policing needs with Runnymede over the Plan period however, and as such, there is no planned provision within Runnymede for additional physical infrastructure.

Fire

Existing Infrastructure Capacity

4.11.10 Fire services within Runnymede are co-ordinated by the Surrey Fire and Rescue Service (SFRS) which is overseen by Surrey County Council[47]. The North Area Team is the geographical area covering the seven fire stations within Runnymede, Spelthorne and Elmbridge. Two fire stations are located within Runnymede, in Chertsey and Egham, and operate with a total of six vehicles.

Planned Infrastructure and Infrastructure Required to Support Growth

4.11.11 According to the Surrey Fire and Rescue Public Safety Plan 2011-2020[48], the North Area Team is expected to have sufficient provision to meet population growth, and no physical or personnel provision is planned within Runnymede at the current time.

Review of Planned Infrastructure Capacity against Future Demand

[47] Surrey County Council, (2015); Constitution of the Council
[48] Surrey County Council, (2011), Surrey Fire and Rescue Authority Public Safety Plan 2011-2020

4.11.12 There is limited information relating to existing levels of service and capacity within SFRS, but the 2016 Surrey Draft Public Safety Plan[49] identifies that population growth within the County is likely to result in increased demand for fire services[50]. There is no currently identified shortfall in fire stations capacity in the North Area Team however (though new fire stations are opening within other parts of the county)[51]. As such, there is no planned provision within Runnymede for additional physical infrastructure at present.

4.12 Flood Defences and Sustainable Drainage

Overview

4.12.1 The Borough of Runnymede covers an approximate area of 78 km^2, and is located in the lower Thames catchment. There are 12 'main rivers' (larger rivers and streams as designated by the Environment Agency (EA)) within Runnymede, with the majority of them originating as tributaries of the River Thames, Chertsey Bourne, Addlestone Bourne and the River Wey.

4.12.2 Approximately 5,000 properties are at risk from flooding within Runnymede for a 1 in 100 year return period storm event. In the wider Lower Thames catchment, approximately 18,000 people are at risk from flooding during the same return period storm event. This number is likely to rise due to the predicted increase in flood risk as a result of climate change.

4.12.3 A summary of perceived flood risk from a range of sources is provided below in Table 58.

Table 58. Summary of Perceived Flood Risk within Runnymede

Source of Flooding	Perceived Risk of Flooding within Runnymede
Fluvial	Up to 5,000 properties at risk of flooding from a 1 in 100 year return period flood event. Sources of fluvial flooding include the River Thames to the east of the Borough, the River Wey, Chertsey Bourne, Addlestone Bourne, to the south of the Borough. The most recent fluvial flood incident recorded was during the storms of 2013-14, where 742 properties within Runnymede were affected, and a major incident was declared by the EA.
Pluvial (surface water)	Surface water flooding is prevalent across Runnymede, given the high proportion of urbanisation in the low lying floodplain. An increased number of surface water flood events have been reported on Egham Hythe and Egham Town due to the steep nature of these catchment areas. Surface water flooding also occurs in Runnymede due to inadequate capacity or poor maintenance of the existing public sewer systems. Historic surface water flooding incidents have been recorded in Chertsey, Egham, Thorpe and Rowtown.
Groundwater	Areas at risk of groundwater flooding lie predominantly within the floodplain of the River Thames, due to the gravel geology holding high water tables. The groundwater is connected with the River Thames, subsequently leading to a high risk of flooding from both sources simultaneously.
Sewers	Approximately half of the Borough is serviced by adopted public sewers, with the other half relying on free draining soils. Historical sewer flooding records indicate that the areas of Chertsey, Egham Hythe, Thorpe, Pooley Green and Penton Hook are amongst the most affected.
Reservoirs / artificial water bodies.	Virginia Water Lake, Wey Navigation Canal and Basingstoke Canal are the three main impounded waterbodies within Runnymede, and have the potential to cause flooding. However, this risk is residual and no records

[49] Surrey County Council, (2016); Draft Public Safety Plan 2016-2025
[50] Surrey County Council, (2016); Draft Public Safety Plan 2016-2025
[51] Surrey County Council, (2011), Surrey Fire and Rescue Authority Public Safety Plan 2011-2020

Source of Flooding	Perceived Risk of Flooding within Runnymede
	of flooding from these sources have been found in the area.

Source: AECOM analysis, 2017

Existing Infrastructure Capacity

4.12.4 The review of existing infrastructure has been carried out using the following datasets, as well as through discussion with RBC and SCC:

- EA's Flood and Coastal Erosion Risk Management programme (FCERM) (April 2015),
- Surrey County Council's Drainage Programme (2017/18),
- Stakeholder workshop held at RBC offices, October 17th 2017.

4.12.5 At present, there are no formalised flood defences within Runnymede. The M3 and M25 motorways act as informal flood defences by functioning as barriers against flooding. Extensive early warning networks are in place for the main rivers within Runnymede. The slower response characteristics of the River Thames and River Wey allow sufficient warning and evacuation time before major flooding events.

4.12.6 Existing sustainable drainage capacity within the Borough consists of attenuation and retention features, utilising open floodplain and free draining geology, to address localised flood risk issues. A desktop review of free draining capacity within Runnymede indicates that large areas across the Borough are underlain by sand, gravel and silt, providing ample opportunities for infiltration and features that mimic natural drainage pathways.

4.12.7 The Lower Thames catchment has the largest concentration of undefended properties in the United Kingdom, with a current estimate of 18,000 properties at risk from flooding during a 1 in 100 year return period storm event. This figure is expected to increase to 21,800 by the year 2100, in addition to the predicted increase in flood risk as a result of climate change.

4.12.8 Runnymede sits wholly within the Lower Thames catchment, and is located in Flood Zones 2 and 3 (as designated by the EA). Flood Zone 3 corresponds to greater than a 1 in 100 year (1%) annual event probability of flooding. The extent of Flood Zone 3 within Runnymede is shown below in Figure 25. The areas indicated as *"benefitting from flood defences"* are due to the M25 embankments acting as a barrier against fluvial flood pathways.

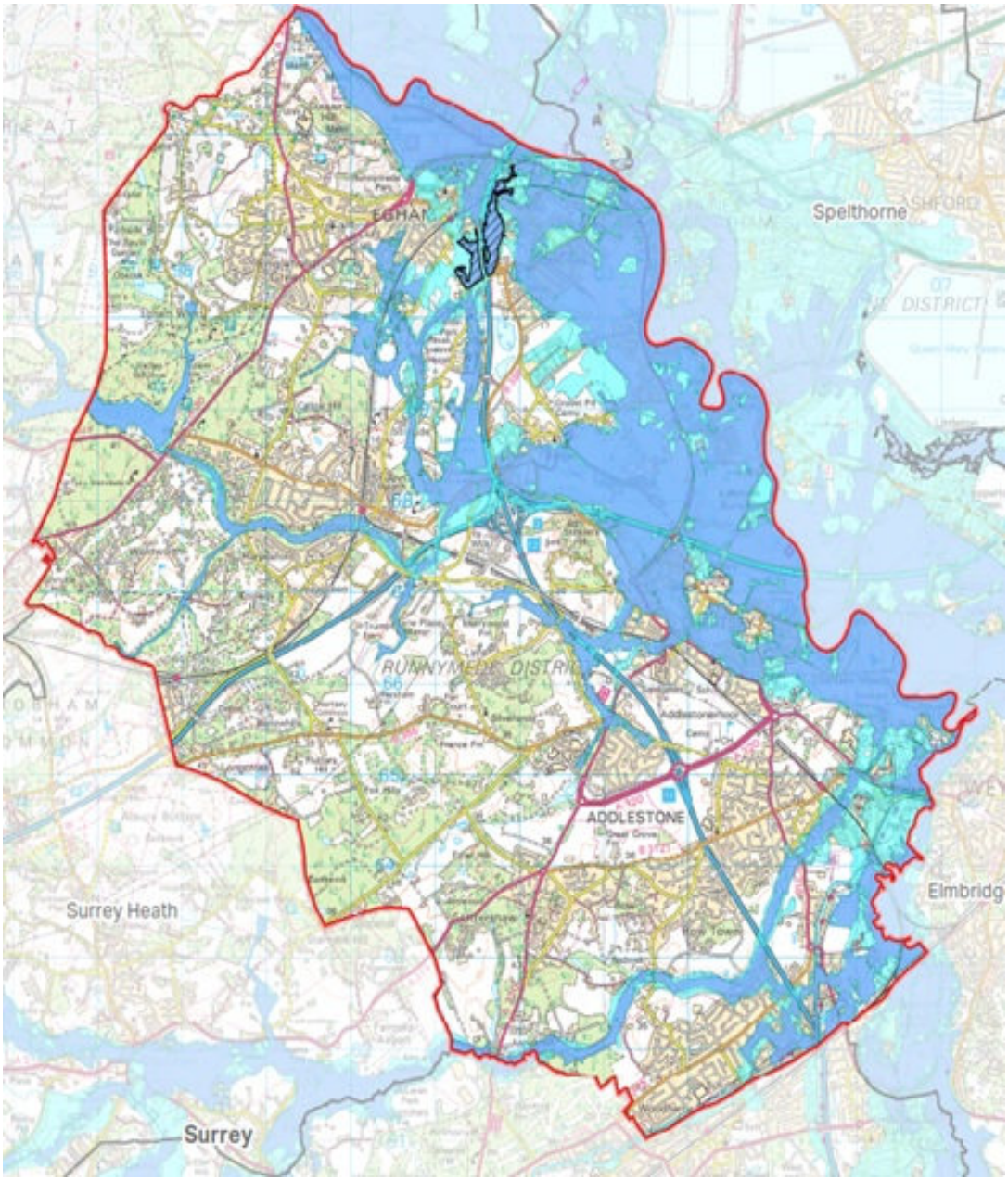

Figure 25. Flood Zones within Runnymede

4.12.9 The Thames Catchment Flood Management Plan (CFMP) sets out a preferred approach to flood risk management within various sub-catchments associated with the River Thames. Runnymede is covered by three separate preferred flood risk management policies. There is a general policy driver across Runnymede to take further action to reduce flood risk (Thames catchment) or to store water and manage surface water runoff (Addlestone Bourne and Upper Thames catchment).

4.12.10 In addition to the flood risk management policies set out in the Thames CFMP, the Runnymede Local Plan (2001) also sets out policies to control development within the Borough. Relevant flood risk management policies include:

- SV1: Land drainage systems – The Council, in conjunction with the EA, will seek to manage the floodplain environment and achieve appropriate flood alleviation in the Borough.
- SV2: Flooding – Within the area liable to flood as shown on the proposals map,

development will not be normally permitted for new residential or non-residential development, including extensions, unless it can be demonstrated to the satisfaction of the Borough Council, following consultation with the EA, that the proposal would not of itself or cumulatively in conjunction with other development:

- Impede the flow of flood water;
- Reduce the capacity of the flood plain to store flood water; and
- Increase the number of people or properties at risk from flooding.

Infrastructure Required to Support Growth

4.12.11 A review of planned infrastructure projects has been undertaken; these are projects led by the EA within Runnymede, as outlined in Table 59 below.

Table 59. Environment Agency projects within Runnymede

Project Name	Location	Phasing	Total Cost	Secured Funding	Expected Funding
Wey Meadows Flood Alleviation Scheme	Wey Meadows	Beyond 2021	£305,000	£305,000	-
Byfleet and Weybridge Flood Alleviation Scheme	Byfleet & Weybridge	2020	£667,000	£547,000	£120,000
Penton Hook restoration	Chertsey and Staines	April 2019	£8,051,000	£8,051,000	-
River Wey Weir Refurbishment	Tilford and Wey catchment	April 2019	£5.738,000	£5,099,000	£280,000
Total			**£14,401,000**	**£14,002,000**	**£400,000**

Source: EA, 2017

4.12.12 The River Thames Scheme[52] is a key flood defence project within Runnymede. The scheme is a proposed programme of projects and investment opportunities to mitigate flooding in communities adjacent to the River Thames between Datchet and Teddington, with the aim to provide a better standard of protection for up to 15,000 properties. The scheme includes three new sections of flood channels, improvements to existing structures, improved flood incident response plans and community resilience measures[53].

4.12.13 The funding information for the River Thames Scheme, including secured and expected funding, is provided in Table 59 above. Excluding the River Thames Scheme from the funding gap analysis to prevent skew, the total funding gap identified for all EA led projects is £400,000, which is approximately 3% of the overall associated costs to deliver the projects listed above.

4.12.14 A total project cost of £468m has been identified from the EA publications, with a funding gap of £228m. The associated costs and breakdown of funding sources for the River Thames Scheme are as follows:

Table 60. Sources of Funding for the River Thames Project

Funding Source	Committed Funding
Central Government	£60m
Grant in Aid (GiA)	£152m

[52] https://www.gov.uk/government/collections/river-thames-scheme

[53] Lower Thames Flood Risk Management Strategy, Consultation Document, 2009

Funding Source	Committed Funding
Partnership funding	£36m
Secured/expected funding	£248m
Funding gap	**£228m**

Source: EA, 2017

4.12.15 The Byfleet and Weybridge Flood Alleviation scheme[54] is part of a larger River Wey Flood Alleviation Scheme, and will address the flood risk on the River Wey, where approximately 790 properties are at risk of flooding from a 1 in 100 year return period flood within Byfleet and Weybridge. The scheme includes flood walls, raised banks, temporary defences, property level protection and catchment management measures such as bypass channels and localised improvements. The overall scheme is estimated to cost £7.2m. The estimated cost for the part of the River Wey Flood Alleviation Scheme affecting areas within Runnymede is £667,000.

4.12.16 A stakeholder engagement workshop was held in October 2017 to discuss any potential flood risk mitigation and drainage improvement schemes within Runnymede that may facilitate or reduce flood risk at development sites. From this workshop, the Lyne and Chilsey Green Flood Alleviation scheme was identified as a project that could potentially facilitate development at Chilsey Green (Pyrcroft Road). However, it was noted that this scheme has been on hold for several years. RBC are currently working with the EA to reactivate the scheme. Further information is not available at the time of writing of the IDP (November 2017).

4.12.17 Key projects that look to address localised flood risk and scheduled for delivery in the 2017/18 SCC Drainage programme are provided in Table 61 below. These projects look to address localised flood risk and flooding 'hotspots' as defined in the SCC wet-spots database. Three further improvement schemes have been identified for delivery within the SCC drainage programme extending up to the year 2019 – 2022, as listed in Table 61. These schemes are yet to be costed fully, but are expected to fit within the assigned budgets for the year of delivery.

Table 61. Drainage Projects to be delivered by SCC

Project Name	Location	Phasing	Total Cost
A317 St. Peter's Way filter drain replacement	Addlestone	2017/18	£25,000
South Avenue – capital improvement works	Egham	2017/18	£100,000
Guildford Road - Investigation	Chertsey	2019-22	TBD
Delta Way - Investigation	Thorpe	2019-22	TBD
Lyne Lane – Investigation	Chertsey	2019-22	TBD

Source: SCC, 2017

4.12.18 The costs associated with the projects identified in Table 61 have been taken from the FCERM, and the associated publications for the River Thames scheme, as made available by the EA. Excluding the River Thames Scheme from the funding gap analysis to prevent skew, the total funding gap identified for all EA led projects is £400,000.

[54] https://www.gov.uk/government/publications/byfleet-and-weybridge-flood-alleviation-scheme/byfleet-and-weybridge-flood-alleviation-scheme

Review of Planned Capacity against Future Demand

4.12.19 Approximately 30% of the Borough is located within Flood Zones 2 and 3, and will require flood risk mitigation to facilitate future development. Although the key flood defence schemes identified above will provide an improvement to areas at flood risk, the primary function of the flood defence schemes is not to facilitate new development within Runnymede.

4.12.20 The existing and planned flood defence / sustainable drainage infrastructure has been compared against sites where future growth is planned to occur. A number of these sites, particularly in the north-east of the Borough are located within flood zones 2 and 3, adjacent to the River Thames and within the functional floodplain. Sites located in flood zone 1, particularly within the west of the Borough are not at perceived risk of flooding from fluvial sources, but are susceptible to localised flood events. Figure 26 below illustrates the location of these sites with respect to flood zone mapping.

4.12.21 Comparing the housing and employment sites shown in Figure 26 to the SCC wet spot database (published list of surface water flooding 'hot spots'), it was found that 22 out of 79 housing sites (28%) and 10 out of 24 (42%) employment sites were in close proximity (within 200 metres) of a wet-spot. Whilst this highlights a potential prevalence of surface water flooding on the site, it also highlights a potential future investment into mitigation works.

4.12.22 The River Thames Scheme should help to facilitate a number of the growth sites located within the River Thames flood zone, despite this not being the primary purpose of the scheme. It is expected however that all major developments produce a site specific Flood Risk Assessment and a drainage strategy to meet local, regional and national planning policy objectives with regard to minimising flood risk to the development and its surroundings.

4.12.23 From a sustainable drainage perspective, all new and re-development masterplans should look to include SuDS measures to achieve localised reduction in surface water runoff, in line with the NPPF. These measures will be developer-led, and will be policy-led infrastructure.

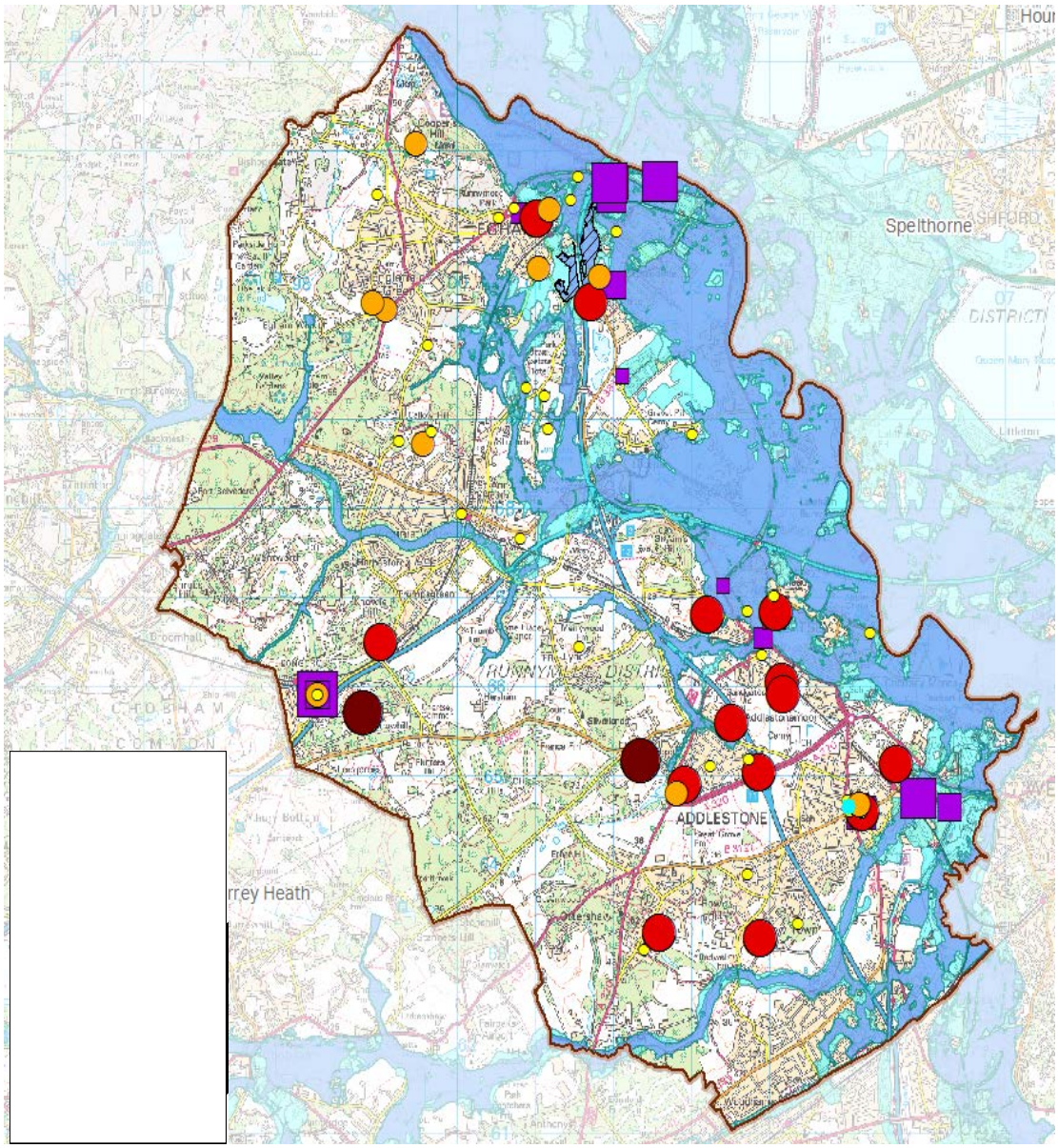

Figure 26. Growth Sites in context with Flood Zones 2 and 3

5. Infrastructure Project List and Prioritisation Approach

5.1 Introduction

5.1.1 This chapter sets out the approach taken towards the development of an IDP Schedule and the prioritisation of projects.

5.2 The IDP Project Schedule

5.2.1 A fundamental output of this IDP is the Project Schedule. The purpose of this schedule is to collate a comprehensive list of all identified infrastructure investment required to support housing and employment growth outlined in the Local Plan to 2030. The Project Schedule provides the evidence base behind the IDP assessment of infrastructure costs and funding and is included in the report as Appendix A.

5.2.2 The IDP Project Schedule collates the following information for each of the infrastructure topics addressed within the report:

- Project Name
- Project Location
- Cost Estimate
- Phasing / Year needed (where possible)
- Prioritisation
    - Critical
    - Essential
    - Policy High Priority
    - Desirable
- Delivery Responsibility – i.e. RBC, SCC, developer, CCG, private sector etc.
- Secured Funding
- Potential Funding Sources – i.e. RBC, SCC, CIL, s106, utilities providers, private sector, LEP etc.
- Source for Project Details

5.3 The Need to Prioritise Infrastructure

5.3.1 Prioritisation of the infrastructure Project Schedule as part of the Infrastructure Delivery Plan is an essential process in providing a robust evidence base for the Local Plan for the following reasons:

- A clear approach to prioritisation will aid long term infrastructure delivery. It is essential that all partners in the delivery of development and infrastructure have a clear understanding of investment priorities, thus establishing positive working relationships with other partners and ensuring development sites do not become unduly stifled or advanced ahead of anticipated timescales. Key sites will therefore be unlocked through a joined up approach between public and private sectors.
- Prioritisation of infrastructure and establishing phasing for the triggers for infrastructure delivery will provide valuable information for developer cash flow modelling and infrastructure provider investment programmes. It is understood that

certain projects will have a lag time of investment and require 'pump priming'. Prioritisation will influence future spending and banking of monies and help to mitigate and manage funding gaps.

- Prioritisation will help to identify both strategic and local priorities, with the former having the potential to unlock multiple smaller scale local projects. A holistic approach needs to be established both for strategic projects as well as local ones. The relationships between projects and sites are critical to enabling the development targeted within the Borough.
- Prioritisation of infrastructure will help to identify early viability constraints and help direct early actions.

5.4 The Approach to Infrastructure Prioritisation

5.4.1 Establishing a detailed understanding of infrastructure delivery is multi-faceted and requires consideration of a number of inter-dependent factors within this IDP.

The Development Trajectory

5.4.2 Infrastructure delivery is intrinsically aligned to growth and the necessity to mitigate the impacts arising from development. It is imperative that the phasing of infrastructure represents current development agreements and anticipated trajectories moving forward. This IDP has been informed by a development trajectory developed by RBC to support the Local Plan.

Prioritisation of Infrastructure Projects

5.4.3 Following the identification of all necessary infrastructure projects, the IDP assigns each project a level of priority. This distinguishes those projects critical to enabling development and mitigating infrastructure, compared to those that are important to deliver good place making principles, but would be appropriate to deliver at a later date. This process is fundamentally linked to the development trajectory and requires consideration of the role infrastructure holds in unlocking development sites as well as mitigating the pressures arising from population growth. The priorities will also be directly related to the aims and ambitions of the Local Plan.

5.4.4 Table 62 outlines the four infrastructure prioritisation categories which have been applied to infrastructure projects at a borough-wide and site allocation level within this IDP.

Table 62. Infrastructure Prioritisation Categories

Prioritisation Level	Description
Critical Infrastructure	This defines infrastructure that must happen to enable growth. These infrastructure items are known as 'blockers' or 'showstoppers' and are most common in relation to transport and utilities infrastructure. It also includes Essential Services that are required to facilitate growth or be delivered in advance of residential / commercial development, i.e. connection to the potable water and wastewater network.
Essential Mitigation Infrastructure	This defines infrastructure that is required to mitigate impact arising from the operation of the development. Although a lack of infrastructure in this category is unlikely to prevent development in the short term, failure to invest in it could result in delays in development in the medium term as capacity in available facilities and networks is constrained. These items are most common in relation to trip and population generated by the development. This will largely be secondary infrastructure that is profiled subsequent to Critical Infrastructure.

Prioritisation Level	Description
Policy High Priority Infrastructure	This defines infrastructure that is required to support wider strategic or site specific objectives which are set out in planning policy or is subject to a statutory duty. This type of infrastructure does not have a direct relationship of addition population meaning direct additional need. This type of infrastructure would not necessarily prevent development from occurring.
Desirable Infrastructure	This defines infrastructure that is required for sustainable growth but is unlikely to prevent development in the short to medium term. This is often aligned to placemaking objectives and is infrastructure that does not require previous enabling.

5.4.5 The decision making process that supports the Infrastructure Prioritisation Categories is detailed in Figure 27.

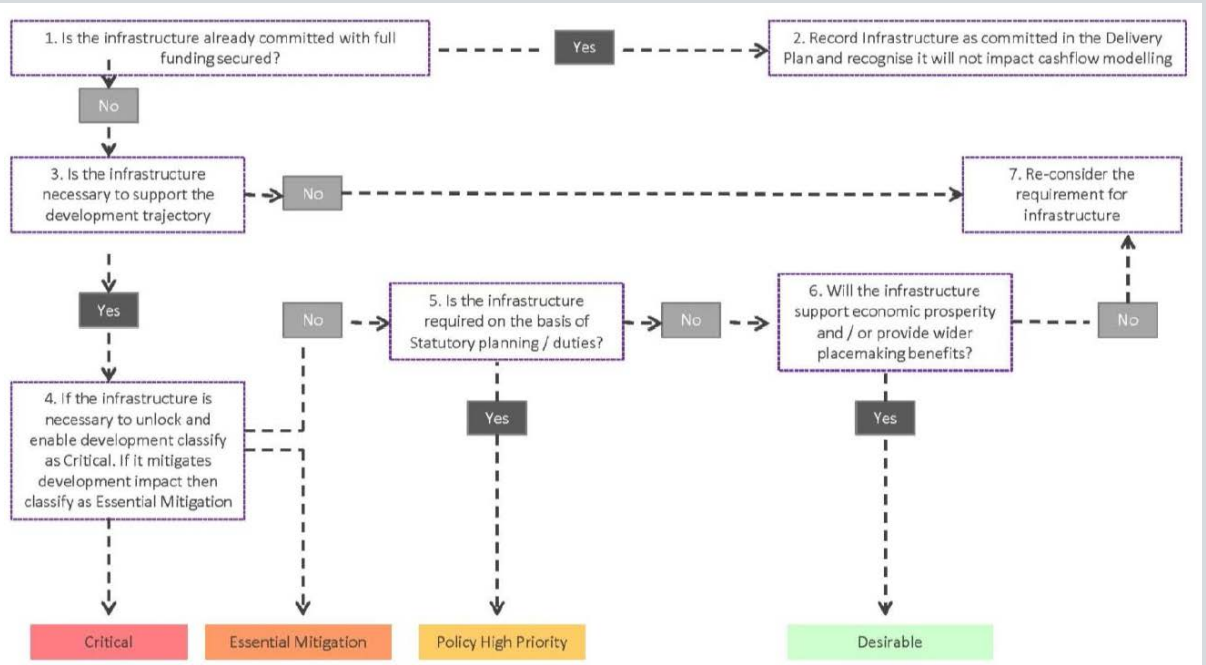

Figure 27. Infrastructure Prioritisation Process

5.5 Phasing

5.5.1 The final element that supports the prioritisation of infrastructure is to ensure an appreciation of the necessary phasing of infrastructure. It is this stage that is central to the IDP as it represents the primary evidence base for anticipating cash flow from infrastructure spending against the receipt of s106 or CIL payments.

5.5.2 The identification of dependencies and parallels that exist between infrastructure projects allows for an appreciation of appropriate delivery timescales. Dependencies are normally aligned to a 'lag' before the project is available, representing the construction or delivery period of the infrastructure.

5.5.3 This provides an indication as to when delivery needs to start and the trigger that must be monitored that requires its delivery. For the most part all infrastructure will be assigned a primary trigger aligned to the development trajectory and the anticipated build-out programme to deliver the project from start on-site to available for occupation. However, central to the ability to sequentially model infrastructure is the assignment of supporting infrastructure that may be required to proceed prior to the delivery of particular projects.

5.5.4 For example, whilst a health centre will be triggered by a point aligned to population growth of the development trajectory it may not be appropriate to deliver such infrastructure prior to the enhancement of transport networks from which the health centre would be accessed. Similar relationships exist between major road improvement and access/junction arrangements. These relationships need to be understood to develop an appropriate sequential delivery of infrastructure that seeks to ensure development does not become stifled.

5.5.5 Within RBC this is constrained to some extent through the number of development sites with planning permissions and associated s106 agreements which may independently determine the triggers for infrastructure, linked to delivery of housing units and not necessarily to best serve a group of developments. As such, there is likely to be limited flexibility in terms of delivery timescales within this IDP.

5.6 Project List Review

5.6.1 Alongside the prioritisation of the infrastructure Project Schedule it may be appropriate for some items contained within the list to become updated at a future stage as part of a periodic review of the IDP by RBC. This may reflect a number of scenarios such as:

- The quantum of development being revised to reflect a different level to that tested in the IDP.
- Review of co-location potential for compatible infrastructure projects may reduce the physical number of projects needed and/or as well as potential costs.
- Demand could be accommodated within existing facilities through utilisation of previously unavailable capacity.
- An infrastructure project is capable of being delivered in an alternative manner that is considered more appropriate.
- Projects were aspirational and aligned to enhanced placemaking activity and therefore not appropriate at the delivery stage.
- Projects should / could be delivered by the private sector or an alternative source.
- Projects already have funds committed or could be secured from previously unidentified sources.

Reviewing Infrastructure against the National Planning Policy Framework and CIL Regulations

5.6.2 Another important objective of the Project list review is also to identify projects that comply with the three legal requirements for planning obligations contained within the NPPF. These set out that obligations must be:

- *"'Necessary to make the development acceptable in planning terms.*
- *Directly related to the development.*
- *Fairly and reasonably related in scale and kind to the development"*[55].

[55] Policy 204, NPPF, (2012); DCLG

5.6.3 This review is necessary to identify those projects for which a developer contribution could justifiably be expected or has already been collected as opposed to other projects which are not directly related to developments such as strategic motorway projects and therefore will require alternative funding sources.

Site Specific Development Costs

5.6.4 Infrastructure assumed to be delivered as standard development costs expected of developers has not been included within the Infrastructure Schedule. These exclusions would include the following:

- Broadband and wifi installation;
- SUDS on development sites;
- On-site highways (not including adoption);
- On-site CCTV; and
- On-site amenities such as electric charging points.

6. Infrastructure Cost and Funding Gap

6.1.1 Having undertaken detailed analysis of the infrastructure requirements to support the Local plan, a comprehensive Project Schedule has been compiled which has been shared with stakeholders for comment. The IDP Project Schedule is included in this report as Appendix A. Chapter 5 has set out the approach towards prioritising those projects and this therefore allows a summary of infrastructure costs and funding by priority to be presented in this chapter. Table 63 provides a summary of estimated infrastructure costs for each of the growth scenarios.

6.1.2 The following caveats should be noted:

- There are a number of infrastructure sectors and categories where costs have not been included. This includes utility reinforcements and flood risk infrastructure that cannot be determined due to the way that this infrastructure is planned for by service providers. The impact on emergency services has also not been quantified with a capital cost.
- A number of the infrastructure categories do not have tangible infrastructure projects to respond to the future demands from development. As a result AECOM has identified a number of theoretical volumes of provision (whether that is floorspace in a building or land for outdoor activities) which have been costed using benchmark build costs for the three growth scenarios. These are set out in detail within each of the individual infrastructure sections in Chapter 4.

6.1.3 Even when the exclusions above are allowed for, **the total estimated cost of infrastructure to deliver the local plan economic and housing growth from 2015/16 to 2034/35 amounts to between £156.4M – £200.5M (excluding transport schemes) with an associated theoretical infrastructure cost per dwelling of between £20,570 (based upon 7,600 homes in scenario SS3) to £18,740 (based upon 10,700 homes in scenario SS6)**. Including transport schemes, the cost per dwelling is considerably higher.

6.1.4 As this IDP is taken forward, a more in-depth review of available funding both from RBC, SCC, and wider funding sources will be necessary to refine the estimated funding gap associated with infrastructure delivery. Appendix C provides a detailed review of potential funding sources from existing organisations with access to funding, from development contributions and from more innovative alternative funding sources.

Table 63. Summary of Borough-wide Infrastructure Costs and Funding Gap by Infrastructure Priority

Topic	Sub-topic	Predominant Priority	Total Cost (depending on growth scenario)	Costing Source	Public Funding	Funding Source	Committed Funding	Potential Funding Gap
Education	Early Years	Essential Mitigation	£4.5M - £6.6M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, Private nursery operators	-	£4.5M - £6.6M
	Primary	Essential Mitigation	£9.9M - £15.1M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, SCC (with part of SCC's funding coming from central government)	TBC (Longcross Garden Village site)	£9.9M - £15.1M
	Secondary	Essential Mitigation	£20.2M – £27.9M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, SCC (with part of SCC's funding coming from central government)	-	£17.8M – £21.1M
	Adult Education	Desirable	£5.8M - £8.3M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, SCC (with part of SCC's funding coming from central government)	-	£5.8M - £8.2M - downwards trend in take up of adult education so funding gap could be reduced in IDP future updates
Health	GPs	Essential Mitigation	£3.3M - £4.7M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, NHS Trusts	-	£3.3M - £4.7M
	Dentists	Essential Mitigation	£0.6M - £0.8M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, Dentists	-	£0.6M - £0.8M

	Hospitals	Essential Mitigation	£22.4M - £31.6M	AECOM model & RBC	Some funding committed for St Peter's Hospital redevelopment – amount unknown	S106 / CIL, NHS Trusts	TBC (St Peter's Hospital)	TBC
	Mental Healthcare	Essential Mitigation	£7.7M - £11.0M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, NHS Trusts	-	£7.7M - £10.9M
Community Infrastructure	Community Centres	Desirable	£1.3M - £1.9M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, RBC	TBC (Longcross Garden Village site)	£1.3M - £1.9M
	Libraries	N/A	N/A	N/A	No planned expansion of libraries within RBC	N/A	N/A	N/A
Recreation	Outdoor Sports	Policy High Priority	£7.8M - £10.8M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, RBC	TBC (Longcross Garden Village site)	£7.4M - £10.4M
	Play Space	Policy High Priority	£14.2M - £20.1M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, RBC	TBC (Longcross Garden Village site)	£14.5M - £20.5M
	Indoor Sports	N/A	N/A	N/A	No further planned expansion – recent investment and upgrades will meet future demand over Plan period	N/A	N/A	N/A
Green	SANG	Critical	£3.92M+	AECOM	No committed	S106 / CIL /	TBC	£3.92M+ (likely

Infrastructure				model & RBC	funding identified at present, however SANG at Chertsey Meads is in the process of being forward funded by RBC with costs to be recouped through future development.	forward funded by RBC	(Longcross Garden Village site)	forward funded by RBC and recouped through developer contributions)
	Parks and Gardens	Policy High Priority	£2.7M - £3.8M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, RBC	TBC (Longcross Garden Village site)	£2.7M - £3.8M
	Amenity Greenspace	Policy High Priority	£1.0M - £1.4M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, RBC	-	£1.0M - £1.4M
	Allotments	Desirable	£0.7M - £0.9M	AECOM model & RBC	No committed funding identified at present	S106 / CIL, RBC	TBC (Longcross Garden Village site)	£0.7M - £0.8M
	Cemeteries and Churchyards	N/A	N/A	N/A	From a green infrastructure perspective, the current quantity of cemeteries and churchyards should be maintained. Additional burial space is currently being provided.	N/A	N/A	N/A
	Green Corridors	N/A	N/A	N/A	From a green infrastructure	N/A	N/A	N/A

	Natural and Semi Natural Greenspace	N/A	N/A	N/A	perspective, the current quantity should be maintained.	N/A	N/A	N/A
Transport	Roads	Policy High Priority (average prioritisation rating – some road projects are categorised as critical)	£218,805,000+* (including A320 improvements at £100M)	RBC	£112,500,000	Housing Infrastructure Fund application (Surrey CC, RBC, SHBC & WBC), LEP, S106, CIL	-	£106,305,000+*
	Rail	Policy High Priority	£1,009,700,000+**	RBC	£1,008,200,000	South Western Trains, Network Rail	-	£1,500,000+**
	Bus	Policy High Priority	£13,595,900+***	RBC	£3,700,000	LEP, S106, CIL, LGV,	£600,000	£9,295,900+***
	Pedestrian and Cycle	Policy High Priority	£15,430,000+****	RBC	-	LEP, S106, CIL, South West Trains	-	£15,200,000+****
Utilities	Electricity				Cannot assign costs to non-strategic level projects at this stage. Strategic projects funded by service providers as part of network forward planning.			
	Gas							
	Potable Water							
	Wastewater							
	Renewable Energy							
	Broadband							
Waste		N/A			No in-borough			

			waste provision.			
Emergency Services	Ambulance	N/A				
	Police	N/A				
	Fire	N/A				
Flood Defences and Sustainable Drainage	Flood Defences	N/A	Cannot assign costs to non-strategic level projects at this stage – projects include River Thames Scheme			
	Sustainable Drainage	N/A				
Total			**£1,413,942,324 - £1,458,042,325**		**£1,142,110,733**	**£346,480,472 - £390,780,472**
Total not including transport schemes			**£156,411,424 - £200,511,425**		**£16,880,793**	**£104,404,572 - £148,704,572**

** Three highway schemes have no costs provided.*
*** Four rail schemes have no costs provided.*
**** One bus scheme has no costs provided.*
***** Three cycle and walking schemes have no costs provided*

7. Infrastructure Requirements and Prioritisation for Individual Allocated Sites

7.1 Introduction

7.1.1 This section considers infrastructure requirements associated with the sites identified within the Runnymede INA, some of which are now being progressed through the planning system for development. The list of sites has been refined with additional locations included since INA publication. Site capacities and phasing information has also been updated since publication of the INA and a revised list with accompanying development trajectories is provided in Table 64 below.

Approach

7.1.2 The list of allocation sites for consideration was confirmed by RBC and key details provided to AECOM including maps of site location and addresses, housing capacity and floorspace estimates and phasing information. The assessment covers social infrastructure, green infrastructure, flood risk and sustainable drainage and utilities.

7.1.3 These sites were discussed with key stakeholders at a series of workshops during autumn 2017 to gain an understanding of the types of infrastructure which would be required to be delivered at or locally to the sites to enable development to take place and the sites to come forward for build out and completion. The same prioritisation approach has been used for each individual site, with each type of infrastructure being assigned a prioritisation level and description of the type of infrastructure required to support development given. Phasing and costings information has been provided by stakeholders, or estimated by RBC, in order to provide the most accurate estimate of planned and secured funding, and any funding gap which exists.

Table 64. Site Allocations for Assessment

IDP Site Ref	SLAA Site Ref	Site Name	Site Address	Housing Capacity	Gypsy / Traveller Pitches	Commercial Floorspace (m2)	Phasing Period
1	264	Addlestone West	Land at 13-19, 37-63, 1-6 Eversleigh House & Eileen Tozer Centre, Station Road, Addlestone	70	0		2021/22 - 2025/26
2	318	Addlestone East	157-175 Station Road, Addlestone	70	0	Retention of existing A-class ground floor uses	2020-2023
3	253	Egham Gateway East	Land at 1-39 The Precinct, Egham	45	0	Refurbishment of existing commercial units	2021/22 - 2024/25
4	157	Egham Gateway West	Land at Station Road North, Egham	60 dwellings, 70 student bed spaces	0	Minimum 500m^2 A1, 8,500m^2 D2, reprovision of the existing Budgens store	2020/21-2021/22
5	99	Longcross Garden Village	Longcross Road, Longcross	1,700	10	79,025m^2 B1A, 36,000m^2 B8	2016/17 – 2029/30
6	156	Blay's House	Blay's Lane, Englefield Green	90	0	0	2022/23 – 2026/27
7	231	St Peter's Hospital	Chertsey	400	0	0	2018/19 – 2021/22
8	254	Parcel B, Veterinary Laboratory Site	Land South of Leigh Close, Rowtown	150	2	0	Post 2027
9	255	Parcel A, Chertsey Bittams	Green Road, Chertsey	175	5	0	2021/22-2026/27
10	255	Parcel B, Chertsey Bittams	Woodside Farm, Bittams Lane, Chertsey	110	2	0	Post 2027
11	255	Parcel C, Chertsey Bittams	Land East of Woodside Farm, Bittams Lane, Chertsey	35	2	0	Post 2027
12	255	Parcel D, Chertsey Bittams	Parklands, Bittams Lane, Chertsey	125-200 dwellings, 93 bedroom care home	0	0	2021/22-2026/27

IDP Site Ref	SLAA Site Ref	Site Name	Site Address	Housing Capacity	Gypsy / Traveller Pitches	Commercial Floorspace (m2)	Phasing Period
13	255	Parcel E, Chertsey Bittams	Land West of Wheelers Green, Bittams Lane, Chertsey	70-100	0	0	2021/22-2026/27
14	256	Thorpe Lea Road North	Thorpe Lea Manor & Glenville Farm, Thorpe Lea Road, Egham	85	2	0	2019/20 – 2029/30
15	257	Thorpe Lea Road West	Land at Mayflower Nurseries, Thorpe Lea Road, Egham	200	3	0	2018/2019-2020/21
16	258	Virginia Water North	Land at Gorse Hill House, Kenwolde, Merlewood Nursing Home, Hollow Lane, Virginia Water	120	0	0	2018/19 – 2029/30
17	261	Virginia Water South	Land at Trumps Green Road, Virginia Water	150	2	0	2018/19 - 2021/22
18	263	Ottershaw East	Land East of Brox Road & West of Bouseley Rise, Ottershaw	230	2	0	2018/19-2021/22
19	14	Brox Road Nursery, Ottershaw	Brox Road, Ottershaw	40	0	0	2018/19 – 2020/21
20	17	Coombelands Lane, Rowtown	Coombelands Lane, Rowtown	40	0	0	2017/18 – 2020/21
21	48	Hanworth Lane	Land East of Hanworth Lane, Chertsey	325	0	0	2016/17 - 2020/21
22	51	Byfleet Road	New Haw	0	0	20,000m^2 B8	2018/19-2022/23
23	60	Pyrcroft Road, Chertsey	Land at Chilsey Green Farm, Pyrcroft Road, Chertsey	275	5	0	2021/22 - 2026/27

Table 65. Site 1: Addlestone West Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Projected Costs	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£57,000	AECOM calculations & RBC[56]	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools within Addlestone. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement toward additional primary and secondary FoE in Addlestone.	£138,000			
	Secondary	Essential		£176,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)		-			
Health	GPs	Essential	Site phasing plan needed for the rationalisation of on-site health centre to maintain existing services during redevelopment.	£37,105	AECOM Calculations	3 x FTE GPs to be provided on-site and agreed with CCG	Potential for existing health centre on-site to be retained and rationalised. Osprey House on-site also has dentist and chemist. General cost estimate – final health
	Dentists	Essential	Payment of s106 / CIL	£6,145	AECOM Calculations	S106 / CIL	

[56] For a number of allocated sites, the projected numbers of dwellings have been updated since the sites were first outlined in the INA. As such, RBC has provided updates to projected costs in some instances, based on AECOM's funding model.

							contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)		-			
	Mental Healthcare			-			
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)		-			
	Community Centres			-			
Recreation	Outdoor Sports	Policy High Priority		£242,473 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Policy High Priority		£242,473 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	Contributions to be paid on commencement of residential units towards GI projects in the vicinity of the site and for SANG & SAMM prior to	N/A			Consultation identified the desire for a town square or similar focal point.
	SANG	Critical		£184,100	RBC	S106 / CIL / forward funded by RBC and recouped	

			any occupation of dwellings.		through developer contributions.
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)		N/A	
	Amenity Greenspace			N/A	
	Green Corridors			N/A	
	Allotments	Policy High Priority		£242,473 towards sports pitches, play space, and allotments.	RBC S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		N/A	
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)			
	Rail				
	Bus				
	Pedestrian and Cycle				
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)			
	Gas	N/A (no specific identified need to support delivery of allocated sites)			
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into		

			account due to pressure drop at critical points. This is likely to require capital funding.			
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)				
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)				
	Broadband	N/A (no specific identified need to support delivery of allocated sites)				
Waste		N/A (no specific identified need to support delivery of allocated sites)				
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)	-			
	Police	Policy High Priority	TBC	TBC	Likely to require capital funding.	Two ANPR cameras required: Station Rd junction with Church Road and A318 Chertsey Road.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)	-			
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage					

Table 66. Site 2: Addlestone East Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£57,000	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools in Addlestone. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement toward additional primary and secondary FoE in Addlestone.	£138,000			
	Secondary	Essential		£176,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)		-			
Health	GPs	Essential	Payment of s106 / CIL before occupation of first units.	£41,473	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Contributions towards improvements to local health services. Could provide
	Dentists	Essential					

					contributions to support delivery of health infrastructure at Addlestone West (nearby). General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)			
	Mental Healthcare				
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)			
	Community Centres				
Recreation	Outdoor Sports	Policy High Priority		£242,473 towards sports pitches, play space, and allotments.	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)			
	Play Space	Policy High Priority		£242,473 towards sports pitches, play space, and allotments.	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	Contributions to be paid on commencement of residential units towards GI	N/A	

	SANG	Critical	projects in the vicinity of the site and for SANG & SAMM prior to any occupation of dwellings.	£184,100	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions.
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)		N/A		
	Amenity Greenspace			N/A		
	Green Corridors			N/A		
	Allotments	Policy High Priority		£242,473 towards sports pitches, play space, and allotments.		S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		N/A		
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				
	Potable Water	Essential	Major reinforcements in the network will be required when all future			

		developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.		
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		
Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

Table 67. Site 3: Egham Gateway East Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£37,000	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools in Egham. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement toward additional primary and secondary FoE in Egham.	£88,000			
	Secondary	Essential		£81,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL prior to occupation of first unit.	£26,661	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Contributions towards improvements to
	Dentists	Essential					

						local health services. Nearest GP surgery is over capacity. General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)				
	Mental Healthcare					
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)				
	Community Centres					
Recreation	Outdoor Sports	Essential	£155,875 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	Site within the vicinity of Egham Leisure Centre & Manorscroft Recreation Ground which also provide opportunities for recreation. Could be potential to improve these as unlikely to be scope for sports provision on-site.
	Indoor Sports	N/A				
	Play Space	Essential	£155,875 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	

Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	Contributions to be paid on commencement of residential units towards GI projects in the vicinity of the site and for SANG & SAMM prior to any occupation of dwellings.	N/A		
	SANG	Critical		£336,640	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)		N/A		
	Amenity Greenspace			N/A		
	Green Corridors			N/A		
	Allotments	Essential		£155,875 towards sports pitches, play space, and allotments.	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		N/A		
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				

	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.			
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)				
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)				
	Broadband	N/A (no specific identified need to support delivery of allocated sites)				
Waste		N/A (no specific identified need to support delivery of allocated sites)				
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)				
	Police	Policy High Priority	TBC	TBC	Likely to require capital funding.	One ANPR camera required: Pooley Green Road.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)				
Flood Defences and	Flood Defences			Costs will depend		

Sustainable Drainage	Sustainable Drainage	on the drainage strategy adopted to manage surface water runoff from site.

Table 68. Site 4: Egham Gateway West Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£48,892	AECOM Calculations	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential		£117,719			
	Secondary	Essential		£150,991			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL	£30,498	AECOM Calculations	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Contributions towards improvements to local health services. General cost estimate – final health contribution will
	Dentists	Essential		£5,050			

						depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)				
	Mental Healthcare					
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)				
	Community Centres					
Recreation	Outdoor Sports	Desirable		£67,986	AECOM Calculations	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)		N/A		
	Play Space	Desirable		£132,881	AECOM Calculations	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	Contributions to be paid on commencement of residential units towards GI projects in the vicinity of the site and for SANG & SAMM prior to any occupation of dwellings.			Aspiration to provide a pocket park on-site – this could provide a town centre focal point.
	SANG	Critical		£309,025[57]	RBC	
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)				
	Amenity Greenspace					
	Green Corridors					
	Allotments	Desirable		£6,996	AECOM	

[57] SANG calculated on the basis of both residential and student bedspaces.

				Calculations
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)		
	Rail			
	Bus			
	Pedestrian and Cycle			
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)		
	Gas	N/A (no specific identified need to support delivery of allocated sites)		
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.	
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to		

		support delivery of allocated sites)		
Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	Linked to Egham Gateway East – see above for details.		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

Table 69. Site 5: Longcross Garden Village Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Prior to completion of site (related to phasing and occupation of dwellings – to be agreed with developer)	Early years provision planned on-site to be funded and / or built by the developer.			
	Primary	Essential	Prior to completion of site (related to phasing and occupation of dwellings – to be agreed with developer). School will come forward as 1FoE in the early phases of development and expand to 2FoE in later phases.	2FoE planned on-site to be funded and/or built by the developer – building is likely to be leased by the council to an academy provider (or similar).			
	Secondary	Essential	Payment of s106 / CIL	£4,200,000	AECOM Calculations	S106 / CIL	Demand generated is too small to support provision of a secondary school. Generated need to be absorbed within local schools. Potential for a

							RBWM school to accommodate pupils given the site's proximity to the Borough boundary - could be serviced by the RBC yellow bus scheme (e.g. likely to be feasible for a new service to be operated from Longcross, given the new demand generated by resident children on-site). To be agreed with RBC.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL before completion of final phase.	£888,698 (if no provision on-site)	AECOM Calculations & RBC	Developer funded / s106 / CIL	Potential to provide a new healthcare facility on-site given the size of the new resident population generated. Could be co-located with community space to be delivered on-site.
	Dentists	Essential					
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital					
	Mental Healthcare						

		redevelopment)					
Community Infrastructure	Libraries	N/A					
	Community Centres	Essential	Community floorspace to be provided on-site and come forward in earlier phases.	Developer funded through s106		Developer funded through s106	Community floorspace to be provided on-site – potential for flexible uses and co-location with healthcare and other facilities within a community 'hub' or focal point.
Recreation	Outdoor Sports	Essential		£1,900,000	RBC	Developer funded / s106	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential		£800,000	RBC	Developer funded / s106	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	Off-site SANG at Trumps Farm partially implemented. Remainder of Trumps Farm SANG and on-site SANG and other GI to be brought forward with south site and in place prior to occupation of development phase.	N/A			
	SANG	Critical		£3,500,000	RBC	Developer funded / s106	
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)		N/A			
	Amenity Greenspace			N/A			
	Green Corridors			N/A			
	Allotments	Essential		£197,379	RBC	Developer funded / s106	

	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		N/A
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)		
	Rail			
	Bus			
	Pedestrian and Cycle			
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)		
	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.	
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.	
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		

	Broadband	N/A (no specific identified need to support delivery of allocated sites)				
Waste		N/A (no specific identified need to support delivery of allocated sites)				
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)				
	Police	Essential	TBC	TBC	Likely to require capital funding.	Desire to incorporate a neighbourhood policing hub within community space at the site. Four ANPR cameras required: Two at B386 Longcross Road and one at the junction of Kitsmead Lane and Chobham Lane.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)				
Flood Defences and Sustainable Drainage	Flood Defences			Costs will depend on the drainage strategy adopted to manage surface water runoff from site.		
	Sustainable Drainage					

Table 70. Site 6: Blay's House Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£73,000	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid toward expansion of St Jude's School on commencement of development.	£177,000			Small number of dwellings to be delivered – no requirement for on-site education provision. St Jude's School situated locally could receive contributions to accommodate additional primary pupils from this site. General cost estimate – final education contribution will

							depend on housing mix at application stage.
	Secondary	Essential	Payment of s106 / CIL	£226,000			Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools. General cost estimate – final education contribution will depend on housing mix at application stage
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL	£53,322	AECOM calculations & RBC	S106 / CIL	No scope for on-site provision due to small size. Contributions towards improvements to local health services. General cost estimate – final health contribution will depend on housing mix at application stage.
	Dentists	Essential					

	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	S106 / CIL payment prior to first occupation of residential units.	£166,800 towards sports pitches, play space, and allotments.	RBC	S106 / CIL – projected receipts for contributions to allotments, sports pitches and SANG/ SAMM of £349,127	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	S106 / CIL payment prior to first occupation of residential units.	£166,800 towards sports pitches, play space, and allotments.	RBC	S106 / CIL – projected receipts of £166,800	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	S106 / CIL payment prior to first occupation of residential units.	N/A			Opportunity to develop / improve community hub on neighbouring estate.
	SANG	Critical		£824,067	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions.	Hub in Englefield Green also needs investment and is a focal point locally.

	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)		N/A		Lots of Green Infrastructure in existence locally.
	Amenity Greenspace			N/A		
	Green Corridors			N/A		
	Allotments	Essential		£166,800 towards sports pitches, play space, and allotments.	RBC S106 / CIL	
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		N/A		
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to			

			require capital funding.			
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)				
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)				
	Broadband	N/A (no specific identified need to support delivery of allocated sites)				
Waste		N/A (no specific identified need to support delivery of allocated sites)				
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)				
	Police	Desirable	TBC	TBC	Likely to require capital funding.	One ANPR camera required: Wick Lane.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)				
Flood Defences and Sustainable Drainage	Flood Defences			Costs will depend on the drainage strategy adopted to manage surface water runoff from site.		
	Sustainable Drainage					

Table 71. Site 7: St Peter's Hospital Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£326,000	AECOM Calculations & RBC	S106 / CIL	General cost estimate. Final education contribution will depend on housing mix at application stage. Pupil Yield (and associated costs) may reduce as a number of housing units could be key worker/retirement associated with the hospital.
	Primary	Essential	Phasing would need to allow for provision of additional FoE to serve new residents. Contribution toward expansion of Meadowcroft Community Infant School or additional infant/junior/primary & secondary FoE in Chertsey on commencement of development.	£785,000			
	Secondary	Essential		£714,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of S106 / CIL. If provided on-site, linked to delivery of hospital masterplan.	£236,986	AECOM Calculations & RBC	S106 / CIL	Desire to co-locate a new GP surgery as part of the hospital site. CCG is in discussions with local GPs at present. If this is
	Dentists	Essential					

							not agreed, contributions towards improvements to local health services. General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A					
	Community Centres	Essential	Contribution to community hub building prior to final occupation of residential units.			Contribution toward community hub building at Chertsey Bittams Parcel A of £470,588.	Existing area is lacking in community facilities, and this has the potential to provide benefits to the wider community as well as new resident population.
Recreation	Outdoor Sports	Essential	S106 / CIL payment prior to first occupation of residential units.	£434,800 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)		N/A			

	Play Space	Essential	S106 / CIL payment prior to first occupation of residential units.	£434,800 towards sports pitches, play space, and allotments.	RBC	S106 / CIL – projected receipts for play/open space of £434,800
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	S106 / CIL payment prior to first occupation of residential units.	N/A		
	SANG	Critical		£1,052,000	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)		N/A		
	Amenity Greenspace			N/A		
	Green Corridors			N/A		
	Allotments	Essential		£434,800 towards sports pitches, play space, and allotments.	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)		N/A		
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport				
	Rail					
	Bus					

	Pedestrian and Cycle	works considered to be an enabling cost funded by developer)					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)					
	Gas	N/A (no specific identified need to support delivery of allocated sites)					
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.				
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)					
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)					
	Broadband	N/A (no specific identified need to support delivery of allocated sites)					
Waste		N/A (no specific identified need to support delivery of allocated sites)					
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)					
	Police	Essential	TBC	TBC		Likely to require capital funding.	Three ANPR cameras required: two at

				St Peter's Way and one at Holloway Hill.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences	Costs will depend on the drainage strategy adopted to manage surface water runoff from site.		
	Sustainable Drainage			

Table 72. Site 8: Parcel B, Veterinary Laboratory Site Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£122,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings, no requirement for on-site provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential		£293,000			Small number of dwellings, no requirement for on-site provision. There are a number of primary and secondary schools to the north of the site which could receive contributions and accommodate additional pupils generated by development. General cost estimate – final education
	Secondary	Essential		£376,000			

							contribution will depend on housing mix at application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first residential unit.	£87,398	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Contributions towards improvements to local health services. Addlestone West is situated locally and could contribute towards development of health facilities there. General cost estimate – final health contribution will depend on housing mix at application stage.
	Dentists	Essential					
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital					
	Mental Healthcare						

		redevelopment)					
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Policy High Priority	S106 / CIL payment prior to first occupation of residential units.	£376,707 towards sports pitches and play space.	RBC	S106 / CIL	Potential to deliver equipped play on-site or create improved linkages with the equipped play area at Strawberry Fields.
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Policy High Priority	S106 / CIL payment prior to first occupation of residential units.	£376,707 towards sports pitches and play space.	RBC	S106 / CIL	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	SANG	Critical	S106 / CIL payment prior to first occupation of residential units.	£223,550	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions	
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	Amenity Greenspace		N/A				
	Green Corridors		N/A				
	Allotments	Policy High Priority	S106 / CIL payment prior to	£17,415	RBC	S106 / CIL	

			first occupation of residential units.
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)	
	Rail		
	Bus		
	Pedestrian and Cycle		
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)	
	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)	

	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		
Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	Linked to Ottershaw East site, see below for details.		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

Table 73. Site 9: Parcel A, Chertsey Bittams Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£147,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings, no requirement for on-site provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Phasing would need to allow for provision of additional FoE to serve new residents. Contribution toward expansion of Meadowcroft Community Infant School or additional infant/junior/primary & secondary FoE in Chertsey on commencement.	£353,000			Taking the five parcels of land at Chertsey Bittams cumulatively, there is likely to be the requirement for an additional FoE. Potential for a primary school to be accommodated on one of the parcels should be explored. Otherwise, contributions to be paid towards additional primary and secondary
	Secondary	Essential		£453,000			

							provision in Chertsey. General cost estimate – final education contribution will depend on housing mix at application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first residential unit.	£106,740	AECOM Calculations & RBC	S106 / CIL	Taking the five parcels of land at Chertsey Bittams cumulatively, this could support the delivery of a new healthcare facility. If this is not feasible, contributions towards improvements to local health services. Ottershaw East site is situated locally and could contribute towards expansion of healthcare facility there. General cost estimate – final health contribution will
	Dentists	Essential					

							depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A					
	Community Centres	Essential	Land to be set aside for new community hub-building to serve the Chertsey Bittams area with building funded through other developments and provided later in the Plan period (post 2025).	N/A	N/A	Land for new community hub building on-site with play/open space provided by developer at £200,000. Contributions towards the building from developments at Parcel, D & E and St Peter's Hospital.	Limited community provision in the locality.
Recreation	Outdoor Sports	Essential	S106 / CIL payment prior to occupation of first residential unit.	£198,2191	AECOM Calculations	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	S106 / CIL payment prior to occupation of first residential unit.	£387,569	AECOM Calculations	S106 / CIL	
Green Infrastructure	Natural and Semi	N/A (no specific	N/A				

	Natural Greenspace	identified need to support delivery of allocated sites)				
	SANG	Critical	S106 / CIL payment for off-site SANG prior to occupation of first residential unit.	£473,400	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	S106 / CIL payment prior to occupation of first residential unit.	£20,318	AECOM Calculations	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				

	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.				
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)					
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)					
	Broadband	N/A (no specific identified need to support delivery of allocated sites)					
Waste							
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)					
	Police	Linked to Ottershaw East site, see below for details.					
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)					
Flood Defences and Sustainable Drainage	Flood Defences			Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage						

Table 74. Site 10: Parcel B, Chertsey Bittams Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£88,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings, no requirement for on-site provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Phasing would need to allow for provision of additional FoE to serve new residents. Contribution toward expansion of Meadowcroft Community Infant School or additional infant/junior/primary & secondary FoE in Chertsey on commencement.	£212,000			Taking the five parcels of land at Chertsey Bittams cumulatively, there is likely to be the requirement for an additional FoE. Potential for a primary school to be accommodated on one of the parcels should be explored. Otherwise, contributions to be paid towards additional primary and secondary
	Secondary	Essential		£272,000			

							provision in Chertsey. General cost estimate – final education contribution will depend on housing mix at application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first residential unit.	£64,032	AECOM Calculations & RBC	S106 / CIL	Taking the five parcels of land at Chertsey Bittams cumulatively, this could support the delivery of a new healthcare facility. If this is not feasible, contributions towards improvements to local health services. Ottershaw East site is situated locally and could contribute towards expansion of healthcare facility there. General cost estimate – final health contribution will
	Dentists	Essential					

							depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A					
	Community Centres	Essential	Land to be set aside for new community hub-building to serve the Chertsey Bittams area with building funded through other developments and provided later in the Plan period (post 2025).	N/A	N/A	Land for new community hub building on-site with play/open space provided by developer (see Chertsey Bittams Parcel A for details).	Limited community provision in the locality.
Recreation	Outdoor Sports	Essential	S106 / CIL payment prior to occupation of first residential units.	£135,223 towards sports pitches and allotments.	RBC	S106 / CIL	To be provided on-site
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	S106 / CIL payment prior to occupation of first residential units.	£141,200	RBC	S106 / CIL	To be provided on-site

Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A				Linked to other Chertsey Bittams sites.
	SANG	Critical	S106 / CIL payment prior to occupation of first residential units.	£341,900	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions	
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	Amenity Greenspace		N/A				
	Green Corridors		N/A				
	Allotments	Essential	S106 / CIL payment prior to occupation of first residential units.	£135,223 towards sports pitches and allotments.	RBC	S106 / CIL	
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A				
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)					
	Rail						
	Bus						
	Pedestrian and Cycle						
Utilities	Electricity	N/A (no specific identified need to					

		support delivery of allocated sites)	
	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)	
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)	
	Broadband	N/A (no specific identified need to support delivery of allocated sites)	
Waste		N/A (no specific identified need to support delivery of allocated sites)	
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)	
	Police	Linked to Ottershaw East site, see below for details.	
	Fire	N/A (no identified need for	

		infrastructure to support delivery of allocated sites)				
Flood Defences and Sustainable Drainage	Flood Defences Sustainable Drainage		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			

Table 75. Site 11: Parcel C, Chertsey Bittams Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£28,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings, no requirement for on-site provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Phasing would need to allow for provision of additional FoE to serve new residents. Contribution toward expansion of Meadowcroft Community Infant School or additional infant/junior/primary & secondary FoE in Chertsey on commencement.	£69,000			Taking the five parcels of land at Chertsey Bittams cumulatively, there is likely to be the requirement for an additional FoE. Potential for a primary school to be accommodated on one of the parcels should be explored. Otherwise, contributions to be paid towards additional primary and secondary
	Secondary	Essential		£88,000			

							provision in Chertsey. General cost estimate – final education contribution will depend on housing mix at application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first residential unit.	£20,696	AECOM Calculations & RBC	S106 / CIL	Taking the five parcels of land at Chertsey Bittams cumulatively, this could support the delivery of a new healthcare facility. If this is not feasible, contributions towards improvements to local health services. Ottershaw East site is situated locally and could contribute towards expansion of healthcare facility there. General cost estimate – final health contribution will
	Dentists	Essential					

							depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A					
	Community Centres	Essential	Land to be set aside for new community hub-building to serve the Chertsey Bittams area with building funded through other developments and provided later in the Plan period (post 2025).	N/A	N/A	Land for new community hub building on-site with play/open space provided by developer (see Chertsey Bittams Parcel A for details).	Limited community provision in the locality.
Recreation	Outdoor Sports	Essential	S106 / CIL prior to occupation of residential units	£180,845 towards SANG, sports pitches, off-site play space, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	Off-site playspace delivered at Parcel B prior to occupation of residential units.	£180,845 towards SANG, sports pitches, off-site play space, and allotments.	RBC	S106 / CIL	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need	N/A				Linked to other Chertsey Bittams

		to support delivery of allocated sites)				sites.
	SANG	Critical	S106 / CIL prior to occupation of residential units	£180,845 towards SANG, sports pitches, off-site play space, and allotments.	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	S106 / CIL prior to occupation of residential units	£180,845 towards SANG, sports pitches, off-site play space, and allotments.	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				
	Potable Water	Essential	Major			

			reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.	
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		
Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	Linked to Ottershaw East site, see below for details.		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

Table 76. Site 12: Parcel D, Chertsey Bittams Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£102,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings, no requirement for on-site provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Phasing would need to allow for provision of additional FoE to serve new residents. Contribution toward expansion of Meadowcroft Community Infant School or additional infant/junior/primary & secondary FoE in Chertsey on commencement.	£245,000			Taking the five parcels of land at Chertsey Bittams cumulatively, there is likely to be the requirement for an additional FoE. Potential for a primary school to be accommodated on one of the parcels should be explored. Otherwise, contributions to be paid towards additional primary and secondary
	Secondary	Essential		£315,000			

							provision in Chertsey. General cost estimate – final education contribution will depend on housing mix at application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first residential unit.	£74,125	AECOM Calculations & RBC	S106 / CIL	Taking the five parcels of land at Chertsey Bittams cumulatively, this could support the delivery of a new healthcare facility. If this is not feasible, contributions towards improvements to local health services. Ottershaw East site is situated locally and could contribute towards expansion of healthcare facility there. General cost estimate – final health contribution will
	Dentists	Essential					

							depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A					
	Community Centres	Essential	Contribution to community hub building prior to final occupation of dwellings.	N/A	N/A	Contribution toward community hub-building at Parcel A of £147,059.	
Recreation	Outdoor Sports	Essential	S106 / CIL payment prior to occupation of first residential unit	£111,000 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	Provision of play/open space on-site prior to 1st occupation of dwellings.	£111,000 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	Limited community provision in the locality.
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A				Linked to other Chertsey Bittams sites.
	SANG	Critical	S106 / CIL	£328,750	RBC	S106 / CIL /	

			payment prior to occupation of first residential unit			forward funded by RBC and recouped through developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	S106 / CIL payment prior to occupation of first residential unit	£111,000 towards sports pitches, play space, and allotments.		S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.			
	Potable Water	Essential	Major reinforcements in the network will be			

			required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.			
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)				
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)				
	Broadband	N/A (no specific identified need to support delivery of allocated sites)				
Waste		N/A (no specific identified need to support delivery of allocated sites)				
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)				
	Police	Linked to Ottershaw East site, see below for details.				
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)				
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage					

Table 77. Site 13: Parcel E, Chertsey Bittams Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£55,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings, no requirement for on-site provision. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Phasing would need to allow for provision of additional FoE to serve new residents. Contribution toward expansion of Meadowcroft Community Infant School or additional infant/junior/primary & secondary FoE in Chertsey on commencement.	£131,000			Taking the five parcels of land at Chertsey Bittams cumulatively, there is likely to be the requirement for an additional FoE. Potential for a primary school to be accommodated on one of the parcels should be explored. Otherwise, contributions to be paid towards additional primary and secondary
	Secondary	Essential		£169,000			

							provision in Chertsey. General cost estimate – final education contribution will depend on housing mix at application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first residential unit.	£39,706	AECOM Calculations & RBC	S106 / CIL	Taking the five parcels of land at Chertsey Bittams cumulatively, this could support the delivery of a new healthcare facility. If this is not feasible, contributions towards improvements to local health services. Ottershaw East site is situated locally and could contribute towards expansion of healthcare facility there. General cost estimate – final health contribution will
	Dentists	Essential					

							depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no specific identified need for libraries to support delivery of allocated sites)					
	Community Centres	Essential	Contribution to community hub building prior to final occupation of dwellings.			Contribution toward community hub-building at Parcel A of £82,353.	Limited community provision in the locality.
Recreation	Outdoor Sports	Essential	Payment of s106 / CIL prior to occupation of first residential unit	£127,000 towards sports pitches, formal play space, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	On-site provision of informal play space and payment of s106 / CIL towards formal play space prior to occupation of first residential unit	£127,000 towards sports pitches, formal play space, and allotments.	RBC	On-site provision of informal play space & contribution to play/open space at Parcel D	

Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A				Linked to other Chertsey Bittams sites.
	SANG	Critical	Payment of s106 / CIL prior to occupation of first residential unit	£184,100	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions	
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	Amenity Greenspace		N/A				
	Green Corridors		N/A				
	Allotments	Essential	Payment of s106 / CIL prior to occupation of first residential unit	£127,000 towards sports pitches, formal play space, and allotments.	RBC	S106 / CIL	
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A				
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)					
	Rail						
	Bus						
	Pedestrian and Cycle						
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)					

	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)	
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)	
	Broadband	N/A (no specific identified need to support delivery of allocated sites)	
Waste		N/A (no specific identified need to support delivery of allocated sites)	
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)	
	Police	Linked to Ottershaw East site, see below for details.	
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)	

Flood Defences and Sustainable Drainage	Flood Defences Sustainable Drainage	Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	

Table 78. Site 14: Thorpe Lea Road North Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£67,000	AECOM Calculations & RBC	s106 and CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools (recent expansion of Magna Carta School locally). General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement toward additional primary/secondary capacity in Egham. Site to come forward in two phases with contributions to be paid on the commencement of each stage.	£162,000			
	Secondary	Essential		£207,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL prior to occupation of first unit.	£48,782	AECOM Calculations & RBC	s106 and CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need
	Dentists	Essential					

							to be absorbed within local health centres – local Hythe GP surgery over capacity, contributions could go to its re-provision (as no opportunity for expansion). General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	Payment of CIL / s106 prior to occupation of the first residential unit.	£407,230 towards sports pitches, SANG, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	Contributions to off-site playspace	TBC, contributions to	RBC	S106 / CIL – projected	Charter Road open space (to

			prior the occupation of the first residential unit.	off-site playspace at Charter Road open space.		contributions toward off-site playspace at Charter Road open space with contributions to SANG, SAMM & allotments of £407,230.	NE) has very poor play space - contributions would help to improve this.
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	SANG	Critical	Payment of CIL / s106 prior to occupation of the first residential unit.	£407,230 towards sports pitches, SANG, and allotments.	RBC	S106 / CIL – projected contributions toward off-site playspace at Charter Road open space with contributions to SANG, SAMM & allotments of £407,230.	
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	Amenity Greenspace		N/A				
	Green Corridors		N/A				
	Allotments	Essential	Payment of CIL / s106 prior to occupation of the first residential unit.	£407,230 towards sports pitches, SANG, and allotments.	RBC	S106 / CIL – projected contributions toward off-site playspace at Charter Road	

							open space with contributions to SANG, SAMM & allotments of £407,230.
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A				
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)					
	Rail						
	Bus						
	Pedestrian and Cycle						
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)					
	Gas	N/A (no specific identified need to support delivery of allocated sites)					
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.				
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)					
	Renewable Energy	N/A (no specific identified need to					

		support delivery of allocated sites)					
	Broadband	N/A (no specific identified need to support delivery of allocated sites)					
Waste		N/A (no specific identified need to support delivery of allocated sites)					
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)					
	Police	Essential	TBC	TBC		Likely to require capital funding.	Two ANPR cameras required: Thorpe Lea Road and New Wickham Lane.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)					
Flood Defences and Sustainable Drainage	Flood Defences			Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage						

Table 79. Site 15: Thorpe Lea Road West Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£166,000	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools (recent expansion of Magna Carta School locally). General cost estimate – final education contribution will depend on housing mix at application stage
	Primary	Essential	Contribution to be paid on commencement toward additional primary/secondary capacity in Egham.	£399,000			
	Secondary	Essential		£512,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL prior to occupation of first unit.	£120,436	AECOM calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need
	Dentists	Essential					

							to be absorbed within local health centres – local Hythe GP surgery over capacity, contributions could go to its re-provision (as no opportunity for expansion). General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	Provision prior to the first occupation of residential units.	£212,800 towards sports pitches and play space.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	Provision prior to the first occupation of	£212,800 towards sports pitches and play space.	RBC	S106 / CIL – on-site provision of play/open space	Lack of equipped play space locally so new provision

			residential units.			on-site would be encouraged to serve new and existing local need.
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	SANG	Critical	Payment of s106 / CIL prior to occupation of first residential units.	£526,000	RBC	S106 / CIL / forward funded by RBC – projected contribution toward off-site SANG and SAMM of £526,000
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	Payment of s106 / CIL prior to occupation of first residential units.	£23,210	RBC	S106 / CIL – projected contribution to allotments of £23,210
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport				

	Rail	infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)		
	Bus			
	Pedestrian and Cycle			
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)		
	Gas	N/A (no specific identified need to support delivery of allocated sites)		
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.	
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		
Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	Linked to Thorpe Lea Road North		

		site, see above for details.		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences	Costs will depend on the drainage strategy adopted to manage surface water runoff from site.		
	Sustainable Drainage			

Table 80. Site 16: Virginia Water North Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£93,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools in Virginia Water. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement towards additional education capacity in Virginia Water. Site to come forward in three phases, with contributions to be paid on the commencement of each phase.	£224,000			
	Secondary	Essential		£287,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 / CIL payment prior to occupation of first units	£67,541	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need to be absorbed
	Dentists	Essential					

							within local health centres – urgent need to redevelop Virginia Water Surgery as premises are not compliant, although not over capacity. General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	Payment of CIL / S106 prior to occupation of first residential units.	£320,238 towards sports pitches, play space, and a park/garden.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	Payment of CIL / S106 prior to occupation of first residential units.	£320,238 towards sports pitches, play space, and a park/garden.	RBC	S106 / CIL	

Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	SANG	Critical	Provision of park & garden and contributions to SANG prior to occupation of the first residential units.	£315,600	RBC	S106 / CIL / forward funded by RBC and recouped through receipt of developer contributions
	Parks and Gardens	Essential		£320,238 towards sports pitches, play space, and a park/garden.	RBC	S106 / CIL
	Amenity Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Green Corridors		N/A			
	Allotments	Essential	Payment of CIL / S106 prior to occupation of first residential units.	£13,926	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					

Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)					
	Gas	N/A (no specific identified need to support delivery of allocated sites)					
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.				
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)					
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)					
	Broadband	N/A (no specific identified need to support delivery of allocated sites)					
Waste		N/A (no specific identified need to support delivery of allocated sites)					
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)					
	Police	Policy High Priority	TBC	TBC		Likely to require capital funding.	One ANPR camera required: B389 Virginia Water.

	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)	
Flood Defences and Sustainable Drainage	Flood Defences Sustainable Drainage	Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	

Table 81. Site 17: Virginia Water South Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of CIL / s106	£127,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools – infant school situated locally and primary provision on the Longcross Garden Village site could serve Virginia Water given its proximity. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement and could part fund new 2FoE primary school at Longcross Garden Village or towards additional capacity in Virginia Water.	£305,000			
	Secondary	Essential	Payment of CIL / s106	£392,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					

Health	GPs	Essential	Payment of CIL / S106 prior to occupation of first residential unit.	£92,234	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need to be absorbed within local health centres. General cost estimate – final health contribution will depend on housing mix at application stage.
	Dentists	Essential					
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	Payment of CIL / s106 prior to occupation of first residential unit.	£139,261	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	Provision of play space prior to 1st occupation of dwellings.	£191,492 towards play space and allotments.	RBC	S106 / CIL	Delivery of equipped play provision is supported at the

						site, limited play provision in the area currently
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	SANG	Critical	Payment of CIL / s106 for off-site SANG prior to occupation of first residential unit.	£394,500	RBC	S106 / CIL / forward funded by RBC and recouped on receipt of developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	Payment of CIL / s106 prior to occupation of first residential unit.	£191,492 towards play space and allotments.	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					

Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)	
	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)	
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)	
	Broadband	N/A (no specific identified need to support delivery of allocated sites)	
Waste		N/A (no specific identified need to support delivery of allocated sites)	
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)	
	Police	Linked to Virginia Water North site,	

		see above for details.		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences	Costs will depend on the drainage strategy adopted to manage surface water runoff from site.		
	Sustainable Drainage			

Table 82. Site 18: Ottershaw East Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of s106 / CIL	£188,000	AECOM Calculations and RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within Marshfields CofE Infant and Ottershaw CofE Junior schools (assuming they are able to expand – both are CofE schools so agreement for expansion will need to be made with RBC). General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid toward expansion at Marshfields CofE Infant School and Ottershaw CofE Junior School and secondary education infrastructure on commencement of development.	£435,000			
	Secondary	Essential		£413,0000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					

Health	GPs	Essential	S106 /CIL payment prior to occupation of first residential unit on-site.	£1,300,000	AECOM Calculations & RBC	Developer / s106 / CIL	Desire to re-provide Ottershaw Surgery on-site as over-subscribed and not fit for purpose (opportunities for land swap to be explored). Ottershaw Surgery is GP not NHS owned so this would need to be in partnership with the CCG. General cost estimate – final health contribution will depend on housing mix at application stage.
	Dentists	Essential					
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	Provision prior to occupation of first residential unit.	£1,580,000 towards sports pitches, open space, play	RBC	S106 / CIL	

				space, SANG, and allotments.		
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Play Space	Essential	Provision prior to occupation of first residential unit.	£1,580,000 towards sports pitches, open space, play space, SANG, and allotments.	RBC	S106 / CIL
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	SANG	Critical	Provision prior to occupation of first residential unit.	£1,580,000 towards sports pitches, open space, play space, SANG, and allotments. £156,160 for SAMM.	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions.
	Parks and Gardens	Essential	Provision prior to occupation of first residential unit.	£1,580,000 towards sports pitches, open space, play space, SANG, and allotments.	RBC	S106 / CIL
	Amenity Greenspace	N/A (no specific identified need to support	N/A			
	Green Corridors		N/A			

		delivery of allocated sites)				
	Allotments	Essential	Provision prior to occupation of first residential unit.	£1,580,000 towards sports pitches, open space, play space, SANG, and allotments.	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	Essential	Capacity reinforcements required. This is likely to require capital funding.			
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at			

			critical points. This is likely to require capital funding.				
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)					
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)					
	Broadband	N/A (no specific identified need to support delivery of allocated sites)					
Waste		N/A (no specific identified need to support delivery of allocated sites)					
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)					
	Police	Essential	TBC	TBC		Likely to require capital funding.	Two ANPR cameras required: Murray Road and Chobham Road
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)					
Flood Defences and Sustainable Drainage	Flood Defences			Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage						

Table 83. Site 19: Brox Road Nursery, Ottershaw Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of CIL / s106	£32,500	RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools in Addlestone. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential	Contribution to be paid on commencement toward additional primary/secondary FoE in Addlestone.	£78,500			
	Secondary	Essential		£101,000			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	S106 /CIL payment prior to occupation of first residential unit on-site.	£20,332	AECOM Calculations	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need to be absorbed within local health
	Dentists	Essential		£3,367			

							centres. General cost estimate – final health contribution will depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Essential	S106 /CIL payment on commencement of construction.	£138,555 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)					
	Play Space	Essential	S106 /CIL payment on commencement of construction.	£138,555 towards sports pitches, play space, and allotments.	RBC	S106 / CIL	
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A				
	SANG	Critical	S106 /CIL payment for off-site provision prior	£105,200	RBC	S106 / CIL / forward funded by RBC and	

			to occupation of first residential unit on-site.			recouped through receipt of developer contributions.
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	S106 /CIL payment on commencement of construction.	£138,555 towards sports pitches, play space, and allotments.	RBC	S106 / CIL
	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account			

			due to pressure drop at critical points. This is likely to require capital funding.			
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)				
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)				
	Broadband	N/A (no specific identified need to support delivery of allocated sites)				
Waste						
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)				
	Police	N/A (no identified need for infrastructure to support delivery of allocated sites)				
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)				
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage					

Table 84. Site 20: Coombelands Lane, Rowtown Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of CIL / s106	£28,941	RBC & existing s106 obligations in place	S106	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools.
	Primary	Essential	S106 obligations agreed for off-site provision at Ongar Place Primary and Chertsey High School prior to occupation of 10th market unit.	£111,746			
	Secondary	Essential		£123,076			
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL prior to occupation of first residential unit on-site.	£20,332	AECOM Calculations	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need to be absorbed within local health centres. General cost estimate – final health contribution will
	Dentists	Essential		£3,367			

							depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
	Mental Healthcare						
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)					
	Community Centres						
Recreation	Outdoor Sports	Policy High Priority (however permission already granted)	Payment of s106 prior to occupation of first residential unit.	£148,946 towards sports pitches, play space, and allotments.	RBC	S106	
	Indoor Sports	N/A					
	Play Space	Policy High Priority (however permission already granted)	Payment of s106 prior to occupation of first residential unit.		RBC		
Green Infrastructure	Natural and Semi Natural Greenspace						
	SANG	Critical (however permission already granted)	Payment of s106 prior to occupation of first residential unit.	£148,946 towards sports pitches, play space, and allotments.	RBC	S106 / forward funded by RBC and recouped through developer contributions	

	Parks and Gardens	N/A				
	Amenity Greenspace	N/A				
	Green Corridors	N/A				
	Allotments	Policy High Priority (however permission already granted)	Payment of s106 prior to occupation of first residential unit.	£148,946 towards sports pitches, play space, and allotments.	RBC	S106
	Cemeteries and Churchyards	N/A				
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.			

	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		
Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

Table 85. Site 21: Hanworth Lane Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of CIL / s106	£155,000	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools in Chertsey. A need for an additional FoE has been identified in the Chertsey / Addlestone area in the Borough-wide INA, contributions could go towards funding this expansion. General cost estimate – final education contribution will depend on housing mix at
	Primary	Essential	Contribution to be paid towards additional primary & secondary FoE in Chertsey on commencement of development phase.	£372,000			
	Secondary	Essential		£465,000			

							application stage.
	Adult Education	N/A (no identified need for adult education to support delivery of allocated sites)					
Health	GPs	Essential	Payment of s106 / CIL prior to occupation of first residential unit on-site.	£112,448	AECOM Calculations & RBC	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need to be absorbed within local health centres (recent merger of Bridge and Abbey surgeries has created some additional capacity locally). General cost estimate – final health contribution will depend on housing mix at application stage.
	Dentists	Essential					
	Hospitals Mental Healthcare	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)					
Community Infrastructure	Libraries Community Centres	N/A (no identified need for community infrastructure to support delivery of allocated sites)					

Recreation	Outdoor Sports	Essential	Payment of s106 / CIL on commencement of construction.	TBC	RBC	S106 / CIL
	Indoor Sports	N/A (no specific identified need to support delivery of allocated sites)				
	Play Space	Essential	Payment of s106 / CIL on commencement of construction.	Playspaces and informal play/open space provided on-site by developer with relocation of sports pitches to Barsbrook Farm.	RBC	Playspaces and informal play/open space provided on-site by developer with relocation of sports pitches to Barsbrook Farm.
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	SANG	Critical	Contributions to be paid for off-site provision prior to any occupation of dwellings.	£512,000	RBC	S106 / CIL / forward funded by RBC and recouped through developer contributions
	Parks and Gardens	N/A (no specific identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential	Payment of s106 / CIL on commencement of construction.	£19,960	RBC	S106 / CIL

	Cemeteries and Churchyards	N/A (no specific identified need to support delivery of allocated sites)	N/A	
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)		
	Rail			
	Bus			
	Pedestrian and Cycle			
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)		
	Gas	N/A (no specific identified need to support delivery of allocated sites)		
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.	
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		

Waste		N/A (no specific identified need to support delivery of allocated sites)		
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

Table 86. Site 22: Byfleet Road Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Commercial site with no residential dwellings – no requirement for education provision.					
	Primary						
	Secondary						
	Adult Education						
Health	GPs	Commercial site with no residential dwellings – no requirement for health provision.					
	Dentists						
	Hospitals						
	Mental Healthcare						
Community Infrastructure	Libraries	Commercial site with no residential dwellings – no requirement for community provision.					
	Community Centres						
Recreation	Outdoor Sports	Commercial site with no residential dwellings – no requirement for recreational provision.					
	Indoor Sports						
	Play Space						
Green Infrastructure	Natural and Semi Natural Greenspace	Commercial site with no residential dwellings – no requirement for Green Infrastructure provision.					SuDS to be incorporated on-site and this could include space for Green Infrastructure.
	SANG						
	Parks and Gardens						
	Amenity Greenspace						
	Green Corridors						
	Allotments						
	Cemeteries and						

	Churchyards				
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)			
	Rail				
	Bus				
	Pedestrian and Cycle				Opportunity to open up waterfront pedestrian and cycle linkages and create improved access to employment area, in conjunction with sustainable travel.
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)			
	Gas	N/A (no specific identified need to support delivery of allocated sites)			
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital funding.		
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)			
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)			
	Broadband	N/A (no specific identified need to			

		support delivery of allocated sites)					
Waste		N/A (no specific identified need to support delivery of allocated sites)					
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)					
	Police	Essential	TBC	TBC		Likely to require capital funding.	Two ANPR cameras required at St Peter's Way.
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)					
Flood Defences and Sustainable Drainage	Flood Defences			Costs will depend on the drainage strategy adopted to manage surface water runoff from site.			
	Sustainable Drainage						

Table 87. Site 23: Pyrcroft Road, Chertsey Infrastructure Costs and Funding Gap by priority

Topic	Sub-topic	Predominant Priority	Phasing / Trigger Point	Total Cost	Costing Source	Funding Source	Notes / comments from stakeholder consultation
Education	Early Years	Essential	Payment of CIL / s106	£224,086	AECOM Calculations	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site education provision. Generated need to be absorbed within local schools. General cost estimate – final education contribution will depend on housing mix at application stage.
	Primary	Essential		£539,547		S106 / CIL	
	Secondary	Essential		£692,041		S106 / CIL	
	Adult Education	N/A					
Health	GPs	Essential	Payment of s106 / CIL prior to occupation of first residential unit on-site.	£139,780	AECOM Calculations	S106 / CIL	Small number of dwellings to be delivered – no requirement for on-site health provision. Generated need to be absorbed within local health centres. General cost estimate – final health contribution will
	Dentists	Essential		£23,148		S106 / CIL	

						depend on housing mix at application stage.
	Hospitals	N/A (no identified need for acute care infrastructure to support delivery of allocated sites in the context of St Peter's Hospital redevelopment)				
	Mental Healthcare					
Community Infrastructure	Libraries	N/A (no identified need for community infrastructure to support delivery of allocated sites)				
	Community Centres					
Recreation	Outdoor Sports	Essential	Payment of s106 / CIL prior to occupation of first residential unit on-site.	£311,600	AECOM Calculations	S106 / CIL
	Indoor Sports	N/A (no identified need to support delivery of allocated sites)				
	Play Space	Essential	Payment of s106 / CIL prior to occupation of first residential unit on-site.	£609,037	AECOM Calculations	S106 / CIL
Green Infrastructure	Natural and Semi Natural Greenspace	N/A (no identified need to support delivery of allocated sites)	N/A			
	SANG	Critical	Payment of s106 / CIL prior to occupation of first residential unit on-site.	£566,545	AECOM Calculations	S106 / CIL / forward funded by RBC and recouped through developer

						contributions.
	Parks and Gardens	N/A (no identified need to support delivery of allocated sites)	N/A			
	Amenity Greenspace		N/A			
	Green Corridors		N/A			
	Allotments	Essential		£31,929	AECOM Calculations	S106 / CIL
	Cemeteries and Churchyards	N/A (no identified need to support delivery of allocated sites)	N/A			
Transport	Roads	N/A (no identified need for transport infrastructure to support delivery of allocated sites – on-site transport works considered to be an enabling cost funded by developer)				
	Rail					
	Bus					
	Pedestrian and Cycle					
Utilities	Electricity	N/A (no specific identified need to support delivery of allocated sites)				
	Gas	N/A (no specific identified need to support delivery of allocated sites)				
	Potable Water	Essential	Major reinforcements in the network will be required when all future developments are taken into account due to pressure drop at critical points. This is likely to require capital			

		funding.		
	Wastewater	N/A (no specific identified need to support delivery of allocated sites)		
	Renewable Energy	N/A (no specific identified need to support delivery of allocated sites)		
	Broadband	N/A (no specific identified need to support delivery of allocated sites)		
Waste				
Emergency Services	Ambulance	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Police	N/A (no identified need for infrastructure to support delivery of allocated sites)		
	Fire	N/A (no identified need for infrastructure to support delivery of allocated sites)		
Flood Defences and Sustainable Drainage	Flood Defences		Costs will depend on the drainage strategy adopted to manage surface water runoff from site.	
	Sustainable Drainage			

8. Governance, Delivery and Recommendations

8.1.1 The effective delivery of housing and employment growth outlined in the Local Plan (at a borough-wide level, and to support the delivery of individual allocation sites) and its necessary infrastructure will require a joined up partnership approach between RBC, SCC, and wider public and private sector organisations. RBC has an opportunity to lead this process through the delivery of the IDP and the momentum already started through partnership engagement, the duty to cooperate process, and stakeholder workshops.

8.2 Potential Governance Arrangements

8.2.1 RBC could potentially create a 'Local Infrastructure Partnership', utilising the existing relationships between the council and key infrastructure partners but also the recent workshops and meetings held to produce this IDP. A number of other local authorities in the country are working closely with infrastructure partners in similar arrangements.

8.2.2 There may be opportunities to join with neighbouring local authorities to create a joint infrastructure partnership as the majority of infrastructure partners will be the same for a number of local planning authorities and will help to avoid the duplication of effort and meeting attendance which will be favourable to organisations with limited resource and budget.

8.2.3 These partnership meetings could potentially be held bi-annually and include but not be limited to the following activities:

- Local authority planning team update to partners on local plan progress and strategic sites.
- Updates to the IDP Project Schedule with partners including the refining of details, timings, costs and funding positions as part of the live document process.
- Prioritisation review – a rolling review of outstanding projects and funding against cost estimates.
- Consideration of strategic and allocated sites which require joined up decision making on particular issues.
- Consideration of upcoming funding bid opportunities and joint working to submit business plans.

8.3 Recommended approach to a Live Document

8.3.1 As has been stated throughout this report and was made clear through the stakeholder workshops and meetings, the IDP is not a one off deliverable but instead a living document that will be regularly reviewed and updated in line with progress on the local plan, strategic development sites and the emergence of new important information relating to infrastructure delivery.

8.3.2 The ability of this first IDP to review, analyse and engage with all service provision and providers was, whilst largely successful, not 100% comprehensive. The project was not for example able to gather feedback on prioritisation from the NHS hospital trust, the SCC Fire and Rescue service, Environment Agency, and several other key stakeholders that were invited to engage in the IDP process. It is desirable for consultation with these stakeholders to be undertaken at a later date, as part of the IDP revision.

8.3.3 Likewise, given the scale and breadth of project partners there is an inevitable challenge in aligning forecasts, planning strategies and business plans and therefore some partners have been able to engage to a greater extent than others. For some partners the IDP represents a source of information to feed into their service planning process and to other partners the IDP represents a document into which they wish to feed their service planning decisions. As a result of this misalignment there are unsurprisingly a number of infrastructure topics which are unable to clearly define the tangible projects required to support growth to 2031, and instead only present a clear picture of infrastructure requirements and funding over a short term period of 1-2 years. The theoretical infrastructure requirements based on AECOM calculations that have been included in this IDP therefore represent another area of the living document that will need to be converted into real projects as these are established in more detail by infrastructure providers.

8.3.4 The infrastructure Project Schedule includes estimated capital costs based in many cases upon benchmark costs from 2016 or earlier (established as part of the INA) due to updated costs not being available from infrastructure providers as part of the stakeholder consultation process. As the Local Plan is taken forward the costs included in this IDP will need to be periodically revised to account for inflation and any significant changes to the infrastructure requirement or design. The Project Schedule also includes a number of projects which have been grouped together within a potential cost range to reflect the current uncertainty given their stage in the planning process; particularly for potential allocated sites. Cost ranges and groupings will be refined into singular project costs when possible.

8.3.5 A foundation of the IDP and the Project Schedule is the local plan housing trajectory which guides the scale and timing of infrastructure requirements. It is likely that the actual delivery of development will not match the current estimated trajectory and as such the timings associated with infrastructure projects will need to be reviewed in light of any adjustments to the housing trajectory.

9. Summary

9.1.1 This IDP has provided a summary of the existing baseline infrastructure capacity in Runnymede, and assessed demand likely to arise over the Local Plan period from growth, and the type, timing, and location of infrastructure projects and investment required to meet demand. Information gathered from stakeholders at a series of workshops has been included in this baseline update. An overview of the Borough-wide infrastructure requirement, including prioritisation of infrastructure types, has been outlined, followed by analysis of the infrastructure requirements to enable the delivery of the 23 allocated sites within the Borough. These are key development sites which will enable the Borough to realise its aspirations for growth.

9.1.2 The intention is that this IDP can be used for consultation with RBC's partners under the Duty to Cooperate, and for part of the Borough's Local Plan evidence base. If relevant, it will also inform the development of a CIL charging schedule for Runnymede.

9.1.3 The IDP has identified infrastructure projects which will be required over the Local Plan period to meet the needs arising from planned growth. These projects are listed in the accompanying Detailed Infrastructure Project Schedule (Appendix A). Those projects which are Critical to enabling growth are the delivery of SANG/SAMM, and certain road projects such as the A320 upgrades (further detail of this is provided in Appendix A). The majority of infrastructure types are identified as Essential, with fewer Policy High Priority and Desirable projects.

9.1.4 This IDP confirms Runnymede's existing infrastructure funding gap and includes a prioritisation exercise to identify the critical showstoppers to growth. A review of the potential infrastructure funding sources and methods to deliver projects is outlined in Appendix C and provides commentary on a range of funding sources that the Borough may draw upon to meet the identified funding gap which currently exists.

Appendix A – Detailed Infrastructure Project Schedule

Table 88. Runnymede Project Schedule

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)				Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35	Total	Secured	Expected	Total	Sources	
Social Infrastructure	Education	Early years	Net demand / costs from AECOM benchmark modelling	Net demand in Runnymede over Plan period: 280 to 412 places depending on growth option.	Borough-wide	2015/16 to 2034/35	Private providers, SCC, developers (s106 / CIL)					Net costs of £4.5M to £6.6M over Local Plan period, depending on growth option.	Unknown	Unknown	Unknown	Private providers, SCC, developers (s106 / CIL)	£4.5M - £6.6M
Social Infrastructure	Education	Early years	Nursery at former DERA site	Places provided unknown - assume 50 places	Longcross Garden Village	TBC	Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Social Infrastructure	Education	Primary Schools	Net demand / costs from AECOM benchmark modelling	Net demand in Runnymede over Plan period: 709 to 1080 places depending on growth option.	Borough-wide	2015/16 to 2034/35	SCC, developers (s106 / CIL)					Net costs of £9.9M to £15.0M over Local Plan period, depending on growth option.	Unknown	Unknown	Unknown	SCC, EFA, developers (s106 / CIL)	£9.9M - £15.1M
Social Infrastructure	Education	Primary Schools	New primary school, DERA site	2FE	Longcross Garden Village	TBC	Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Social Infrastructure	Education	Secondary Schools, including sixth form / FE	Demand / costs from AECOM benchmark modelling	Demand in Runnymede over Plan period: 845 to 1,195 places over the 20 year Local Plan period, depending on the growth option.	Borough-wide	2015/16 to 2034/35	SCC, developers (s106 / CIL)					£17.8M to £25.2M over Local Plan period, depending on growth option.	Unknown	Unknown	Unknown	SCC, EFA, developers (s106 / CIL)	£17.8M - £25.5M
Social Infrastructure	Education	Secondary Schools	Expansion of an existing school -to accommodate requirement generated by the DERA site within surrounding Chertsey area.	FoE to be provided - unknown			SCC, developers (s106 / CIL)					TBC - funded by Developer	Funded by Developer			Developer	£ -
Social Infrastructure	Education	Secondary Schools	Establishment of a new Runnymede Free School	6 FoE	Unknown	Unknown		£ 1,304,888				£ 1,304,888	Unknown	Unknown	Unknown	SCC, EFA, developers (s106 / CIL)	£ 1,304,888
Social Infrastructure	Education	Secondary Schools	Salesian School expansion	FoE to be provided - unknown		Unknown		£ 1,129,230				£ 1,129,230	Unknown	Unknown	Unknown	SCC	£ 1,129,230
Social Infrastructure	Education	Adult Learning	Demand / costs from AECOM benchmark modelling	Additional demand over the plan period is estimated at 292 to 411 new places, depending on the growth option.	Borough-wide	2015/16 to 2034/35	SCC					Net costs of £5.9M to £8.3M over Local Plan period, depending on growth option.	Unknown	Unknown	Unknown	SCC	£5.8M - £8.3M
Social Infrastructure	Healthcare	Primary healthcare - GPs	Demand / costs from AECOM benchmark modelling	Demand across the Borough for 8.1 to 11.4 FTE GPs, depending on the growth option.	Borough-wide	2015/16 to 2034/35	NHS					£3.3M to £4.7M, depending on the growth option.	Unknown	Unknown	Unknown	NHS, DfH, developers (CIL / s106)	£3.3M - £4.7M
Social Infrastructure	Healthcare	Primary healthcare - dentists	Demand / costs from AECOM benchmark modelling	Demand is estimated at 7.3 to 10.3 additional dentists over the Local Plan period, depending on the growth scenario.	Borough-wide	2015/16 to 2034/35	NHS, private providers.					Depending on the growth scenario, costs of £0.6M to £0.8M.	Unknown	Unknown	Unknown	NHS, private providers.	£0.6M - £0.8M
Social Infrastructure	Healthcare	Secondary healthcare Acute (physical)	Demand / costs from AECOM benchmark modelling	Demand for hospital facilities for physical acute healthcare: 4,576 sqm to 6,442 sqm depending on the growth option.	Borough-wide	2015/16 to 2034/35	NHS					£22.4M to £31.6M depending on the growth option.	Unknown	Unknown	Unknown	NHS, DfH, developers (s106 / CIL)	£22.4M - £31.6M
Social Infrastructure	Healthcare	Secondary healthcare Acute (physical)	St Peters Hospital Redevelopment	Expanded and improved A&E facilities and a range of other improvements as part of St Peters Hospital Masterplan	Chertsey	Proposed to be implemented in phases over a 20 year period to ensure continued service provision	NHS					TBC - funded by Hospital Trust				Funded by Hospital Trusts (SAPB and ASPH)	£ -
Social Infrastructure	Healthcare	Secondary healthcare Acute (mental)	Demand / costs from AECOM benchmark modelling	Demand for hospital facilities for mental healthcare: 2,431 sqm to 3,422 sqm depending on the growth option.	Borough-wide	2015/16 to 2034/35	NHS					£7.8M to £11.0M depending on the growth option.	Unknown	Unknown	Unknown	NHS, DfH, developers (s106 / CIL)	£7.7M - £11.0M

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)					Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Social Infrastructure	Social care	Supported accommodation for older people	Demand / costs from AECOM benchmark modelling	Demand over Local Plan period is estimated at 60 to 86 nursing care beds, 86 to 124 residential care beds, and 33 to 48 Extra Care Housing units, depending on the growth option.	Borough-wide	Local Plan period (2015/16 to 2034/35)	RBC, SCC, private provision					Over Local Plan period total costs are £3.4M to £4.9M.	Unknown	Unknown	Unknown	RBC, SCC, private provision.	£3.4M - £4.9M
Social Infrastructure	Community	Flexible community space	Net demand / costs from AECOM benchmark modelling	Net demand of 648sqm to 1,035 sqm, depending on the growth option.	Borough-wide	Local Plan period	RBC, developers.					Net costs are £0.9M to £1.5M, depending on the growth option.	Unknown	Unknown	Unknown	RBC, developers.	£.1.3M - £1.9M
Social Infrastructure	Community	Community space	Community space at former DERA site	Current masterplan provides for 500sqm D1 space.	Longcross		Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Social Infrastructure	Recreation	Indoor sports	Gym at the former DERA site	Gym at the former DERA site	Longcross	To serve the new population residing at former DERA site.	Developer.					TBC - funded by Developer	Funded by Developer			Developer	£ -
Social Infrastructure	Recreation	Outdoor sports	Demand / costs from AECOM benchmark modelling	Net demand for 20.2ha to 29.7ha of additional outdoor sports space, depending on the growth option.	Borough-wide	Local Plan period (2015/16 to 2034/35)	RBC. Developers.					Net costs are £6.4M to £9.4M, depending on the growth option.				RBC	£6.4M - £9.4M
Social Infrastructure	Recreation	Outdoor sports	Aviator Park	Improvement / extension to skate park			RBC					£ 130,000	Unknown	Unknown	Unknown	Runnymede Borough Council	£ 130,000
Social Infrastructure	Recreation	Outdoor sports	Victory Park	Improvement of the drainage at the football pitch. Resurfacing works to tennis courts, to include re marking out, re-fencing and division of tennis courts to include kick boards.			RBC					£ 110,000	Unknown	Unknown	Unknown	RBC	£ 110,000
Social Infrastructure	Recreation	Outdoor sports	Ottershaw Memorial Fields	Resurfacing of tennis courts to include marking out. Re-fencing and division of tennis courts. Addition of drainage to football pitches.			RBC					£ 40,000	Unknown	Unknown	Unknown	RBC	£ 40,000
Social Infrastructure	Recreation	Outdoor sports	Chertsey Recreation Ground	Replacement of cricket/football pavilion and provision of larger changing facilities.	Chertsey		RBC					£ 75,000	Unknown	Unknown	Unknown	RBC	£ 75,000
Social Infrastructure	Recreation	Outdoor sports	Egham Leisure Centre	Resurfacing of the 5-a-side football pitches.	Egham		RBC / Achieve Lifestyle						Unknown	Unknown	Unknown	RBC / Achieve Lifestyle	TBC

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)					Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Social Infrastructure	Recreation	Outdoor sports	Heathervale Recreation Ground	Extension/improvement of sports pavilion. Replacement of skate park			RBC						Unknown	Unknown	Unknown	RBC	TBC
Social Infrastructure	Recreation	Outdoor sports	Barsbrook Farm	Development of a junior football hub			RBC						Unknown	Unknown	Unknown	RBC	TBC
Social Infrastructure	Recreation	Outdoor sports	Outdoor sports space planned at former DERA site	3.1ha outdoor sports space planned at former DERA site including 2.46ha off-site at Trumps Farm and dual use with a new primary school on-site.	Longcross		Developer					TBC	Unknown	Unknown	Unknown		TBC
Social Infrastructure	Recreation	Outdoor sports	Gogmore Farm	Provision of trim trail/fitness equipment			RBC					£ 15,000	Unknown	Unknown	Unknown	RBC	£ 15,000
Social Infrastructure	Recreation	Play space	Net demand / costs from AECOM benchmark modelling	Demand of 11.7ha to 16.4ha, depending on the growth option.	Borough-wide	Local Plan period	RBC, developers.					Depending on the growth option, costs are estimated at £11.1M to £17.0M	Unknown	Unknown	Unknown	RBC, developers.	£11.1M - £17.0M
Social Infrastructure	Recreation	Play space	Heathervale Recreation Ground	2 x 3G pitches and 2 x grass pitches			RBC					£ 3,000,000	Unknown	Unknown	Unknown	RBC	£ 3,000,000
Social Infrastructure	Recreation	Play space	Heathervale Recreation Ground	Bow top fencing to play area			RBC					£ 45,000	Unknown	Unknown	Unknown	RBC	£ 45,000
Social Infrastructure	Recreation	Play space	Kings Lane Open Space	New play equipment to be installed - Improved play facilities for older children			RBC, developer					£ 28,000	Unknown	Unknown	Unknown	50% S106, 50% SCC grant funded	£ 28,000
Social Infrastructure	Recreation	Play space	Chertsey Recreation Ground	Bow top fencing for play area and paddling pool	Chertsey		RBC					£ 25,000	Unknown	Unknown	Unknown	Runnymede Borough Council	£ 25,000
Social Infrastructure	Recreation	Play space	The Orchard and Abbeyfields	Bow top fencing to play area			RBC					£ 10,000	Unknown	Unknown	Unknown	Runnymede Borough Council	£ 10,000
Social Infrastructure	Recreation	Play space	Provision of playspace at former DERA site	Current masterplan includes 0.75ha equipped playing space and 3.47ha informal playing space	Longcross	To serve the new population residing at former DERA site.	Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Green Infrastructure	Green Infrastructure	Parks and Gardens	Net demand / costs from AECOM benchmark modelling	Demand of 11.7ha to 16.4ha, depending on the growth option.	Borough-wide	Local Plan period	RBC, developers.					Depending on the growth option, costs are estimated at £2.7M to £3.8M	Unknown	Unknown	Unknown	RBC, developers.	£2.7M - £3.8M
Green Infrastructure	Green Infrastructure	Amenity green space	Net demand / costs from AECOM benchmark modelling	8.8ha to 12.3ha, depending on the growth option.	Borough-wide	Local Plan period	RBC, developers.					£1.0M to £1.4M, depending on the growth option.	Unknown	Unknown	Unknown	RBC, developers.	£1.0M - £1.4M

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)				Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Green Infrastructure	Green Infrastructure	Amenity green space	Amenity space to be provided at the former DERA site	Amenity space to be provided at the former DERA site	Longcross		Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Green Infrastructure	Green Infrastructure	SANGs	SANG Provision at DERA Site	31.9ha SANG (6ha on site and 25.9ha at Trumps Farm) to be provided as part of the re-development of the former DERA site.	Longcross		Developers / RBC / Natural England					TBC - funded by Developer	Funded by Developer			Developer	£ -
Green Infrastructure	Green Infrastructure	SANGs	Ottershaw East SANG	Provision of on-site SANG at Ottershaw East allocation.	Ottershaw	Delivered with Ottershaw East and to be implemented prior to 1st occupation of any residential unit 2017-2022	Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Green Infrastructure	Green Infrastructure	SANGs	Chertsey Meads SANG	Agreed in principle as a SNG with Natural England if a further one is required over the plan period to support residential development.		As soon as funds available and as required	Developers / RBC / Natural England					TBC - funded by Developer	Funded by Developer			Developer	£3.92M
Green Infrastructure	Green Infrastructure	Allotments	Net demand / costs from AECOM benchmark modelling	Demand of 3.1ha to 4.7ha, depending on the growth option.	Borough-wide	Local Plan period	RBC, developer.					£0.7M to £0.9M, depending on the growth option.	Unknown	Unknown	Unknown	RBC, developers.	£0.7M - £0.9M
Green Infrastructure	Green Infrastructure	Allotments	Provision at former DERA site	0.67ha allotments (26 plots) with 0.43ha off-site at Trumps Farm.	Longcross		Developer					TBC - funded by Developer	Funded by Developer			Developer	£ -
Green Infrastructure	Green Infrastructure	Allotments	Provision of new allotment plots at Hythe Park, Egham	Egham	2020+	RBC	RBC						Unknown	Unknown	Unknown	RBC & S106/CIL	TBC
Green Infrastructure	Green Infrastructure	Allotments	Reprovision of allotment plots at Hamm Moor Lane, Addlestone	Addlestone	2020+	RBC	RBC						Unknown	Unknown	Unknown	S106/CIL	TBC
Green Infrastructure	Green Infrastructure	Allotments	Provide additional plots at Pinewood Allotments, New Haw	New Haw	2020+	RBC	RBC						Unknown	Unknown	Unknown	S106/CIL	TBC
Green Infrastructure	Green Infrastructure	Allotments	Provide additional raised beds at Stroude Road, Virginia Water	Virginia Water	2020+	RBC	RBC						Unknown	Unknown	Unknown	S106/CIL	TBC
Transport	Highways	Highways	M25 Junction 10 - 16 improvements	M25 Junction 10 - 16 improvements	Chertsey to M40	2020 - 2022											£ -
Transport	Highways	Highways	A320 improvements (one or more projects to be determined)	A320 improvements	J11 of M25 to Woking Town Centre	To be determined by A320 Study		£	100,000,000			£ 100,000,000	£ -		£ 100,000,000	Focus Group Workshop 25/04/17	£ 100,000,000
Transport	Highways	Highways	Works to the Runnymede Roundabout	Works to the Runnymede Roundabout to reduce peak period congestion, improve pedestrian and cycle movements and support the growth of Runnymede. Works to include; road realignment, new lanes, crossing facilities and signalised junctions.	Egham, Egham Hythe & Englefield Green	2017-2018		£	7,225,000			£ 7,225,000	£ 7,225,000			Draft LTS Forward Programme	£ -
Transport	Highways	Highways	A317 St Peter's Way-dedicated M25 lane	A317 St Peter's Way-dedicated M25 lane (feasibility/design only;	Addlestone	2020+		£	50,000			£ 50,000	£ -			Runnymede IDP Feb 2013	£ 50,000

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)				Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Transport	Highways	Highways	Chobham Lane / Burma Road Highway Improvements	Chobham Lane/Burma Road, Longcross- carriageway widening at roundabout to increase capacity	Rowtown, Longcross, Virginia Water & Rural	2022+ or prior to occupation of 30,000sqm B1 office space at Longcross North						£ 30,000	£ -			Draft LTS Forward Programme	£ -
Transport	Highways	Highways	High Street Widening and Improvements	Widening of High Street and Station Rd Addlestone, adjustment to Church Rd and Crouch Oak Lane	Addlestone	2020+			£ 1,500,000			£ 1,500,000	£ -			Draft LTS Forward Programme	£ 1,500,000
Transport	Highways	Highways	Junction improvements at Station Rd/High St/Church Rd	Junction improvements at Station Rd/High St/Church Rd	Addlestone	2020+			£ 3,500,000			£ 3,500,000		Funding bid of £2.7m to LEP submitted. Match funding from S106/CIL £0.8m		Draft LTS Forward Programme	£ 3,500,000
Transport	Highways	Highways	Staines upon Thames Bridge Improvements	Staines upon Thames Bridge Widening	Egham, Egham Hythe & Englefield Green	2020+			£ 12,500,000			£ 12,500,000	£ -		£ 12,500,000	Draft LTS Forward Programme	£ 12,500,000
Transport	Highways	Highways	Staple Hill / Longcross Road Improvements	junction improvements at the Staple Hill / Longcross Road junction to improve current and mitigate future congestion	Rowtown, Longcross, Virginia Water & Rural	2020+						TBC. For inclusion within LGV S106				Draft LTS Forward Programme	TBC
Transport	Highways	Highways	Trumps Green Road / Wellington Avenue junction improvements	Trumps Green Road, Wellington Avenue, Virginia Water: signalisation of existing priority w junction	Rowtown, Longcross, Virginia Water & Rural	Prior to occupation of 55,000sqm of office floorspace										Draft LTS Forward Programme	£ -
Transport	Highways	Highways	Vicarage Road level crossing	Vicarage Road level crossing	Egham	2020+			£ 20,000,000			£ 20,000,000					£ 20,000,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: Chertsey Roundabout	Junction improvements at southbound approach from A317 Chertsey Road, eastbound approach from A317 St Peters Way, westbound approach from A317 Woburn Hill, approach from Addlestonemoor	Addlestone/Chertsey	Prior to 2025	TBC	TBC				£ 5,500,000	No funding secured. To be secured through S106/S278/CIL. May be packaged with A320 improvements & HIF bid				£ 5,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: A318 Brighton Road	Junction improvements at A318 Brighton Road/New Haw Road/Liberty Lane/Crockford Park Road (including cycling links to Addlestone station)	Addlestone	Prior to 2025	TBC	TBC				£ 4,000,000	No funding secured. To be secured through S106/S278 or CIL & Other funding source				£ 4,000,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: Chilsey Green Road	Junction improvements on A320 Chilsey Green Road with Cowley Avenue/Pyrcroft Road (including walking and cycling improvements)	Chertsey	Prior to 2027		TBC				£ 4,000,000	No funding secured. To be secured through S106/S278 or CIL & other funding source. Included in Arcadis A320 Study				£ 4,000,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: A320 Staines Road	Junction improvements at roundabout serving A320 Staines Road/B388 Thorpe Road/ St Ann's Road/Chilsey Green Road	Chertsey	Prior to 2027		TBC				£ 5,500,000	No funding secured. To be secured through S106/S278 or CIL & other funding source. Included in Arcadis A320 Study				£ 5,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: B386 Holloway Hill	Junction improvements at B386 Holloway Hill with Hardwick Lane and B386 with St Peter's Hospital Acccess (including A320 Guildford Road/Holloway Hill/Green Lane junctions)	Chertsey	Prior to 2020	TBC					£ 5,500,000	No funding secured. To be secured through S106/S278/CIL. May be packaged with A320 improvements & HIF bid				£ 5,500,000

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)				Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: St Peter's Hospital Acccess	Junction improvements at St Peter's Hospital roundabout access with A320 Guildford Road	Chertsey	Prior to 2020		TBC				£ 5,500,000	No funding secured. To be secured through S106/S278/CIL . May be packaged with A320 improvements & HIF bid.				£ 5,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: A30 London Road	Junction of A30 London Road with A328 St Jude's Road/Bakeham Lane	Englefield Green	Prior to 2027			TBC			£ 2,500,000	No funding secured. To be secured through S106/S278 or CIL & other funding source				£ 2,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: Chobham Lane	Junction of Chobham Lane with Longcross Station (Improvement of Burma Road)	Longcross	Prior to 2020		TBC				£ 5,500,000	No funding secured. To be secured through S106/S278 with LGV & other funding source				£ 5,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: Longcross Road	Junction improvements at Longcross Lane with Lyne Lane	Lyne	Prior to 2025			TBC			£ 1,500,000	No funding secured. To be secured through S106/S278 or CIL & other funding source				£ 1,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: A320 Guildford Road	Junction improvements: A320 Guildford Road j/w A320/A317	Chertsey / Egham	Prior to 2025			TBC			£ 5,500,000	No funding secured. To be secured through S106/S278 or CIL may be packaged with A320 & HIF bid. Included in Arcadis A320 Study				£ 5,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Junction Hotspots: B389 Christchurch Road	Junction improvements at roundabout at B386/Callow Hill/Wellington Avenue	Virginia Water	Prior to 2020		TBC				£ 4,000,000	No funding secured. To be secured through S106/S278 or CIL & other funding source				£ 4,000,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Link Hotspots: Silverlands Close (St Peter's Hospital)	Link hotspot	Chertsey	Prior to 2020		TBC				£ 1,500,000	No funding secured. To be secured through S106/S278 or CIL				£ 1,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Link Hotspots: A308 Windsor Road	Link hotspot	Egham	Prior to 2025		TBC	TBC			£ 1,500,000	No funding secured. To be secured through S106/S278 or CIL				£ 1,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Link Hotspots: B386 Longcross Road	Link hotspot	Longcross	Prior to 2020		TBC				£ 1,500,000	No funding secured. To be secured through S106/S278 for LGV				£ 1,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Link Hotspots: A319 Chobham Road	Link hotspot	Ottershaw	Prior to 2020		TBC				£ 1,500,000	No funding secured. To be secured through S106/S278 for LGV. Included in A320 Arcadis study				£ 1,500,000

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)				Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Transport	Highways		Strategic Transport Assessment Report (SHAR) Link Hotspots: A320 Guildford Road (Include Ottershaw Roundabout and St Peter's Way Rbt)	Link hotspot	Ottershaw	Prior to 2025			TBC			£ 17,500,000	No funding secured. To be secured through S106/S278 or CIL & HIF bid. Included in Arcadis A320 Study				£ 17,500,000
Transport	Highways		Strategic Transport Assessment Report (SHAR) Link Hotspots: Wellington Avenue	Link hotspot	Virginia Water	Prior to 2020		TBC				£ 1,500,000	No funding secured. To be secured through S106/S278 or CIL				£ 1,500,000
Transport	Other Transport	Other Transport	Borough wide cycle network improvements including Chertsey – cyclist right hand turn lane	Fill in the missing links, improvements to existing network and provide links to neighbouring authorities	Runnymede	2020/21+		£ 3,000,000	£ 3,000,000	£ 4,000,000		£ 10,000,000	No funding secured. Bids to M25 Accessibility & Integration Project submitted	£ -		Draft Local cycling strategy	£ 10,000,000
Transport	Other Transport	Other Transport	Chertsey: Capacity and pedestrian improvements	Bridge Road/Weir Road junction, Chertsey: capacity and pedestrian improvements	Chertsey	By 2017		£ 130,000				£ 130,000	£ -	£ -	£ 130,000	Runnymede IDP Feb 2013	£ 130,000
Transport	Other Transport	Other Transport	Chobham Lane, Longcross cycle improvements	To provide a cycle link on Chobham Lane to Kitsmead Lane	Rowtown, Longcross, Virginia Water & Rural	By 2018							£ -	£ -		Runnymede IDP Feb 2013	£ -
Transport	Other Transport	Other Transport	Multi user route	Creation of multi user route from A320 through Homewood Park to Stonehill Road	Addlestone	Post 2017		£ 27,500	£ 27,500			£ 55,000	£ -	£ -	£ 55,000	Runnymede IDP Feb 2013	£ 55,000
Transport	Other Transport	Other Transport	New multi user route	New multi user route along the northern boundary of the former DERA site	Rowtown, Longcross, Virginia Water & Rural	Post 2017		£ 22,500	£ 22,500			£ 45,000	£ -		£ 45,000	Runnymede IDP Feb 2013	£ 45,000
Transport	Other Transport	Other Transport	Royal Holloway (RHUL) Master Plan	Remove two existing pedestrian bridges and install three new pedestrian and cyclist crossings on the A30 London Road	Egham, Egham Hythe & Englefield Green	2020+										Runnymede IDP Feb 2013	£ -
Transport	Other Transport	Other Transport	Station Travel Plans	Station Travel Plans	Borough wide	Post 2020											TBC
Transport	Other Transport	Other Transport	Improvements to River Bourne cycle path (where it crosses the bridge in Chertsey) Part of NCR N4	Improvements to River Bourne cycle path (where it crosses the bridge in Chertsey) Part of NCR N4	Chertsey	Post 2020						£ 200,000					£ 200,000
Transport	Other Transport / Public Transport	Other Transport	Egham Sustainable Transport Package Phase 2	Walking / cycling / bus improvements and bus service in the Causeway Employment Area, A30 pedestrian crossing	Egham	2018+		£ 5,000,000				£ 5,000,000					£ 5,000,000
Transport	Public Transport	Public Transport	Borough wide bus network improvements	Bus priority, infrastructure etc borough wide	Borough wide	Post 2020						£ 4,000,000					£ 4,000,000
Transport	Public Transport	Public Transport	Public transport access to Heathrow	Public transport access to Heathrow	Borough wide	Post 2020						£ 4,000,000					£ 4,000,000
Transport	Public Transport	Public Transport	Wider Staines Quality Bus Partnership	Improvements to bus corridors cross boundary (71, 441, 446, 458/461, 555)	Staines	2020+			£ 4,300,000			£ 4,300,000			£ 4,300,000		£ 4,300,000
Transport	Public Transport	Public Transport	Longcross station access	Longcross station access	Longcross	2020+							To be secured through S106 for LGV.				TBC
Transport	Public Transport	Public Transport	Bus stop improvements at the Rowtown junction	Bus stop improvements at the Rowtown junction	Rowtown, Longcross, Virginia Water & Rural	By 2015		£ 61,000				£ 61,000	£ -			Runnymede IDP Feb 2013	£ 61,000
Transport	Public Transport	Public Transport	Longcross site bus service	Bus service to support the Longcross site development	Rowtown, Longcross, Virginia Water & Rural	2018 - 2022		£ 880,000				£ 880,000	£ 880,000			Runnymede IDP Feb 2013	£ 880,000
Transport	Public Transport	Public Transport	Runnymede yellow bus service	To continue to maintain a yellow bus service borough wide.	Borough wide	Continuing existing service		£ 118,300	£ 118,300	£ 118,300		£ 354,900	£ -			Runnymede IDP Feb 2013	£ 354,900
Transport	Rail	Rail	Crossrail 2 Proposed Regional Route	Surrounding and supporting infrastructure	National scheme	2030						£ 31,000,000	Public/privately funded, but no funding gap relevant to RBC		£ 31,000,000	SCC Surrey Futures Transport Infrastructure Priorities	£ -

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase					Funding (£)					Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Transport	Rail	Rail	Southern Rail Access to Heathrow	Southern Rail Access to Heathrow	National scheme	2024				£ 975,000,000		£ 975,000,000	£ -	£ -	£ 975,000,000	SCC Surrey Futures Transport Infrastructure Priorities - Cost estimate from Sue Jamota at SCC based on LB Hounslow estimates	£ -
Transport	Rail	Rail	Increased number of trains to Egham / Virginia Water	Increased number of trains to Egham / Virginia Water	Egham / Virginia Water	2018+						£ 1,500,000			£ 1,500,000		£ -
Transport	Rail	Rail	Closure of Egham / Addlestone level crossing	Closure of Egham / Addlestone level crossing	Egham / Addlestone	2018+											£ -
Transport	Rail	Rail	Upgrade to Longcross Station	Upgrade to Longcross Station - additional services	Longcross	2018 - 2024			£ 1,500,000			£ 1,500,000			£ 700,000		£ 800,000
Transport	Rail	Rail	SW Mainline enhancements	SW Mainline enhancements		TBC by Network Rail											£ -
Transport	Rail	Rail	Feltham re signalling	Feltham re signalling		TBC by Network Rail											£ -
Transport	Rail	Rail	Station improvements at Addlestone	Station improvements at Addlestone (platform lengthening)	Addlestone	2017-2021											£ -
Transport	Rail	Rail	Longcross real time information	Longcross real time information	Longcross	2017					£ 700,000	£ 700,000					£ 700,000
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	River Thames Scheme - Property Level Protection		Lower Thames - Sunbury & Weybridge			£ 7,473,000				£ 7,473,000	£ 1,030,000	£ 6,443,000	£ 7,473,000	Local Levy, public sector and indicative GiA	£ -
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	Penton Hook Restoration		Chertsey/ Staines	2017	EA	£ 1,663,000	1,528.00			£ 5,795,000	£ 1,664,528		£ 1,664,528		£ 4,130,472
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	River Wey Weir Refurb		Wey Catchment, Tilford to Thames	2017	EA	£ 3,888,000				£ 4,654,000	£ 4,167,000		£ 4,167,000		£ 487,000
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	Wey Road, Weybridge Flood Alleviation		Weybridge	2021	EA					£ 667,100	£ 70,000		£ 70,000	Local levy	£ 597,100
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	Byfleet and Weybridge FAS	Advanced appraisal + shortlisting of options for Byfleet and Weybridge FAS	Byfleet + Weybridge	2017 – 2019	Environment Agency		£ 27,000			£ 27,000	£ 547,000	£120,000	£ 547,000	EA FCERM.	£ -
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	River Thames Scheme – Community Resilience Measures	Community Resilience Measures – assessment of areas that could benefit from localised solutions	Sunbury and Weybridge, Lower Thames	43556	Environment Agency	£ 899,000	£ 4,691,000			£ 5,590,000	£7,090,000		£7,090,000	EA FCERM.	£ -
Flood Defences / Sustainable Drainage	Flood Defences	Flood Defences	River Thames Scheme – capacity Improvements + Flood Channel	30 to 60m wide channel, built in 3 section, including Egham Hythe to Chertsey	Sunbury and Weybridge, Lower Thames	Beyond 2021	Environment Agency	£ 3,351,000	£ 21,493,000			£ 24,844,000.00	£117,367,000	£ 343,416,000		EA FCERM.	

Infrastructure Category 1	Infrastructure Category 2	Infrastructure Type	Project name	Project description	Location	Timing	Delivery responsibility	Cost (£) by phase				Funding (£)				Funding gap
								2015/16-2019/20	2020/21-2024/25	2025/26 -2029/30	2030/31-2034/35.	Total	Secured	Expected	Total	Sources	
Flood Defences / Sustainable Drainage	Sustainable Drainage	Sustainable Drainage	South Avenue		Egham	2017/18	SCC	£ 150,000			£ 150,000						£ 150,000
Flood Defences / Sustainable Drainage	Sustainable Drainage	Sustainable Drainage	St.Peter's Way		Addlestone	2018-19	SCC	£ 110,000			£ 110,000						£ 110,000
Flood Defences / Sustainable Drainage	Sustainable Drainage	Sustainable Drainage	Guildford Road		Chertsey	2019-21	SCC	£ 110,000			£ 110,000						£ 110,000
Flood Defences / Sustainable Drainage	Sustainable Drainage	Sustainable Drainage	Delta Way		Thorpe	2019-21	SCC	£ 110,000			£ 110,000						£ 110,000
Flood Defences / Sustainable Drainage	Sustainable Drainage	Sustainable Drainage	Lyne Lane		Chertsey	2019-21	SCC	£ 110,000			£ 110,000						£ 110,000
Utilities	Utilities	Electricity	Reinforcement and asset replacement projects	Three projects in Runnymede		By 2023	UKPN				£ 2,959,205	£ 2,959,205			£ 2,959,205		
Utilities	Utilities	Electricity	Developments at National Grid Connection Points relevant to Surrey / Runnymede area - reinforcement and ITC	Brookwood 11kV, Chertsey 11kV, Weybridge 11kV, West Weybridge 33kV, Byfleet 132kV	Brookwood, Chertsey, Weybridge, West Weybridge, Byfleet	2014 to 2018	SPN Plc										
Utilities	Utilities	Potable Water	Measures to meet growing demand and fulfill sustainability reductions	Eight projects in Wey Water Resource Zone	Wey Water Resource Zone	2015 to 2038	Affinity Water										
Utilities	Utilities	Wastewater	Sewage Treatment Works upgrades	Upgrades to sewage treatment works at Merstham, Mogden, Old Woking , Hogsmill, Guildford, and Loxwood wastewater treatment works			Thames Water										

Appendix B – Benchmarks for Modelling

Table 89. Benchmarks for Modelling

Infrastructure Type		Benchmark Standard	Assumption/ Source
Education			
Early Years Education	% of 0-4 year olds attending early years education	50%	Previous project Experience (Milton Keynes, Swindon, Exeter, East Hampshire, Huntingdonshire, Fareham)
Early Years Education	Places per nursery	50	Previous project Experience (Milton Keynes, Swindon, Exeter, East Hampshire, Huntingdonshire, Fareham)
Early Years Education	Sq.m per 50 place nursery	150	AECOM Cost Consultants - January 2016
Early Years Education	Cost per Sq.m	£5,333	AECOM Cost Consultants - January 2016
Early Years Education	Cost per facility	£800,000	AECOM Cost Consultants - January 2016
Primary Education	% of 4-10 year olds attending primary education	80%	Surrey County Council Schools Organisation Plan 2015-16
Primary Education	Primary School Pupils in 1 FoE	210	DfE
Primary Education	Per Pupil Cost	£13,980	Previous project experience (SIS)
Secondary Education & FE	% of 11-15 year olds attending secondary education	80%	Surrey County Council Schools Organisation Plan 2015-16
Secondary Education & FE	% of 16-17 year olds attending secondary education or FE course	80%	Previous project experience
Secondary Education & FE	Secondary School Pupils in 1 FoE	210	DfE
Secondary Education & FE	Per Pupil Cost	£21,064	Previous project experience (SIS)
Further Education		Included within secondary.	
Adult Education	% of the population attending adult education	2%	Previous project experience (e.g. Oxfordshire) indicates 1-3% of adult pop
Adult education	Per Student Cost	£8,645.67	Essex County Council
Adult education	Sq.m space per student	2.33	Essex County Council

Infrastructure Type		Benchmark Standard	Assumption/ Source
Healthcare			
Primary healthcare	% of the population registering with a GP	100%	Previous project experience
Primary healthcare	Number of registered patients per FTE GP	1,800	Dept. of Health
Primary healthcare	Average sq.m floorspace per FTE GP	165	NHS Healthy Urban Development Model
Primary healthcare	Cost per sq.m floorspace for a new GP surgery	£2,500	AECOM Cost Consultants - 2015
Primary healthcare	% of the population registering with a dentist	100%	Previous project experience
Primary healthcare	Number of registered patients per FTE dentist	2,000	General Dental Council
Primary healthcare	Average sq.m floorspace per FTE dentist	50	AECOM Standard from Comparable UK Infrastructure projects
Primary healthcare	Cost per sq.m floorspace for a new dental surgery	£1,518	AECOM Cost Consultants - 2015
Acute healthcare	Hospital beds per 1,000 population	1.96	Information received from CCG (consistent with SIS figure)
Acute healthcare	Sq.m per Acute Bed	160	AECOM Cost Consultants benchmark data (consistent with information received from CCG)
Acute healthcare	Cost per Sq.m	£3,200	AECOM Cost Consultants - 2015 (consistent with information received from CCG)
Acute healthcare	Mental health beds per 1,000 population	1.96	Information received from CCG (consistent with SIS figure)
Acute healthcare	Sq.m per Mental Health Bed	85	AECOM Cost Consultant Benchmark data (consistent with information received from CCG)
Acute healthcare	Cost per Sq.m	£2,850	AECOM Cost Consultant Benchmark data (consistent with information received from CCG)
Older age accommodation	Nursing Home places per 1000 persons over 75	45	The Housing Learning and Improvement Network (LIN) SHOP TOOL - Demand levels based prevalence rates from "More Choice,

Infrastructure Type		Benchmark Standard	Assumption/ Source
			Greater Voice".
Older age accommodation	Residential Care places per 1000 persons over 75	65	The Housing Learning and Improvement Network (LIN) SHOP TOOL - Demand levels based prevalence rates from "More Choice, Greater Voice".
Older age accommodation	Extra Care places per 1000 persons over 75	25	The Housing Learning and Improvement Network (LIN) SHOP TOOL - Demand levels based prevalence rates from "More Choice, Greater Voice".
Older age accommodation	Typical Nursing Care Unit Bed Number per facility	72	Kent and Medway Social Care Research - Estuary View Medical Centre Plans for Expansion
Older age accommodation	Typical Residential Care Unit Bed Number per facility	72	Kent and Medway Social Care Research - Estuary View Medical Centre Plans for Expansion
Older age accommodation	Typical Extra Care Unit Bed Number per facility	77	AECOM Cost Consultants Extra Care Facility Planning Guidelines 2015
Older age accommodation	60 Bed Nursing Care Unit Build Cost	£5,400,000	AECOM Cost Consultants - 2015
Older age accommodation	60 Bed Residential Care Unit Build Cost	£3,600,000	AECOM Cost Consultants - 2015
Recreation			
Outdoor sports, recreation and parks	Outdoor sports incl playing pitches and parks - total ha per 1,000 pop	1.6	RBC Open Space Study 2016 (NPFA / Fields in Trust)
Outdoor sports, recreation and parks	Playing pitches - ha per 1,000 pop	1.2	RBC Open Space Study 2016 / Surrey Infra Study / Fields in Trust
Outdoor sports, recreation and parks	Parks - ha per 1,000 pop	0.4	RBC Open Space Study 2016 / Surrey Infra Study / Fields in Trust
Outdoor sports, recreation and parks	Cost per ha. (playing fields)	£348,315	AECOM Cost Consultants - 2016 (Essex GIF) - based on 'Outdoor Sports; assuming playing fields'
Outdoor sports, recreation and parks	Cost per ha (parks)	£232,210	AECOM Cost Consultants - 2016 (Essex GIF) - based on 'Local Open Space'
Play Space	Ha. per 1,000 pop. informal play space	0.55	RBC Open Space Study 2016

Infrastructure Type		Benchmark Standard	Assumption/ Source
Play Space	Ha. Per 1,000 pop designated equipped playing space	0.25	RBC Open Space Study 2016
Play Space	Cost per Sq.m informal play space (assuming parks)	£23	AECOM Cost Consultants - 2016 - based on 'Local Open Space' (Essex GIF)
Play Space	Cost per Sq.m designated equipped playing space)	£348	AECOM Cost Consultants - 2016 - based on 'Children's play area; hardstanding and rubber mats to play areas only' (Essex GIF)
Community Facilities			
Community Centres	Community Space (Flexible standard spec) - m^2 per 1,000 pop	65	Previous project Experience (Milton Keynes, Swindon, Exeter, East Hampshire). (Standard used in SIS).
	Cost per Sq.m	£1,428	AECOM Cost Consultants - 2016 (Essex GIF)
Green Infrastructure			
Amenity Green Space	ha. per 1,000 people	0.6	Fields in Trust
Amenity Green Space	Cost per ha	£116,105	AECOM Cost Consultants - 2016 - based on 'Semi Natural Open Space'
Allotments	Allotments per household (no.):	0.02	NSALG, RBC Open Space Study 2016
Allotments	Allotments per household (ha.):	0.0005	Fields in Trust, RBC Open Space Study 2016
Allotments	Cost per ha	£232,210	AECOM Cost Consultants - 2016 - based on 'Semi Natural Open Space'
Parks and Gardens	ha. per 1,000 people	0.8	Fields in Trust, RBC Open Space Study 2016
Parks and Gardens	Cost per ha	£232,210	AECOM Cost Consultants - 2016 - based on 'Local Open Space'

Source: AECOM research

Appendix C – Infrastructure Funding Sources

9.1 Introduction

9.1.1 Funding is the biggest risk to delivering infrastructure. As this document highlights, there are presently significant gaps in funding of all types of infrastructure across the country. With the shape and level of public sector funding very difficult to predict, RBC and its infrastructure delivery partners face significant funding challenges to ensure the delivery of infrastructure to support existing and future residents.

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

- Organisations within Runnymede and Surrey with access to funding and their respective funding source options which could be relevant to infrastructure delivery.
- A comprehensive review of potential infrastructure gap funding options for consideration by Runnymede Borough Council.

9.1.3 The funding situation outlined in this chapter reflects current knowledge of approaches to the delivery and funding of infrastructure. However, an important point to note is that over the study time period a number of policy and governance changes will take place which will impact the capital environment for Local Authorities and traditional sources of funding. This makes it difficult to predict the policy and funding possibilities for infrastructure in its broadest sense (health, education, transport etc.) in five years' time, and even in one years' time. All delivery and funding commitments need to be considered within this context.

9.1.4 Runnymede Borough Council can only work with what is currently known which highlights the need for flexibility - essential to accommodate the inevitable changes to delivery and funding over the planning period.

9.2 Overview of Organisations Responsible for Delivery and Funding of Infrastructure, and the Main Sources of Public Funding by Broad Theme

9.2.1 The influence of local authorities on infrastructure funding varies considerably depending on the role played by Central Government and the private sector in each segment of the infrastructure market. This reflects current and evolving policy and practice over which types of funding mechanisms are deemed most appropriate for different types of infrastructure. For instance, much social infrastructure, including within the education, health, and general community facilities, is the responsibility of the upper tier local authority with funding provided by both Central Government grants and local taxation. These services are public goods which meet social objectives that cannot be feasibly paid for by market mechanisms. On the other hand, some forms of infrastructure are delivered by a mixture of non-Governmental public bodies and private companies within strongly regulated markets (e.g. rail,) and most utilities are delivered in semi-competitive markets by highly regulated private companies.

9.2.2 This section provides a summary of these various roles and responsibilities with a focus on the mainstream public grants for capital funding for local infrastructure from the public sector as listed described in this section.

Transport

9.2.3 Transport infrastructure funding comes from a range of sources depending on the nature of the asset and its strategic status.

Roads & local strategic projects

9.2.4 Capital funding for strategic roads is the responsibility of Highways England (HE), a Government owned company. Within Runnymede, Highways England is principally responsible for the M3 and M25, including a major intersection between these motorways at (J2 / J12 respectively).

9.2.5 Highways England reports to the Department for Transport and has responsibility for managing the Strategic Road Network in England. It operates a variety of information services, liaises with other government agencies as well as providing staff to deal with incidents on their roads. Highways England's responsibilities most relevant to the infrastructure framework include undertaking large scale improvements through a programme of major schemes, carrying out routine maintenance of roads, structures and technology to make the network safe, serviceable and reliable and making sure traffic can flow easily on major roads and motorways. Investment decisions are prioritised through HE's cyclical Road Investment Strategy (RIS) which sets out a long-term programme for UK motorways and major roads.

9.2.6 Runnymede will need to work with Surrey to lobby and produce the business case for investment to Central Government / HE to include projects for delivery within the RIS. Between 2015 and 2020, the RIS will see £15.2 billion invested in over 100 major schemes to enhance, renew and improve the network nationwide. Earlier in 2017 the Government announced £1.2bn for additional local roads funding for 2017/18 as part of the National Productivity Investment Fund announced in the 2016 Autumn Statement.

9.2.7 Local roads in Runnymede are the responsibility of Surrey County Council, the transport authority responsible for delivering the majority of the transport-related infrastructure to support development proposals in each borough authority. Other local transport projects to support economic growth and development have less well defined funding and delivery processes. Aside from local authority capital investment budgets, Local Enterprise Partnerships are the main public source of capital grant funding through the Local Growth Deals and Large Local Major Schemes Fund.

9.2.8 Schemes in Runnymede currently allocated funding as part of the EM3 LEP Growth Deal with Central Government include improvements to the Runnymede Roundabout and a County-wide project to improve local sustainable transport. Other instruments are available to local authorities to finance transport investment, e.g. the Public Works Loan Board, business rate retention, and municipal bonds. These are presented in Section 6.3.

9.2.9 In the summer of 2017 the Government additionally launched the £2.3 billion Housing Infrastructure Fund, calling for schemes to apply for funding for transport schemes that unlock housing. The scheme is split into a funding programme for borough-level authorities that can apply for up to £10m for schemes as part of a Marginal Viability Fund, and a Forward Funding programme for unitary authorities looking to make larger, strategic bids.

Rail

9.2.10 The rail network is the responsibility of Network Rail (an arms-length public body). Network Rail owns the infrastructure, including the railway tracks, signals, overhead wires, tunnels, bridges, level crossings and most stations, but not the passenger or commercial freight rolling stock. Although it owns over 2,500 railway stations, it manages only 19 of the biggest and busiest of them, all the other stations being managed by one or other of the various train operating companies. Track renewal, the ongoing modernisation of the railway network by replacing track and signalling, continues to be carried out by private engineering firms under contract.

9.2.11 Projects for capital investment in the local rail network need to meet the Governance for Railway Investment Projects (GRIP) process to be planned / funded within a 5-year Control Period. Similarly to the strategic road network, a sound business case needs to be presented for projects to be included in a Control Period. The current delivery plan period covers 2014 to 2019.

Education

9.2.12 Capital funding for primary and secondary education is raised from Upper Tier Local Authority own resources and the Basic Need Central Government grant scheme to ensure that Local Authorities can provide adequate school spaces for the populace. Funding is currently mapped out until 2019. Revenue funding is part provided by the Central Government Dedicated Spending Grant. Surrey County Council has set aside a 2017/18 allocation of £72m for education capital spending which is expected to deliver new early years, primary and secondary school places within its boundaries.

9.2.13 The Priority School Building Programme (PSBP) has also been in place since 2011, replacing the previous Building Schools for the Future Programme. PSBP provides funds via the Education Funding Agency (EFA) either in the form of a capital grant or through a private finance contract. Schools across England were invited to bid for the fund and awards were allocated to those deemed most in need of rebuilding or maintenance.

Health

9.2.14 Depending on the service, NHS commissioning is either undertaken by local Clinical Commissioning Groups (CCGs) or by NHS England regional groups. Most healthcare services are commissioned by the CCG, but primary care services and other specialist services, such as offender healthcare, are commissioned by NHS England.

9.2.15 The NHS recognise that there is no single geography across which all services should be commissioned: some local services can be designed and secured for a population of a few thousand, while for rare disorders, services need to be considered and secured nationally. Runnymede is located within North West Surrey CCG, but the Borough also provides leisure and community service activities that provide preventative and supportive interventions to at-risk or vulnerable groups. The CCGs and NHS England receive direct funding for commissioning from the Government. In some instances they may also be recipients of developer contributions or other sources of local funding.

9.2.16 Adult social care is funded by the Unitary Authority with some Central Government Grant support, currently through the Better Care Fund, which is presently over around £115m in Surrey for the two years 2017/1018 and-2019. The purpose of the fund is to help meet Government objectives for more social care to take place outside hospitals, reducing the burden on admissions and readmissions.

Emergency Services

Police service

9.2.17 The main source of funding for the police force is the Central Government grant made available through the annual Home Office Police Grant Report. Police and Crime Commissioners can also raise additional revenue funding through council tax precepts. All police forces in the UK have been subject to reductions in funding in recent years.

9.2.18 Police funding for 2017/18 is made up of a core settlement grant, a proportion of DCLG funding formula, and an allocation of Council Tax Grant. In Surrey this totals £99m for the year.

Fire and rescue

9.2.19 The Fire and Rescue Service generally provides its services for free, although there are some special services that can be charged for, and some additional services that can be paid for. The service is free to the end user in the case of an emergency. Funding for the fire service comes from two principal sources: a Central Government grant and a small levy (precept) on the local council tax.

Ambulance services

9.2.20 The ambulance service is the emergency response wing of the National Health Service (NHS). The ambulance service across the UK has two main functions: an accident and emergency paramedical function, and the Patient Transport Service function which transfers immobile patients to and from their hospital appointments. Runnymede is serviced by the South East Coast Ambulance Service. Funding for this organisation is from the National Health Service rather than Central Government (in contrast to the other two emergency services) and has experienced reductions in overall funding in recent years.

Community, Sports and Leisure

9.2.21 Most Community Services, including the running and development of leisure centres, museums and galleries, as well as waste and refuse collection and other local services are the managed and run by Runnymede Borough Council, although libraries are the responsibility of Surrey County Council.

9.2.22 Local Parish councils can also have powers to provide some facilities themselves, or they can contribute towards their provision by others. There are large variations in the services provided by parishes, but they can include: support and encouragement of arts and crafts; provision of village halls; recreation grounds, parks, children's play areas, playing fields and swimming baths; cemeteries and crematoria; public conveniences; provision of cycle and motorcycle parking; acquisition and maintenance of rights of way.

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

9.2.24 Beyond their budget, local authorities may also secure support from a range of specialist organisations such as Sports England, the Arts Council or the Lottery Fund.

Green Infrastructure

9.2.25 Natural England is the non-departmental public body of the UK government responsible for ensuring that England's natural environment, including its land, flora and fauna, freshwater and marine environments, geology and soils are protected and improved. Natural England is promoting the concept of green infrastructure as a way to deliver a wide range of benefits for people and the natural environment together. It believes that green infrastructure should be delivered via the spatial planning system, as an integral part of new development everywhere, and also form a key part of proposals to regenerate existing urban areas.

Utilities

9.2.26 Utilities infrastructure delivery and funding is largely the responsibility of the relevant utility companies with connections to services also funded through site developers. For future development, it will be important to clarify the procedure by which these utility companies consider development sites and how these are included within their own investment strategies.

9.2.27 Utility Providers are regulated by OFGEM and OFWAT; in principle, neither regulator supports installing new infrastructure on a speculative basis, rather they are reactive to providing supply to new developers once schemes are consented. However, if a robust business case that gives a good level of certainty that development will take place in a definite timescale is put to the Regulators, advance funding may be approved. Water providers, as natural monopolies, are obligated in the requisitioning or provision of self-lay connections by developers or their contractors and subject to regulation under the 1991 Water Industry Act. This stipulates that they must provide necessary infrastructure and supply given the attainment of certain conditions and costs by the developer. The main water supplier in Runnymede is Affinity Water which also supplies waste water and sewerage services. Waste and refuse collection is also the responsibility of Runnymede Borough Council.

Flood Protection and Drainage

9.2.28 Surrey County Council is the Lead Local Flood Authority (LLFA) for Runnymede. This means that they are able to receive Central Government funding for Flood and Coastal Erosion Risk Management (FCERM). Funding can be delivered via a range of routes, including via DEFRA, DCLG the Environment Agency, or other bodies that have been devolved funding responsibilities such as LEPs. £692m has been allocated by Central Government in 2016 / 17 for these purposes. In return, the LLFAs have a range of responsibilities including to:

9.2.29 Prepare and maintain a strategy for local flood risk management in their areas, coordinating views and activity with other local bodies and communities through public consultation and scrutiny, and delivery planning;

9.2.30 Maintain a register of assets –i.e. physical features that have a significant effect on flooding in their area; investigate significant local flooding incidents and publish the results of such investigations; establish approval bodies for design, building and operation of Sustainable Drainage Systems (SuDS); issue consents for altering, removing or replacing certain structures or features on ordinary watercourses; and play a lead role in emergency planning and recovery after a flood event. Internal Drainage Boards (IDBs) are responsible for managing water levels in low-lying bodies. They are independent bodies with elected members and Local Authority representatives, funded by drainage levies raised on Local Authorities and local land owners.

9.3 Additional Funding Options and Meeting the Funding Gap

Future Outlook for Public Funding

9.3.1 The Local Government Finance Act came into force in April 2013, giving Local Authorities the power to retain up to half of the proceeds of any growth in business rate income within their jurisdiction. The devolution of this key funding source came against a background of austerity budgets since 2011 in which Central Government grant funding to Local Authorities, via the Revenue Support Grant, was sharply reduced. Over this same period a devolution agenda has also been followed by Government, through which many traditional sources of funding to Local Authorities were pooled into the Single Local Growth Fund and reallocated to Local Enterprise Partnerships as part of Local Growth Deals.

9.3.2 The implication of these changes is that Local Authorities have to work with these new systems and mechanisms in order to find and apply for funding to deliver services and new infrastructure. The picture of public funding for infrastructure in England is an evolving one which will need to be constantly monitored in order to ensure that local authorities remain aware of the opportunities available to finance their infrastructure requirements.

9.3.3 The current trend towards reducing public resources, the use of competitive funds and a greater reliance on private sector sources is likely to continue. On the other hand some structural changes may occur as a result of emerging Devolution deals and the eventual exit of Great Britain from the European Union. The Industrial Strategy, currently at White Paper Stage, is partially a response to regional economic divergence and the ongoing national productivity challenge which were brought sharply into focus by the Brexit vote. The implications of the Industrial Strategy are likely to imply that a significant amount of new investment will be channelled to local areas, most likely via LEPs, to invest in priority areas and sectors that can boost productivity.

9.3.4 Developer contributions' include 'section 106 agreements', highway contributions known as 'section 278 agreements', and the Community Infrastructure Levy (CIL).

Section 106

9.3.5 Planning obligations under Section 106 of the Town and Country Planning Act 1990 (as amended), commonly known as s106 agreements, are a mechanism which make a development proposal acceptable in planning terms, that would not otherwise be acceptable. They are focused on-site specific mitigation of the impact of development.

9.3.6 S106 agreements are often referred to as 'developer contributions' along with highway contributions and the Community Infrastructure Levy. The common uses of planning obligations are to secure affordable housing, and to specify the type and timing of this housing; and to secure financial contributions to provide infrastructure. The legal tests for when you can use a S106 agreement are set out in regulation 122 and 123 of the Community Infrastructure Levy Regulations 2010 as amended. The tests are:

- *"necessary to make the development acceptable in planning terms*
- *directly related to the development; and*
- *fairly and reasonably related in scale and kind to the development".*

9.3.7 The Government viewed S106 as providing only partial and variable response to capturing funding contributions for infrastructure. As such, the introduction of CIL has resulted in a tightening up of the s106 tests. S106 agreements, in terms of developer contributions, should be focused on addressing the specific mitigation required by a new development. CIL has been developed to address the broader impacts of development. There should be no circumstances where a developer is paying CIL and S106 for the same infrastructure in relation to the same development.

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

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

Development Viability

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

Residential Land Values across Runnymede

9.3.10 Residential land values in Runnymede are high, at £4,927,000 at the latest national output from the Valuation Office Agency (VOA). By comparison, the estimated value of a typical residential site for England (excluding London) was £1,958,000 per hectare. It should be noted that the VOA produce annual reports of residential land transactions until late 2010 when Government withdrew funding for it. This is despite the requirement in the NPPF for local authorities to have regard to land values.

9.3.11 Within Runnymede, residual land values (based on sales prices as a proxy) range significantly between Virginia Water at the most expensive and the area west of Staines as the least.

Community Infrastructure Levy

9.3.12 The Community Infrastructure Levy (CIL) came into force in April 2010. It is a fixed tariff based levy directed at new development to fund infrastructure. The Government considers the CIL to be *"fairer, faster and more certain and transparent than the system of planning obligations which causes delay as a result of lengthy negotiations"*. Levy rates are set by individual local authorities and may vary across each LPA and are subject to consultation with local communities and developers.

9.3.13 Runnymede is currently developing a CIL charging scheme as part of the ongoing development of its Local Plan.

Implications of CIL Regulations on Section 106 Agreements

9.3.14 The 2014 CIL Statutory Regulations placed additional restrictions on LPA's use of Section 106 funding. Since 6th April 2015 local authorities can no longer pool more than five s106 obligations together (dating back to March 2010) to pay for a single infrastructure project or type of infrastructure (however Section 278 agreements are unaffected). While this will not stop the use of S106 altogether, it now means that LPA's must be clearer on what projects specific developments will be contributing to and restricts the ability of the county council to fund projects using S106 contributions.

9.3.15 Given the limitations of CIL and section 106 to fully fund infrastructure across Runnymede, consideration must be given to wider (and more innovative) funding mechanisms that are being developed by the public and private sectors

9.3.16 In a context of significant projected population growth combined with constrained financial resources, Runnymede may need to explore ways to secure additional funding, beyond mainstream public sector grants (Section 6.1) and developer contributions (Section 6.2), in order to meet their infrastructure needs.

9.3.17 This section provides an overview of current options for such alternative funding drawing on the experience of local authorities across the UK but bearing in mind that funding sources evolve over time with emerging priorities and changes in regime either at local, regional or national level.

9.3.18 Whilst above were outlined the main sources of public sector grants available to pay for infrastructure, the funding gap will require the use of other instruments including a range of financial and market-based mechanisms.

9.4 Borrowing

Public Works Loan Board or 'PWLB'

9.4.1 The public sector can borrow from the Public Works Loan Board (PWLB) at a low rates determined by HM Treasury to fund its spending and represents a key source of finance which could be used to fund infrastructure. This is the main direct funding source for local authorities. Local authorities can borrow to invest in capital works and assets so long as the cost of borrowing is affordable and in line with the principles set out in a professional Prudential Code. This means that local authorities must use various prudential indicators to judge whether their capital investment plans are affordable, prudent and sustainable. Prudential borrowing represents a key source of affordable finance which could be used to meet the upfront costs of key infrastructure. It has the benefit of being a relatively reliable source of finance, not being subject to commercial market appraisals in the way that a bank financed project would be.

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

Local Authority Bonds

9.4.3 Bonds allow local authorities to raise substantial sums of capital immediately, on the basis of promises to repay the capital with interest at a specified point in the future. Local authorities' borrowing limits will be related to the revenue streams available to them, which influence their ability to repay the debt. Local authorities are prevented by law from using their property as collateral for loans. It would be possible for a local authority to issue bonds as part of a TIF process.

9.4.4 Money would be obtained up-front by selling the bonds (instead of approaching financial institutions), and they could be repaid by the additional tax revenues resulting from the public investment. If the future tax revenues do not materialise and the local authority is thus unable to repay the bonds, this will of course cause financial problems for the local authority.

9.4.5 As of 2016, a new UK Municipal Bonds Agency has been established. It is owned by some 56 shareholding local authorities. The purpose of the agency is to facilitate the issuing of bonds by smaller local authorities, and to obtain a competitive price for their bonds within the conventional bond market in order to reduce councils' capital costs over the long term. It will do this by: raising money on the capital markets through issuing bonds; arranging lending or borrowing directly between local authorities; sourcing funding from other third party sources such as banks, pension funds and insurance companies.

Example - Croydon Council

9.4.6 The current Croydon Growth Zone is a billion pound delivery programme of infrastructure development to enable the Central Opportunity Area (COA) to accommodate the delivery of 23,600 new jobs with a further 5,100 jobs created during the construction phase, the creation of at least 10,500 new homes and the wholesale renewal of the retail core. It is planned to be funded through a TIF funding model using the retention of enhanced Business Rates to pay back the Public Works Loan Board (PWLB) loan of around £300 million. The project is forward funded by a grant of £7m from the Government to fund the early years interest repayments.

9.4.7 It aims to lend to eligible councils at a lower rate than the PWLB or than if the councils were to issue their own bonds. This lower rate will be attained by: achieving a sovereign like credit rating through a joint and several guarantee (see section 6 of the business case); issuing bonds in benchmark sizes of £250 million to £300 million; sourcing capital at low interest rates from third parties, such as the European Investment Bank. The Municipal Bonds Agency will be open both to shareholder authorities and other authorities.

Borrowing against Local Revenue

9.4.8 In recent years a number of alternative borrowing mechanisms have been trialled in the UK, using local revenue streams as a basis for long-term lending. However, take-up of each of these mechanisms has been limited so far.

Tax Increment Financing (TIF)

9.4.9 TIF schemes were approved by the 2010-1015 Coalition Government as a new mechanism for forward funding infrastructure and capital development. Tax Increment Financing allows local authorities to capture the value of uplifts in local taxes (business rates) that occur as a result of infrastructure investment. Specifically it enables local authorities to borrow against the value of the future uplift in order to deliver the necessary infrastructure. Tax increment financing schemes in England have so far been based on business rate revenues, as this is the only local authority tax the revenues of which are likely to be directly affected by infrastructure projects.

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

Example: Warrington Council

9.4.11 In August 2015, Warrington Council issued £150 million in bonds, with a 40-year repayment period. The majority of the funding is to be used to redevelop Warrington town centre. The council will seek to repay the bonds via the proceeds from this redevelopment, whether in the form of business rates revenue, or the sale and rental of the properties in question.

Example: Northern Line Extension

9.4.12 London Underground's Northern Line extension to Battersea involves an extra 3.2 km of track that will run from Kennington to the site of the disused Battersea Power Station, via Nine Elms. An innovative finance package to deliver the Northern Line Extension was developed by TfL, the GLA, Wandsworth Borough Council and Lambeth Council.

9.4.13 It was agreed that the lion's share of Section 106 and Community Infrastructure Levy contributions from sites in the Nine Elms Enterprise Zone, within which Battersea Power Station sits, would be ring fenced to help fund the tube line extension. A Tax Increment Financing (TIF) deal was also agreed to provide additional funding for the Northern Line Extension. The GLA is taking out a loan of up to £1 billion to fund the project, with a repayment guarantee provided by the UK government. Loan repayments are due to be paid back, in part, through future growth in business rates revenue within the Nine Elms Enterprise Zone. The CiL and s106 revenues will also be used to pay back the loan.

Business Rate Retention

9.4.14 The Business Rates Retention (BRR) scheme was introduced in April 2013 and provides the opportunity for councils to retain a proportion of business rates revenue as well as growth on the revenue that is generated. The scheme could be used to meet the cost of infrastructure as and when the revenue is received, or it could be used to raise finance to meet up-front infrastructure costs. Under the BRR scheme local authorities are able to pool together on a voluntary basis to generate additional growth and smooth the impact of volatility in rates income across a wider economic area. Business rates would generate funds which could be used to pay for a range of needs. Their use to help meet the funding of infrastructure would need to be carefully considered against other council funding objectives.

9.5 Drawing Value from the Local Authority's Own Assets and Resources

Local Asset Backed Vehicles (LABV)

9.5.1 Local Asset-Backed Vehicles (LABVs) allow local authorities to use their assets (usually land) to lever long-term investment from the private sector for regeneration projects. They are designed to bring together a range of public and private sector partners in order to pool finance, planning powers, land and expertise; to ensure an acceptable balance of risk and return for all partners; and to plan and deliver projects more strategically. There is no uniform method for designing LABV arrangements. In fact, given the varying capacity, assets and ambitions of local authorities across the country, each LABV must be specifically tailored to the individual needs of a local authority or city-region, depending on the scale of the vehicle. Nevertheless, there are certain phases that all LABVs are likely to go through in their formation. Generally, when attempting to establish a LABV, local authorities and other public sector bodies will first collaborate to identify a portfolio of assets and a pipeline of regeneration projects which require funding.

9.5.2 Finding the right mix of assets is important, and they should be bundled together specifically with the aim of attracting particular private sector partners. In order to simplify the public-private relationship and make it easier to attract private investment, this collaboration is then formalised into one company with a single governance structure – the LABV.

9.5.3 Any number of specialist partners can be introduced further down the line, whether they are developers, infrastructure delivery companies, contractors or other bodies.

Example: Sunderland Council

9.5.4 As part of a strategy to support city centre regeneration, the former Vaux brewery site was acquired by the council with plans to create jobs and enhance city centre attractiveness by developing high quality office space with complimentary residential, retail and leisure uses. This site was packaged together with housing developments in Chapel Garth and Seaburn seafront sites into a joint Local Asset Backed Vehicle (LABV) called Siglion with the council and Carillion, managed by Igloo Regeneration. In addition, the council had to agree to take on the head lease on the first building delivered at the Vaux site in order to make development viable.

9.5.5 The value of entering a LABV to Sunderland has been to improve the ability of the portfolio to support employment, resulting in improved rents and rental income back to the council. The LABV model enabled partners to focus on acquiring sites and building with low occupancy or a poorer offer and improving their performance. In Sunderland, the formal partnership between the public and private sector matches the expertise and finance available in the private sector, with the de-risking through planning that the public sector can bring.

9.5.6 While LABVs can be an effective tool to unlock brownfield or underdeveloped sites, there also present a range of challenges including:

- Securing political buy-in. This can be a challenge for multiple reasons including reluctance to relinquish control of local authority assets; scepticism of the private sector; need for cross-party, cross-boundary working;
- Getting the governance right given the LABV would bring together a diverse range of partners, each with different objectives;
- The capacity of local authorities to set up and manage their own LABV arrangements, and to manage risk;
- The need to maintain stakeholder support; and
- The cost of setting up and operating the LABV. Procurement, preparing and agreeing legal documentation, require significant Officer and external advisor time.

Strategic Asset Management

9.5.7 The combined impact of the recession and local government funding cuts has made publicly owned land and property assets an increasingly important tool for local authorities to support economic growth, as well as to generate revenue funding.

9.5.8 The response to these shifts has meant a greater focus on treating public assets more strategically at local level. Government policy in this area has tended to focus on disposal of publicly owned land and property, as well as reducing costs and improving the public service delivery through co-location. But the priorities for local authorities, and the opportunities that public assets present in terms of supporting local growth, are quite different. Publicly owned land and property can be both a strategic as well as financial asset to local authorities. It can enable them to capitalise on existing assets to deliver more housing or employment space to support economic growth (or improve public service delivery), as well as providing a revenue funding stream in the context of reducing budgets.

9.5.9 While disposal of land and property might remain the right response in some cases, strategies that include investing to refurbish old assets or acquire new ones in the right places are also appropriate responses for cities seeking to proactively support economic growth and regeneration, as well as generate revenues. Three broad approaches to managing and optimising the value of public sector assets can be found across UK local authorities:

- Leading development: in places where the market is too weak to deliver physical development and regeneration without public sector intervention and funding. Partners are purchasing and/or using the existing asset base to pump-prime development that will support economic growth
- Shaping development: In other places, the private sector property market (residential or commercial) is stronger. The focus for partners is using the public asset base to influence how and what kind of development takes place in ways that align with their vision for the city.
- Unlocking development: localities focus on removing the barriers to particularly difficult individual sites and projects, by working together to formally coordinate asset management and investment within cities (across local authorities and public sector agencies), which creates new opportunities for releasing valuable land in strategic locations within urban areas.

9.5.10 Strategic Asset Management is therefore more than just a potential funding stream for local authorities and must be approached as a mechanism to support local development.

Example – One Public Estate

9.5.11 Starting in 2013 One Public Estate is a pioneering initiative delivered in partnership by the Cabinet Office's Government Property Unit and the Local Government Association (LGA). It is about local government working with central government and public sector partners locally on land and property initiatives to deliver four core objectives: create economic growth; more integrated and customer-focused services; generate capital receipts; and reduce running costs. Programmes with 32 of the largest land and property owning councils in England are aiming to create an additional 20,000 jobs, 9,000 homes, and raise £129 million from land and property sales over a five year period

9.6 Public Funds

European Funding

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

9.6.2 The Programme runs from 2014 to 2020 and focuses on:

- Access to employment; learning and skills; technical assistance (ESF);
- Research and innovation, IT and broadband, business support, low carbon, climate change, environment, transport, social inclusion, technical assistance (ERDF); and
- Support for rural businesses (EAFRD) EU funds require match-funding from either public or private sources.

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

9.6.4 The EM3 area has received €50m of funding through the European Structural and Investment Fund for the period 2014-2020, whilst the University of Surrey has received a range of direct grants to support innovative research.

9.6.5 A number of other European funds can support infrastructure investment including: Connecting Europe Facility for road and rail infrastructure with significant EU added value; CIVITAS for the implementation of ambitious, integrated, sustainable urban transport strategies; LIFE for measures to mitigate and adapt to climate change; Natura 2000 to protect the EU's most valuable and threatened species and habitats; ELENA which supports councils in preparing and implementing sustainable energy plans for their area. The European Investment Bank (EIB) lends to individual projects where the total investment cost exceeds €25m.

9.6.6 The future extent and role of European Funding in infrastructure investment available will depend on the arrangements agreed for the exit of the United Kingdom from the European Union.

New Homes Bonus

9.6.7 The New Homes Bonus (NHB), which commenced in 2011, creates an incentive for local authorities to deliver housing growth in their area. It is based on central government match funding the Council Tax raised for new homes and properties brought back into use, with an additional amount for affordable homes, for the following six years to ensure that the economic benefits of growth are returned to the local area.

Private Finance Initiative

9.6.8 Private Finance Initiatives (PFIs) are a form of Public- Private Partnership (PPP), first introduced in 1992. Under a PFI, the private sector will typically design, build, finance and maintain infrastructure facilities under a long-term contract. The public sector body which uses the infrastructure repays the debt over a long period, often 25-30 years.

9.6.9 As PFI contracts allow a local authority to embark on large capital projects with little upfront commitment of resources, it has been a popular option for capital financing in the past although since 2010, the number of new PFI projects has fallen sharply.

9.6.10 In December 2012, the Government announced the replacement of 'PFI' with 'PF2', which sought to address widespread concerns with the Private Finance Initiative and the recent changes in the economic context. The key reforms are as follows:

- Public sector equity: the public sector will take an equity stake in projects and have a seat on the boards of project companies, ensuring taxpayers receive a share of the profits generated by the deal.
- Encouraging more investors with long-term investment horizons - The use of funding

competitions will be introduced to encourage institutional investors such as Pension Funds to compete to take equity in a PF2 project after the design stage. This is significant in terms of risk as Pension Funds are unlikely to invest in projects that are insufficiently developed.

- Greater transparency - Companies will have to disclose actual and forecast annual profits from deals. The new PF2 structure will curb gains to be made from refinancing and un-utilised funds in lifecycle reserves.
- More efficient delivery - An 18-month limit on procurement will be introduced. Failure to meet this limit will see the respective public sector body lose funding.
- Future debt finance - the tender process will require bidders to develop a long-term financing solution where bank debt does not provide the majority of the financing requirement. Institutional investment will, therefore, become an important source of finance for PF2.

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

Local Government Pension Funds

9.6.12 The Local Government Pension Scheme (LGPS) is a funded, statutory, public service pension scheme. DCLG is responsible for the scheme's stewardship and maintaining its regulatory framework. It is administered and managed by local pension fund authorities. The primary responsibilities of Local Government Pension Scheme (LGPS) administering authorities regarding investments are to deliver the returns needed to pay scheme members' pensions, and to protect local taxpayers and employers from high pension costs. Thus pension funds do not represent large additional sources of capital expenditure that could be made freely available to local government.

9.6.13 However, the potential role of the LGPS in infrastructure funding is evolving. A number of recent studies have found there to be scope for LGPS funds to do more to invest for wider social and economic benefit. In 2012, DCLG carried out a consultation on possible changes to the Investment Regulations. As a result of the consultation, it amended the investment regulations to increase the proportion of the capital value of a fund that could be invested in partnerships.

9.6.14 In October 2015, the Chancellor of the Exchequer announced an intention to work with councils to create half a dozen British Wealth Funds able to invest in infrastructure. At the 2016 Budget, the Government announced that it would work with LGPS authorities to establish a new *"Local Government Pension Scheme infrastructure investment platform"*.

Institutional Investors

9.6.15 The UK, particularly the London region, offers an extensive set of infrastructure investment opportunities, including in the regulated utility, power generation and transportation sectors. The UK's longstanding track record of private ownership and robust rule of law makes it amongst the most attractive jurisdictions for infrastructure investing. There is strong interest in the UK infrastructure market amongst overseas investors, including Middle East and Far East sovereign wealth funds as well as more traditional investors such as pension funds and which are struggling to find attractive opportunities to invest their cash amid record low interest rates, are committing more money to real assets, which promise higher returns as well as an annual cash yield.

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

Crowd Funding

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

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

9.6.18 Several dedicated civic crowdfunding platforms have emerged in the UK, some of which have led to the first direct involvement of local governments in crowdfunding. Notable examples include Bristol, Mansfield and London. However, most projects funded through crowd-funding are highly local and small with typical campaigns generating funding around the tens-of-thousands mark. This would not be enough to support large projects that local government is involved with, such as transport infrastructure and educational projects. However, it may be the case that crowd funding represents a potential funding stream for the smaller social infrastructure and desirable local level projects that can often be overlooked when allocating limited funding across a range of infrastructure requirements.

Example: London

9.6.19 The Mayor's Civic Crowdfunding Programme aims at supporting local projects that boost quality of life and the economy by helping Londoners to crowdfund innovative project ideas on Spacehive. In 2015, local community groups – such as Town Teams, Business Improvement Districts or Resident and Trader associations – were asked to pitch ideas on how to make their local high streets better places to visit, live and do business using the Spacehive website. These groups could then use Spacehive alongside social media, email and events to build local support for their ideas in order to reach their funding target.

9.6.20 Selected projects received match-funding up to £20,000 from the Mayor. So far, the Mayor has pledged £600,000 towards 37 projects over two rounds of funding. These projects made up a diverse mix including the Peckham Coal Line, Good Food Catford, Wood Street Walls, The Community Kitchen and more. You can check out some great examples in the Success Stories section

9.7 Conclusions

9.7.1 A wide range of alternative sources of funding are available to Runnymede in order to meet its infrastructure need. However, each source has its strengths and weaknesses and it will be important for Runnymede to devise a tailored and integrated package of funding sources and delivery mechanisms that meet the needs of different areas and types of infrastructure. Runnymede will also have to prioritise clusters or portfolios of projects to focus on those that have the greatest impact and / or if a package of funding sources are being brought together for a series of major projects.

9.7.2 This will require further analysis to assess: which funding sources are appropriate for Runnymede; how different strands of funding can be brought together to secure long-term infrastructure delivery e.g. through mechanisms such as revolving investment funds; and the other Surrey authorities' capability and capacity to develop and manage such instruments.

9.7.3 A high level assessment of forthcoming developments by viability analysts commissioned by Runnymede, suggests that on average, a future CIL regime could contribute approximately 40% towards the major community infrastructure items (highways, education, health, green infrastructure, SANG) associated with Runnymede's principal forthcoming developments. The proportion of CIL funding varies for each site based on the nature of development coming forward based on a range of factors including mix of development coming forward and density of development.

9.7.4 This leaves 60% to be funded by other means as outlined above, including the potential for further S106 funding for specific (i.e. non-pooled) infrastructure items as relevant to individual sites.

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