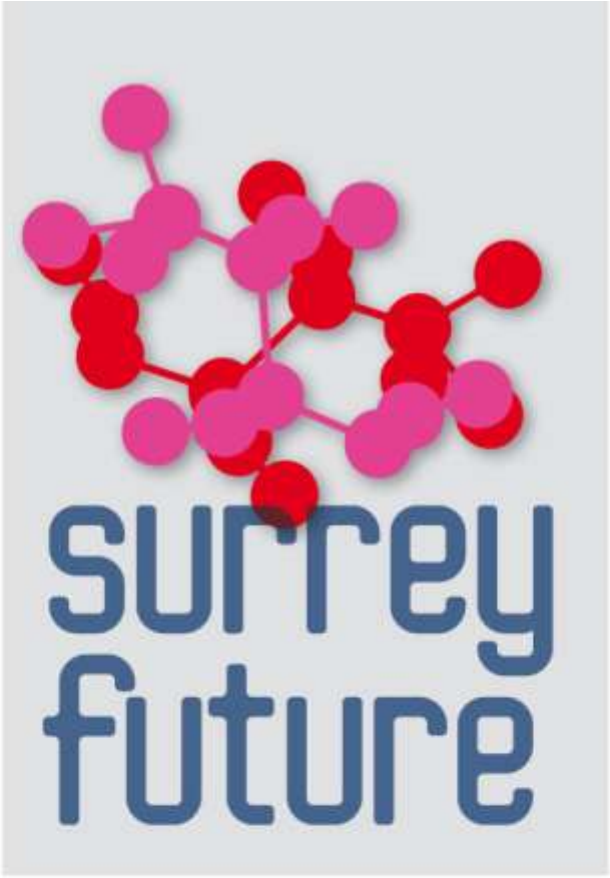


Congestion Programme

2014

Surrey Future brings together Surrey's Local Authorities and business leaders to agree the investment priorities to support the county's economy over the next few decades and establish a list of long-term infrastructure priorities.


ELMBRIDGE
BOROUGH COUNCIL


EPSOM
& EWELL
BOROUGH COUNCIL


GUILDFORD
BOROUGH


MoleValley
District Council


Reigate & Banstead
BOROUGH COUNCIL
Banstead | Horley | Redhill | Reigate


Runnymede
BOROUGH COUNCIL


SPELTHORNE
BOROUGH COUNCIL


SURREY HEATH
BOROUGH COUNCIL


Waverley
BOROUGH COUNCIL


Tandridge
District Council


WOKING
BOROUGH COUNCIL


SURREY
CONNECTS


SURREY
COUNTY COUNCIL


enterprise M3
Driving prosperity in the M3 corridor


coast to CAPITAL
local enterprise partnership


gatwickdiamond
initiative
driving economic growth

Foreword

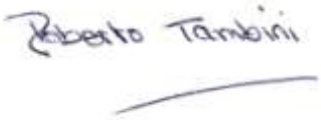
Surrey is renowned for its strong economy and high quality environment of open countryside and historic market towns. It is a great place in which to live, work and do business.

However, congestion and past lack of investment in transport infrastructure are having a negative impact on Surrey's economic competitiveness. Managing congestion on Surrey's roads – which are some of the busiest in the country - is urgently needed to improve traffic flow and to avoid wasting time in traffic jams and losing business through delayed journeys.

Surrey Future, which brings together local authorities and businesses to agree strategic infrastructure priorities for Surrey, have developed this Congestion Programme to help ensure Surrey's economy remains strong and that planned growth set out in local plans is managed in a sustainable way. Building on the Surrey Transport Plan Congestion Strategy (2011), it sets out a strategic programme for tackling Surrey's road congestion problems.

We consulted with a wide range of residents, businesses and organisations during 2013 on a draft version of this Congestion Programme, and a number of changes have been made to this final version as a result of the comments we received. Those who responded broadly supported the aims and approach of the programme and we will work together with businesses, Local Enterprise Partnerships, new Local Transport Bodies and Government to help deliver our programme. We would like to thank all those who responded and contributed to making this programme as relevant and up-to-date as possible.

Local Transport Strategies are now being developed for each district and borough and there will be consultations on these during 2014.



Roberto Tambini
Chief Executive, Spelthorne Borough Council
Chair, Surrey Future Steering Board

Cllr John Furey
Cabinet Member for Transport and Environment, Surrey County Council

Surrey Future

Congestion Programme

2014

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The Congestion Programme sets out the Surrey Future partnership's strategic programme for managing traffic congestion on Surrey's road network in support of economic competitiveness and growth. It has been prepared in partnership with Surrey's districts and boroughs and other stakeholders, such as Surrey Connects representing business interests, to provide a shared and agreed vision for managing congestion on Surrey's road network. The programme builds on the Congestion Strategy in the Surrey Transport Plan, which is the county's third Local Transport Plan.

Changes in the way that major transport schemes are funded are coming into force. The government has announced that funding will be devolved to Local Enterprise Partnerships (LEPs) and Local Transport Bodies (LTBs) rather than decided centrally with funding available from 2015. In Surrey there are two LEPs and two LTBs covering seperate geographical area. These comprise of Enterprise M3 LEP and Enterprise M3 LTB covering west Surrey and Coast to Capital LEP and LTB covering the eastern boroughs and districts. Funding available to both the LEPs and LTBs is through the single Local Growth Fund where funding will be allocated from 2015-2021.

In order that Surrey remains an attractive area for business, the programme will direct future investment in transport infrastructure. We are taking a proactive approach by identifying the necessary infrastructure required so that when funding becomes available we will be able to deliver our programme.

Congestion and its economic impacts

Congestion has many definitions but we are focusing in particular on journey time reliability as we believe this will have the greatest benefits for our businesses and residents. We know that congestion has a costly impact on the economy with congestion on Surrey's road network being calculated to cost the UK economy £550 million every year.

Surrey's strategic location close to London, Heathrow Airport and Gatwick Airport has made Surrey an attractive place for both businesses and residents to locate to, but the downside of this is that Surrey experiences very high traffic levels. Surrey's motorways carry 80 percent more traffic than the average for the south east region and our A roads 66 percent more traffic than the national average. This has led to many of our roads already operating at capacity and if a traffic incident occurs such as an accident this can cause severe disruption on our roads.

Housing, employment and population growth

Across Surrey we need additional housing and an additional 2,600 new homes per year are currently planned along with a projected population increase of 9 percent over the next 20 years. We also expect developments outside of the county planned in Hampshire and West Sussex to come forward. These include Aldershot Urban Extension (4,000 homes), Whitehill/Bordon eco-town (4,000 homes), Broadbridge Heath (2,000 homes), north-west Crawley (1,900 homes) and East Grinstead (1,500 homes). Employment growth is forecast to grow by 11 percent over the next 20 years with the majority of this growth focused in our strategic centres. This growth will place increased pressure on our road network.

Congestion bottlenecks

We have looked at the current situation on our road network and have used technical highway modelling to look at where current and future congestion bottlenecks are and will occur. This information told us that areas under significant strain are:

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

These areas are considered to be the most severely congested junctions and corridors in the county. However, we know that other junctions and areas are also suffering from congestion. A more detailed list of congested bottlenecks in the county can be found in Annex 2.

In addition there are some problems that we consider to have a strategic importance. The A3 is an area of significant congestion that is likely to get progressively worse and road and rail access to both Heathrow and Gatwick Airports is poor from Surrey. Although we are currently unsure of the most appropriate solution for these issues we will work with our partners to develop proposals to tackle these challenges.

Our integrated approach to managing congestion

Our approach to managing congestion does not solely rely on road improvement schemes but also focuses on better management of traffic on our roads and encouraging people out of their cars by providing a more efficient public transport system and better pedestrian and cyclist environments. Our strategy consists of three key elements:

- Delivering a more efficient road network
- Addressing infrastructure gaps and managing bottlenecks on our transport network
- Alternatives to car travel and behavioural change.

Our proposed delivery programme

The delivery programme below shown in Table 1 and 2 is our proposed programme of major road schemes from 2015 to 2019 and post 2019. The programme has been divided in to two timeframes as we have more certainty over what funding is likely to come forward in the 2015-2019 period.

Table 1 – Our proposed programme from 2015-2019

Transport scheme
Epsom Town Centre package
Guildford gyratory improvements
Redhill Balanced Network
Runnymede Roundabout
A30 / A331 Corridor Improvements including Meadows Roundabout
Victoria Arch Capacity Improvements, Woking
Egham Sustainable Transport Package
Farnham Town Centre Package
Highway Improvements, Camberley
Wider Network Benefits Package
A24 Capel to Surrey boundary Corridor Improvements
A31 Hickley's Corner junction improvement
Dorking Town Centre Traffic Management Measures
Kiln Lane Link, Epsom
A24 Clarks Green to Holmwood, Mole Valley

Table 2 – Our proposed transport schemes post 2019

Transport scheme
Road Network Improvements, Reigate
A31 Hickley's Corner Underpass, Farnham
Guildford A3 Strategic Corridor Improvements
Guildford Hub Transport Improvements
Reigate-Redhill Hub Transport Improvements
Staines-upon-Thames Bridge Widening
Woking Hub Transport Improvements
Wrecclesham Relief Road, Farnham

We are in discussion with the Highways Agency on how to deal with congestion on our motorways and the A3.

Other schemes proposed to manage congestion and address local transport issues in each district and borough are outlined in Annex 1. These will be developed through Local Transport Strategies and Forward Programmes.

Next steps

Following the consultation on the draft Congestion Programme in March 2013 , the delivery programme has been reviewed and revised. The delivery programme will now be incorporated into forthcoming Local Transport Strategies and Forward Programmes produced by the county council in agreement with borough and districts councils. These will ensure that local problems as well as strategic transport issues impacting the county will be addressed.

The Surrey Future partnership has also produced a Rail Strategy for Surrey. The delivery programme and strategic transport issues highlighted in the Congestion Programme and recommendations from the Rail Strategy have been combined in a short brochure. This sets out Surrey's key transport infrastructure priorities for the next 15-20 years which will support economic growth in Surrey, the south east and beyond.

Introduction

Surrey Future is a partnership initiative formed of Surrey's Local Authorities and business community. We are working together to agree investment priorities for the next 15 – 20 years to ensure a strong Surrey economy. The Congestion Programme is our first strategic programme setting out transport priorities in the county for managing traffic congestion. The Surrey Future initiative has also produced in conjunction with the Congestion programme a Rail Strategy. The Rail Strategy looks to increase capacity on the rail network across Surrey.

Surrey County Council is the statutory local transport and highway authority and leads on many areas of this work. This programme has been produced with Surrey's district and borough local authorities and builds on the third Surrey Local Transport Plan Congestion Strategy (2011). It has been informed by district and borough local plans, surveys of business undertaken by Enterprise M3 Local Economic Partnership and Surrey Connects and a Transport for Surrey major schemes workshop. By working together we are identifying the infrastructure necessary to support new development for inclusion in the local planning authority's Infrastructure Delivery Plans.

Changes in the way that major transport schemes are funded are coming into force. The government has announced that funding will be devolved to Local Enterprise Partnerships (LEPs) and Local Transport Bodies (LTBs) rather than decided centrally with funding available from 2015. In Surrey there are two LEPs and two LTBs covering seperate geographical areas. These comprise of Enterprise M3 LEP and Enterprise M3 LTB covering west Surrey and Coast to Capital LEP and LTB covering the eastern boroughs and districts. Funding available to both the LEPs and LTBs is through the single Local Growth Fund where funding will be allocated from 2015-2021.

By producing this programme the authorities in Surrey are taking a proactive approach to changes in the way transport schemes are funded. By prioritising now we will be in a position to bid for money from the local Single Growth Fund through the Local Enterprise Partnerships and Local Transport Bodies and other funding streams available to us to deliver schemes that will promote long-term economic growth and make real improvements in managing congestion.

Congestion can be defined in a number of different ways. For the purpose of this document congestion is defined in terms of journey time reliability.When a single journey is delayed by a substantial amount leading to difficulty in planning journeys and impacts upon logistics for businesses within the county.

Congestion and its impact upon the economy

The UK is more reliant on the success of the Surrey economy than any other local authority area outside London. To provide some context, Surrey's economy was worth £28 billion[1] in 2008 which is even greater in size than that of Birmingham, valued at £20.1 billion.

[1] ONS statistical bulletin, regional, sub-regional and local gross value added 2009

For many years Surrey has had a large, high performing economy, benefiting enormously from its close proximity to London, Heathrow and Gatwick and its high quality environment. However, Surrey and the south east economy have slipped in competitiveness. The World Knowledge Competitiveness Index (2008)[2] shows that the south east of England slipped 34 places from a ranked position of 40th in 2004 to 74th out of 145 global regions in 2008. The region has also slipped within the European Competitiveness Index (2006/07)[3] being ranked 16th among the 118 European regions, down from 12th in 2004. Surrey has also performed poorly in terms of direct foreign inward investment. Figures from SEEDA for 2008-09 show that Surrey's share (12%) of all inward investment for the South East was considerably lower than counties such as Berkshire (31%) and Hampshire (22%).

One of the reasons for this fall in competitiveness has been due to a lack of investment in infrastructure provision in the county, especially in terms of transport infrastructure. Recent studies have demonstrated the need for transport investment as an enabler of economic growth and stability. This is demonstrated by a study carried out in 2010 which told us Britain's GVA could have been increased by £1.6 billion per annum, and tax revenues could have been £750 million higher, if investment in south east transport infrastructure had been on a par with the national average[4]. Therefore infrastructure delivery is highly important in Surrey for the county to remain internationally competitive.

Congestion on Surrey's local roads, trunk roads and motorways, is estimated to cost Britain's economy £550 million per annum[5]. Congestion can lead to unreliable journeys where it is difficult to predict how long a journey will take. As Surrey's road network is saturated it has little spare capacity to cope with unforeseen incidents, such as accidents, poor weather and road works. This can lead to long queues on several key roads within the county which act as a deterrent to new businesses who might locate to Surrey or, in some cases it can prompt existing Surrey businesses to consider relocating to areas with lower traffic levels. Congestion is likely to worsen in the future as the population in Surrey is predicted to grow 9 percent over the next 20 years, placing additional pressure on transport infrastructure[6].

Surrey's transport network

Surrey has first class transportation links, with major trunk roads running through it and an extensive rail network serving 84 railway stations. Surrey's proximity to London, Heathrow and Gatwick Airports, and access to major arterial routes as well as frequent rail services to London and beyond, has made Surrey an attractive county both for businesses to locate to, and people to live in. This has impacted upon the considerable demand for movement within, to, from and through the county.

Road

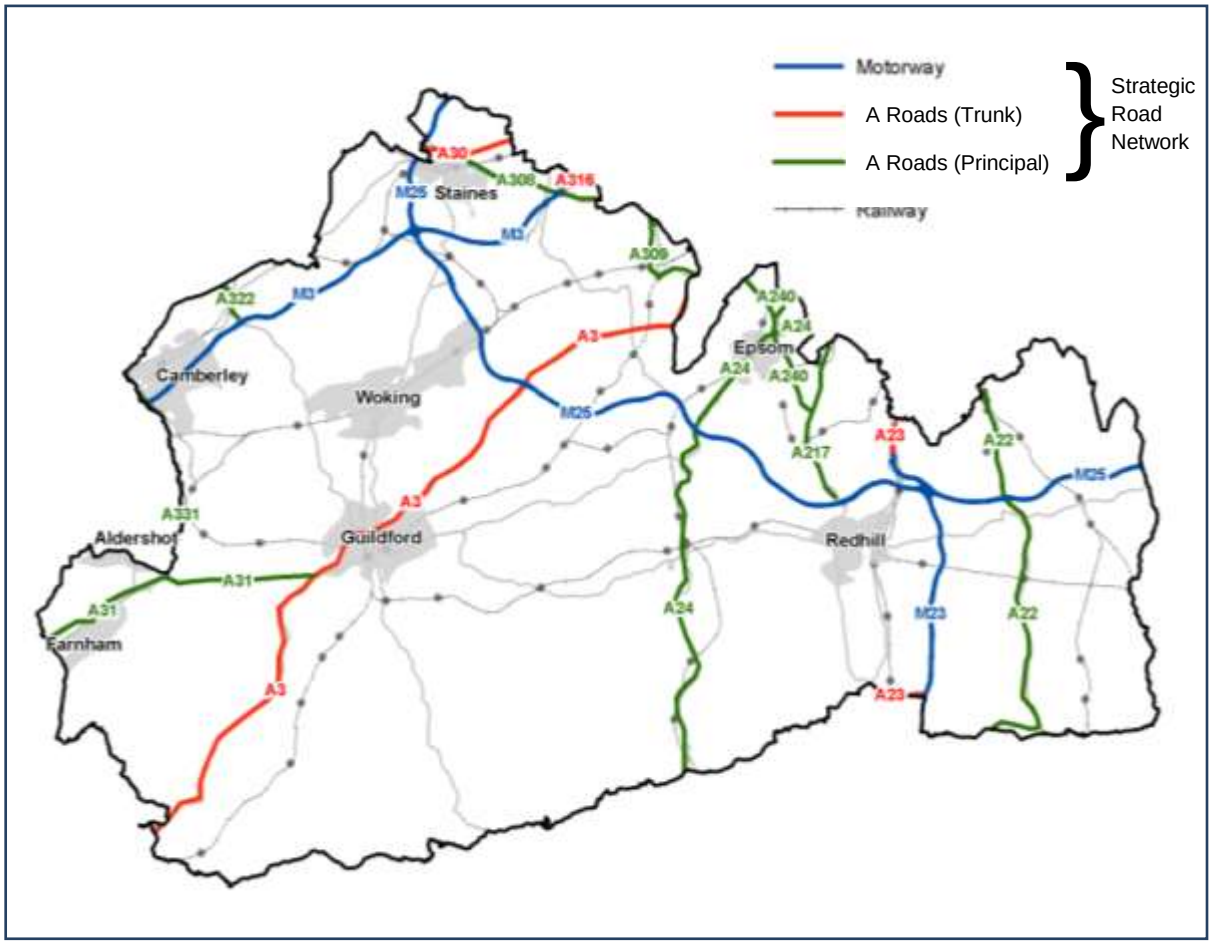
[2] Centre for International Competitiveness (2008) World Knowledge Competitiveness Index
[3] Robert Huggins Associates (2006) European Competitiveness Index 2006-07
[4] Oxford Econometrics 2010
[5] Transport Statistics for Surrey: Movement Monitoring Report 2008/9
[6] TEMPRO data based on ONS 2008-based population projections

The road network in Surrey comprises the Strategic Road Network (SRN), Primary Route Network (PRN) and local roads. The SRN consists of national trunk roads comprising the M25, M3 and M23, and a number of regionally significant trunk roads including the A3 and parts of the A30, A23 and A316 and is managed by the Highways Agency. The SRN has evolved principally to service London shown in **Figure 1**. The authorities responsible for each road category are shown in Table 3.

Table 3 – Road hierarchy in Surrey

Road Type	Category		Responsibility
Motorway	Motorway	Strategic Road Network	Highways Agency
A trunk	Primary Route Network		
A principal			Surrey County Council
B	Distributor Road Network	Non-Strategic Road Network	
C			
Unclassified	Access Roads		

Figure 1 – Surrey's transport network



Buses

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

Rail

Surrey is served by an extensive rail network with 84 rail stations. Movements to and from central London are well catered for by the main London to Brighton line, London to Portsmouth / Southampton services and various secondary and branch line services. There is limited provision for orbital movement across Surrey. However, the North Downs Line connecting Gatwick and Reading via Redhill and Guildford, the Ascot-Aldershot line and the Virginia Water to Weybridge route offer opportunities to move across Surrey directly.

Housing, employment and population growth

Proposed housing growth

Future growth and development, both within and beyond Surrey, will have an impact on transport demand which, if nothing is done, could worsen road traffic congestion and journey time reliability.

New housing developments within the county have mostly been small scale rather than large strategic developments, mainly due to the majority of the county being designated as green belt. Nonetheless approximately 2,600[7] net additional homes per annum are currently planned for. Small scale developments will have a cumulative impact upon the transport network. However, it has been more difficult for authorities to collect contributions towards infrastructure due to the nature of development coming forward. This may be less so once the Community Infrastructure Levy (CIL) is in place.

There are three strategic developments planned to come forward within the county. These include the former DERA site at Longcross, which will provide an additional 1,500 homes (and 80,000 sqm of additional office space), Princess Royal Barracks in Deepcut which will provide an additional 1,200 homes to the south of Camberley and Horley which will provide 2,600 additional homes. Additional infrastructure required to accommodate these developments will be sought through developer contributions. In addition to Surrey's strategic sites coming forward there are a number of potential developments which will take place in neighbouring authorities that will impact upon the transport network within the county.

These include:

- Aldershot Urban Extension within the Blackwater Valley providing an additional 4,000 homes placing additional pressure on the A30/A331 corridor
- Eco-town development of Whitehill/Bordon providing an additional 4,000 homes (2,725 homes to be delivered by 2028) placing additional pressure on the A31 and A3 corridors
- North-west sector of Crawley providing an additional 1,900 homes placing additional pressure upon the M23
- East Grinstead providing an additional 1,500 homes placing additional pressure on the A264
- Broadbridge Heath in Horsham providing an additional 2,000 homes placing additional pressure on the A24 and A281
- North of Horsham providing an additional 2,500 homes placing additional pressure on the A264 and A24.

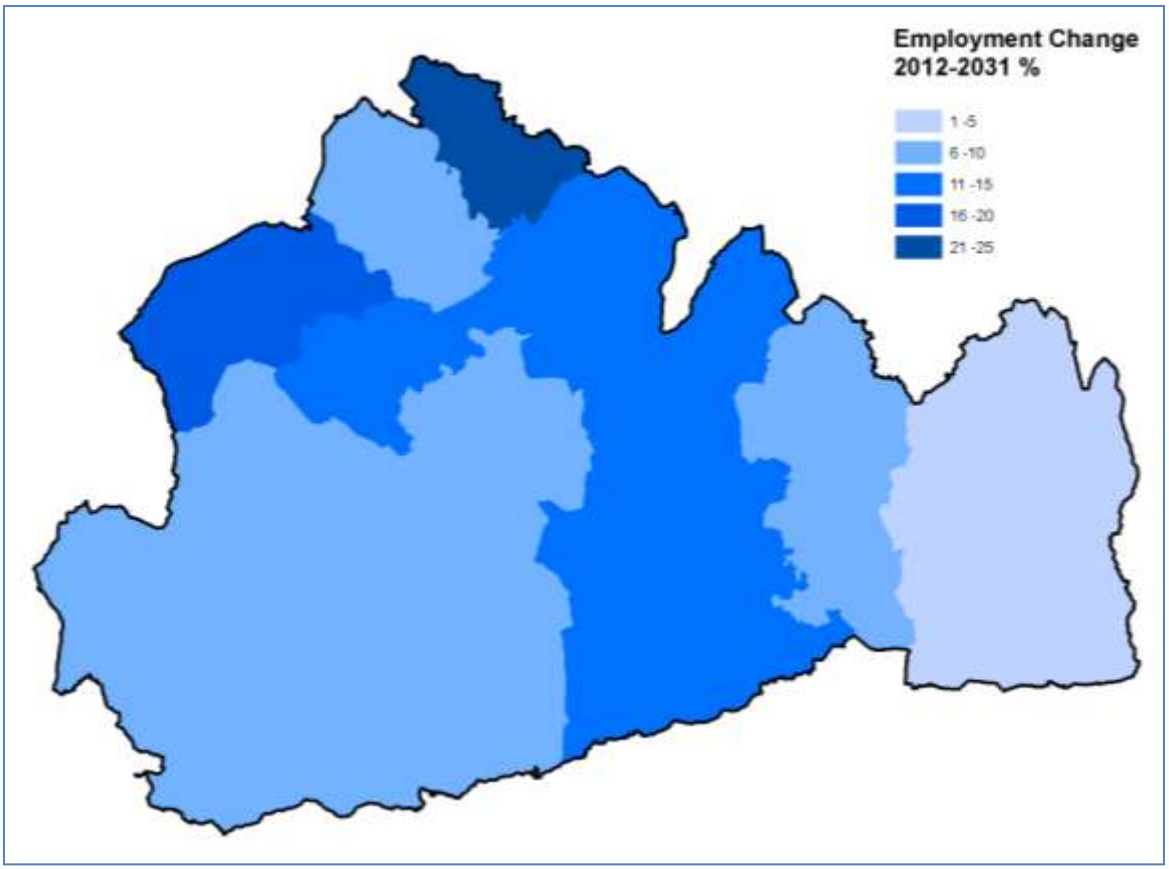
Housing growth is also proposed in Greater London and is set out within the London Plan. This growth may also contribute to additional pressure on Surrey's road network.

[7] Based on Local Plan figures

Proposed employment growth

Surrey's past employment growth has been varied with the highest percentage growth in employment found in the boroughs and districts of Guildford, Waverley and Mole Valley. Surrey's future employment is forecast to grow by 11 percent over the next 20 years from 2012 to 2031 (see **Figure 2**). Employment growth for this period is expected to be 15 percent around Heathrow Airport increasing the need for better transport links to the Airport. The forecast employment growth will place additional pressure on our road network.

Figure 2 - Forecast employment change 2012-2031

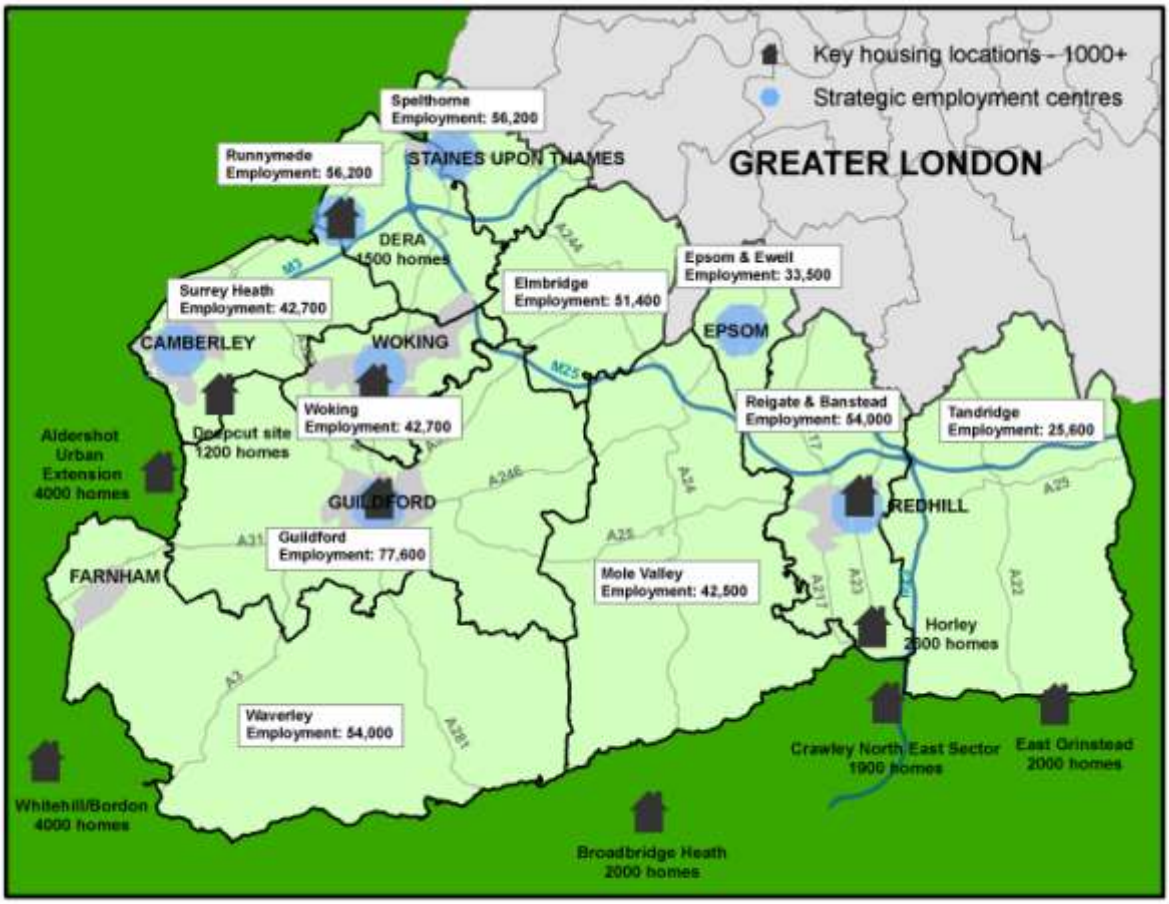


Source: TEMPRO data based on Workforce Jobs and Labour Force Survey

External to Surrey, in Hampshire the borough of Rushmoor (Farnborough and Aldershot) and the Thames Valley (Bracknell Forest, Windsor and Maidenhead and Slough) are expected to grow by more than 15 percent by 2031. This is likely to increase pressure along the A331 corridor and other roads on our network. There is also employment growth in Greater London with growth expected at 11 percent by 2031 equating to 400,000 new jobs.

Looking forward, much of the new commercial floor space in Surrey will be focused in the strategic centres identified in **Figure 3** or result from the redevelopment of strategic employment sites. The DERA site at Longcross will provide significant new employment opportunities by supplying an additional 80,000 sqm of additional office space to the north of the M3. The 2011 census data shows that 69 percent of journeys to work are made by car. If this stays the same then the additional growth in employment is likely to place additional pressure on our transport network.

Figure 3 – Strategic housing sites and employment growth areas



Source: 2001 Census data

Commuting patterns

Surrey had a total of 517,500[8] jobs in 2011. Of the workforce in Surrey approximately two thirds of the working population live and work in the county. There is also significant in-commuting into the county with approximately 145,000[9] non-Surrey residents commuting into the county. Patterns of in-commuting from London strongly reflect proximity to the capital. For example, over 80 percent of those travelling into Epsom and Ewell to work (excluding workers from elsewhere in Surrey) come from London. Incommuting to Waverley by contrast has only 7 percent of non-Surrey workers travelling from London. Of the northern district and boroughs within the county there is a significant amount of incommuting from the Thames Valley area.

There is a high percentage of people living and working in the same borough or district within the county with the majority of the remaining workforce commuting to London. Of the Surrey residents living and working in the same district or borough nearly 70 percent commute by car. These patterns show that we do have the opportunity to encourage people

[8] ONS Annual Population Survey
[9] 2001 Census data

out of their cars as they are likely to be travelling short distances. As an example Epsom and Ewell is our smallest borough and measures just over 6 miles from it's northern to southern borough boundary and 39 percent of its working population works within the borough. Our approach to modal shift is described in 'Alternatives to car travel' on page 40.

		Area of employment												
		ELM	E&E	GUI	MV	R&B	RUN	SPE	SH	TAN	WAV	WOK	TOTAL LONDON	OTHER SOUTH EAST
Area of residence	ELM	44%	1%	2%	1%	1%	4%	3%	0%	0%	0%	2%	38%	4%
	E&E	3%	39%	1%	5%	3%	1%	1%	0%	0%	0%	1%	43%	3%
	GUI	2%	1%	55%	2%	1%	1%	0%	3%	0%	5%	5%	12%	12%
	MV	3%	5%	4%	52%	6%	1%	0%	0%	1%	1%	1%	20%	6%
	R&B	1%	4%	1%	5%	48%	0%	0%	0%	3%	0%	0%	25%	12%
	RUN	8%	0%	1%	0%	0%	43%	7%	1%	0%	0%	5%	22%	9%
	SPE	3%	0%	0%	0%	0%	8%	39%	0%	0%	0%	1%	39%	8%
	SH	1%	0%	4%	0%	0%	4%	1%	44%	0%	1%	5%	14%	23%
	TAN	0%	1%	1%	1%	9%	0%	0%	0%	42%	0%	0%	32%	12%
	WAV	1%	0%	14%	1%	0%	1%	0%	2%	0%	51%	2%	11%	16%
	WOK	6%	0%	8%	1%	0%	6%	1%	3%	0%	1%	47%	18%	7%

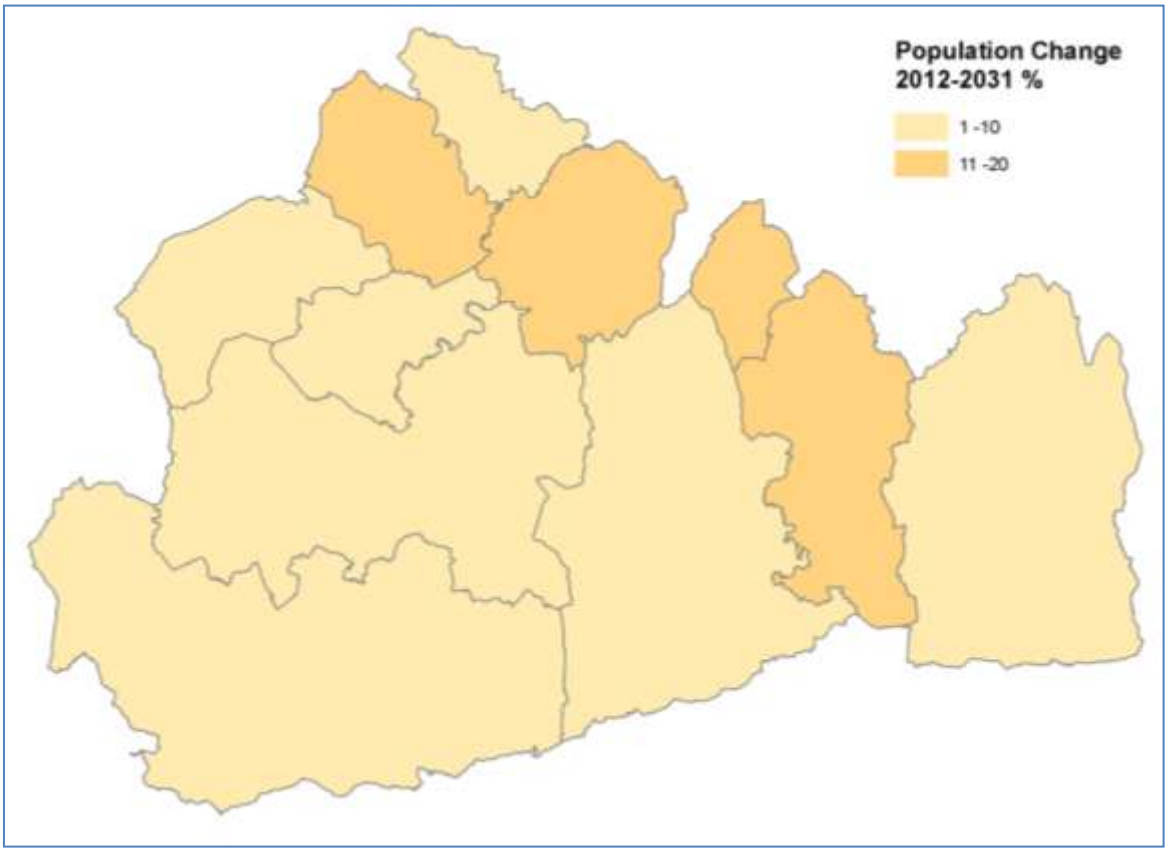
Table 4 - Work locations of residents of Surrey boroughs and districts (2001)

Source: Census 2001

Population growth

The population in Surrey grew by 7 percent from 2001 to 2011. At a borough and district level, the highest population growth was seen in Epsom & Ewell which grew by 12 percent due to the delivery of the housing on the former hospital sites. Surrey's population is forecast to grow by a further 9 percent over the next 20 years (see **Figure 4**) with similar forecast population growth in Greater London. At a borough level, the most growth is expected in Runnymede, Elmbridge, Reigate and Banstead and Epsom and Ewell. Surrounding areas are also expecting high levels of growth with Hampshire, West and East Sussex and Kent expecting to grow by over 10 percent. This growth both within the county and external is likely to lead to increasing pressure on our road network.

Figure 4 - Forecast population growth 2012-2031



Source: TEMPRO data based on ONS 2008-based population projections

Road congestion

Congestion impacts

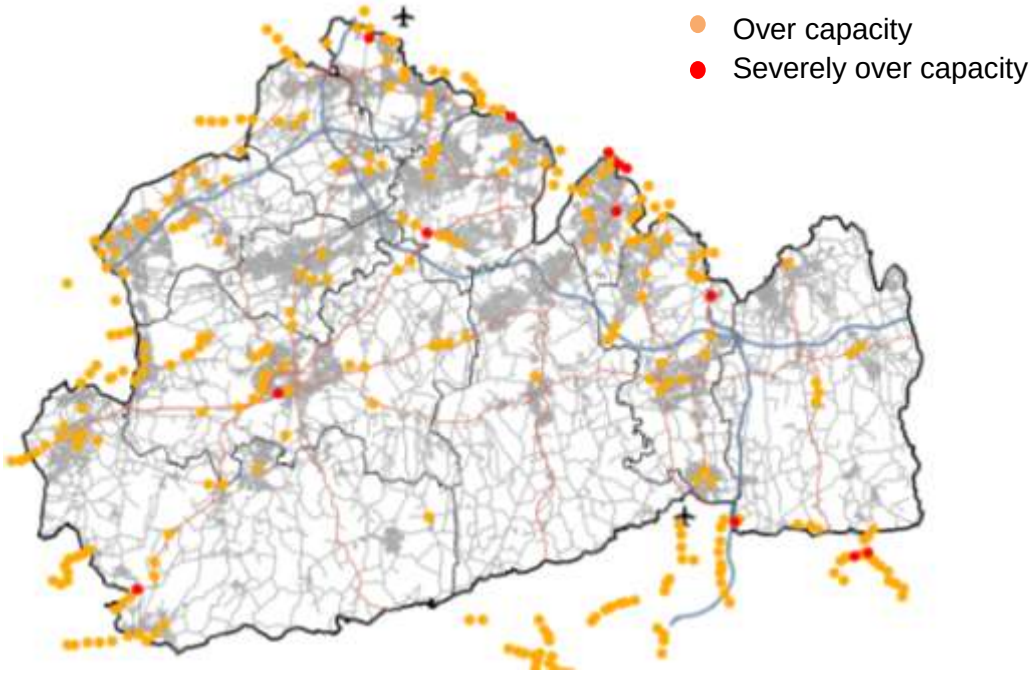
Congestion acts as a drain on the local economy. This includes the costs of delays and negative impacts on the amenity and attractiveness of town centres which can deter visitors and shoppers. It is also a constraint upon existing businesses within the county and has a negative impact on growth as accessibility by road is a major consideration for business location decisions. Congestion not only has a negative impact upon the economic competitiveness of the county but also can have a negative impact upon the natural environment and also the urban environment. Road traffic is a key issue in relation to air quality. Stop start driving conditions and slower vehicle speeds resulting from congestion can lead to higher roadside pollutant concentrations. To date, 24 Air Quality Management Areas (AQMAs) have been declared in Surrey. Most of the AQMAs in Surrey are designated on transport corridors and within urban areas. Proposals for schemes that will look to improve air quality in these particular areas will be addressed in the Local Transport Strategies and Forward Programmes and through Action Plans produced by borough and districts. Road traffic and congestion is also a major contributor to carbon emissions. By trying to reduce congestion and encourage more sustainable travel choices we are actively seeking to reduce carbon emissions in Surrey.

Capacity problems

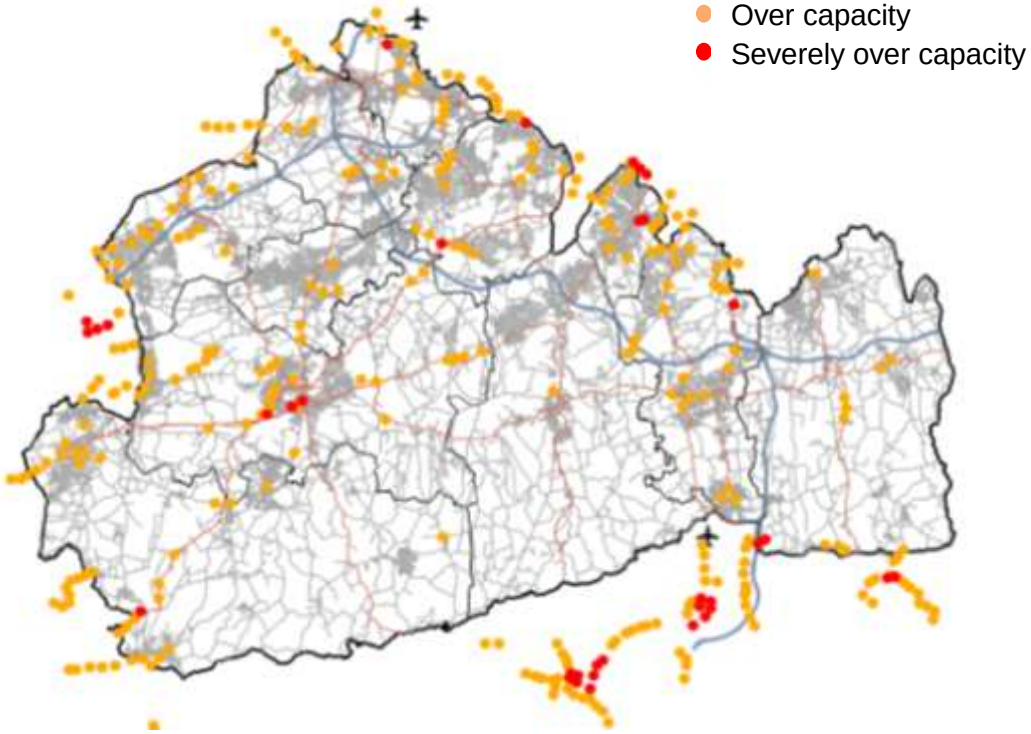
Capacity problems on Surrey's road network are shown in **Figure 5**[10] along with expected future capacity issues if no mitigation is put in place. Because large parts of the road network are already at capacity and suffer from congestion at peak periods, this can have a major impact when an incident occurs causing significant congestion. A particular problem is when parts of the SRN experience a traffic problem, such as a collision. This can divert large amounts of traffic onto other roads. As these are already heavily used in normal conditions they cannot cope when drivers divert away from the SRN looking for an alternative route.

[10] This modelling was completed before the opening of the Hindhead Tunnel

Figure 5 – Capacity of Surrey's road network
Current capacity problems on the road network (2011)



Indicative future capacity problems on the road network (2026)



This plan is based on Vehicle Capacity Ratio (VCR) data from the Cumulative Assessment of Future Development Impacts on the Highways Network (2011) produced by Surrey County Council. Over capacity figures are based on a VCR of 1.00-1.59 and severely over capacity on a VCR of over 1.66.

Current and future congestion

We have modelled the cost of congestion and **Figure 6** shows the parts of the network that suffer from the highest level of congestion and which areas have the highest cost to the economy across the whole network. We have assessed the levels of proposed growth both within the county and externally and how this will impact our road network. This modelling has forecast that if we do nothing, congestion will get significantly worse in the future with more and more junctions experiencing problems. Current areas that are subject to high levels of congestion will continue to experience problems and these may even be exacerbated.

Strategic Road Network

Technical modelling has shown that parts of the strategic road network are already experiencing severe traffic congestion and are at capacity. This is particularly evident during peak hours and is caused by a mixture of through traffic, due to the strategic location of the county and locally generated movements. The areas considered to have the worst levels of congestion at present are:

- Guildford town centre
- A3 as it runs through the town of Guildford
- A3 between the Ripley junction and the A3/M25 (junction 10) Wisley interchange junction
- M3 junctions 3 to 4
- M25 junctions 13 to 14

The work also concluded that further areas that would come under considerable network stress are:

- M25 junctions 5 to 6

Primary route network and local roads

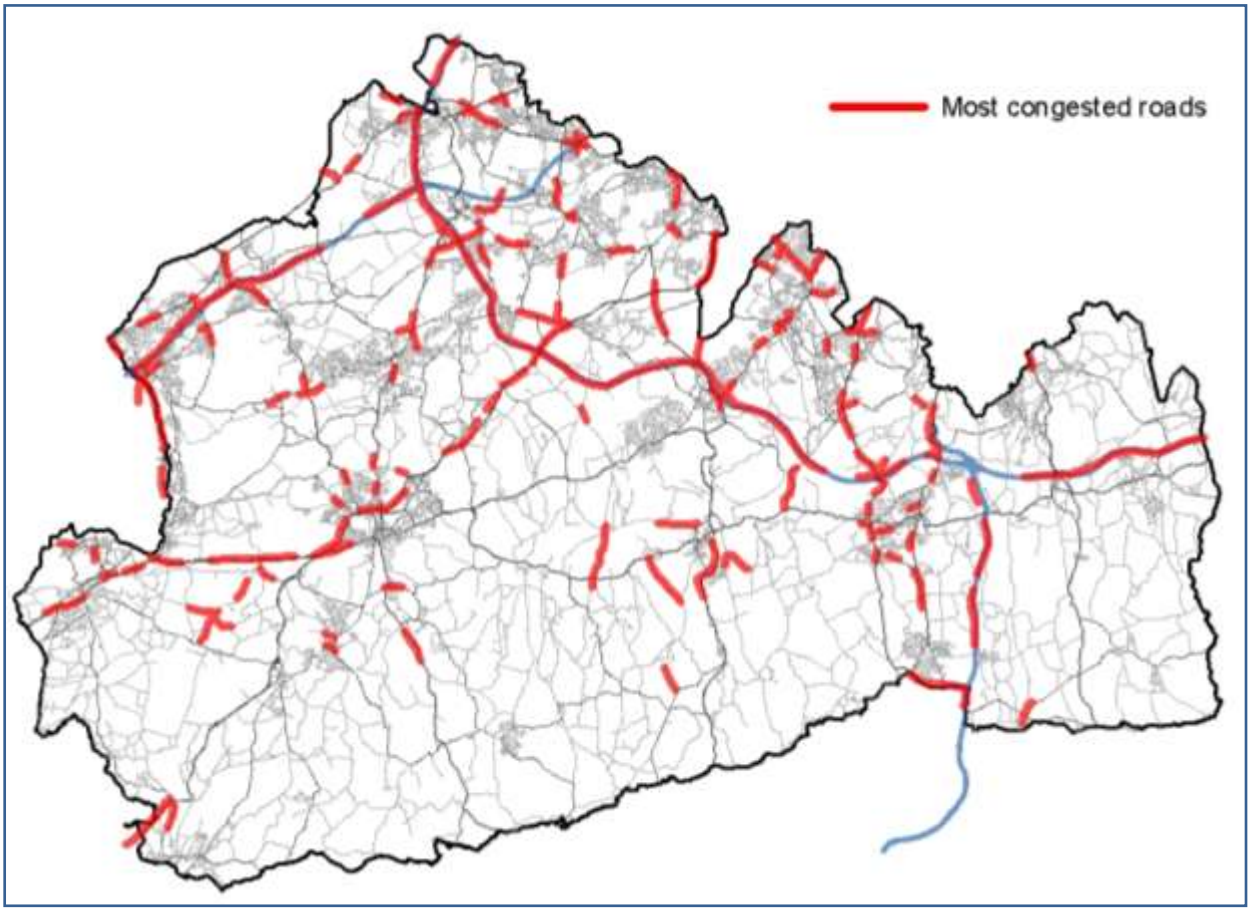
The areas considered to have the worst levels of congestion at present (see Figure 7) on the Local Road network are:

- A245 Portsmouth Road (west of A3 Painshill junction)
- A31 Alton Road (approaching and through Farnham).

The transport highway modelling work concluded that further areas that are likely to come under considerable network stress in the future are:

- A31 between Farnham and Guildford
- A320 St Peter's Way (as well as other local roads surrounding the M25 junction 11).

Figure 6 - Cost of congestion across the SRN, PRN and Local Road Network[11]

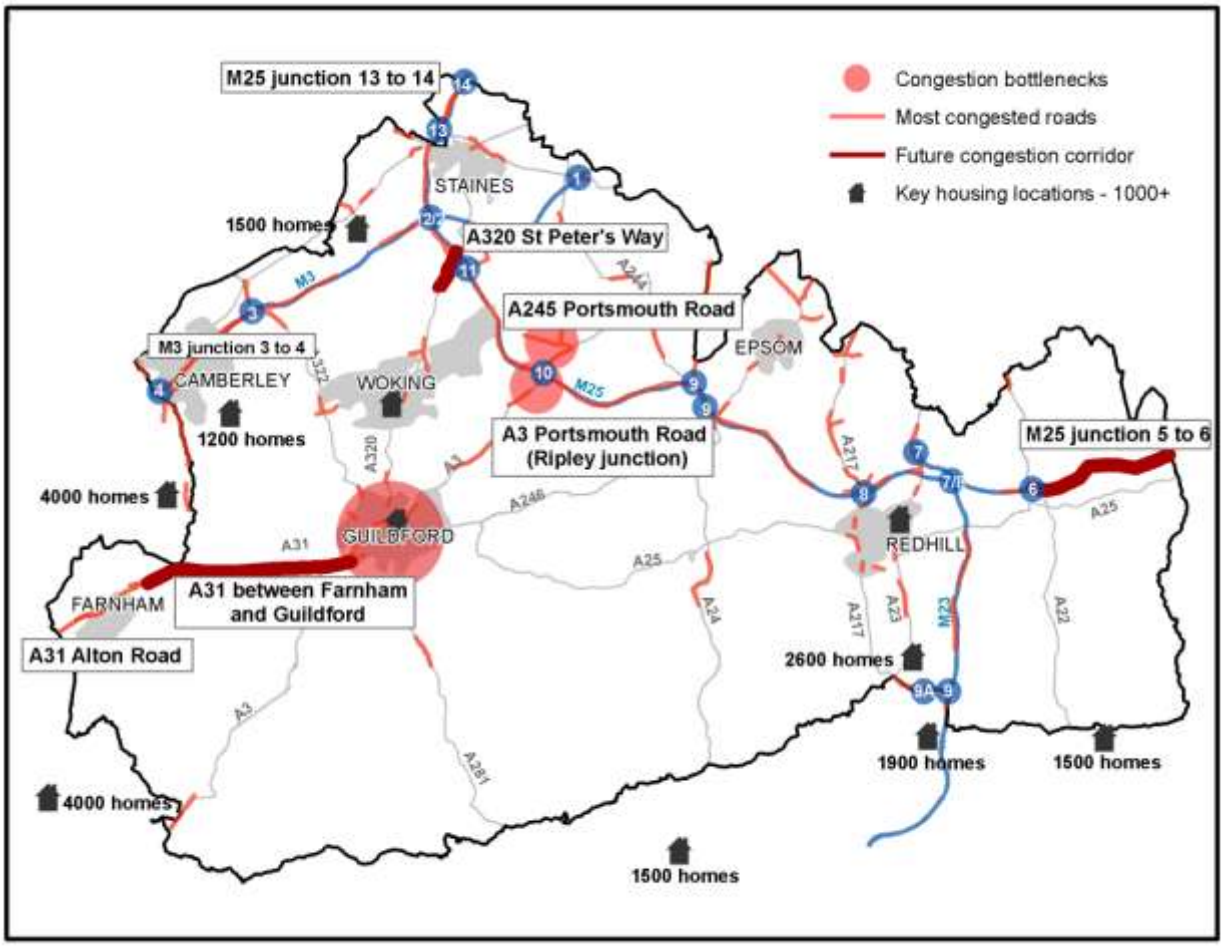


(Source: SCC Cumulative assessment of future development impacts on the highway network, 2011)

There are a number of other areas suffering from congestion on the network. We know that our town centres suffer from congestion and other roads not highlighted here are subject to bottlenecks. Figure 7 shows those areas suffering from the most severe congestion.. Further congestion bottlenecks that have been found through transport highway modelling are listed in **Annex 2**.

[11] The cost of congestion has been calculated using data from 2008

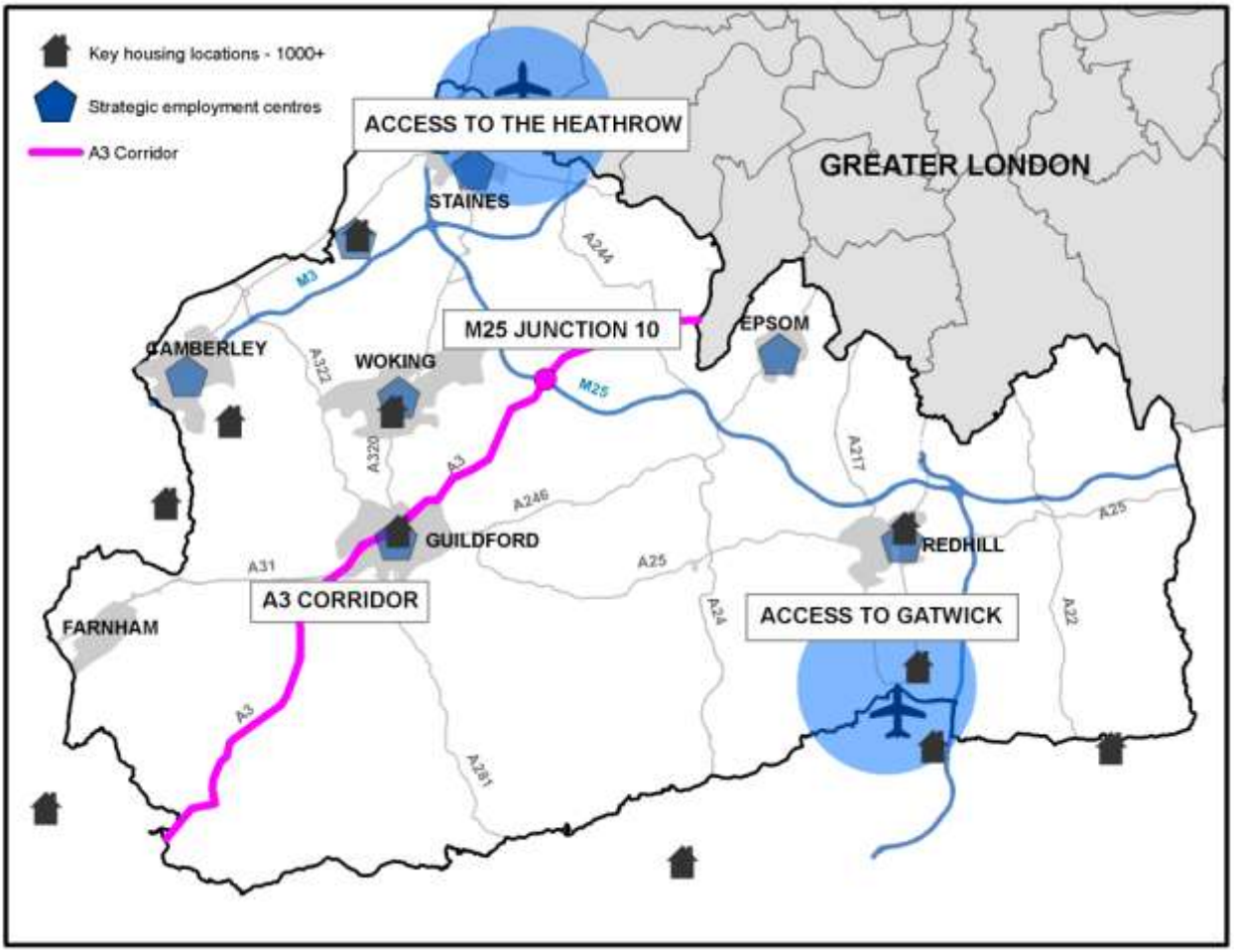
Figure 7 – Current and future congestion areas on our road network



Strategic transport issues

Due to Surrey's strategic location there are a number of transport issues that have an impact on the whole county and beyond. The key strategic transport issues are summarised in **Figure 8** and discussed in further detail below.

Figure 8 – Key strategic transport issues



Key international gateways

Heathrow Airport although not within the county boundary is a major employment centre and attracts large numbers of passengers and employees, all of whom require access to the area. The 2008/09 on-airport employment survey at Heathrow showed that 12% (almost 9000 people) of the workforce travel from Surrey boroughs and districts with just under half living in the surrounding borough of Spelthorne. Heathrow suffers from poor surface access from neighbouring areas due to congestion on the surrounding road network. The lack of long-distance railway services also adds to congestion on the roads around the airport, contributing to poor journey time reliability.

The Airtrack scheme was a proposed direct heavy rail link from London Waterloo to Heathrow Airport. The scheme would have provided improved rail accessibility to Heathrow by providing a new link to Staines upon Thames and would have provided direct rail links

from Guildford. However, this scheme was abandoned in 2011. Proposals were also put forward for a scheme known as 'Airtrack Lite'. The proposals included that the Waterloo to Windsor service would divide at Staines-upon-Thames, and the Weybridge to London via the Hounslow loop service would be recast as Weybridge to Heathrow and Heathrow to London services. The focus is now on the Heathrow Western Access scheme providing greater accessibility from the Great Western Mainline, providing an interchange at Reading but does not address accessibility problems from Surrey. Therefore proposals will need to be developed to improve accessibility to Heathrow Airport. The Surrey Future partnership are currently looking at options on how to improve access to Heathrow Airport to coincide with work being undertaken by the Davies Commission setting out where airport capacity should be increased. As a short term approach, improvements to public transport access in the form of improved bus services and routes would help to alleviate the situation along with improving cycling routes in close proximity to the airport.

Gatwick Airport is also a major employer on Surrey's southern boundary attracting significant numbers of passengers and employees. Direct rail links from Surrey to Gatwick are provided by the North Downs line and the Brighton Main Line. However, the North Downs line has only two services per hour and there is a capacity issue on the Brighton Main Line. The Surrey Rail Strategy has identified potential solutions to address these issues.

Key transport corridors

A number of key transport corridors run through the county. These roads are already subject to high levels of congestion. The A3 corridor that provides access to London and Portsmouth in the south is a vitally important strategic route. With the opening of the Hindhead tunnel in 2011 the route has become more attractive to drivers, placing additional pressure on the corridor. Existing traffic congestion which can be made significantly worse when incidents occur on the route. The Highways Agency had proposed a number of junction improvements along the corridor as part of the Regional Transport Programme, but these no longer have funding due to the abolition of the Regional Transport Board. These improvements are still supported by the county council and the Highways Agency and are being developed subject to a strong business case and funding. In the longer term a more strategic solution to support a vibrant and growing Guildford is very likely to be required to deal with congestion on the A3.

Other strategic corridors within the county are the M25 providing an orbital route around London (almost one third of the M25 falls within the county boundary), the M3 forming part of the European E05 route and the M23 providing access from Hooley to Crawley and Gatwick Airport.

The Highways Agency has published estimates of future congestion on their network in the south east, based on estimates of population and housing growth. Future network stress was highlighted on all of these strategic transport corridors[12]. In order to manage this additional stress upon the network, the Highways Agency will need to develop a number of transport schemes. Schemes that are currently being progressed are shown in **Figure 9**:

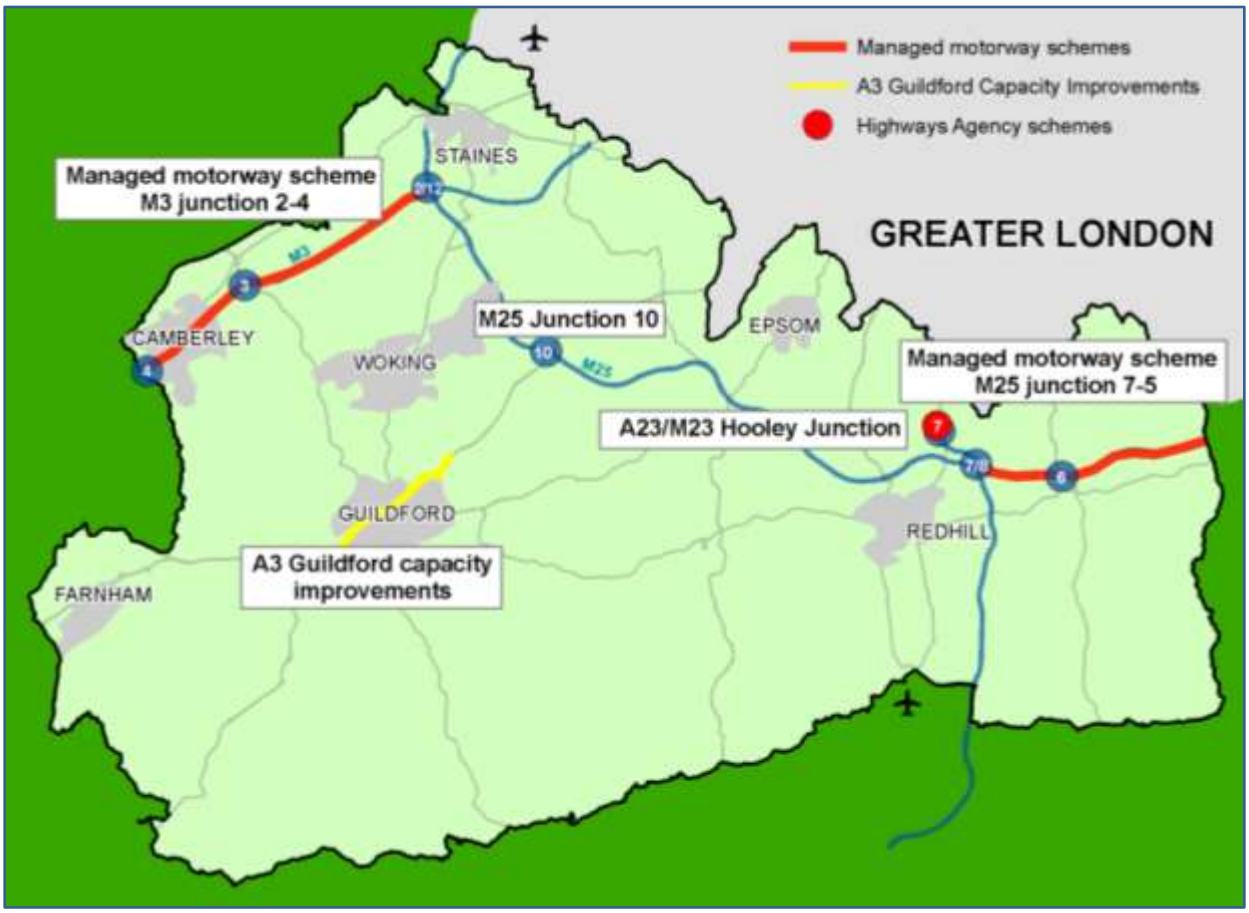
[12] Surrey Infrastructure Capacity Study

- Managed motorway scheme M3 junction 2 to 4
- Managed motorway scheme M25 junction 7 to 5

We are in discussion with the Highways Agency over progressing the following schemes which are areas of particularly high network stress and are necessary for managing congestion on the road network in Surrey.

- A3/M25 (junction 10) Wisley Interchange
- A23/M23 Hooley Junction
- A3 Guildford Capacity Improvements

Figure 9 – Highways Agency existing schemes



Surrey's approach to managing congestion

An integrated approach

In the past, the solution to alleviate congestion was considered to be to build additional capacity. This is no longer considered as always being the most appropriate means of addressing congestion for a number of reasons:

- the potential environmental impacts and sustainability issues
- the cost of providing additional capacity
- current suppressed demand returning to the network and the potential for additional 'generated' demand
- the displacement of problems to other areas of the network.

Therefore, a more all encompassing strategy has been developed in order to deal with congestion which builds on the objectives of the Congestion Strategy of the county Local Transport Plan. Our programme focuses on addressing traffic management and behavioural change and developing schemes that address local bottlenecks affecting Surrey's road network in order to deliver improved journey time reliability. This strategy is necessary to support economic growth within the county, increase our economic competiveness and to successfully deliver the level of growth proposed in our Local Plans.

Our programme is focused on three elements described below:

1. **Delivering a more efficient road network**

    - Expanding the Network Management Information Centre (NMIC)
    - Improving incidents management by working with the Highways Agency
    - Improving traffic management across the road network
    - Providing smarter choices through travel planning
    - Improving the way road maintenance and road works are integrated and managed
    - Improving the enforcement of regulations such as parking and loading restrictions
    - Asset management.

2. **Addressing infrastructure gaps and increasing and managing bottlenecks on our road network**

    - Delivery of our major schemes programme focusing on town centres, junction improvements and corridor improvements
    - Providing solutions for the A3 strategic corridor
    - Working with partners to improve surface access to Heathrow Airport and rail access to Gatwick Airport.

3. Alternatives to car travel and behavioural change

- Influencing travel behaviour and encouraging modal shift
- Improving public transport and cycle networks
- Addressing capacity on our rail network
- Providing superfast broadband across Surrey.

Delivering a more efficient road network

Traffic management

Traffic management on the local road network in Surrey is delivered through the county council's Network Management and Information Centre (NMIC). The use of this facility has helped resolve problems on the network by providing accurate and timely information to road users and in managing and addressing issues when problems arise.

Currently, there is limited network management capability in the west and southwest border area of the county. A priority is to improve the system in areas such as the A331 Blackwater Valley in the Aldershot-Camberley area, and the A30 corridor through better links with neighbouring authorities and enabling information sharing. Improving network management facilities would also enhance the county council's ability to respond to major incidents, in partnership with the Highways Agency and Surrey Police.

By improving network management we will deliver improvements through coordinating existing information sources, provide real time updates on incidents and operational activities and extend variable message signs to include A31/Blackwater Valley Route and M3 junctions. This will allow accurate and timely driver information resulting in re- routing to avoid congestion/incidents with the potential to link and integrate our system with the M3 and M25 Managed Motorway.

Urban Traffic Control (UTC) is also an important part of network management which has been integrated in a number of areas of Surrey such as Guildford, Staines and Epsom and around 650 traffic signal installations and pedestrian controlled crossings. With traffic flows on the principal road network being nearly double the national average and with many of these roads acting as diversion routes when incidents occur on the motorways and trunk roads the installation of UTC within areas of Surrey has improved the efficiency of busy junctions and to help reduce congestion. Expansion of UTC to specific junctions and areas

within Surrey will be reviewed as part of improving the existing network management system with integration with the Highways Agency facilities.

Incident management

When incidents occur on the road network this can cause congestion due to blocked roads. Research published by the RAC estimates that road closures caused by collisions account for a quarter of all congestion and cost the country more than £5 billion a year[13]. In order to improve the level of disruption caused to drivers, better coordination between road operators and public transport operators is required. This will enable individuals and businesses to find alternative forms of transport at short notice and reduce travel time when incidents occur.

Due to the high volume of traffic on Surrey's roads, there is little spare capacity in the system to deal with an incident which disrupts traffic. As a result, a single incident can give rise to major disruption across a wide area as drivers look for alternative routes. An incident can be defined as a collision, a broken down vehicle, poor weather, road works or a planned event such as a race meeting or concert. The implications of these events can be extremely severe and cause drivers delays for several hours.

At present, there has not been a systematic programme to reduce delays caused by incidents. We will work with the police and the Highways Agency to tackle these problems through a combination of engineering, enforcement and driver information and to look for ways to improve the clear-up after an incident. This would build on work being undertaken by the Highways Agency, Department for Transport (DfT) and police on issues such as recording the scene of an accident.

We will also work with partners to best manage and reduce the number of incidents that occur on our roads. Where possible, we will identify patterns into the causes of incidents and learn from good practice in reducing future incidents and in mitigating their impact.

Providing better information to the public and improved travel planning

Driver information takes many forms: local radio, television bulletins, emails, websites and, increasingly, in-car information from satellite navigation devices. On the roadside, both the county council and the Highways Agency have a range of variable message signs which can be used to advise drivers.

This remains one of the most important ways to manage congestion. However, the provision of this type of information is currently incomplete. The Surrey Travel SMART website at present does not provide information on roads outside of the county. Similarly, the Highways Agency website does not cover local roads. We propose to bring together all of the bodies who provide traffic information to see if we can negotiate a coordinated approach to explore the latest developments around traffic information. This would enable the public to have information on all road networks and public transport and we would also aim to provide a journey planner through the Travel SMART website enabling all traffic information to be provided from one website. In addition, the county council is looking to provide further

[13] Yass, I. (2010) Delays Due To Serious Road Accidents, Report Number 09/106, RAC Foundation, London

roadside messages and information disseminated to radio stations and via Traffic Message Channel (TMC) to interactive satellite navigation systems and for this to be integrated with other adjacent authorities and the Highways Agency.

Demand management

As the majority of roads on our network are at capacity or close to reaching capacity at peak periods it is necessary to look at ways to reduce the level of demand on our roads. Currently, journey time reliability at peak times on our road network is poor. We are looking at innovative ways to manage this, including a dialogue with businesses to ensure this Congestion Programme best meets their needs and to consider how changes in corporate travel behaviour could impact on congestion. This could be achieved through greater flexibility in working hours, such as staggered working, together with support for employees to work from home, for example through the provision of superfast broadband.

Asset management

Asset management is the allocation of resources for the management, operation, preservation and enhancement of the highway infrastructure to meet the needs of current and future customers. The county council is responsible for a highway network comprising just over 4,800 km of carriageway, approximately two thirds of which is in a rural environment. The footway and cycleway network is over 5,000km, of which just under 200km is shared cycleway/footway. In terms of structures, the council is responsible for approximately 1,650 road bridges, footbridges, underpasses, subways, culverts, and retaining walls. The highway assets also include drainage, street furniture and road markings.

Surrey County Council produces a maintenance programme in order to ensure that resources are allocated to projects which safeguard the highway infrastructure and support the delivery of the overall transport objectives of Surrey. One priority going forward is to improve Surrey's roads by developing a five-year capital investment programme which will provide additional capital funding to support the highways. An Asset Management Strategy is being produced by the county council to allow for maximum network availability when any planned maintenance activities are organised and to ensure that a joined up and coordinated approach is developed with partners.

Road works

In Surrey it is estimated that over 40,000 road and street works are carried out annually. These works can cause considerable inconvenience to residents and businesses and substantial delays to traffic. The county council is proposing to introduce a permit scheme which would allow it to regulate and coordinate road works on Surrey's road network. This would allow for increased integration of utility works with road works promoted by the county council. Permit schemes have been found to be very successful by other county councils and across London. They have found that this increase in collaborative working has resulted in less 'individual' works being carried out leading to a decrease in network disruption.

Improving enforcement of regulations

Illegal parking and the unlawful use of loading bays can cause congestion on our road network. Congestion can also be caused by the delivery of goods to retailers if it is not managed effectively. In order to deal with these issues more effectively, implementing town centre management plans where they are required can improve congestion. This might mean having a more joined up approach in town centres for deliveries and through using CCTV to identify incidents such as illegal parking, and issuing fines to reinforce appropriate driver behaviour.

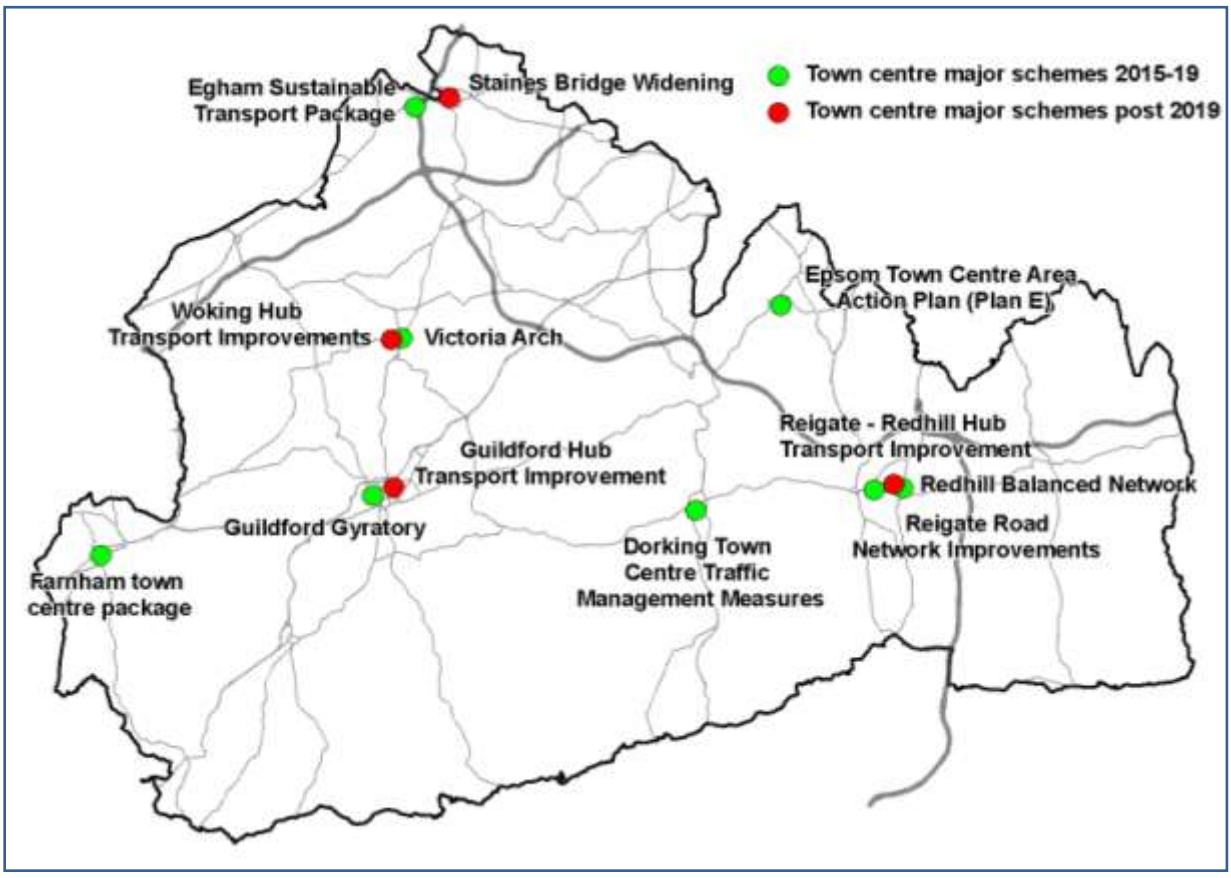
Addressing infrastructure gaps and increasing and managing bottlenecks on our road network

Town centre improvements

A high proportion of economic activity in Surrey is centred in and around the strategic town centres within the county. These centres are critical to the future economic prosperity of the county but they also correspond with some of the greatest development pressures, and the most severe transport problems.

Surrey has a network of 28 towns including the six strategic centres of Guildford, Woking, Redhill, Camberley, Staines and Epsom. Of these centres Guildford, Woking and Redhill are currently a focus for delivering more sustainable travel choices through our Travel Smart initiative which won funding through the Local Sustainable Transport Fund. We hope to roll out this programme to other centres when funding becomes available. A number of transport schemes have been designed to address transport problems including managing congestion within the strategic centres in order to allow for business retention and growth and to improve journey time reliability and their overall vitality. These schemes are shown in **Figure 10**.

Figure 10 - Town centre improvement schemes



Strategic centres

Guildford

Guildford is the county town of Surrey and is an established regional centre within the south east. The town plays a major strategic role in terms of the economy and Guildford rail station acts as an important transport interchange hub. In 2010 the UK Competitiveness Index ranked Guildford as the most competitive city in the UK outside London. It is the dominant shopping and employment centre in the county and has been subject to considerable employment growth in recent years. The University of Surrey, Royal Surrey County Hospital and the Surrey Research Park are all located within the town. The Surrey Research Park contributes around £350 million per annum to the Guildford economy. The county council has already delivered a new signalised junction that opened in December 2012, to replace Hospital Roundabout and this has improved journey time reliability to and from the Surrey Research Park and the Royal Surrey County Hospital.

The A3, which runs through and bisects the Guildford urban area, is subject to high levels of congestion. Technical modelling has forecast that, if nothing is done, this congestion is likely to become worse in the future along with further traffic congestion within the town centre. In order for Guildford to remain economically competitive and continue to attract and retain businesses, congestion and journey time unreliability in the area needs to be addressed especially on the A3 corridor. There is already some anecdotal evidence of businesses within the area relocating due to the poor transport infrastructure surrounding the A3.

Another important economic area is Slyfield Industrial Estate which lies to the east of Guildford town. The industrial estate suffers from traffic congestion acting as a constraint to growth within the area. The area has been identified as an area for potential industrial intensification within the estate and redevelopement and forms part of the Slyfield Area Regeneration Project (SARP). In order for the intensification of the site to go forward a new link road is required. The Clay Lane Link Road will allow for the expansion of existing businesses within the area and further develop and support Guildford's high tech company cluster. The Link Road has gained funding from the PWLB through the Local Enterprise Partnership.

A number of schemes and interventions have either been developed, are under development or are under consideration. Pedestrian and cycle improvements and a new park and ride site at Onslow are committed and will be delivered. A major scheme for the present Guildford gyratory in the town centre is under development. Schemes under consideration for future development include improvements to the A3 as it runs through the town of Guildford, potential provision of new park and ride sites serving the town centre and developing the Guildford Hub transport improvements major scheme.

Woking

Woking town centre is undergoing considerable regeneration and has emerged as a key public transport hub due to its direct rail links to London, Portsmouth, Southampton and Farnborough. It is the busiest station in the county in terms of passenger interchanges. The railway line and the principal road, the A320, which passes through the town centre, have a negative impact causing severance and poor pedestrian and cyclist accessibility. The town centre also experiences a level of traffic congestion which businesses see as having a negative impact on growth and some businesses are considering leaving the area. In order to support the regeneration of the area and to stimulate economic growth a number of transport schemes are being developed. These include improving cyclist and pedestrian movements from north to south in the town centre under the railway at Victoria Arch and proposals to improve Woking as a public transport hub to support the current Cycle Woking initiative.

Sheerwater lies to the east of Woking town centre. Sheerwater is recognised as a 'priority place' in need of inward investment and stimulation of economic activity. Poor access to Sheerwater's Business Parks is a major obstacle to securing inward investment in the area. However, a new link road will be built with construction to begin in 2013 to improve accessibility to the area. This scheme has secured funding through the Enterprise M3 Local Economic Partnership's Growing Enterprise Fund.

Redhill

Redhill, located in the east of the county, is a major employment and business centre accommodating specialist businesses in advanced electronics, engineering and financial services. The town centre requires significant regeneration. Redhill suffers from severance caused by the A23 passing through the town centre and from congestion and poor accessibility especially to Reigate, which is located two miles to the west. Poor bus services and train connectivity to Reigate are also having a negative impact on businesses within the area and some large employers have resorted to funding coaches from Redhill to Reigate due to the poor connectivity. This will be addressed through the planned Reigate-Redhill Hub transport improvements. These improvements will improve bus services over the area and may introduce two park and ride sites and improve the interchange facilities.

To support regeneration in the area and to support and retain businesses, improvements included within the Redhill Balanced Network scheme will be delivered. These include improved facilities for buses, cycling and walking which will reduce congestion and improve journey time reliability.

Camberley

In the west of the county, Camberley is a major commercial, retail and leisure centre. Located between Junction 3 and 4 of the M3, the town has good links to the strategic road network and industrial parks are located to the south of the town centre. The town has seen rapid growth over the last 30 years and further planned growth and cross boundary development in Bracknell and Aldershot will place increasing pressure on transport infrastructure within the area. If nothing is done, the area could become less attractive to business. The town and surrounding area also suffer from traffic congestion as a result of

the A30 bisecting the town centre. A number of highway improvements have already been developed within and surrounding the town centre as part of a larger package of A30/A331 corridor improvements. These include a number of junction improvements to the A30 and cycle networks along the A30 to provide more sustainable transport choices. They will improve accessibility to the shopping and business sector in Camberley.

Epsom

Epsom is an important commercial and retail centre and contains a number of head offices and a campus of the University of the Creative Arts. The town centre is subject to high volumes of through traffic due to the A24 bisecting the town which has a negative impact on the townscape, air quality and provides a poor environment for pedestrians and cyclists. The high volumes of traffic often cause congestion on the one way gyratory system within the town centre impacting upon journey time reliability.

An action plan has been developed forming part of the Local Plan which focuses on relieving congestion, improving air quality and improving the environment for pedestrians and cyclists. The scheme, known as Plan E, looks to return a part of the gyratory to two way traffic, provide new pedestrian and cycle links and improve public transport accessibility.

Staines upon Thames

Staines upon Thames is an important commercial and retail centre located in the north of the county in close proximity to London and Heathrow. It has good access to the M25 and due to its geographic location has attracted a number of national and international businesses to the area. The proposals to widen Staines Bridge are from the original Airtrack proposals to improve accessibility to the town centre and promote further economic growth. The scheme will relieve congestion and improve accessibility by widening the footways, cycleways and carriageway. The scheme is for the provision of three lanes of traffic and to improve the

junctions on either side of the bridge decreasing traffic congestion in the town centre and improve journey time reliability.

Other retail/commercial centres

Farnham

Farnham is the largest shopping centre in Waverley and has a significant employment role. The significant and growing adverse impact of traffic in the town centre affects the vitality of the town. There are a high number of road traffic accidents involving pedestrians and poor air quality is present within the town. The proposed town centre package will provide a better and safer environment for pedestrians. The enhancement of the town centre environment will provide a long-term contribution to the viability and vitality of the town and the reduction in congestion should result in economic benefits in terms of reduced lost working time and health benefits due to improved air quality.

Egham

Egham is a small town located in the north of Surrey within the London commuter belt. It has good access to the SRN near Junction 13 of the M25 motorway. Egham is an important economic centre with a number of international businesses but suffers from congestion. Congestion in the area is a serious impediment to future economic activity which is further exacerbated by the railway line which is a barrier to movement causing further traffic delay. The proposed scheme for the town centre provides sustainable transport infrastructure which will help tackle existing congestion and unlock the economic potential of the area.

Dorking

Dorking is a small market town providing services to the surrounding area. The service sector provides the majority of employment opportunities with a number of national and international companies residing within the town. The town however is subject to traffic congestion due to the A24, providing access to London and the south, affecting the town's vitality. The traffic management measures proposed will enhance the town centre vitality and provide a more attractive environment for businesses and residents by reducing congestion within the town centre. The scheme will also enhance accessibility to the town centre by delivering improved pedestrian, cycle and public transport links.

Reigate

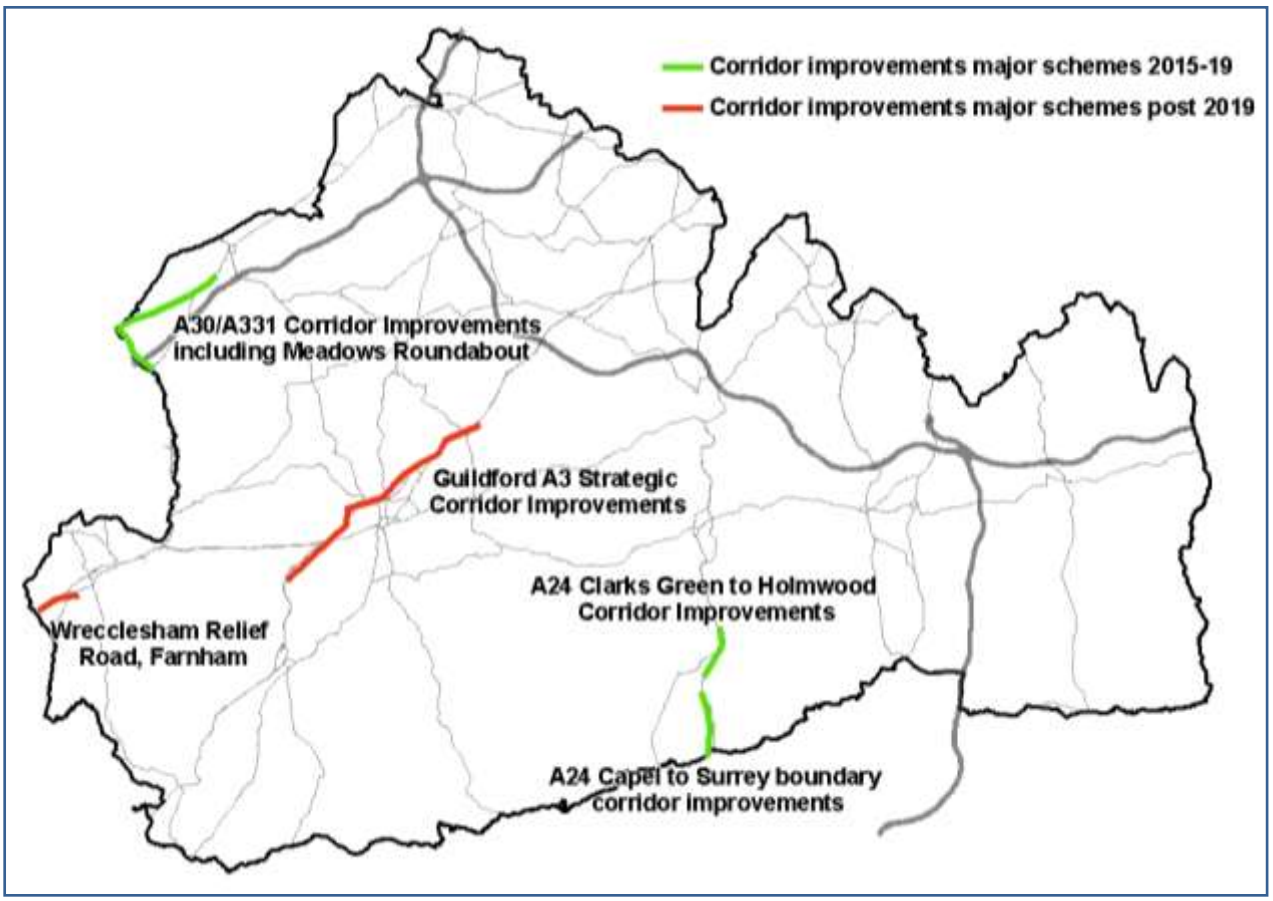
Reigate is a prosperous and attractive market town, and home to a number of large blue chip businesses. The town is characterised by good road accessibility but has poor rail links leading to heavy reliance on the road network for travel to and through the town, resulting in significant congestion in the area and causing poor journey time reliability. Congestion in the area is also caused by level crossing down times. A number of road network improvements

around the town centre are being developed in order to improve congestion and journey time reliability.

Corridor improvements

A number of transport schemes have been designed to manage congestion within transport corridors with the objective of improving journey time reliability. These are shown in **Figure 11** below.

Figure 11: Corridor improvements schemes



A24 Clark's Green to Holmwood and Capel to Surrey Boundary

The A24 is a busy primary route linking London with the south coast and provides access to significant employment opportunities within the Gatwick Diamond economic area. This stretch of the dual-carriageway has several gaps in the central reservation for access and is a major source of accidents. The Horsham to Capel section has an accident rate three times the national average. It is essential that the gaps in the central reservation are closed and that the speed differential problems at the existing roundabouts are addressed. The entire length will be subject to comprehensive road safety improvements including gap closures, enhanced access arrangements, improved visibility, signing and road markings to reduce the likelihood of incidents occurring.

Guildford A3 strategic corridor improvements

The A3 is a vitally important strategic route providing access from London to Portsmouth. With the introduction of the Hindhead tunnel, the A3 has become more attractive for existing traffic travelling to and from the south coast to take advantage of the quicker journey times to Guildford, London and nearby centres of employment. We therefore expect there to be more traffic using the A3. The A3 in Surrey already suffers from severe peak time congestion at several points including junction 10 of the M25/A3 at Wisley, a number of junctions within Guildford and the A3/A31 Hogsback junction to the south of Guildford. This high level of congestion can act as a disincentive for new businesses looking to relocate to towns along the A3. The Highways Agency proposed a number of junction improvements on the A3 around Guildford as part of the Regional Transport Programme, but this is now defunct with the abolition of the Regional Transport Body. A strategic transport study of the A3 in Surrey will be carried out to assess further improvements that could ease congestion.

Wrecclesham Relief Road

Wrecclesham Relief Road has been a long standing transport scheme that has not been able to come forward due to funding being unavailable. The A325 passes through Wrecclesham and the area suffers from high traffic flows, congestion, poor air quality and a poor accident record. The relief road would connect the A325 south of Wrecclesham, to the A31 west of Farnham, bypassing Wrecclesham village. There are a number of developments in surrounding areas that will add additional pressure on to the transport network within the area such as Aldershot Urban Extension and Whitehill/Bordon in Hampshire which would have a significant impact on traffic flows in the southern part of the Blackwater Valley area.

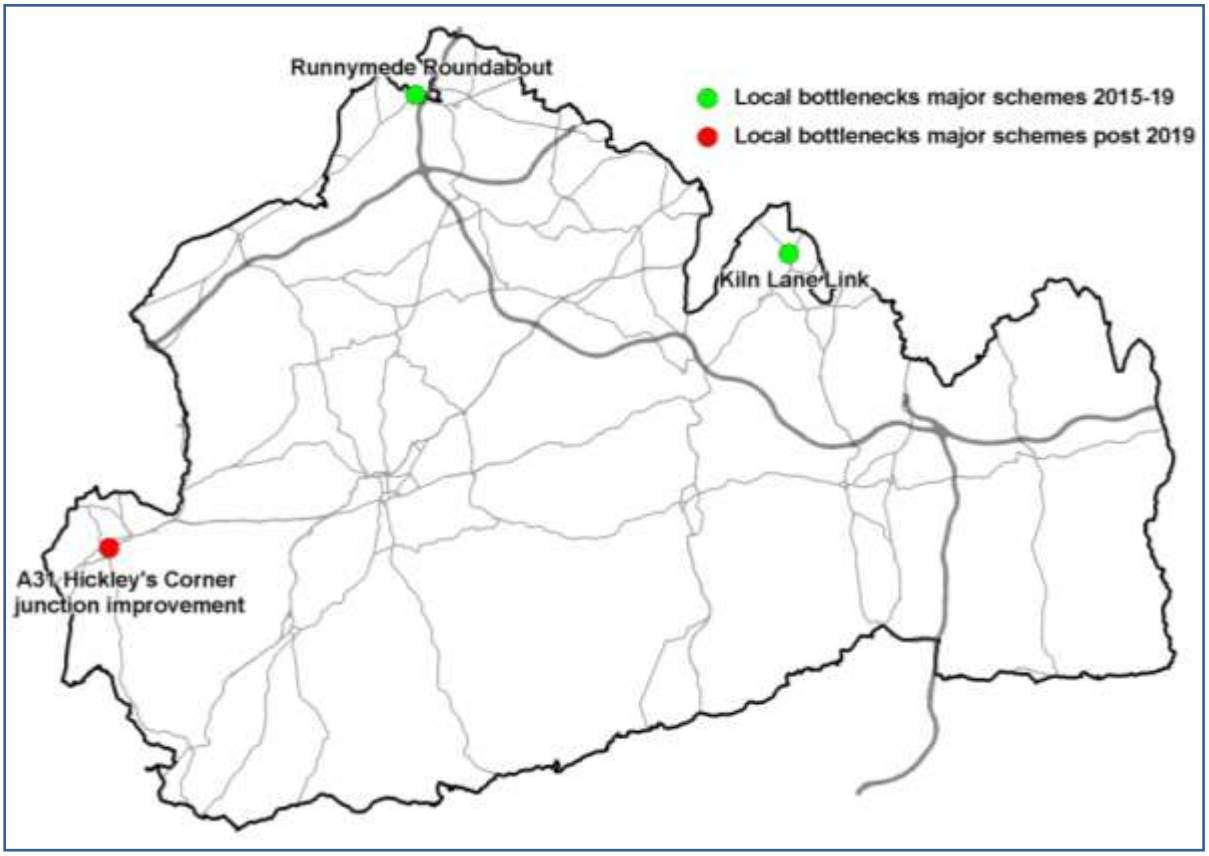
A30/A331 Corridor Improvements

The A30/A331 scheme comprises improvements to the Meadows Roundabout and improving accessibility to the business sector in Camberley providing a more attractive environment for businesses. The scheme would manage congestion within the area and provide improved accessibility for all modes of transport in the area. The proposals will also improve access to the shopping centre and nearby locations in Bracknell Forest and Hart District in Hampshire, including Blackwater Rail station and its industrial hinterland.

Local bottlenecks/junction improvements

A number of transport schemes have been designed to manage congestion at local bottlenecks identified across the county that will result in improved journey time reliability. These are shown in **Figure 12** below.

Figure 12: Local bottleneck/junction improvements schemes



Kiln Lane Link

The Kiln Lane Link is a proposed road crossing under the Epsom to Waterloo railway on the A24. The purpose of the scheme is to improve local accessibility by removing the barrier the railway causes to east-west movement. It will provide a link between residential communities and local facilities for all modes of transport and to unlock development opportunities surrounding the road crossing.

The Kiln Lane Link scheme, in addition to reducing traffic volume in Ewell Village would help reduce vehicle movements on the north-east side of Epsom. Delivery of this scheme would also provide an additional route across the railway line, which would ease the pressure on the existing crossing points and reduce congestion on the A24.

Runnymede Roundabout

Runnymede roundabout is a congestion pinch point serving the M25 Junction 13 slip roads via the A30. There is significant growth potential for commercial, retail and residential development in the area, but in order to unlock this potential improvements to this junction are required. The proposed scheme looks to convert the roundabout to signal control and widen the carriageways. These improvements will have a positive impact on traffic congestion in the area and are expected to deliver substantial journey time savings.

A31 Hickley's Corner junction improvement and underpass

The Hickley's Corner junction lies on the A31 Farnham Bypass and is heavily congested at peak times, resulting in long traffic queues and delays. This has an adverse impact on development, not just locally, but also in the wider sub-region. This is because the junction and A31 form a key link in the Primary Route Network, providing access to major destinations in Surrey and Hampshire. There are two proposed schemes for this junction. The first proposal is a junction improvement to remove a severe bottleneck on the A31. The reduced journey times and improved journey time reliability will help support planned development in the Blackwater Valley, the Aldershot Urban Extension, Guildford town centre, the Whitehill-Bordon Eco Town and further afield. The second proposal for the longer term is for a roundabout to replace the initial junction and for the A31 to pass below through an underpass and for the Firgrove Hill Bridge to be rebuilt. These proposals will allow for the provision of four lanes of traffic along the A31 at this congestion bottleneck.

Alternatives to car travel

Travel patterns

People travel for a wide variety of reasons. At a national level, currently half of all trips are made for leisure purposes, including shopping, visiting friends, entertainment and participating in sport, and some 18 percent of trips are made for business and commuting purposes. Most trips tend to average less than 10 miles, 95 percent of all trips are less than 25 miles and 67 percent are less than five miles. The challenge is to make walking, cycling or public transport more attractive options for shorter distance travel.

Behavioural change

Through analysing travel patterns within the county, we know that a large percentage of short journeys which could either be cycled or walked are completed by car. If people could be persuaded not to use their cars this would help to reduce the number of vehicles present on the road network. Currently the county is focussing on delivering more sustainable travel choices through its Travel Smart programme which is centred on the towns of Guildford, Woking and Reigate/Redhill and will be further rolled out across the county when funding becomes available and will be integrated with our other approaches.

The Travel Smart programme covers a range of soft measures and infrastructure provisions which seek to encourage more people to choose sustainable travel by improving information, opportunities and the attractiveness of alternative modes. Surrey's approach to encouraging behavioural change focuses upon four main principles that enable behavioural change. These are involvement, infrastructure, information and intervention, as described in Table 5.

Table 5: The 4 principles for behavioural change

Involvement	Working with target groups such as businesses and residents to define travel problems and solutions and to work with public transport operators to ensure that transport nodes are integrated and therefore accessible.
Infrastructure	Building infrastructure that is both highly visible and effective and using targeted awareness campaigns to maximise behavioural change. By delivering improved cycle and walking routes, improved lighting and security, improved bus shelters and bus corridors and secure cycle parking this approach delivers a greater opportunity for modal shift and therefore can decrease traffic congestion by decreasing the number of individuals travelling by car.

Information	Enabling individuals and businesses to have access to up to date travel information to promote different travel options. An important principle is to ensure that key employment and retail areas are linked to public transport nodes and that these areas are accessible by walking and cycling. In addition, providing individuals with up to date travel information such as real-time journey information and journey planners and hard and electronic multimode and interactive mapping.
Intervention points	Providing infrastructure and information to maximise behavioural change at key points and times such as business relocation, for local residents and visitors.

Improving public transport, pedestrian and cycle networks

In line with Travel Smart principles, walking and cycling improvements will be carried out initially in Woking, Guildford and Reigate/Redhill. Through this programme we will improve the public realm for pedestrians through investment in signage including the installation of wayfinder mapping similar to the 'legible London' programme. In addition, the county council manages an extensive rights of way network which provides further opportunity to improve the environment and safety of pedestrians and cyclists by moving them away from the road network. We will also provide increased accessibility to employment and retail centres as these areas suffer not only from traffic congestion but also severance limiting movement to and from these centres. The improvements will provide continuous, well signed, safe and direct cycle routes to encourage individuals to walk or cycle to their destinations. Other infrastructure will complement these schemes such as park and ride, bus priority and corridor improvements. If the initial pilot towns are successful, schemes will be developed in other towns when funding becomes available.

Improving Surrey's bus network

The bus network in Surrey is an integral part our transport system. There were 29.9 million bus passenger journeys in Surrey in 2010/11. Buses provide an alternative to car travel, and by providing this alternative, levels of congestion and unreliability for all users of the road network in Surrey are reduced.

The use of Park and Ride schemes in Guildford have been very successful helping to relieve congestion on key corridors and has removed traffic from the busy town centre.

The bus network will be improved by a programme of route enhancements, including priority routes and provision of real time passenger information on buses and at bus stops. As with road transport, the aim will be to improve journey time reliability which will in turn encourage more people to use buses as a reliable alternative to the car. Bus and rail travel will be made easier through improved passenger information, including better coordination of information through mobile phone apps and the anticipated introduction of better integrated ticketing across the public transport network.

Travel planning

Travel plans are typically produced by schools and organisations. They have an important role to play in ensuring effective, reliable, safe and sustainable travel behaviour is embedded in the culture of organisations and schools in Surrey as these journeys can result in localised congestion. Through developing school and organisational travel plans, more sustainable choices for pupils, parents and employees can be delivered along with assessing any barriers that may exist to sustainable choices. A travel plan sets out the measures and initiatives a school or organisation will adopt to reduce car journeys and increase other methods of travel such as walking, cycling and public transport. As the Local Transport Authority Surrey County Council supports the production of travel plans by working with schools in assisting with surveys, education and training to improve skills, engineering schemes and marketing events. The county adopted the Surrey Travel Planning Strategy in 2011 outlining how the county will work with schools and organisations to encourage more sustainable journeys.

Low emissions strategies

Low emission strategies reduce transport emissions by implementing more sustainable transport choices to promote modal shift and look to accelerate the uptake of low emission fuels and technologies. Low emission strategies have been adopted in a number of towns and cities across Britain such as York where an AQMA has been designated. Within Surrey where 24 AQMAs have been designated this approach could be effective in improving air quality. A Low Emissions Feasibility Study has been carried out for the town of Farnham to look to improve air quality within the town and to manage congestion. This approach could be considered by the county council and district and boroughs in the management of AQMAs.

Rail strategy

Rail is crucially important to Surrey. We have 84 rail stations, the second most of any county. The Surrey Future initiative has also produced in conjunction with this Congestion Programme a Rail Strategy. The Rail Strategy identifies the measures that we believe are necessary to improve rail services, reduce overcrowding and increase passenger numbers. These include longer trains and platforms, signalling improvements, engineering works, track bottlenecks and turning the international platforms at Waterloo into domestic platforms. We will also look at ways to improve level crossings both to ensure pedestrian safety and reduce level crossing down times.

Increasing capacity on the rail network is likely to increase the number of Surrey residents commuting to local rail stations. This may have an impact on local congestion. This will need to be mitigated and accessibility to some rail stations may need to be improved. Some rail stations within the county are on the peripheries of settlement areas such as Esher rail station.

Providing superfast broadband across Surrey

The delivery of superfast broadband is seen as vital to support business growth and development. Delivering superfast broadband across the county will provide benefits that are attractive to businesses and will help retain companies already located in the county as well as attract new companies to the area. Superfast broadband will provide a wide range of benefits to businesses in both urban and rural areas of Surrey and further afield and is likely to have a positive impact on our transport network as improvements to online communications can increase teleworking practices, thereby reducing the need to travel and allow employees the choice to work from home further reducing the need for employees to travel.

Our programme of transport schemes

The table below lists the programme of transport schemes we propose to develop to improve congestion across the county.

Table 6 – Our programme of transport schemes

Major Scheme	Estimated Target construction date
Epsom Town Centre Area Action Plan (Plan E)	2015/16
Redhill Balanced Network	2015/16
Runnymede Roundabout	2015/16
Victoria Arch Capacity Improvements, Woking	2015/16
Egham Sustainable Transport Package	2015/16
Wider Network Benefits Package	2015/16
A30 / A331 Corridor Improvements including Meadows Roundabout	2016/17
Guildford gyratory improvements	2016/17
Dorking Town Centre Traffic Management Measures	2016/17
A31 Hickley's Corner junction improvement	2017/18
Kiln Lane Link	2017/18
Highway Improvements, Camberley	2017/18
A24 Capel to Surrey boundary Corridor Improvements	2017/18
Farnham Town Centre Package	2018/19
A24 Clarks Green to Holmwood; Mole Valley	2018/19
Road Network Improvements, Reigate	Post-2019
A31 Hickley’s Corner Underpass, Farnham	Post-2019
Guildford A3 Strategic Corridor Improvements	Post-2019
Guildford Hub Transport Improvements	Post-2019
Reigate-Redhill Hub Transport Improvements	Post-2019
Staines-upon-Thames Bridge Widening	Post-2019
Wrecclesham Relief Road, Farnham	Post-2019
Woking Hub Transport Improvements	Post-2019

Funding options

The schemes proposed within this document have been identified to support growth in the county and ensure a strong economy. Most of the identified schemes within this programme, are likely to be funded from the local Single Growth Fund through the Local Transport Bodies and Local Enterprise Partnerships but will require a number of other funding streams to meet any shortfall or match funding required:

- New Homes Bonus (NHB)
- Community Infrastructure Levy (CIL)
- Prudential borrowing
- Pinchpoint funding
- Growing Places Fund.

Proposals to fund our aspirational schemes such as the A3 corridor improvements will be financed through additional funding streams from DfT. However, because future funding is never certain, the county council is currently looking at a number of other options listed within Table 7.

Table 7 – Other options for financing transport schemes

Funding option	
Workplace Parking Levy	This levy essentially imposes a charge in respect of the provision of workplace parking places at office premises. The WPL is collected by way of a licensing scheme and is a charge made for each parking place provided by an employer and used by employees. Income is ring-fenced to be spent on the infrastructure identified when the levy is agreed.
Tax Increment Financing (TIF) through Business Rate Retention	Due to changes in legislation local authorities will be able to make use of business rates growth across the whole of their administrative area to fund infrastructure improvements. Infrastructure schemes funded through the TIF will be reliant on growth of businesses within their administrative area.
Pension scheme funding	Central government is calling for greater investment in infrastructure by local government pension schemes. One initiative that central government is using to encourage investment in infrastructure is through the 'UK Guarantees Scheme' where the Treasury will guarantee risk on infrastructure projects.

Next steps

Following the consultation on the draft Congestion Programme, the delivery programme has been reviewed and an additional scheme has been included. This scheme is the Clay Lane Link Road which will help to deliver the Slyfield Area Regeneration Project (SARP) in the borough of Guildford.

The delivery programme will now bebuilt into forthcoming Local Transport Strategies and Forward Programmes produced by the county council in agreement with borough and districts. These will ensure that local problems as well as strategic transport issues impacting the county will be addressed.

The Surrey Future partnership in conjunction with the Congestion Programme have also produced a Rail Strategy. The Rail Strategy can be found at www.surreycc.gov.uk/surreyfuture. The delivery programme and strategic transport issues highlighted in the Congestion Programme and recommendations from the Rail Strategy have been combined within a brochure that sets out Surrey's key transport infrastructure priorities for the next 15-20 years. The agreed top transport infrastructure priorities for Surrey are:

- A3 corridor
- The major schemes programme (23 transport schemes across the county to tackle areas of significant congestion in town centres, at key junctions and on strategic corridors)
- Improvements to the North Downs Line
- Crossrail 2 regional route
- Improving journeys to Heathrow and Gatwick.

These priorities for Surrey have been agreed by all 12 Surrey local authorities, the business community and Surrey universities. We know they will drive economic growth in Surrey, the south east and beyond.

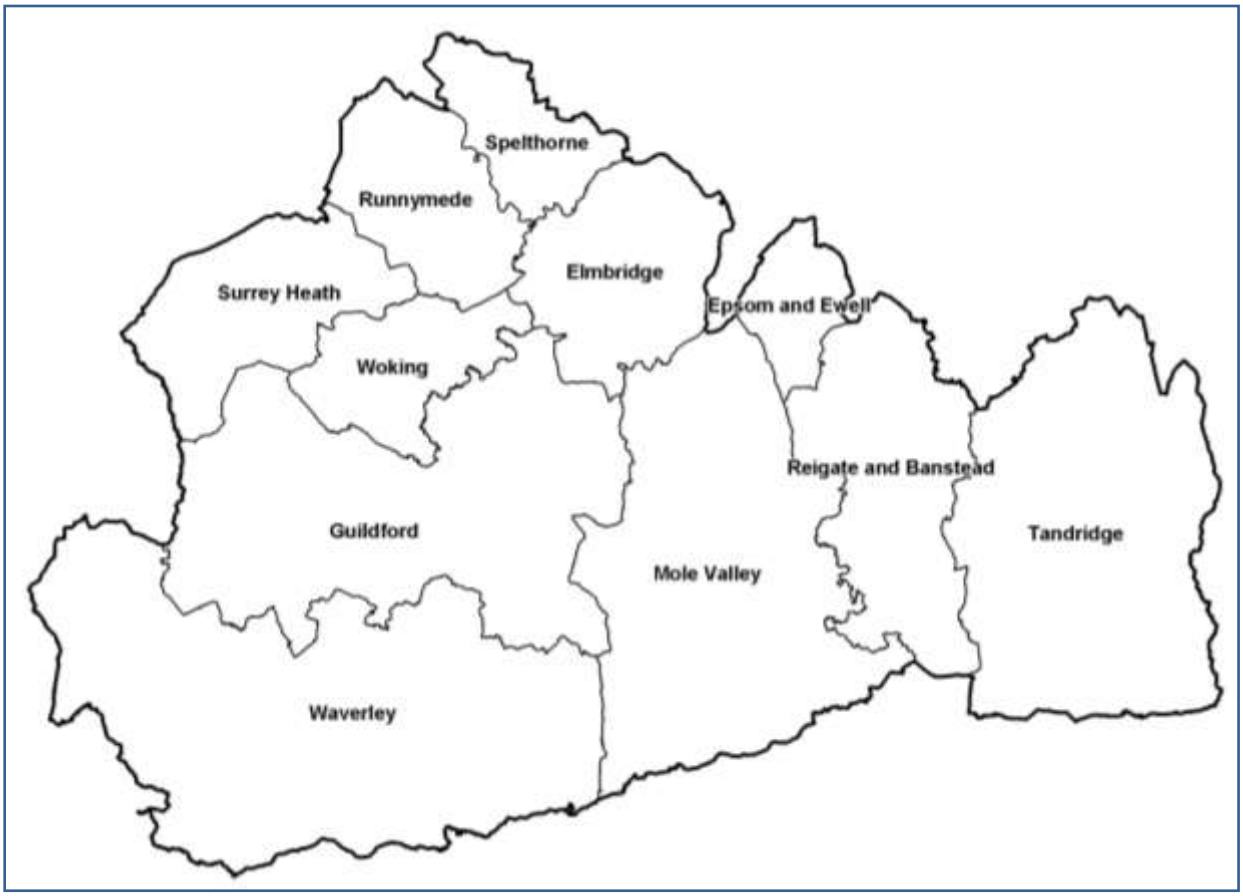
To keep up to date with news from the Surrey Future partnership's ongoing work visit www.surreycc.gov.uk/surreyfuture

Annex 1

Borough and district transport challenges

As the statutory Local Transport Authority, the county council is producing in partnership with each borough and district council a borough/district-level Local Transport Strategy and Forward Programmes. These will form part of the countywide Surrey Transport Plan, the third Local Transport Plan (LTP3). For each borough or district, the strategy and Forward Programme will address both the policy objectives for the area, reflecting the Local Plan and other elements of the development plan for the borough/district, and the challenges associated with existing and future travel demands. If we do not mitigate these impacts the additional travel demands associated with potential or proposed future residential and commercial growth could adversely impact on the county's future economic competitiveness and growth. For each borough and district, a summary of the main transport challenges and our emerging proposed approach is set out within this annex.

Map showing Surrey districts and boroughs



Timetable for production of Local Transport Strategies and Forward Programmes

The timetable below is indicative and needs to be finalised with borough and districts.

Borough	Status of Local Plan	Stage 1 Informal Local Committee	Stage 2 Consultation	Stage 3 Formal Local Committee	Stage 3 Cabinet
Epsom & Ewell	Adopted	23 April 14	May – July 14	Sept 14	Nov 14
Reigate & Banstead	Examination stage	14 July 14	Sept- Oct 14	Dec 14	Feb 15
Elmbridge	Adopted	6 Feb 14	May – July 14	Sept 14	Nov 14
Tandridge	Adopted	24 Jan 14	Sept- Oct 14	Dec 14	Feb 15
Woking	Adopted	Oct 12 Nov 13	May – July 14	Sept 14	Nov 14
Surrey Heath	Adopted	19 June 14	Sept- Oct 14	Dec 14	Feb 15
Runnymede	Pre-submission	2 Dec 13 24 April 14	Sept- Oct 14	Dec 14	Feb 15
Mole Valley	Adopted	12 Feb 14 7 May 14	May – July 14	Sept 14	Nov 14
Spelthorne	Adopted	17 Feb 14	May – July 14	Sept 14	Nov 14
Guildford	Consultation Summer 14	13 Nov 14	Sept- Oct 14	Dec 14	Feb 15
Waverley	Consultation Summer 14	11 April 14	Sept- Oct 14	Dec 14	Feb 15

Elmbridge borough

Introduction

The borough is located immediately to the south west of London with good accessibility to central London and the M25 and M3. The main settlement within the borough is Walton on Thames providing a range of services to the local area. Smaller settlements include Weybridge, Cobham, Esher, East and West Molesey and Hersham which are primarily residential centres.

Main transport challenges

Within the borough there are a number of transport challenges. Several traffic congestion pinch points have been identified. These include Esher town centre, East and West Molesey, north and south Weybridge, A244 corridor including Walton town centre and A245 corridor including Cobham High Street. In addition to traffic congestion, further issues affect the borough, including:

- Community severance in Esher caused by the intersection of several main roads and high levels of traffic congestion
- Accessibility to Esher railway station as it is located about a mile from the town centre
- Poor accessibility to public transport in Walton and Weybridge
- Community severance, traffic congestion and poor safety records in Walton and A244 corridor
- Community severance and a lack of parking provision in East and West Molesey
- Poor air quality with seven Air Quality Management Areas designated within the borough.

Our proposed approach

There are no major transport schemes identified within Elmbridge, but the schemes listed below are proposed to address problems identified with the existing transport infrastructure in the borough. The list below is not definitive and the county council and borough council are working together to find the right solutions to the transport problems within the borough, The schemes worked up between the county and borough councils will look to encourage more sustainable forms of transport and to minimise the need to travel.

- A package of schemes to improve pedestrian/cyclist accessibility, junction improvements and town centre management in Esher
- Improving pedestrian, cyclist and public transport links to Esher Station
- Accessibility improvements for pedestrian and cyclists to Walton Rail Station
- A package of schemes to improve transport problems in East and West Molesey including traffic calming, cycle and pedestrian routes, junction improvements and parking restrictions
- Accessibility and cycling improvements in Weybridge area
- A245 and A244 including Walton town centre route corridor study to assess level of junction improvements and pedestrian and cyclist improvements

- Air quality measures as set out within Air Quality Management Area Action Plans which are currently been produced.

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations and through the borough council.

Epsom and Ewell borough

Introduction

The predominately urban borough of Epsom and Ewell is located in the north of Surrey and 15 miles south west of central London. Epsom town centre is the main focus for economic activity within the borough. There are a number of smaller secondary centres including Ewell Village and Stoneleigh. The main highway through the borough is the A24 between Leatherhead in the south west and Sutton in the north east. The other principal roads in the borough are the A240 between Banstead (south east) and Kingston (north west) to the west of Stoneleigh, A232 between Ewell and the London borough of Sutton and the B280 radiating to the west of Epsom Town Centre and the Royal Borough of Kingston upon Thames.

Main transport challenges

Many of the main roads within the borough have the impact of separating communities and restricting pedestrian and cycling movements due to the built up nature of the borough. Many of these roads suffer from high levels of congestion. This is made worse by the railway line which provides a barrier to movement. The high level of congestion not only increases journey times but has a negative impact upon air quality. It can also make public transport less reliable. The main transport challenges within the borough have been identified as:

- congestion on the A24 having a negative impact on air quality within Epsom Town Centre
- congestion in and around the High Street in Ewell Village contributing to the area being designated as an Air Quality Management Area (AQMA)
- bus reliability is poor due to high levels of congestion
- congestion on a number of corridors including A24, A240, A232, B280 and B2200
- poor accessibility for pedestrians and cyclists to train stations in the borough.

Our proposed approach

Two major schemes have been identified for Epsom and Ewell:

- Epsom Town Centre Area Action Plan (Plan E)
- Kiln Lane Link

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. They look to encourage more sustainable forms of transport and to minimise the need to travel.

- a package of schemes to improve pedestrian/ cyclist accessibility and improve congestion within Epsom Town Centre
- Kiln Lane link will look to relieve congestion on the A24 by removing the barrier the railway causes to east-west movement across the borough
- investment in the bus network such as 'Real Time Passenger Information' in order to encourage more sustainable transport options
- rail platforms extensions to increase rail capacity

- measures to improve air quality in Ewell Village and Epsom town centre.

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations and through the borough council.

Guildford borough

Introduction

Guildford borough is situated in south west Surrey, within commuting distance of central London and approximately 40 miles from the south coast of England. The county town of Guildford is the main focus for economic activity within Surrey. Ash and Tongham are smaller centres in the borough, with further communities in numerous village settlements and hamlets. The A3 trunk road and the M25 motorway, which form part of Highways Agency's strategic road network, both pass through the borough. There are twelve rail stations in the borough. The borough benefits from a frequent fast train service via Woking to London Waterloo (Portsmouth Direct Line), as well as a stopping service via the New Guildford Line. It also has good rail links with Reading, Redhill and Gatwick via the North Downs Line. Guildford town centre has two rail stations; Guildford rail station, the busiest station in the county for entries and exits, which provides an interchange between four lines, and London Road rail station.

Main transport challenges

The following key access and transport challenges have been identified:

- Traffic congestion during peak hours in Guildford town centre, especially on the gyratory system and its approaches, the A3 trunk road as it runs through the town of Guildford, the A3 trunk road between the Ripley junction and the A3/M25 (junction 10) Wisley interchange junction
- Noise pollution caused by the A3 trunk road within Guildford town centre
- Adverse impacts of high traffic volumes on road safety, severance, noise, local air quality, the demand for parking and the setting and amenity of local neighbourhoods across the borough
- Severance of the town of Guildford and its constituent neighbourhoods resulting from a combination of the A3 trunk road, railway lines and the River Wey. There are also a limited number of crossing points, which impacts especially on pedestrians and cyclists
- A lack of access to services, jobs and educational opportunities for those living in some rural settlements that do not have access to a car
- Intensified and new challenges resulting from potential future higher levels of traffic on roads in the borough, generated by the demand for travel to and from existing and future homes, workplaces, shops and leisure facilities
- Growing rail overcrowding on some peak period rail services from stations in the borough.

Our proposed approach

Three major schemes have been identified for Guildford borough:

- Guildford Gyratory improvements
- Guildford A3 Strategic Corridor Improvements
- Guildford Hub Transport Improvements

The schemes listed below are also proposed to address the challenges identified with the existing transport infrastructure in the borough. The following schemes are being progressed to help ease congestion and encourage sustainable travel:

- A scheme is under development to reconfigure the Guildford gyratory. Key objectives include improving pedestrian provision and accessibility, increasing movement by sustainable modes, improving journey time reliability and improving the quality of place
- Pedestrian and cycle improvements, including a network of signed routes in Guildford
- Potential provision of new park and ride sites serving the town centre
- Highway improvements including junction improvements, management of on street parking arrangements and traffic management
- Road safety improvements including additional pedestrian crossings and traffic calming measures
- Improvements to interchange arrangements, particularly in and around Guildford station
- Bus priority and corridor improvements.

The package of schemes for Guildford will be informed by the Guildford town centre and Approaches Movement Study, which is to be commissioned by Guildford Borough Council.

Potential funding will be a combination of developer contributions such as Section 106 and CIL, central government grants, local committee allocations, Local Sustainable Transport Fund, Growing Places Fund and other contributions from the county and borough councils.

Mole Valley district

Introduction

Mole Valley district lies at the heart of Surrey, mid-way between London and the Sussex coast. Dorking and Leatherhead are the key market towns providing retail and other services for surrounding areas. Small centres such as Ashtead, Bookham and Fetcham also provide a range of local shopping and other services for the day to day needs of their communities. The district has three main principal roads consisting of the M25, A24 running north to south and the A25 running east to west. Gatwick Airport is located in the neighbouring West Sussex Borough of Crawley and adjoins Mole Valley's south eastern boundary. Access by road to the airport is perceived as being good, but there is the potential to improve rail access.

Main transport challenges

In summary the main transport challenges facing the district are:

- Major congestion pinch points on the transport network, particularly approaches to town centres
- High levels of congestion in the town centres notably Dorking and Leatherhead
- Access to public transport can be poor in areas of the district
- Limited provision for parking at train stations.

Our proposed approach

Three major schemes have been identified for Mole Valley:

- A24 Capel to Surrey boundary corridor improvements
- Dorking Town Centre Traffic Management Measures
- A24 Clarks Green to Holmwood

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the district. They look to encourage more sustainable forms of transport and to minimise the need to travel.

- A package of schemes to reduce congestion within Dorking town centre including junction improvements, cycle and pedestrian facilities and passenger transport
- Junction improvements on the Leatherhead gyratory
- A package of schemes to address transport issues in Ashtead, Bookham, Fetcham and Leatherhead including passenger transport, highway improvements, parking measures, pedestrian and cycle facilities
- A package of schemes in rural areas providing highways improvements.

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations and through the district council.

Reigate and Banstead borough

Introduction

The borough of Reigate and Banstead is located in the east of the county, adjoining Greater London to the north, Crawley and Gatwick Airport to the south, and Horsham District in West Sussex. The main settlements within the borough are Redhill and Reigate with smaller centres comprising Horley, Merstham, Tadworth and Preston. The principal road network is centred around Redhill. North to south links comprise the A217 and A23 and east to west links are the A25 and the M25. There are nine designated Air Quality Management Areas within the borough.

Main transport challenges

In summary the main transport challenges facing the district are:

- Congestion, impacting upon air quality, and poor accessibility between Reigate and Redhill and other areas in the borough
- Poor accessibility, congestion and community severance between Merstham, Redhill West and the town centre
- Inadequate walking and cycling routes between new residential developments and Redhill town centre; within the centre of Horley, pedestrian accessibility to the town centre from residential areas is particularly poor
- Community severance caused by the A217 and A23 resulting in a barrier between Redhill rail station, bus station and the town centre
- Congestion on the Redhill ring road caused by poor signage for car park and HGVs
- Areas within the borough have infrequent public transport leading to the majority of journeys within the borough being completed by car.
- Poor public transport provision in the evenings and on Sundays in Preston, along with poor pedestrian and cyclist access to surrounding areas.

Our proposed approach

Three major schemes have been identified for Reigate and Banstead:

- Redhill Balanced Network
- Road Network Improvements in Reigate
- Reigate – Redhill Hub Transport Improvements

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. They look to encourage more sustainable forms of transport and to minimize the need to travel.

- A23 corridor improvements including junction improvements and pedestrian and cyclist improvements
- A217 corridor improvements including safety, pedestrian, cyclist and junction improvements

- Transport improvements within Redhill town centre including public realm, pedestrian and cyclist improvements, traffic management measures and bus priority improvements, air quality measures, highway safety improvements
- Improvements to Reigate town centre including bus corridor, improved cycle and pedestrian routes and highway safety improvements
- Transport improvements in Horley including town centre public realm improvements, improved bus services, cycle and pedestrian facilities, junction improvements and traffic calming.

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations, Local Sustainable Transport Fund, Growing Places Fund and through the borough council.

Runnymede borough

Introduction

The three main towns of Addlestone, Chertsey and Egham are all well connected to the local road network. These urban areas are most likely to see the majority of development in the borough and through the DERA site at Longcross where an additional 1,500 homes will be delivered. The borough is split into quarters by the north-south M25 and the east-west M3. The other principal roads are the A30 and the A320 providing connectivity to Woking and Guildford, the A380 to Windsor and the A317 to Weybridge.

Main transport challenges

When there is severe congestion on the motorways there are knock on effects on the local road network as traffic leaves the M25 and M3 seeking alternative routes on local A and B roads. There is also a major motorway junction at the centre of the borough where the M25 and M3 intersect. On the local road network, the A30 Egham bypass suffers from congestion at peak times along with the local roads surrounding the M3 Junction 3 and within the town centres of Addlestone, Chertsey and Egham. The main challenges in the borough have been identified as:

- Traffic congestion in Egham town centre caused by railway crossing points and high volumes of traffic
- Egham bypass and railway are barriers to movement
- High level of congestion within Addlestone town centre and inadequate facilities for pedestrians and cyclists
- High traffic levels and speeds on the main distributor roads with inadequate facilities for cyclists and pedestrians in Chertsey town centre.

Our proposed approach

Two major schemes have been identified for Runnymede borough:

- Runnymede Roundabout
- Egham Sustainable Transport Package

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. They look to encourage more sustainable forms of transport and to minimise the need to travel.

- In addition to Runnymede roundabout and Egham sustainable package, further improvements including bus services to employment areas, highway improvements road safety schemes, pedestrian and cycling improvements
- A package of schemes in Addlestone comprising road safety and pedestrian and cyclist improvements
- A package of schemes in Chertsey comprising road safety and pedestrian and cyclist improvements
- Improvements to Longcross Rail Station and enhanced service levels
- Various highway improvements, public transport improvements, pedestrian and cyclist improvements and road safety schemes in the smaller centres.

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations and through the borough council.

Spelthorne Borough

Introduction

The predominately urban Borough of Spelthorne is located in the north east of Surrey adjoining greater London. The Borough consists of a number of settlements. It includes Staines upon Thames, which is the largest retail and commencial centre within the borough and Sunbury, Ashford and Shepperton. Heathrow Airport immediately adjoins the northern boundary of the borough and is a major employment site employing over 76,000 people. It is a major generator of traffic and road journeys in Spelthorne.

Main transport challenges

Within the borough the strategic road network comprises the M3, M25, A30 and A3113 (Airport Way). These roads generally operate at high levels of stress throughout the day and are particularly congested at peak times. The whole of the Borough is designated as an Air Quality Management Area because of poor air quality. The main transport challenges within the borough are:

- Traffic congestion within Staines upon Thames town centre
- Traffic congestion caused by traffic flows from south west London and Heathrow affecting Ashford, Stanwell and Sunbury
- Poorer air quality within parts of Staines upon Thames town centre, Sunbury and parts of Shepperton

Our proposed approach

One major scheme has been identified for Spelthorne:

- Staines Bridge Widening

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. They look to encourage more sustainable forms of transport and to minimise the need to travel.

- The Staines Movement Study will inform transport improvements in Staines upon Thames town centre and the wider area which may include bus improvements, pedestrian and cycling improvements, junction improvements and improved traffic management.
- Introduction of air quality measures on transport corridors around Ashford, Stanwell,Sunbury and Shepperton
- A package of improvements in Shepperton town centre which may include safety improvements, air quality measures on relevant transport corridors and public transport improvements.

Potential funding may come from a combination of developer contributions such as Section 106 and in due course Community Infrastructure Levy (CIL), central government grants, local committee allocations and Growing Places Fund.

Surrey Heath borough

Introduction

Surrey Heath borough is located to the west of the county and adjoins Hampshire and Bracknell. Camberley is the main settlement within the borough and is designated as a strategic town centre. It serves as an important retail and commercial centre for the west of the county. The principal road network in the borough consists of the M3 running north-east to south-west through the borough, the A30, the A322 providing a link from the M3 to the M4 and the A331 (Blackwater Valley Route) providing a north-south link from the M3 to the A31 Hog's Back.

The majority of housing within the borough will be delivered within Camberley and through the redevelopment of the Princess Royal Barracks, Deepcut where an additional 1,200 homes will be delivered. The transport network in the borough will be put under further pressure from cross-boundary development especially the Aldershot Urban Extension, a development of 4,000 homes.

Main transport challenges

There are a number of bottlenecks within the borough that are subject to high levels of traffic congestion. Technical modelling has found that congestion will be further exacerbated without any form of mitigation. The main challenges in the borough have been identified as:

- Congestion in Camberley Town Centre, M3 corridor Junction 4 to Junction 2, A325 in the Frimley Area and A331 corridor, and on the A319 in Chobham
- Constraint on traffic movements across the borough are constrained by the Borough's long southern boundary with the River which is crossed by only four bridging points
- Poor bus services particularly in rural areas where services run infrequently and there are no evening services.

Our proposed approach

Two major schemes have been identified for Surrey Heath:

- A30/A331 Corridor improvements including Meadows Roundabout
- Highways improvements, Camberley

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. They look to encourage more sustainable forms of transport and to minimise the need to travel.

- A package of schemes within Camberley Town Centre including pedestrian improvements, bus infrastructure improvements and cycle route improvements
- Improved access to the Yorktown area
- Improvements to A325 Frimley roundabout (also known as Toshiba Roundabout)
- Junction improvements along the A325 and traffic management improvements
- Junction improvements on approaches to M3

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations, Growing Places Fund and through the borough council.

Tandridge district

Introduction

Tandridge district is the most easterly of the eleven districts in Surrey, bordering Kent to the east, London to the north and East and West Sussex to the south. With an area of 248km^2 and just under 80,000 people, it has the lowest population density in the county. Some 94% of the district is designated as Green Belt and the urban area occupies the remaining 6%, much of which lies predominantly in the northern half of the district. The principal road network comprises of the M25, M23, A25, A22 and A264.

Main transport challenges

Both the M25 and M23 run through the district. Delays on the motorway network often result in serious congestion on routes such as the A25 and on parts of the A22. Due to the rural nature of the district, it is not particularly well served by public transport, except for rail lines into London making modal shift more difficult. The challenge is therefore to ensure services are adequate and offer a real alternative to using the car. The main transport challenges within the borough have been identified as:

- Poor public transport in rural areas
- Lack of parking in urban areas and especially at local rail stations due to commuters
- HGV traffic on A25 corridor impacting upon villages
- Congestion on a number of junctions of A22 resulting in poor journey time reliability
- Poor pedestrian and cyclist facilities on A25 and A22 corridors
- Congestion centred on Station Avenue in Caterham Valley
- Rat running on rural roads
- Congestion on the A264 and cross boundary traffic.

Our proposed approach

There are no major transport schemes identified within Tandridge, but the schemes listed below are proposed to address problems identified with the existing transport infrastructure in the district. They look to encourage more sustainable forms of transport and to minimise the need to travel.

- A25 Study to assess required improvements to the corridor including road improvements, junction improvements, pedestrian and cyclist improvements
- Provision of adequate transport infrastructure and services (including public transport) that supports the aim of reducing the need to travel by car.
- encourage alternative modes of transport, in particular in rural areas, by supporting rural transport initiatives
- Junction and pedestrian and cyclist improvements on the A22
- Parking strategies/greater parking provision at railway stations

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations and through the district council.

Waverley borough

Introduction

The borough of Waverley is located in the south western corner of the county and is predominantly rural in nature with 80 percent designated as an Area of Outstanding Natural Beauty and/or an Area of Great Landscape Value. The majority of residents live in the settlement areas of Farnham, Godalming, Haslemere and Cranleigh. These are the main shopping and employment centres within the borough. The borough also includes Dunsfold Park which is a major local employment centre. The main highway network in Waverley consists of the A31 through Farnham, the A287, the A3 running from Hindhead towards Guildford through the centre of the borough, the A286, the A283 and the A281. The main railway lines run through Godalming from Guildford, towards Haslemere, and through Farnham.

Main transport challenges

A number of transport challenges are experienced on the borough's transport network including:

- Existing and future congestion on the A31 in Farnham leading to poor air quality and unreliable journey times
- Community severance caused by the road network especially in Farnham resulting in a barrier to movement, particularly by walking and cycling resulting in less sustainable travel patterns
- Limited pedestrian and cyclist facilities in some areas of the borough, along with limited bus infrastructure provision in places, which combine to provide restricted accessibility for those without a car.

Our proposed approach

Four major schemes have been identified for Waverley:

- Farnham Town Centre Package
- A31 Hickley's Corner Junction Improvement
- A31 Hickley's Corner Underpass
- Wrecclesham Relief Road

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. The proposed approach below is being developed but is subject to feasibility and consultation. The proposed schemes are intended to encourage more sustainable travel patterns in the borough, improve journey time reliability, reduce congestion and improve transport accessibility by sustainable modes. The proposed schemes include:

- Roundabout and junction improvements: the A325 Corridor and A31/A325 Coxbridge Roundabout; A31 Hickley's Corner; and A31 Shepherd & Flock Roundabout
- Farnham town centre improvements to include upgrade of bus infrastructure, improved walking and cycling accessibility
- Improvements to Farnham railway station forecourt

- Traffic management and route improvements for pedestrians and cyclists in Godalming and Haslemere
- Bus improvements in Farnham, Cranleigh, Haslemere and in rural areas.

Potential funding will be a combination of developer contributions such as Section 106 and Community Infrastructure Levy (CIL), central government grants, local committee allocations, Growing Places Fund and through the borough council.

Woking borough

Introduction

Woking Borough is located in north west Surrey, approximately 25 miles from London. The borough covers approximately 6,400 hectares and is predominantly urban in character. The main settlements in the borough are Woking and West Byfleet. The main highways through Woking are the A320, A324 and A322. These provide access to surrounding settlements and to the A3 and M25 which provide access to London and the south. Woking is served by two railway lines providing frequent services to London Waterloo and much of the south and west.

Main transport challenges

The road network, railways and waterways act as barriers to movement in some areas of the borough. A small number of crossings of these barriers contribute to congestion as traffic concentrates at these points, particularly during the peak hours.

Congestion contributes to unreliable journey times, is detrimental to air quality and can act as a deterrent for businesses to locate offices in the area thereby inhibiting economic growth. Particular congestion bottlenecks have been identified in Woking town centre, Brookwood and on approaches to the M25.

The main challenges in the borough have been identified as:

- Congestion in Woking town centre, Maybury, Knaphill and St Johns, and on the A324/A322 at Brookwood crossroads
- Poor air quality in Knaphill
- The railway line acts as a barrier to north-south movement in Woking town centre and also separates Maybury and Sheerwater, making it difficult to access the town centre and employment areas in Maybury and Sheerwater.

Our proposed approach

Two major schemes have been identified for Woking:

- Victoria Arch Capacity Improvements
- Woking Hub Transport Improvements

The schemes listed below are also proposed to address the problems identified with the existing transport infrastructure in the borough. The schemes are intended to encourage more sustainable travel patterns in the borough, improve journey time reliability and improve transport interchange opportunities. Some of these schemes are currently being implemented such as the Sheerwater Link Road. More detailed information and timescales are included within the Local Transport Strategy which will be published by the county council for consultation in late 2013. The schemes include:

- Improvements along the A320 corridor from Woking town centre to the Six Crossroads

- Provision of the Sheerwater Link Road (construction due to start early 2013)
- Improvements to the one-way system in West Byfleet
- Woking transport interchange hub at Woking station
- Improvements to Victoria Arch to the benefit of all modes to increase accessibility and reduce severance caused by the railway
- Area improvements to the walking and cycling network, to complete some of the gaps in provision.

Potential sources of funding have been identified as CIL and S106 agreements, central government grants via the county council, funding from the LEP through the Growing Places Fund, Woking Local Committee allocations and funding from Woking Borough Council.

Annex 2

Other congestion bottlenecks identified within the county

Road	Borough/District
A244 Hersham Road	Elmbridge
A244 Oxshott Road to A3	Elmbridge
A245 Byfleet Road/B365 Seven Hills Road	Elmbridge
A309/A3050 to Hampton Court	Elmbridge
B2200 Chessington Road to the Kingston boundary	Epsom & Ewell
A24 London Road to the Sutton boundary and south towards Leatherhead	Epsom & Ewell
A240 Kingston Road/Ewell by pass to the Kingston boundary	Epsom & Ewell
A232 Cheam Road to the Sutton Boundary	Epsom & Ewell
B280 Christ Church Road to the Kingston Boundary	Epsom & Ewell
Guildford town centre: A323, A322, Bridge Street/Friary Bridge gyratory arms and A3100	Guildford
Near Aldershot and Farnborough: A331, A323 A324 between Pirbright and Normandy	Guildford
A31 corridor: west GBC to A3 south of Guildford town centre	Guildford
A320 and A332 south of Worplesdon	Guildford
A324 between Pirbright and Normandy	Guildford
B3000 Compton	Guildford
Leatherhead one-way system and Randalls Road	Mole Valley
Dorking one-way system	Mole Valley

Road	Borough/District
A25 between Westcott and Dorking	Mole Valley
Deepdene Roundabout (junction of A25 Reigate Road with A24 Deepdene Avenue)	Mole Valley
A25 to Leatherhead bypass	Mole Valley
Givons Grove Roundabout (junction of A24 Leatherhead By-Pass Road with A24 Dorking Road, A246 Young Street and B2450 Dorking Road)	Mole Valley
Knoll Roundabout (junction of A24 Leatherhead Road with B2122 Epsom Road and A243 Leatherhead By-Pass Road)	Mole Valley
Plough Roundabout (junction of A245 Kingston Road with B2430 Kingston Road and Barnett Wood Lane).	Mole Valley
A217 Brighton Road (Banstead Downs), north of Junction 8 of M25, Reigate Hill	Reigate & Banstead
A23 London Road	Reigate & Banstead
A23 Horley Road (South of Earlswood)	Reigate & Banstead
A23 Horley to Redhill	Reigate & Banstead
Kings Head/Balcombe Road junction	Reigate & Banstead
Longbridge roundabout	Reigate & Banstead
A320 St Peter's Way -as well as other local roads surrounding the M25 junction 11	Runnymede
A317/B3121 St Georges Roundabout	Runnymede
A317 corridor	Runnymede
A30 London Road	Spelthorne
A244 Gaston Bridge	Spelthorne
A308 Staines Road West	Spelthorne

Road	Borough/District
B378 Ashford Road	Spelthorne
Charlton Lane	Spelthorne
Littleton Lane – Chertsey Bridge Road junction	Spelthorne
B311 Red Road	Surrey Heath
B3015 The Maultway	Surrey Heath
A319 – A3046 Chobham	Surrey Heath
A319/A8383 Chertsey Road/Chobham High Street	Surrey Heath
A30 Blackwater – Bagshot	Surrey Heath
A325 Corridor	Surrey Heath
A331 Corridor	Surrey Heath
M3/A322 junction	Surrey Heath
A325/B3411 junction	Surrey Heath
A22 corridor (Whyteleafe, Caterham and Godstone)	Tandridge
A25 corridor	Tandridge
A264 corridor (Felbridge) including A264/A22 junction and A264/Crawley Down Road	Tandridge
Outwood Lane crossroads	Tandridge
A22/B2030 Godstone Road junction	Tandridge
Court Road/Chaldon oad and Coulsdon Road junction	Tandridge
A287 Hindhead Road, Haslemere	Waverley
Farncombe Street, Farncombe	Waverley
A3016 Upper Hale Road, and A3016 Hale Road (north of Six Bells Roundabout), Farnham	Waverley
B3005 Alma Lane, Farnham	Waverley
A287 Castle Street, Farnham	Waverley

Road	Borough/District
A287 Farnham town centre	Waverley
A3016 Upper Hale Road	Waverley
A325 Farnham town centre	Waverley
A281	
A324/A322 Brookwood Crossroads	Woking
6 Crossroads Roundabout	Woking
A320 Corridor	Woking
A245 Corridor	Woking

Annex 3

Addressing the risks identified by the Strategic Environmental Assessment (SEA) process

	Key Risks & Recommendations from the SEA	How implementation of the Congestion Programme will address the identified risks & recommendations
Epsom Town Centre Action Plan Estimated Target Bid Date: 2015/16 **(Scheme A in Appendix 1 to the Environmental Report)**	**Risks** No significant risks identified – Environmental Impact Assessment (EIA) not likely to be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. permitted development (PD) rights with relevant planning authority. Consult Epsom & Ewell Borough Council (E&EBC) Conservation Officer re. safeguarding Conservation Areas & Listed Buildings. Consult E&EBC & Surrey County Council (SCC) on surface water management.	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme.
Redhill Balanced Network Estimated Target Bid Date: 2015/16 **(Scheme C in Appendix 1 to the Environmental Report)**	Risks **No significant risks identified – EIA not likely to be required at project level.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult Reigate & Banstead BC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.** **Consult R&BBC Environmental Health Officer (EHO) re. air quality issues.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.

	Key Risks & Recommendations from the SEA	How implementation of the Congestion Programme will address the identified risks & recommendations
Runnymede Roundabout Estimated Target Bid Date: 2015/16 **(Scheme D in Appendix 1 to the Environmental Report)**	Risks **Risks to heritage assets identified – EIA not likely to be required at project level, subject to it being demonstrated that the Scheduled Monument adjacent to the scheme area would not be adversely affected.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens.** **Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk.** **Consult Runnymede BC & SCC on surface water management.** **Consult Natural England re. safeguarding of nearby Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), & Ramsar Sites.** **Consult the SCC & RBC Ecologists & the Surrey Wildlife Trust (SWT) re. safeguarding nearby Sites of Nature Conservation Importance (SNCIs).** **Consult RBC EHO re. air quality issues.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • English Heritage & SCC Archaeologist consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme. • Natural England consulted & advice reflected in the design of the scheme. • SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.
Victoria Arch Capacity Improvements, Woking Estimated Target Bid Date: 2015/16 **(Scheme N in Appendix 1 to the Environmental Report)**	Risks **No significant risks identified – EIA not likely to be required at project level.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult E&EBC & Surrey County Council (SCC) on surface water management.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • BC Conservation Officer consulted & advice reflected in the design of the scheme.

	Key Risks & Recommendations from the SEA	How implementation of the Congestion Programme will address the identified risks & recommendations
Egham Sustainable Transport Package Estimated Target Bid Date: 2015/16 **(Scheme F in Appendix 1 to the Environmental Report)**	Risks **No significant risks identified – EIA not likely to be required at project level.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult English Heritage & SCC Archaeologists re. safeguarding nearby Scheduled Monuments & Registered Parks & Gardens.** **Consult RBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.** **Consult Natural England re. safeguarding of nearby SSSIs, SACs, SPAs, & Ramsar Sites.** **Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk.** **Consult RBC & SCC on surface water management.** **Consult RBC EHO re. air quality issues.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • English Heritage & SCC Archaeologist consulted & advice reflected in the design of the scheme. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • Natural England consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.
Wider Network Benefits Package Estimated Target Bid Date: 2015/16 **Scheme I in Appendix 1 to the Environmental Report)**	**Not assessed as the scheme is concerned with network management.**	Not applicable
A30/A331 Corridor Improvements Estimated Target Bid Date: 2016/17 **(Scheme E in Appendix 1 to the Environmental Report)**	Risks **Risks to ecological assets identified – EIA not likely to be required at project level, subject to it being demonstrated that the SSSI close to the scheme area would not be adversely affected.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk.** **Consult Natural England re. safeguarding of nearby SSSI.** **Consult the SCC and Surrey Heath BC Ecologists & the SWT re. safeguarding nearby SNCIs.** **Consult SHBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.** **Consult SHBC EHO re. air quality issues.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • Environment Agency consulted & advice reflected in the design of the scheme. • Natural England consulted & advice reflected in the design of the scheme. • SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.

	Key Risks & Recommendations from the SEA	How implementation of the Congestion Programme will address the identified risks & recommendations
Guildford Gyratory improvements Estimated Target Bid Date: 2016/17 **(Scheme B in Appendix 1 to the Environmental Report)**	Risks **Risks to heritage assets identified – EIA not likely to be required at project level, subject to it being demonstrated that the Scheduled Monuments within the scheme area would not be adversely affected.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens.** **Consult Guildford BC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.** **Consult the Environment Agency re. safeguarding the quality of the nearby main river.** **Consult GBC & SCC on surface water management.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • English Heritage & SCC Archaeologist consulted & advice reflected in the design of the scheme. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme.
Dorking Town Centre Traffic Management Measures Estimated Target Bid Date: 2016/17 **(Scheme L in Appendix 1 to the Environmental Report)**	Risks **No significant risks identified – EIA not likely to be required at project level.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.** **Consult Natural England re. safeguarding of nearby SSSIs & SAC.** **Consult the SCC & MVDC Ecologists & the SWT re. safeguarding nearby SNCIs &Ancient Woodland.** **Consult Natural England, SCC & MVDC Landscape Architects, & Surrey Hills Area of Outstanding Natural Beauty (AONB) Office re. safeguarding the nearby AONB & Area of Great Landscape Value (AGLV).** **Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens.** **Consult MVDC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.** **Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk.** **Consult MVDC & SCC on surface water management.**	The findings &recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • Natural England consulted & advice reflected in the design of the scheme. • SCC & DC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • Natural England, SCC & MVDC Landscape Architects & Surrey Hills AONB Office consulted & advice reflected in the design of the scheme. • English Heritage & SCC Archaeologist consulted & advice reflected in the design of the scheme. • DC Conservation Officer consulted & advice reflected in **the design of** the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • DC & SCC consulted on flood risk & advice reflected in the design of the scheme.
Farnham Town Centre Package	**Risks** Risks to heritage assets identified – EIA not likely to be required at project level, subject to it	The findings &recommendations of the SEA are noted, & the following actions will be incorporated into the

Estimated Target Bid Date: 2017/18 **Scheme G in Appendix 1 to the Environmental Report)**	being demonstrated that the nearby Scheduled Monument would not be adversely affected. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. PD rights with relevant planning authority. Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens. Consult Waverley BC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings. Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk. Consult WaBC & SCC on surface water management. Consult the SCC & WaBC Ecologists & the SWT re. safeguarding nearby SNCIs. Consult WaBC EHO re. air quality issues.	development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • English Heritage & SCC Archaeologist consulted & advice reflected in the design of the scheme. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme. • SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.
A31 Hickley's Corner Junction Improvement, Farnham Estimated Target Bid Date: 2017/18 **(Scheme K in Appendix 1 to the Environmental Report)**	**Risks** No significant risks identified – EIA not likely to be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. PD rights with relevant planning authority. Consult WaBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings. Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk. Consult WaBC EHO re. air quality issues.	The findings &recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.
Kiln Lane Link, Epsom & Ewell Estimated Target Bid Date: 2017/18 **(Scheme M in Appendix 1 to the Environmental Report)**	**Risks** No significant risks identified – EIA not likely to be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. PD rights with relevant planning authority. Consult E&EBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme.
Camberley Highway Improvements Estimated Target Bid Date: 2017/18 **Scheme H in Appendix 1 to the Environmental Report)**	Risks **Risks to ecological assets identified – EIA not likely to be required at project level, subject to it being demonstrated that the SSSI close to the scheme area would not be adversely affected.** Recommendations **Obtain EIA Screening Opinion from relevant planning authority.** **Clarify position re. PD rights with relevant planning authority.**	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • Environment Agency consulted & advice reflected in the design of the scheme. • Natural England consulted & advice reflected in the design of the

	Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk. **Consult Natural England re. safeguarding of nearby SSSI.** **Consult the SCC & SHBC Ecologists & the SWT re. safeguarding nearby SNCIs.** **Consult SHBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.**	scheme. • SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • BC Conservation Officer consulted & advice reflected in the design of the scheme.

	Key Risks & Recommendations from the SEA	How implementation of the Congestion Programme will address the identified risks & recommendations
A24 Capel to Surrey/West Sussex Border Corridor **Improvements** Estimated Target Bid Date: 2017/18 **(Scheme J in Appendix 1 to the Environmental Report)**	**Risks** Risks to ecological assets identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult Natural England re. safeguarding of nearby SSSI. Consult the SCC and Mole Valley DC Ecologists & the SWT re. safeguarding nearby SNCIs. Consult MVDC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • Planning permission position clarified. • Natural England consulted & advice reflected in the design of the scheme. • SCC & DC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • DC Conservation Officer consulted & advice reflected in the design of the scheme.
A24 Clarks Green to Holmwood, Mole Valley Estimated Target Bid Date: 2018/19 **(Scheme O in Appendix 1 to the Environmental Report)**	**Risks** Risks to landscape assets identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult Natural England, SCC & MVDC Landscape Architects, & Surrey Hills AONB Office re. safeguarding the nearby AONB & AGLV. Consult the Environment Agency re. safeguarding the quality of the nearby main river. Consult the SCC and Mole Valley DC Ecologists & the SWT re. safeguarding nearby SNCIs & Ancient Woodland. Consult MVDC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • Planning permission position clarified. • Natural England, SCC & MVDC Landscape Architects & Surrey Hills AONB Office consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • SCC & DC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • DC Conservation Officer consulted & advice reflected in the design of the scheme.

	Key Risks & Recommendations from the SEA	How implementation of the Congestion Programme will address the identified risks & recommendations
Road Network Improvements, Reigate Estimated Target Bid Date: post-2019 **(Scheme P in Appendix 1 to the Environmental Report)**	**Risks** Risks to heritage assets identified – EIA not likely to be required at project level, subject to it being demonstrated that the nearby Scheduled Monument would not be adversely affected. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. PD rights with relevant planning authority. Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens. Consult R&BBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings. Consult R&BBC EHO re. air quality issues. Consult WaBC & SCC on surface water management.	The findings &recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • English Heritage & SCC Archaeologist consulted & advice reflected in the design of the scheme. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme. • BC & SCC consulted on flood risk & advice reflected in the design of the scheme.
A31 Hickley's Corner Underpass, Farnham Estimated Target Bid Date: post-2019 **(Scheme Q in Appendix 1 to the Environmental Report)**	**Risks** No significant risks identified – EIA not likely to be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. PD rights with relevant planning authority. Consult WaBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings. Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk. Consult WaBC EHO re. air quality issues.	The findings &recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • EIA Screening Opinion obtained. • PD rights position clarified. • BC Conservation Officer consulted & advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • BC EHO consulted on air quality & advice reflected in the design of the scheme.
Guildford A3 Strategic Corridor Improvements Estimated Target Bid Date: post-2019 **(Scheme R in Appendix 1 to the Environmental Report)**	**Risks** Three options were assessed – Option R(a) (improvements to the A3 on its existing alignment) was least likely to give rise to significant environmental impacts. Option R(c) (Bid of a new bypass) was most likely to give rise to significant environmental impacts & would require EIA. **Recommendations** Ensure any options appraisal work takes full account of the likely environmental impacts of the options considered. For the preferred option obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult Natural England re. safeguarding of SSSIs, SPAs and SAC surrounding Guildford. Consult the SCC & GBC Ecologists & the SWT	The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme: • Consideration of environmental impacts scoped into any options appraisal work. • EIA Screening Opinion obtained. • Planning permission position clarified. • Natural England consulted & advice reflected in the design of the scheme. • SCC & DC Ecologists, & SWT consulted & advice reflected in the design of the scheme. • Natural England, SCC & MVDC Landscape Architects & Surrey Hills AONB Office consulted &

	re. safeguarding nearby SNCIs & Ancient Woodland. Consult Natural England, SCC & GBC Landscape Architects, & Surrey Hills AONB Office re. safeguarding the nearby AONB & AGLV. Consult the Environment Agency re. safeguarding the quality of the nearby main river. Consult GBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.	advice reflected in the design of the scheme. • Environment Agency consulted & advice reflected in the design of the scheme. • • DC Conservation Officer consulted & advice reflected in the design of the scheme.
Guildford Hub Transport Improvements Estimated Target Bid Date: post-2019 **(Scheme S in Appendix 1 to the Environmental Report)**	Risks Risks to heritage, nature conservation & landscape assets & the water environment & flooding identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult Natural England re. safeguarding of SSSIs, SPAs and SAC surrounding Guildford. Consult the SCC & GBC Ecologists & the SWT re. safeguarding nearby SNCIs & Ancient Woodland. Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens. Consult Natural England, SCC & GBC Landscape Architects, & Surrey Hills AONB Office re. safeguarding the nearby AONB & AGLV. Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk. Consult GBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings.	**The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme:** • **EIA Screening Opinion obtained.** • **Planning position clarified.** • **Natural England consulted & advice reflected in the design of the scheme.** • **SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme.** • **English Heritage & SCC Archaeologists consulted & advice reflected in the design of the scheme.** • **Natural England, SCC & GBC Landscape Architects & Surrey Hills AONB Office consulted & advice reflected in the design of the scheme.** • **Environment Agency consulted & advice reflected in the design of the scheme.** **GBC Conservation Officer consulted & advice reflected in the design of the scheme.**
Reigate-Redhill Hub Transport Improvements Estimated Target Bid Date: post-2019 **(Scheme T in Appendix 1 to the Environmental Report)**	Risks Risks to heritage assets & air quality, & of flooding, identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens. Consult the LLFA & RBBC re. addressing surface water flood risk. Consult RBBC Conservation Officer re. safeguarding Conservation Areas & Listed	**The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme:** • **EIA Screening Opinion obtained.** • **Planning permission position clarified.** • **English Heritage & SCC Archaeologists consulted & advice reflected in the design of the scheme.** • **LLFA & RBBC consulted & advice reflected in the design of the scheme.** • **RBBC Conservation Officer consulted & advice reflected in the design of the scheme.** **BC EHO consulted on air quality &**

	Buildings. Consult RBBC EHO re. air quality issues.	**advice reflected in the design of the scheme.**
Staines-upon-Thames Bridge Widening Estimated Target Bid Date: post-2019 **(Scheme U in Appendix 1 to the Environmental Report)**	Risks Risks to heritage & nature conservation assets, the water environment & flooding, & air quality identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk. Consult RBC & SBC Conservation Officers re. safeguarding Conservation Areas & Listed Buildings. Consult the SCC & BC Ecologists & the SWT re. safeguarding nearby SNCIs. Consult RBC & SBC EHOs re. air quality issues.	**The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme:** • **EIA Screening Opinion obtained.** • **Planning permission position clarified.** • **Environment Agency consulted & advice reflected in the design of the scheme.** • **BC Conservation Officers consulted & advice reflected in the design of the scheme.** • **SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme.** **BC EHOs consulted on air quality & advice reflected in the design of the scheme.**
Woking Hub Transport Improvements Estimated Target Bid Date: post-2019 **Scheme V in Appendix 1 to the Environmental Report)**	Risks Risks to heritage & nature conservation assets & air quality, & of flooding, identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant planning authority. Clarify position re. planning permission with relevant planning authority. Consult Natural England re. safeguarding of SSSIs and the SPA surrounding Woking. Consult the SCC & WoBC Ecologists & the SWT re. safeguarding nearby SNCIs. Consult English Heritage & SCC Archaeologists re. safeguarding Scheduled Monuments & Registered Parks & Gardens. Consult the LLFA & WoBC re. addressing surface water flood risk. Consult WoBC Conservation Officer re. safeguarding Conservation Areas & Listed Buildings. Consult WoBC EHO re. air quality issues.	**The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme:** • **EIA Screening Opinion obtained.** • **Planning permission position clarified.** • **Natural England consulted & advice reflected in the design of the scheme.** • **SCC & BC Ecologists, & SWT consulted & advice reflected in the design of the scheme.** • **English Heritage & SCC Archaeologists consulted & advice reflected in the design of the scheme.** • **LLFA & BC consulted & advice reflected in the design of the scheme.** • **BC Conservation Officer consulted & advice reflected in the design of the scheme.** **BC EHO consulted on air quality & advice reflected in the design of the scheme**
Wrecclesham Relief Road, Farnham Estimated Target Bid Date: post-2019 **(Scheme W in Appendix 1 to the Environmental Report)**	**Risks** Risks to landscape & nature conservation assets, & water quality & flooding, identified – EIA may be required at project level. **Recommendations** Obtain EIA Screening Opinion from relevant	**The findings & recommendations of the SEA are noted, & the following actions will be incorporated into the development of the scheme:** • **EIA Screening Opinion obtained.** • **Planning permission position**

	planning authority. Clarify position re. planning permission with relevant planning authority. Consult South Downs National Park Authority re. safeguarding the context & setting of the South Downs National Park. Consult the SCC, Hampshire County Council, WaBC & Eat Hampshire DC Ecologists & the SWT & the Hampshire Wildlife Trust re. safeguarding nearby SNCIs. Consult the Environment Agency re. safeguarding the quality of the nearby main river & addressing fluvial flood risk.	**clarified.** • **South Downs NPA consulted & advice reflected in the design of the scheme.** • **SCC, HCC & BC Ecologists, & SWT & HWT consulted & advice reflected in the design of the scheme.** **Environment Agency consulted & advice reflected in the design of the scheme.**