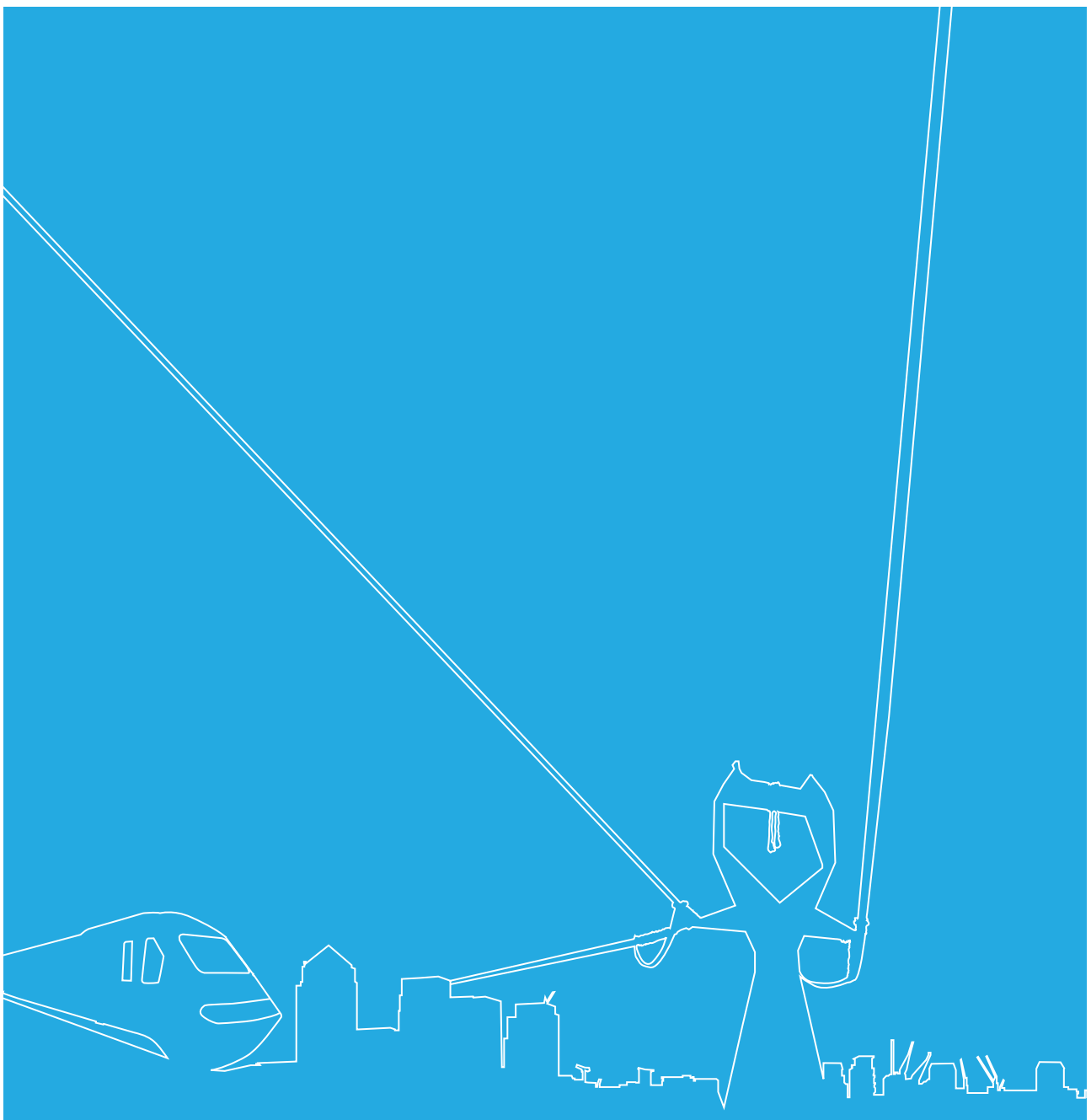


# JCS Infrastructure Delivery Plan



Gloucester City Council,  
Cheltenham Borough Council &  
Tewkesbury Borough Council  
**Infrastructure Delivery Plan**  
**Final Report**

Report Ref

Issue | 4 August 2014

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 226824

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**ARUP**

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## Executive Summary

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Ove Arup and Partners was commissioned to produce an Infrastructure Delivery Plan (IDP) for the Joint Core Strategy (JCS) area, consisting of Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council. The purpose of the IDP is to evaluate the transport, utilities, community and green infrastructure and services that will be required to support the levels of housing and employment growth proposed in the Joint Core Strategy.

The IDP has been prepared in part on the basis of the information received from various service providers as part of the consultation process, and on the understanding that the JCS was planning for some 33,200 new homes. This was the position of the draft JCS produced in October 2013.

The report has been prepared with the following caveats:

- The cost and specification information received for individual infrastructure schemes has not been audited or tested for accuracy. It has not always been possible to ascertain whether some of the infrastructure projects identified have confirmed or guaranteed funding to deliver them;
- The IDP is a high level assessment of infrastructure need which is based on the information received and benchmark indices. This provides an assessment which is based partly on theoretical costings and estimates and which should be further defined as information becomes available;
- Where we have not received an accurate or satisfactory level of actual project information from infrastructure providers, costs and project specifications have been benchmarked and estimated using industry standards and comparable project information from other parts of the UK and/or previous infrastructure projects designed and implemented by Arup;
- We accept that there may be cases where the cost of delivering infrastructure items (for example, some social and community infrastructure) could be reduced by collocating different services together. No allowance has been made at this stage of the potential to collocate and therefore reduce the cost of delivering individual services in multifunctional buildings across the JCS area. This would require further discussions with service providers;
- Infrastructure delivery planning is a live process and it is expected that the figures in this report will change over time. Further work, including infrastructure modelling and on-going consultation with service providers and developers, will be required to refine an understanding of infrastructure requirements, funding and delivery mechanisms. A detailed project tracker which accompanies this report will need to be maintained and updated over years to come to provide the most up to date and accurate picture of the overall funding and delivery picture for infrastructure across the JCS as a whole;
- This IDP has been prepared on the basis of 33,200 new homes being built (situation as of October 2013). With a lower OAN of 30,500 homes, it is likely therefore that the total need and costs of infrastructure associated with population growth will be lower than those shown in this report; and
- The project tracker attached to this IDP identifies the projects which have emerged during the preparation of the document. There are likely to be other

projects that may come on stream which have not been identified and for this reason, the project tracker forms a live document which will continue to be updated over the plan period up to 2031.

The next stage of infrastructure planning within the JCS area will involve the JCS authorities continuing to work collaboratively with key service providers in order to make decisions around prioritisation of projects. Further work on the Community Infrastructure Levy (CIL) will aid this prioritisation process and the IDP tracker will form an important tool in identifying, developing and prioritising projects across the JCS area.

## IDP Development Scenarios

A Stage 1 Interim Version IDP was published in October 2013, accompanied by an Executive Paper. This refresh IDP has been informed by further consultation with service providers, gained through issue of a briefing pack and consultation during February and March 2014. The process of preparation is summarised in the table below.

### IDP Preparation Stages

JCS milestones	IDP stage	Date
-	Preparation of Stage 1 Interim Version IDP in consultation with stakeholders	Mar to Sep 2013
Draft JCS	Stage 1 Interim Version IDP published as evidence base	Oct to Nov 2013
-	Process of refreshing IDP undertaken in consultation with stakeholders	Dec to Mar 2014
Pre-Submission JCS	Final IDP and/or paper setting out final clarifications on infrastructure matters to support Examination.	June 2014

## Housing Growth

The JCS covers a period up to 2031. Over this period the draft JCS (October 2013) proposes total housing provision of 33,200 new dwellings, including eight strategic allocations. In relation to employment land, the JCS proposes approximately 84.2 hectares (64.2 hectares net) of allocations in order to accommodate 21,800 net new jobs.

The following tables present the proposed residential and employment allocations based on the October 2013 housing provision by JCS sub-area, as agreed by the JCS authorities for inclusion in the IDP Refresh process.

### Residential Development Allocation by JCS Sub-Area

JCS Sub-area	New Dwellings
Gloucester North	8,927
Gloucester South	2,250
Cheltenham South & West	3,131
Cheltenham North	7,166

JCS Sub-area	New Dwellings
Tewkesbury & Ashchurch	2,637
Allocations Sub-total	23,193
Committed Development	10,007
Total JCS New Housing	33,200

#### Employment Allocation by JCS Sub-Area

JCS Sub-Area	Retail (sqm)	'B' Use Classes (Ha)
Gloucester North	89,000	26.50
Gloucester South	-	-
Cheltenham South & West	-	-
Cheltenham North	111,000	23.40
Tewkesbury & Ashchurch	10,642	34.30
Total JCS New Employment	210,642	843.20

## Population Growth

In considering infrastructure requirements it is necessary to consider the population growth associated with the forecast housing requirements. This demographic information has a further important role to play during the interpretation of infrastructure requirements. For instance, population growth that shows a proportionate increase in the number of elderly would be expected to result in fewer schools admissions, but potentially greater demand for healthcare services.

The IDP utilised two scenarios in terms of population growth including:

- Scenario 1 – utilised ONS population projections and is considered to provide the basis for a more representative assessment of demand for infrastructure at a district-wide level.
- Scenario 2 – assumes that the population for each development equates to the number of new dwellings multiplied by the projected household size in 2021 of 2.18. At the district-wide level this method of calculation results in a high total population figure which is considered unrealistic and therefore has been discounted. However, for specific developments Scenario 2 is helpful in establishing a potential increase in demand for local infrastructure within a specific town or village. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.

Benchmark standards have been applied to both scenarios across two phases, the first being 2014-2018 and the second reflecting the whole plan period (2014-2031). This allows for a more immediate infrastructure requirement to be illustrated. These standards are developed in order to forecast demand for various pieces of infrastructure in line with projected housing growth. For example, a child yield is used in order to estimate the number of primary, secondary and



further education places generated by projected growth. These benchmarks therefore enable forecasts to be made for infrastructure planning purposes.

## Report Structure

The main element of this report explores the infrastructure requirements for the JCS area under the following sectors:

- Community & Cultural;
  - Education;
  - Emergency Services;
  - Energy;
  - Healthcare;
  - Flood Water & Waste Water;
  - Recreation, Sports & Open Space;
  - Information & Communications Technology;
  - Transport & Public Realm; and
  - Waste.
- Following a review of the infrastructure requirements within each of these broad sectors, the report explores existing or confirmed funding sources and provides some broad recommendations on delivery of infrastructure which is critical to growth across the JCS area.

## Infrastructure Requirements

Delivering infrastructure of importance to support new development and achieving the Vision for the JCS area will rely upon a wide range of public, private and community sector organisations working together effectively and efficiently. The JCS authorities have an important leadership role to play in this process and as the JCS progresses towards examination and adoption, the IDP will need to be refined to ensure that infrastructure requirements and the current position with project specifications, consents and funding commitment are as up to date as possible.

It is strongly recommended that the JCS authorities commit to infrastructure delivery planning as an iterative process and adequately resource their role as the bodies responsible for delivering some projects and enabling/ encouraging others to deliver other projects as part of the overall process. This IDP is the starting point for an on-going process and regular updates of the project information underlying the IDP will be required. This summary is therefore accompanied by a project tracker which details projects that have emerged through the development of the IDP. This tracker will form an important tool for the JCS authorities as infrastructure is planned and implemented and/or as new projects or requirements emerge.

For a number of sectors reviewed, we have undertaken cost assessment using accepted benchmark standards, providing a high level view of infrastructure requirements based on population forecasts. As JCS specific projects and

proposals develop, further work will be required to fully test options for delivery, refining project details, costs and timescales over time.

In order to assist in the prioritisation of identified infrastructure, projects have been identified and assigned to one of the following four broad categories:

- *Regionally Critical Infrastructure* – Projects that have wider geographic area implications than the JCS which must happen to enable the delivery of growth within the JCS and beyond (i.e. critical to the JCS functioning as a whole with the potential also for the mitigation of cross boundary needs and effects).
- *Critical Infrastructure* – Projects that the study has identified which must happen to enable the delivery of growth within the JCS.
- *Essential Infrastructure* – Projects that are required if growth is to be achieved in a timely and sustainable manner.
- *Desirable Infrastructure* – Projects that are required for sustainable growth but is unlikely to prevent development in the short to medium term.

The IDP therefore presents infrastructure requirements and costs for the broad sectors and considers phasing of infrastructure across the JCS area. The identified requirements should be read alongside the associated Project Tracker in order to understand specific infrastructure projects.

## Cross Boundary Infrastructure

Through the process of preparing the IDP, a number of projects have been identified that are considered to be critical or essential to an area which is county-wide and beyond. This infrastructure largely relates to projects on infrastructure networks (e.g. transport) and where catchments exist (e.g. schools and secondary healthcare) that extend beyond the JCS boundary. In many cases, transport projects help to strengthen the network as a whole, and it is therefore difficult to determine that such projects serve only a site specific or local purpose.

Some cross boundary projects have therefore been identified below and are highlighted within the accompanying project tracker. In identifying these projects, it does not necessarily imply that funding will be derived from development within Gloucester, Cheltenham or Tewkesbury.

## Sector Analysis

### Community & Cultural

It is estimated that in total community & cultural facilities could cost in the region of £26.4m over the plan period to 2031.

### Libraries

Provision of new libraries within the JCS area is estimated to cost approximately £6.7m. This doesn't account for any co-location of services (e.g. council services and libraries) which may reduce the capital cost.

Taking account of the County Council's Strategy for library services, it is anticipated that the additional demand for services (and related funding) could be

channelled towards maintaining and enhancing the existing library network, including the Virtual Library, and providing services for more vulnerable groups such as the elderly. This approach could lead to a lower capital cost requirement.

## Community Centres

The provision of new community centres within the JCS area is estimated to cost in the region of £14.1m.

Taking a pragmatic view, financing the modernisation and maintenance of existing community centres is a challenge for the third sector organisations that manage these facilities in many cases. The JCS authorities seek to provide support, including funding where possible, to these organisations. For this reason, and depending on the scale and location of new development, in some cases finance may be directed towards supporting and enhancing existing facilities through maintenance, refurbishment and revenue payments, rather than provision of new halls. Provision of new halls will more than likely be focussed around strategic developments that include such facilities as part of any overall Masterplan.

It is likely that a number of the strategic allocations will generate demand for community centres and therefore delivery of this infrastructure may be achievable via S106. Indeed, commitments are already in place alongside consent on certain strategic allocations for the provision of community facilities.

## Youth Support Services

Assuming youth support services for an 8 year period as specified by GCC for new developments (2014-2022), a cost of £5.6m has been estimated. This estimate is based on an expectation that costs relating to new development would apply for an 8 year period with the potential for annual review.

Alongside the cost of providing youth services, new development also offers wider opportunities relating to the provision of training, apprenticeships and employment during the construction of new schemes. This will help address youth unemployment issues and local planning authorities are therefore urged to consider the agreement and implementation of Employment and Skills Charters working with developers, to help facilitate the creation of employment opportunities within the construction sector.

## Education

The requirements identified across the JCS area are summarised below. The theoretical demand identified has been taken from a submission to the JCS IDP engagement process by Gloucestershire County Council during May 2014.

### Education Requirements

	Theoretical Demand	Cost Provision (£m)
Early Years (2,3 & 4 years)	1039	£12.2
Primary Education	3680	£43
Secondary Education (11-16)	1752	£31.3

	Theoretical Demand	Cost Provision (£m)
Secondary Education (Sixth Form)	256	
Further Education (Post 16)	193	£2.8
		£89.3

These figures represent a maximum required provision, using child yield ratios and applying these to the development trajectory. The scenario therefore does not consider opportunities presented through reconfiguration of existing facilities.

In summary, the theoretical demand could lead to the following requirements:

- Early Years – up to 10 additional (50-place) Early Years Settings alongside expansion within the existing marketplace;
- Primary – 9 (1-form entry) primary schools or 3 (2-form entry) and 3 (1-form entry) primary schools alongside expansion of existing schools; and
- Secondary – 1 new secondary school alongside local expansion.

Where possible, consideration should be given to the provision of more comprehensive educational facilities that incorporate an element of all three of the above. This could be particularly relevant where strategic allocations lead to sufficient theoretical demand for such a new facility.

## Emergency Services

### Police Services

The IDP estimates that new police services provision could cost in the region of £21.6m.

Gloucestershire Constabulary will be seeking developer contributions over the plan period in order to assist funding for the following key projects:

- a new Central Custody Suite at Quedgeley costing around £11.9m;
- a new police station in Cheltenham costing around £2.7m;
- a new police station in Gloucester costing around £4m;
- refurbishment of facilities at Barton Street, Gloucester (Estimate £500,000);
- a potential new station at Highnam costing in the region of £1.4m; and
- requirement for 50 new police officer posts and 103 staff posts costing in the region of £1.1m.

It is understood that the police will seek contributions towards these projects. At the time of writing this IDP no commitment had been made by the JCS authorities towards this infrastructure.

### Ambulance

Responses received from South Western Ambulance Service NHS Foundation Trust (SWASFT) suggest that a number of growth areas could be covered by existing resources. The service did identify a need for a new standby point to

serve developments at Up Hatherley, North Brockworth and Ashchurch MOD with requirements for public access defibrillators to serve North West Cheltenham and Innsworth and Twigworth.

Where possible SWASFT would like to explore opportunities for co-location of standby points (e.g. at new healthcare facilities) and it has therefore been assumed that such co-location can be arranged, minimising capital costs for this infrastructure.

## Fire & Rescue

Gloucestershire Fire and Rescue Service reviewed their services in 2005 and embarked on the creation of four new community fire stations, which were completed in 2012. The location of existing and new fire stations has been carefully considered and together they provide an emergency response to any incident in the County. No further major infrastructure is expected to be required in response to the Joint Core Strategy proposals, although the JCS authorities will seek to confirm this with the Fire and Rescue Service through further consultation.

## Energy (Utilities)

The primary concern of the IDP in relation to energy is to understand whether there are any engineering or other obstacles that would prevent or delay the connection of development sites to the electricity and gas grid/network, resulting in implications for site delivery or phasing.

## Electricity

Western Power Distribution (WPD), the local distribution network operator provided a summary of potential requirements at each of the growth areas or strategic allocations. These can be summarised as follows:

- West Cheltenham – Likely to necessitate some 11kV reinforcement works;
- North West Cheltenham – The development will almost certainly necessitate 11kV circuit reinforcement works;
- South West and Central Cheltenham including Leckhampton and Up Hatherly - The proposed developments will probably necessitate some 11kV circuit reinforcement works;
- Gloucester South West – Provision has been made to install an additional primary substation at Hardwicke, but progression of this scheme depends on load growth in the area. The proposed developments will probably necessitate some 11kV circuit reinforcement works;

WPD further commented that on the majority of other sites 11kV circuit studies will be required to identify if reinforcement work is required.

In relation to such works WPD advise that the installation of 11kV circuits from primary substations are not normally significant as the majority of circuits are installed in the public highway. Typically 3km of cable could be installed within 2-3 months, depending on the route and any engineering difficulties.

Arup estimate that the total cost for electricity infrastructure upgrades could be in the region of £2.7m. This figure has been derived by applying a rate of £1m per 1,000 homes with optimum bias applied. The JCS authorities should confirm this with WPD as plans emerge and 11kV circuit studies are undertaken in order to confirm reinforcement works required.

## Gas

Wales & West Utilities (WWU) were unable to provide an estimate of infrastructure cost for gas infrastructure due to insufficient details. WWU require relatively detailed information on development sites before they can provide formal feedback on network capacities and constraints. This should include the size and shape of sites, number of units and indicative layout and phasing.

The JCS authorities should continue to work with WWU and update them as proposals for sites emerge in order that the IDP and associated Tracker can be updated.

## Healthcare

The IDP estimates that the total capital cost of providing the necessary healthcare facilities to accommodate growth could be in the region of £23.8m.

Primary healthcare requirements are estimated to be an additional 32 General Practitioners at a cost of approximately £9.7m and 29 dentists at a cost of approximately £5.3m.

On the larger strategic allocation sites demand could be sufficient to see a new GP surgery and/or dentist to serve the new development. For example North West Cheltenham could lead to a demand for five to six GPs and four to five dentists and therefore opportunities exist to co-locate practices, reducing capital costs and providing a primary care hub for the community.

In relation to secondary healthcare, the forecast population growth is estimated to lead to demand for an addition 104 acute care bedspaces with an estimated capital cost of £8.8m. In working with the NHS in developing their strategy further consideration should be given to the fact that not all this demand will necessarily be provided for within the JCS area, along with the fact that some demand will prefer privately funded healthcare.

## Flood Management, Water Supply and Waste Water

### Flood Management

Proposed strategic development locations within the JCS have been informed by Strategic Flood Risk Assessments (SFRA Levels 1 and 2) and are located in areas that are predominately at low risk of flooding (e.g. Flood Zone 1), with only small parts of the sites within Flood Zones 2 and 3. The more constrained strategic allocations in terms of flood risk have been identified as:

- Innsworth, to the north of Gloucester; and

- The part of the South Churchdown strategic location located to the north of the A40.
- Nevertheless, it is still expected to be possible to achieve significant numbers of dwellings within these large sites, based on more detailed flood risk assessment and design work.

Some existing areas of flood risk within the JCS area are to be targeted through projects identified in the Draft Gloucestershire Flood Risk Management Strategy. Eight flood risk management projects within the JCS area are identified as Initial Priority Locations for investment. In some cases there may be potential for joined-up investment in packages of flood risk management measures that benefit both strategic allocations for development and existing properties.

Flood management projects that have emerged through consultation with the EA and service providers have an estimated worst case capital cost of in the region £8.3m and include:

- Cheltenham (Sub-Areas C2 & C16) – Mitigation scheme currently being developed with estimated cost of £1 - £2m;
- Tewkesbury (Sub-Areas C & H) – Surface Water Management Plan (SWMP) has identified a range of measures including diversion, storage and property protection with an estimated cost of £1 - £2m;
- Gloucester (Sub-Areas GW, GC & GNE) – SWMP on-going. Mitigation measures likely to be in the region or less than £1m;
- Gloucester (Sub-Areas GWS & GSC) – SWMP identifies mitigation measures with an estimated cost of £1m;
- Tewkesbury Town & Rural Areas (A & B) – Small scale mitigation measures in Northway CP with an estimated cost of £250,000. Mitigation measures along Ashchurch Road and Coventry Close with an estimated cost of under £2m.

There are a range of funding routes that could be explored to deliver flood management infrastructure. Limited information has been received to date in relation to secured funding. It is likely that some works will be undertaken by the developer as part of contributions in order to demonstrate flood management on site.

## Water Supply

The JCS area is located within Severn Trent Water's (STW) "Strategic Grid" water resource zone. The Draft Water Resource Plan advises that the Strategic Grid Zone is likely to require significant future investment because of the need to reduce environmentally unsustainable abstractions and to meet the longer term challenge of future climate change impacts. STW set out a number of priorities to respond to these challenges, however, these schemes are geographically spread and do not necessarily fall within the JCS area.

Severn Trent Water concludes that the supply and demand investment measures identified gives them high confidence that they can meet demand for water over the next 25 years. The cost of these requirements will be picked up directly through charges to existing and new consumers via their water bills.



## Waste Water

STW provided the following comments relative to the main sewerage treatment works (STWs) serving the Sub-Areas.

### STW Waste Water Comments

Sub-Areas	STW	Comments
CA2 (North), CA4 (South West) North West Cheltenham, South Cheltenham	Hayden STW	Comparisons indicate there is reasonable spare capacity at these treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then STW do not envisage any issues as there are no land or other physical constraints preventing expansion.
B Ashchurch/MOD	Tewkesbury STW	
E & F North Brockworth North Churchdown South Churchdown	Netheridge STW	
F Innsworth and Twigworth	Innsworth STW	

STW would expect the funding for any site connections and necessary upgrades to the local water supply and wastewater networks for each settlement to come from site developers. On-going maintenance of the water and wastewater networks, including any strategic water resource projects (such as new reservoirs), are funded by ratepayers.

## Recreation, Sports & Open Space

Using benchmark standards, the IDP estimates that the total cost of providing the necessary recreation, sports and open space could be in the region of £130m. This capital costs will cover the following facilities:

- Indoor sports facilities (e.g. swimming pools and sports halls);
- Outdoor playing pitches;
- Open space;
- Children’s play space; and
- Accessible natural greenspace.

While the IDP has not undertaken a full audit of existing sports facilities and playing pitches, an overview of current facilities (excluding privately managed facilities) has been provided, along with an assessment of future demand using the Sport England Sports Facility Calculator (SFC).

The IDP, using Sport England’s Sports Facilities Calculator (SFC) estimates demand for an additional three swimming pools and four sports halls across the plan period, with an estimated capital cost of £20m.



In some cases, an alternative approach to the provision of new facilities would be to facilitate improvements to existing leisure and community centres, and improving hours of access, across the JCS area. For instance, the Cheltenham Leisure Facilities Strategy advocates further investment in the Central Sports Hub and Tewkesbury Borough Council are in the process of considering options for the replacement of the Cascades Swimming Pool & Health Suite.

In relation to playing pitches and open space, the IDP uses a combination of the Fields in Trust (FIT) Benchmark Standards and Natural England Accessible Natural Greenspace Standards (ANGSt).

The IDP estimates demand for approximately 70ha of playing pitches and 82ha of space for other outdoor sports with a capital cost of approximately £6.8m and £81.4m respectively.

In relation to open space, the IDP estimates a demand for 32ha at a cost of £546,000 with play space demand estimated at 14.6ha, costing approximately £7.2m. The IDP has assumed that the majority of localised open space requirements and some children's play space will be delivered as part of development proposals and funded directly by developers

Finally, the IDP estimates a demand for 58.4ha of accessible natural greenspace with an estimated capital cost of £14m.

## Information & Communications Technology

The provision of ICT infrastructure may not be a key factor in determining the soundness of the Joint Core Strategy, but will have implications for the economic competitiveness of the JCS area and the ability of households to access the online services of other infrastructure and service providers (e.g. library services, healthcare and education).

BT is currently upgrading their broadband infrastructure in Gloucestershire and exchanges within the main urban areas of Cheltenham, Gloucester and Tewkesbury have already been upgraded, along with Barnwood to the East of Gloucester and Quedgeley to the South of Gloucester. The more rural locations are due to be upgraded with a date currently unknown.

Alongside this the Borders Broadband project covering Herefordshire and Gloucestershire is one of four initial pilots that have been set up, which secured £14.4m from the Government towards rolling out fibre broadband in rural areas. This has been boosted with a further £7.5m investment by Gloucestershire County Council and £6m from Herefordshire County Council. The two county councils have now formed a non-profit making collaboration with BT Openreach called 'Fastershire', which has the aim of bringing fibre broadband to around 90% homes by the end of 2016.

## Transport and Public Realm

The total estimated cost of transport infrastructure across the JCS could be in the region of £512m. It should be noted however that approximately half of this relates to the A417, the Missing Link, which is outside the JCS area, although its construction would have an impact on the JCS.

In order to explore the effects of growth trajectories on the highway network, this report utilises findings from a transport model produced by Atkins Highways and Transport. The model shows that in the absence of the transport mitigation schemes the 2031 the transport network in JCS area is very busy and vehicle delay increases significantly at pinch points within the network. Those junctions identified as operating at or near capacity before any mitigation measures were tested include:

- M5 Junction 11
- A38 Southern Ave / Stroud Rd Roundabout (St Barnabas)
- A40 Northern Bypass / A38 Tewkesbury Rd
- A40 Over Roundabout
- A40 Elmbridge Roundabout
- A40 Benhall Roundabout
- A46 widening between Northway Lane and M5 Junction 9
- A417 Air Balloon Roundabout
- A435 Evesham Rd / Hyde Lane – Newlands Cross
- B4063 / B4634 Old Gloucester Rd
- Staverton Crossroads

The transport model presents a number of mitigation schemes in terms of highway improvements as detailed within the associated Project Tracker. Some of these schemes are considered to be regionally critical and therefore extend benefits wider than the JCS area. Other schemes are considered to be critical to a smaller geographic area and in some cases delivery of a site specifically. The projects identified as regionally critical in the Project Tracker should seek funding from development taking place along its route and not just JCS authorities.

Alongside highways related schemes, the IDP also identifies a number of rail, bus, walking and cycling projects which are considered in the project tracker.

Strategic public transport projects within the JCS area include:

- Cheltenham Spa Station Remodelling – providing additional track and platform capacity and new customer facilities, such as bus interchange, car parking, bicycle storage and station amenities;
- Elmbridge Transport Scheme – new Park & Ride facility and associated capacity and safety improvements;
- A40 Bus Lane, Benhall – reducing delays and improving bus journey times; and
- A40 Bus Corridor improvements, Cheltenham - The scheme is designed to improve journey times and reliability for buses on the A40/B4063 between Gloucester and Cheltenham, particularly between the Arle Court and Benhall Roundabouts.

Alongside these schemes there is a general desire to implement Smart Card Ticketing and Real Time Passenger Information (RTPI) along strategic routes.

Residents in the JCS area could also benefit from improved public transport provision if a new station is built at Hunt's Grove over the Gloucester City Council boundary in Stroud.

## Waste

In order to meet the projected demand for waste management, the Waste Core Strategy identifies the following locations with the potential to accommodate re-modelled, alternative and / or new waste management facilities over the timeframe of the plan. Three of these strategic sites, Wingmoor Farm East, The Park and Wingmoor Farm West, are located in the JCS area and specifically, Tewkesbury:

**Wingmoor Farm East** - This 2.8 hectare site is located to the west of Bishop's Cleeve, five miles north of Cheltenham on the Stoke Road leading from the A435 to Stoke Orchard. It forms part of the Wingmoor Farm (East) landfill, recycling and quarry complex. The site is not currently in active use and its availability for a strategic waste recovery facility has been confirmed by the site operator Grundon Waste Management.

**The Park** - This 6.8 hectare site, often referred to as 'The Park' is located two miles west of Bishop's Cleeve and five miles north of Cheltenham, off Stoke Road, south of Stoke Orchard. It adjoins Wingmoor Farm West which is also allocated. The site comprises a number of former aeroplane hangars converted to industrial units including waste management processes and other, as yet unimplemented waste management planning permissions. The site is owned by Wellington Park Properties Ltd.

**Wingmoor Farm West (Sites A&B)** - This 4.0 hectare site is located two miles west of Bishops Cleeve and five miles north of Cheltenham, off Stoke Road, south of Stoke Orchard. It adjoins 'The Park' (see above). The site includes an area of concrete hard-standing currently used as a Household Recycling Centre (HRC) and other land within the curtilage of the landfill planning permission. The site is owned by Cory Environmental Ltd.

With respect to further potential projects within the JCS area, the County Council have advised that Household Recycling Centres (HRCs) are reaching capacity and therefore the need for additional capacity at Hempsted and Wingmoor Farm will need to be kept under review. No cost or funding information on required projects has been provided at this stage by the County.

## Implementation

Successful implementation of infrastructure requires a well-managed infrastructure delivery framework which is monitored and reviewed by the relevant local planning authorities and updated regularly as infrastructure is delivered and new projects and requirements are developed and fully costed. This process should:

- Consider any changes to housing and employment trajectories;
- Record and update critical or priority infrastructure as the plan progresses;
- Regularly update costing information in order to analyse the associated funding gap and update any cost plans;

- Review funding arrangements, both from private and public funding sources;
- Keep a robust and appropriate plan for maximising developer contributions;  
and
- Be shared with various service providers in order that priorities are known and providers are aware of the most up to date trajectories and development proposals.

Implementation of infrastructure requirements will not be possible without monitoring and review of this delivery framework. This can be completed via the associated cost tracker.

## Categorisation

The identified infrastructure projects have been placed into four categories, reflecting the relative importance of that infrastructure in achieving growth. The categories include:

- Regionally Critical Infrastructure – Projects that have wider geographic area implications than the JCS which must happen to enable the delivery of growth within the JCS and beyond (i.e. critical to the JCS functioning as a whole with the potential also for the mitigation of cross boundary needs and effects).
- Critical Infrastructure – Projects that the IDP process (service provider comments and Arup analysis) has identified which must happen to enable the delivery of growth within the JCS.
- Essential Infrastructure – Projects that are required if growth is to be achieved in a timely and sustainable manner.
- Desirable Infrastructure – Projects that are required for sustainable growth but is unlikely to prevent development in the short to medium term

The table below provides a summary of the total cost and categorisation of the various infrastructure needs identified. In the round, the IDP has taken a worst case scenario in relation to capital cost and therefore the data should be viewed optimistically in terms of potential to reduce capital cost implications.

### Cost Summary & Prioritisation

	Regionally Critical	Critical	Essential	Desirable	Total Costs	Secured match funding to date	Associated Funding Gap to date
Community & Cultural	£0	£0	£0	£26,400,000	£26,400,000	£657,700	£25,742,300
Education	£0	£0	£89,300,000	£0	£89,300,000	To be confirmed	£89,300,000
Emergency Services	£0	£0	£20,000,000	£1,600,000	£21,600,000	To be confirmed	£21,600,000
Energy (Utilities)	£0	£2,712,000	£0	£0	£2,712,000	To be confirmed	£2,712,000

	Regionally Critical	Critical	Essential	Desirable	Total Costs	Secured match funding to date	Associated Funding Gap to date
Flood Water & Waste Water	£0	£8,300,000	£0	£0	£8,300,000	To be confirmed	£8,300,000
Healthcare	£0	£0	£23,800,000	£0	£23,800,000	To be confirmed	£23,800,000
Recreation, Sports & Open Space	£0	£0	£14,546,000	£115,400,000	£129,946,000	To be confirmed	£129,946,000
Transport & Public Realm	£350,160,000	£26,700,000	£108,356,738	£26,350,000	£511,566,738	£71,280,000	£440,286,738
Waste	£0	£0	£0	£0	To be confirmed	To be confirmed	To be confirmed
<b>Total</b>	<b>£350,160,000</b>	<b>£37,712,000</b>	<b>£256,002,738</b>	<b>£169,750,000</b>	<b>£813,624,738</b>	<b>£71,937,700</b>	<b>£741,687,038</b>

*Source: Consultation with Infrastructure Providers, Benchmark Standards & Arup Cost Estimates.*

This categorisation, with reference to the associated Project Tracker allows the JCS authorities to consider the infrastructure needs across the JCS area and begin a process of prioritisation, working alongside key delivery partners and developers. It is particularly important that the JCS authorities identify any ‘critical’ infrastructure necessary to deliver strategic growth. The project tracker identifies a high level programme for infrastructure projects and this can be contrasted with delivery programmes on key sites in order to prioritise investment.

Of those projects identified as being ‘regionally critical’ or ‘critical’ in the Project Tracker the majority are currently well advanced in design and funding commitment terms and a number will be under construction or constructed in line in the short to medium term.

Further work is necessary from a transport modelling perspective in order to fully analyse ‘critical’ schemes and their alignment in relation to strategic growth.

## Prioritisation for Delivery

Infrastructure planning involves prioritisation at all stages and presents difficult choices in terms of which infrastructure is critical and therefore must be delivered in advance of other requirements. In general, prioritisation will reflect development viability, the availability of public sector funding as well as council and community priorities.

### *Developer Contributions*

As part of the strategy for preparing and adopting a JCS CIL charging schedule, the councils will need to identify priorities for spending funds secured through CIL, and the IDP forms the initial basis of this prioritisation. The JCS authorities

should develop a prioritisation process for the spending of any CIL and S106 monies, taking account of:

- Spatial growth projections and the anticipated phasing of strategic sites;
- The importance of physical infrastructure for enabling development; and
- Opportunities to deliver specific infrastructure through, for example, new funding opportunities.

Infrastructure categorised as critical, and related to the identified strategic allocations should form the initial focus for investment, especially where required to enable (e.g. flood prevention, access road and utilities).

### ***Public Sector Investment***

Alongside developer contributions the JCS authorities will need to carefully manage and plan other key infrastructure and associated funding sources, ensuring that all delivery partners work together in order to achieve the vision set within the JCS and enable sustainable and managed growth.

### ***Funding Gap***

The data presents a worst case funding gap within the JCS area, in excess of £700m. There is also some regionally critical infrastructure where the need case goes beyond the JCS area and therefore the case for funding goes beyond development within the JCS to include other adjacent authorities. Other projects could clearly rely on other private and public funds including bids to central government, National Lottery and other sources.

It is also worth noting that limited information has been received to date on associated funding and therefore the JCS authorities should work closely with service providers and colleagues across various departments in order to ensure an up to date funding picture for projects identified in the Project Tracker.

The JCS authorities should therefore work to prioritise infrastructure development in order to focus efforts to reduce the identified funding gap. An important part of this process will be the forthcoming progression of CIL which will begin this prioritisation exercise and make clear the potential for developer contributions to infrastructure funding.

## **Funding**

This report makes a high level assessment of funding that is available for infrastructure projects and assesses this against estimated capital costs. The assumptions in relation to funding have been informed through discussions with service providers and other stakeholders.

On this basis, it should be noted that further investigation of public sector funding sources is required as part of the iterative process required to update the IDP. The IDP Tracker should be updated with the clearer funding picture that will emerge following adoption of the JCS.

In order to meet the funding gap other funding sources and mechanisms will be required in order to offer a range of funding mechanisms to deliver infrastructure.

## Management and Co-ordination

The successful delivery of sustainable and timely employment and housing growth across the JCS will be dependent on the evolution of the existing strong co-ordination, management and governance arrangements for the JCS into a more delivery focussed decision making structure.

The delivery of infrastructure projects should be coordinated through a dedicated and independent Joint Implementation Unit (JIU) with strong links to all three Local Authorities and the County and the Local Enterprise Partnerships. The JIU would be a co located cross-authority. The terms of reference for the JIU would need to be defined as would its responsibilities. In addition more formal arrangements are required to engage and work with the full range of infrastructure delivery providers across the JCS. This will be particularly important in trying to deliver efficiencies through innovative approaches to service delivery such as co-location or shared services

## Recommendations and Next Steps

The delivery of the infrastructure required to support new development and achieve the vision for the JCS area will rely on a wide range of public, private and third sector organisations working together effectively and efficiently. The JCS authorities have an important leadership role to play in this process as the JCS progresses towards adoption and the supporting IDP is refined.

For these reasons, infrastructure planning and delivery must be viewed as an iterative process with the IDP and associated Tracker reviewed and updated on a regular basis in order to reflect the on-going project development, funding situation and the views of key consultees. Key tasks which must be fulfilled by the JCS authorities therefore include:

- Continued liaison with delivery partners, developers and other key stakeholders in order to understand priorities, programmes and delivery plans;
- Utilise the findings within the IDP and Tracker and work with service providers to explore and identify innovative solutions to infrastructure needs that potentially reduce costs. This could include, for example, co located facilities or expansion of existing facilities over new build.
- Further work on associated funding in order to update funding gap information;
- Regular updates to the IDP and associated Tracker as a 'live process' which will lead to improved accuracy and outcomes of the process;
- Meetings where needed to focus on particular key infrastructure needs and/or strategic sites, particularly where cross-sectoral working is required;
- Monitoring of local plan policy in relation to infrastructure and delivery.

Alongside these key roles, the JCS authorities should progress work in relation to their CIL charging schedule in order to explore issues and options relating to the setting of CIL moving forward. This should include consultation with developers, landowners and the public on the proposed charging schedule.

At present there may seem to be more questions than answers raised by the process. This is perfectly normal given infrastructure planning is an iterative

process. Perhaps of greatest importance for the JCS authorities is the need to begin to prioritise infrastructure needs and projects and further understand the potential funding situation in order to continue to review infrastructure delivery.



# 1 Introduction

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## 1.1 Purpose of the Infrastructure Delivery Plan (IDP)

The purpose of the Joint Core Strategy (JCS) Infrastructure Delivery Plan (IDP) is to evaluate the transport, utilities, community and green infrastructure and services that will be required to support the levels of housing and employment growth proposed in the Core Strategy.

This IDP has been prepared on behalf of Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough, the Local Authorities that make up the JCS area. This Report sets out the approach to the study and detail of the emerging evidence base on infrastructure requirements.

The IDP study fulfils the following roles:

- Provides evidence base supporting the preparation of the Core Strategy. For each sub-area and strategic allocation for development within the JCS area, the study seeks to identify what local infrastructure requirements and priorities may be and whether there is a reasonable prospect of provision of the necessary infrastructure. The process of preparing the IDP may also play a role in informing the levels of development allocated within different parts of the JCS area.
- The IDP presents estimated infrastructure costs, secured sources of infrastructure funding and whether there is a projected shortfall in infrastructure financing. By presenting a list of infrastructure needs, estimated costs and responsibilities for delivery, the IDP provides evidence supporting the preparation of a Community Infrastructure Levy (CIL) or CILs by the JCS authorities.
- In line with national guidance, the study identifies whether any Nationally Significant Infrastructure Projects (NSIPs), as defined in the Planning Act 2008 are expected to come forward within the JCS area. There are currently no NSIPs in the JCS area registered with the Planning Inspectorate<sup>1</sup>.

Setting out a coherent plan for projected housing and employment growth is an important role of the JCS and this is reflected in the emerging Vision for the area (*'Gloucester, Cheltenham and Tewkesbury Draft Joint Core Strategy'* October 2013, our underlining for emphasis):

*'By 2031 Tewkesbury Borough, Cheltenham Borough and Gloucester City will have continued to develop as highly attractive and accessible places in which to live, work and socialise.*

*The Joint Core Strategy will be recognised nationally as enjoying a vibrant, competitive economy with increased job opportunities and a strong reputation for being an attractive place in which to invest.*

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<sup>1</sup> The Elmbridge Transport Scheme was registered, but has recently been withdrawn.

*The character and identity of individual communities will have been retained while improved access to housing will have addressed the needs of young families, single people and the elderly.*

*New developments will have been built to the highest possible standards of design and focused on protecting the quality and distinctiveness of each community. Established in sustainable locations, without increasing the risk of flooding, they will have been designed with sensitivity towards existing villages, towns and cities and with respect for the natural environment.*

*As a result of a strong commitment to the housing and employment needs of the existing and growing population, all residents and businesses will benefit from the improved infrastructure, which will include roads, public transport and services and community facilities.'*

With respect to infrastructure provision, the JCS Vision specifically highlights flood risk management, transport and community facilities. Further JCS objectives include reference to a range of further important infrastructure sectors, such as promoting healthy communities (Strategic Objective 9).

Through the preparation of an IDP the JCS authorities seek to collate information on the projects that will help foster the achievement of the vision and objectives.

## 1.2 Structure of the IDP

The contents and structure of the IDP Report is as follows:

- Chapter 2 sets out the national policy guidance and describes the methodology that has been followed during the preparation of the IDP.
- Chapter 3 sets out the local context for the IDP, including further information on the development scenario tested within the Stage 1 Interim Version IDP, as well as Parish and Neighbourhood Planning activities.
- Chapter 4 provides a sector by sector assessment of the infrastructure required to support planned development, current projects, responsibilities for delivery, and sector specific funding routes.
- Chapter 5 summarises the infrastructure needs for the JCS as a whole. A high level assessment is made of the funding gap that is available for infrastructure projects and assesses this against estimated capital costs
- Chapter 6 sets out potential funding routes to explore to cover the funding gap.
- Chapter 7 sets out recommendations on governance and management arrangements going forward as the JCS seeks to focus on implementation and delivery
- Chapter 8 sets out overarching recommendations and next steps in the IDP process.

## 2 Methodology

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The common methodology adopted for the preparation of all the Infrastructure Delivery Plans (IDP) across Gloucestershire has been informed by a review of national policy and guidance, together with a review of experience of producing IDPs and Community Infrastructure Levy (CIL) documents elsewhere in England.

### 2.1 National Policy & Guidance

#### 2.1.1 National Planning Policy Framework (March 2012)

The National Planning Policy Framework (NPPF) states that Local Plans must be prepared with the objective of contributing to the achievement of sustainable development (paragraph 151), with infrastructure planning forming an important component of this. The three dimensions of sustainable development give rise to the need for the planning system to perform the following roles (paragraph 7 - summarised):

- **an economic role** – contributing to building a strong, responsive and competitive economy, which includes coordinating development requirements and ensuring the provision of infrastructure.
- **a social role** –by creating a high quality built environment, with accessible local services that reflect the community’s needs and support its health, social and cultural well-being.
- **an environmental role** – helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, mitigate and adapt to climate change including moving to a low carbon economy.

At paragraph 162, the NPPF sets out specific guidance on infrastructure planning, emphasising the need for joint-working with infrastructure and service providers:

“Local planning authorities should work with other authorities and providers to:

- assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands; and
- take account of the need for strategic infrastructure including nationally significant infrastructure with their areas.”

#### 2.1.2 Community Infrastructure Levy Legislation and Regulations

The IDP is expected to inform decisions on the Community Infrastructure Levy (CIL) frameworks to be adopted by the Councils and provide the evidence base supporting any CIL Schedules. It is therefore logical that the IDP methodology complies with relevant legislation and regulations, to the extent that this is necessary to facilitate CIL preparation at a later date.

**The Planning Act 2008** put in place enabling legislation giving local authorities in England and Wales the power to levy a standard charge, the CIL, on most types

of new development, to fund the infrastructure needed to support development in their area. A relatively narrow definition of infrastructure is provided in the Planning Act 2008, when compared to the NPPF. This may be on the basis that other sectors, such as the utilities, are in the main self-financing. Sectors referred to in the Act are:

- roads and other transport facilities;
- flood defences;
- schools and other educational facilities;
- medical facilities;
- sporting and recreational facilities;
- open spaces; and
- affordable housing.

This definition applies to infrastructure for the purposes of defining the CIL legislation. However, the phraseology within the Act allows for this list to be expanded or retracted as the Government sees fit. For instance, the statutory definition of “Infrastructure” which may be funded through CIL in the Planning Act 2008 is wide enough to include affordable housing, but the CIL Regulations specifically exclude affordable housing from CIL at this time.

### 2.1.3 Planning Advisory Service Guidance

In June 2009, the Planning Advisory Service published ‘A steps approach to infrastructure planning and delivery’. The seven stages of the infrastructure planning process described in the guidance can be summarised as:

- Step 1 – Vision / Policy Context
- Step 2 – Governance
- Step 3 – Evidence Gathering
- Step 4 – Use Infrastructure Standards to assess deficits and identify requirements for strategic sites
- Step 5 - Prepare Infrastructure Delivery Plan, involving phasing and viability testing.
- Step 6 – Validation and consultation
- Step 7 – Implementation and monitoring

The guidance advises that many of the steps can be carried out concurrently and not all parts of the steps will be necessary if other work has already been undertaken. It also advises that evidence and the level of information gathered should be proportionate.

## 2.2 Summary of IDP Project Stages and Outputs

The methodology for the IIDPs was agreed with the partnership of Local Authorities at Stage 1 of this study is summarised in the diagram below and explained in further detail in the subsequent sections.

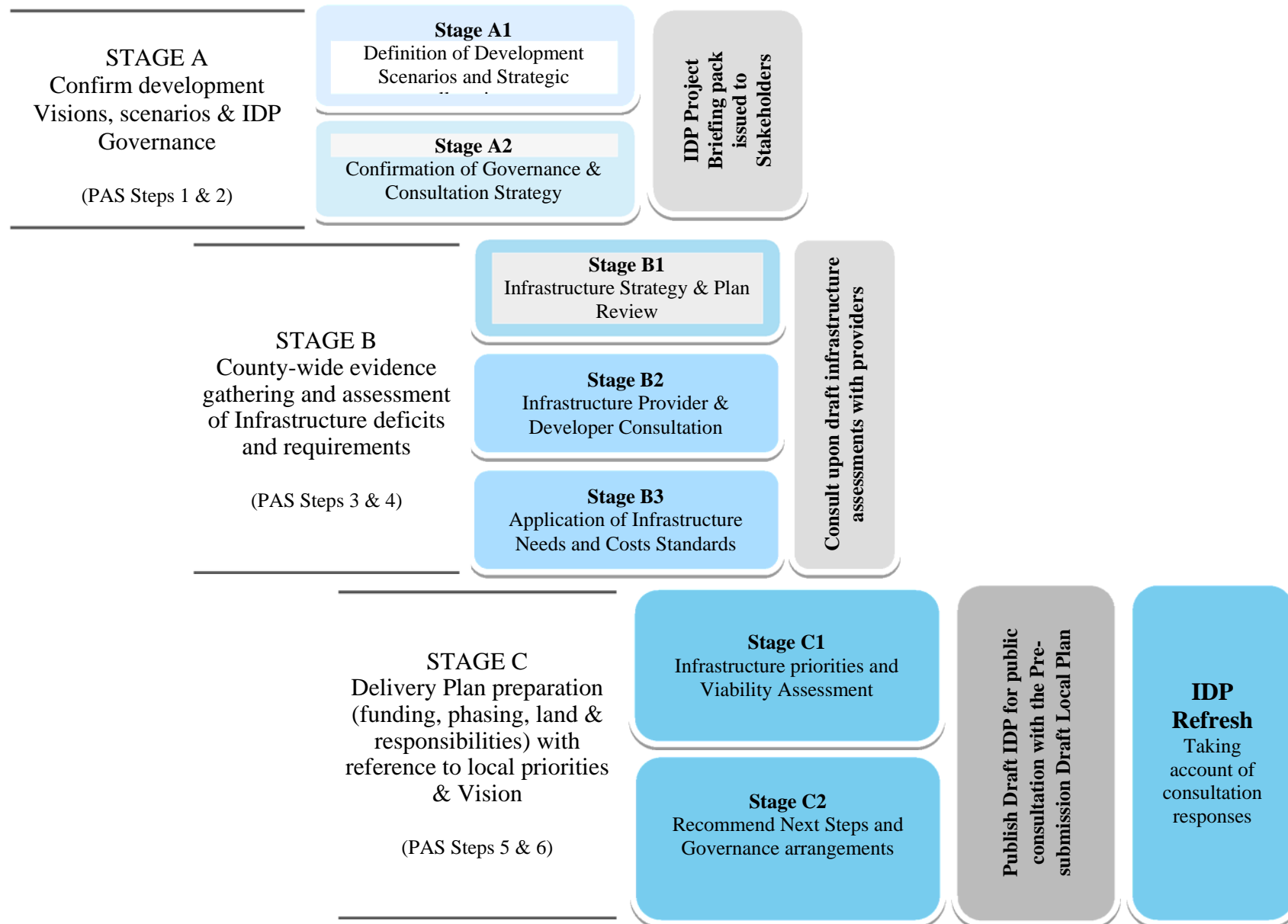
## **2.3 Stage 1 – Development Vision, Scenarios and IDP Governance**

### **2.3.1 Stage A1 – Definition of Development Scenarios and Strategies Locations**

An important first step was to establish the development scenarios that formed the basis for infrastructure planning. This involved confirmation of:

- Strategic and local development Visions that could inform infrastructure delivery and funding priorities.
- Local Plan housing and employment development levels to be tested through the infrastructure planning process.
- Agreement of the appropriate geographies for infrastructure planning, such as the identification of sub-areas and strategic allocations for development that underpin the spatial strategy for each Borough, City or District.

This information provides the context for the IDP and is set out at Chapter 3. This refreshed version IDP focusses in greater detail on the development strategy of the Draft JCS.



## 2.3.2 Stage A2 – Establish Governance arrangements and Consultation Strategy

The County Planning Officers Group (CPOG) has met on a regular basis during the commission to agree the IDP methodology, review progress and facilitate the consideration of cross-boundary matters in the spirit of the ‘Duty to Cooperate’. The CPOG comprises representatives of Cheltenham Borough Council, Cotswold District Council, Forest of Dean District Council, Gloucester City Council, Stroud District Council and Tewkesbury Borough Council.

As highlighted in the PAS Guidance, the preparation of robust IDPs relies upon consultation with a wide range of infrastructure and service providers, to ensure the projection of infrastructure requirements is realistic and that there is reasonable prospect of infrastructure provision. During the course of IDP preparation Council Members, developers and local communities were kept informed of emerging results and recommendations by a variety of means, as set out in the table below.

Table 1 - Summary of IDP Consultation Activities

Group	Description
Infrastructure and Service Providers	Issue of IDP Briefing Pack and Questionnaire
	Telecoms and meetings
	Issue of draft IDP outputs for comment
	Publication of Stage 1 Interim Version IDP as supporting evidence to Draft Joint Core Strategy
Developers (Strategic allocations)	Publication of Stage 1 Interim Version IDP as supporting evidence to Draft Joint Core Strategy
Council Members	Presentation to JCS Member Steering Group on 26th September 2013
	Publication of Stage 1 Interim Version IDP as supporting evidence to Draft Joint Core Strategy
Local Community	Publication of Stage 1 Interim Version IDP as supporting evidence to Draft Joint Core Strategy

## 2.4 Stage B – County-wide evidence gathering and assessment of infrastructure needs

Infrastructure needs assessment work is undertaken on the basis that the most up to date and detailed information is utilised. In some cases the Council has used agreed assessment standards to supplement and update the information available from infrastructure providers (see Stage B3 for further explanation).

### 2.4.1 Stage B1 - Infrastructure Strategy & Plan Review

In many cases infrastructure and service providers prepare their own forward plans for an area. Examples include the School Population Forecast and Organisation Plan of the Education Authority and the 5 year Asset Management Plans (AMPs) prepared by the water supply and wastewater utilities. Where asset

plans and strategies are available they have been reviewed to identify relevant information including:

- the methodology used to assess future infrastructure requirements;
- the adequacy of baseline provision and whether there is an existing deficit or oversupply;
- whether the infrastructure plan timeframes and assumed development levels adequately provide for the Joint Core Strategy scenarios agreed at Stage 1; and
- whether there are priority infrastructure projects that should be highlighted in the IDP.

This review exercise enables the collation of background information to be further developed through consultation and infrastructure assessment at Stages B2 & C3.

#### **2.4.2 Stage B2 – Infrastructure Provider Consultation and Sign-off**

Telecoms and meetings were arranged with individual infrastructure and service providers to discuss the outcomes of the document review and understand whether further feedback could be provided in relation to the JCS development scenarios set out in the Infrastructure Briefing Pack. Supplementing information from the Stage B2 document review, the objective of the consultation was to understand whether any important development thresholds exist that prompt:

- provision of significant new infrastructure or extension/refurbishment of existing ones;
- the cost of providing the infrastructure and whether there are funding gaps; and
- whether there are any other viability issues, such as the availability of sites and unrealistic timescales for provision, that threaten reasonable prospect of provision.

Where further infrastructure assessment work was proposed to inform the IDP, the methodology for undertaking this work was also agreed with the relevant organisation. As far as possible, draft IDP assessments were circulated for agreement with infrastructure providers, and further consultation has been undertaken as part of this IDP through a second Briefing Pack to infrastructure providers which was issued in February 2014.

#### **2.4.3 Stage 2C – Application of Infrastructure Needs and Cost Standards**

For certain infrastructure sectors it has been beneficial to update information available from existing sector-specific plans by using agreed infrastructure provision standards. These can be used to derive estimates of the amount of provision that is required, for instance one new primary school in a particular location, and an estimate of the capital cost for the new infrastructure. This tends to apply to the social and community infrastructure sectors, where benchmarking information has been used to derive national or local standards. It should be noted that the application of these high level standards allows for an estimate of infrastructure requirements only and in each case it is likely that the assessment



will be refined as further information on existing local facilities and the details of proposed developments (such as dwelling mix and size) becomes available.

Assessing infrastructure requirements for other sectors, such as the utilities, transport and flood risk management is more reliant on modelling and infrastructure design information available from the service providers and developers.

The methodology used for each sector is described further in Chapter 4.

## 2.4.4 Stage B Outputs

The output of this stage includes sector specific chapters (Chapter 4) which were issued to infrastructure providers for comment. As far as possible, these sector specific analysis sections are structured in a consistent way as set out below:

Table 2 - Structure of infrastructure assessment by sector

Topic	Contents
Responsibility	The organisation(s) responsible for planning and service delivery
Asset Plans & Strategies	Summary of the relevant plans and strategies and how they have informed the study.
Infrastructure baseline	Commentary and any available figures relating to the infrastructure provision baseline and existing areas/priorities for improvement.
Assessment of Infrastructure Needs	Assessment of infrastructure needs and costs relating to planned development, drawing on relevant strategies, plans, reports and/or national benchmarks
Recent and current infrastructure projects identified	A brief description of recent and current infrastructure projects.
Funding	Identifying relevant sector-specific sources of funding for infrastructure provision

## 2.5 Stage C – Delivery Plan preparation

### 2.5.1 Stage C1 –Infrastructure Priorities and Viability Assessment by sub-area and strategic location

At this stage of the commission the focus shifted from preparing evidence base on a sector by sector basis towards reaching a view on the potential infrastructure priorities for each sub-area and strategic allocations. See the Executive Summary for a summary of findings.

### 2.5.2 Stage C2 – Estimate S106 Planning Obligation / CIL receipts

To inform the Viability Assessment of infrastructure project delivery, it was important to understand the scale of developer contributions towards infrastructure that may come forward via S106 Planning Obligations and/or a CIL.

### 2.5.3 Stage C3 –Recommend Next Steps and Governance arrangements

Achievement of the JCS Vision and development strategy for an area will rely on a wide range of public, private and community sector organisations working effectively and efficiently together to assist in delivering projects that contribute towards common goals. The Council has an important leadership and coordination role to play in this process and Chapter 9 sets out recommendations on next steps.

## 2.6 IDP Refresh

This IDP is a refresh following the receipt of representations on the Draft JCS and supporting Stage 1 Interim Version of the IDP by consultees. Alongside consideration of these representations and further updates from infrastructure providers, the document also takes account of any updates in terms of Government legislation.

This stage of the methodology recognises that the IDP is a ‘living document’ which will need to be kept under review by JCS officers. This report forms the second version of the IDP and updates findings with the latest available information regarding infrastructure provision across the JCS area as of the 1st quarter of 2014. Future iterations will need to be produced to reflect the changing plans and strategies of partners, progress in terms of project feasibility and costing and identification of any new infrastructure requirements.

This refresh has utilised two main sources of information:

- Firstly, consultation on the Draft Joint Core Strategy took place during October to December 2013 and a number of representations made were of relevance or specifically referred to within the IDP. This version of the IDP has been updated to take into account the comments made.
- Secondly, an IDP Update Briefing Pack was circulated to infrastructure and service providers during February 2014, with any further comments requested. Where additional information has been provided this has been incorporated within this document. Where important matters relating to the potential soundness of the plan have arisen, further focussed telecoms and meetings were arranged.

## 3 Context for the IDP

This chapter provides a summary of the physical, demographic and policy context for the IDP, including an overview of the Draft JCS development proposals that are assessed through the IDP process.

The chapter also provides a summary of strategy and planning documents for the JCS area (Section 3.4) in order to give an appreciation of priority matters for the area.

### 3.1 Infrastructure assessment sub-areas

The IDP seeks to consider the infrastructure requirements of the potential Strategic allocations for development, while not discounting the cumulative effects of a large number of smaller developments within existing urban areas.

Furthermore, the allocation of an urban extension could present both opportunities and challenges for neighbouring communities within a city, town or village. For instance, an urban extension of 1,000 or more dwellings close to an existing neighbourhood could clearly place pressure on existing facilities if there was no surplus capacity and suitable mitigation measures were not also proposed. On the other hand, if existing community and social facilities were already over-subscribed within a neighbouring area, the urban extension may present an opportunity to provide a new site and/or community building, contributing to the resolution of a wider problem.

To take into account the potential for infrastructure requirements to be met across a wider area, rather than a single site, the JCS area has been divided into a series of sub-areas as set out in Table 3 below and the map at Appendix A2. These are not presented as definitive areas for infrastructure planning, as transport networks and the catchments of schools and doctor’s surgeries will clearly cut across these. Nevertheless, they do provide a means for considering overall scales of demand for facilities in broader areas. The infrastructure assessments by sector in Chapter 4 are typically presented to reflect these sub-areas.

Table 3 - JCS Sub-Areas for infrastructure assessment purposes

JCS Sub-Areas	Econometric Sub-areas	Potential Strategic Allocations
Cheltenham - North, East and Central	Tewkesbury sub-areas: C & H Cheltenham sub-areas: CA2, CA3 & CA5	North West Cheltenham
Cheltenham - South and West	Tewkesbury sub-areas: D Cheltenham sub-areas: CA1 & CA4	South Cheltenham (Leckhampton)
		Up Hatherley
Gloucester - North	Tewkesbury sub-areas: E, F & G Gloucester sub-areas: GW, GC & GNE	Innsworth & Twigworth
		North Churchdown
		South Churchdown
		North Brockworth

JCS Sub-Areas	Econometric Sub-areas	Potential Strategic Allocations
Gloucester - South	Gloucester sub-areas: GSC & GSW Stroud District Council 'Gloucester Urban Fringe' (GUF) sub-area also of importance (see Stroud Consultation Draft IDP, July 2013)	-
Tewkesbury and Ashchurch	Tewkesbury sub-areas: A & B	Ashchurch MOD

Alongside the potential strategic allocations for development, the table above includes reference to the substantial committed development for 1,900 dwellings at Cooper's Edge, Brockworth. It should also be noted that the Gloucester Urban Fringe (GUF) sub-area within Stroud District has been included in the above table due to its close proximity to the Gloucester South area. There is an existing planning permission for 1,750 dwellings at Hunt's Grove and Stroud District Council IDP scenarios consider a further 500 to 750 dwellings in this location.

### 3.2 Overview of Development Allocations

Cheltenham Borough Council, Gloucester City Council and Tewkesbury Borough Council decided to produce a JCS to ensure a coordinated strategic approach to development up-to 2031.

The Draft JCS proposes a total housing provision of 33,200 new dwellings over the plan period to 2031, including eight strategic allocations. These strategic sites range in scale significantly from 639 dwellings at South Churchdown to a proposal for 4,829 dwellings at North West Cheltenham (locations are shown in the map at Appendix A1).

With respect to employment land allocations, the latest forecasts available to the Joint Core Strategy Councils indicate the need to plan for around 21,800 net new jobs over the plan period 2011 to 2031. The Draft Joint Core Strategy sets out allocations for employment development totalling 83 hectares.

Tables 4 and 5 present the proposed residential and employment allocations by JCS sub-area, including indicative phasing information. These figures were agreed by the JCS authorities for inclusion in the IDP Briefing Pack issued as part of the refresh process.

Table 4 - Draft JCS residential development allocations by IDP sub-area

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014	2015	2016	2017	2018	2019 - 2023	2024 - 2028	2029 - 2031
Gloucester North	Urban area GC	271	13	13	13	33	23	65	69	42
	Urban area GNE	519	13	13	38	78	38	148	149	42
	Urban area GW	1,200	13	13	63	123	209	625	112	42
	Rural area E	355	6	31	56	54	14	71	77	46
	Rural area F	239	6	6	6	13	14	71	77	46
	Rural area G	236	6	6	6	13	14	71	75	45
	Strategic allocation - Innsworth & Twigworth	3,075	-	-	-	75	150	1,050	1,125	675
	Strategic allocation - North Churchdown	845	-	-	-	50	100	500	195	-
	Strategic allocation - South Churchdown	639	-	-	-	50	100	489	-	-
	Strategic allocation - North Brockworth	1,548	-	-	-	75	150	750	573	-
	Sub-total	8,927	57	82	182	564	812	3,840	2,452	938
Gloucester South	Urban area GSC	911	13	13	13	13	13	155	579	112
	Urban area GSW	421	13	13	13	13	13	165	149	42
	Sub-total	1,332	26	26	26	26	26	320	728	154
	Note: Stroud District - Hunts Grove development adjoining Gloucester (incl. committed & proposed)	See Footnote <sup>2</sup>								
Cheltenham South & West	Urban area CA1	514	10	10	30	30	31	155	155	93
	Urban area CA4	510	10	10	30	31	31	153	153	92

<sup>2</sup> Hunts Grove includes approximately 2,250 new dwellings and may lead to certain infrastructure that would benefit the JCS area.

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014	2015	2016	2017	2018	2019 - 2023	2024 - 2028	2029 - 2031
	Rural area D	237	6	6	6	14	14	71	75	45
	Strategic allocation - South Cheltenham	1,075	-	50	100	100	100	407	250	68
	Strategic allocation - Up Hatherley	795	-	-	-	-	-	350	445	-
	Sub-total	3,131	26	76	166	175	176	1,136	1,078	298
Cheltenham North	Urban area CA2	509	10	10	30	30	31	153	153	92
	Urban area CA3	514	10	10	30	30	31	155	155	93
	Urban area CA5	837	10	60	130	120	99	170	155	93
	Rural area C	237	6	6	6	14	14	71	75	45
	Rural area H	240	6	6	6	14	14	71	77	46
	Strategic allocation - North West Cheltenham	4,829	-	-	-	100	299	1,675	1,655	1,100
	Sub-total	7,166	42	92	202	308	488	2,295	2,270	1,469
Tewkesbury & Ashchurch	Rural area A	275	6	6	21	37	14	71	75	45
	Rural area B	237	6	6	6	14	14	71	75	45
	Strategic allocation - Ashchurch MOD	2,125	-	-	-	-	-	400	1,050	675
	Sub-total	2,637	12	12	27	51	28	542	1,200	765
JCS total (excluding committed development)		23,193	163	288	603	1,124	1,530	8,133	7,728	3,624
Committed development		10,007								
Total Draft JCS New Housing		33,200								

Source: JCS Authorities

Table 5 - Draft JCS Employment Allocations by IDP sub-area

JCS Sub-area	Econometrics area / Allocations	Employment Use Classes						
		Retail (sqm)	B1a	B1b	B1c	B2	B8	B Total (Ha)
Gloucester North	Urban area GC	89,000						
	Strategic allocation - Innsworth & Twigworth		1.82	1.82	3.64	0.91	0.91	9.10
	Strategic allocation - South Churchdown		5.10	5.10	6.80			17.00
	Sub-total		6.92	6.92	10.44	0.91	0.91	26.10
Gloucester South	No employment allocations	-	-	-	-	-	-	-
Cheltenham South & West	No employment allocations	-	-	-	-	-	-	-
Cheltenham North	Urban area A5	111,000						-
	Strategic allocation - North West Cheltenham		6.90	4.60	6.90	2.30	2.30	23.00
Tewkesbury & Ashchurch	Rural area A (Tewkesbury town centre)	10,642						-
	Strategic allocation - MOD Ashchurch		2.00	2.00	6.00	4.00	6.00	20.00
	Strategic allocation - Ashchurch		1.40	1.40	4.20	2.80	4.20	14.00
Totals		210,642	17.22	14.92	27.54	10.01	13.41	83.10

Source: JCS Authorities

### 3.3 Population growth and IDP demographic scenarios

The target for the JCS councils to provide 33,200 dwellings for the plan period to 2031 has been informed by interrogation of population and household growth projections. This demographic information has a further important role to play during the interpretation of infrastructure requirements. For instance, population growth that shows a proportionate increase in the number of elderly would be expected to result in fewer schools admissions, but potentially greater demand for healthcare services.

The population growth and household size projections set out in Table 6 are based on the outputs of the Bramley Econometric Affordability Forecast utilised by the JCS authorities for planning purposes. The table below provides an overview of these projections and comparison with the ONS population (mid-year 2011 based) projection. Although not exactly midway through the 2014 to 2031 plan period, the 2021 figures are used here for comparison as the ONS projections end on this year.

Table 6 - JCS area population and average household size projections<sup>3</sup>

JCS Authority	Projection	2014	2021	2031	Change
Gloucester CC	Bramley Pop'n	126,671	140,429	159,191	32,520
	ONS Pop'n	128,997	135,271	-	-
	Bramley H'hold Size	2.31	2.25	2.17	-
Cheltenham BC	Bramley Pop'n	119,205	123,697	130,647	13,596
	ONS Pop'n	120,127	124,196	-	-
	Bramley H'hold Size	2.20	2.15	2.08	-
Tewkesbury BC	Bramley Pop'n	85,392	89,546	95,763	12,237
	ONS Pop'n	87,254	91,909	-	-
	Bramley H'hold Size	2.21	2.14	2.04	-
JCS totals / average	Bramley Pop'n	335,331	353,672	385,601	58,353
	ONS Pop'n	336,379	351,377	-	-
	Bramley H'hold	2.24	2.18	2.10	-

The table presents household size projection. Household growth, when compared to the increase in population suggests that average household size is set to decline over the plan period. This has been taken into account during the assessment of infrastructure, particularly when applying certain benchmark standards. The household size figure of 2.18 (for 2021, at the mid-point of the plan period) has been assumed when assessing infrastructure requirements within this study as it is considered unlikely that household size of the planned growth will exceed 2.18.

<sup>3</sup> Source: MAIDeN District Profiles (2013), based on 2011 census data.



On this basis, a household size of 2.18 has been assumed as a worst case for infrastructure planning purposes.

Household sizes within each of the proposed development allocations in the Joint Core Strategy will be influenced by market factors, as well as planning policy. At this stage of plan-making it is difficult to project with certainty the household size, and therefore the population, of any given development. This has implications for assessing infrastructure requirements and as a result an approach of applying population and household size scenarios has been adopted within the IDP.

Table 7 sets out the two population growth scenarios used to underpin the infrastructure assessment:

Scenario 1 is based on ONS population projections and is considered to provide the basis for a more representative assessment of demand for infrastructure at a district-wide level. The assumed population of new developments within Scenario 1 would be relatively low, commensurate with higher proportions of smaller units, such as sheltered accommodation for the elderly.

Scenario 2 assumes that the population for each development equates to the number of new dwellings multiplied by the projected household size in 2021 of 2.18. Applied at the district-wide level this method of calculation results in a population figure of 72,376. Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific town or village. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.

For each of these scenarios where benchmark standards have been applied calculations have been split into two phases the first being between 2014 - 2018 and the second being 2014 - 2031 representing the whole plan period, taking this approach means that the more immediate short term infrastructure requirements are illustrated.

Table 7 - IDP Population and Household Growth Scenarios

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1		Scenario 2	
					2014 - 2018	2014 - 2031 (whole plan)	2014 - 2018	2014 - 2031 (whole plan)
					Population	Population	Population	Population
Gloucester North	Urban area GC	271	95	176	167	476	207	591
	Urban area GNE	519	180	339	316	912	392	1,131
	Urban area GW	1,200	421	779	740	2,109	918	2,616
	Rural area E	355	161	194	283	624	351	774
	Rural area F	239	45	194	79	420	98	521
	Rural area G	236	45	191	79	415	98	514
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	5,405	491	6,704
	Strategic allocation - North Churchdown	845	150	695	264	1,485	327	1,842
	Strategic allocation - South Churchdown	639	150	489	264	1,123	327	1,393
	Strategic allocation - North Brockworth	1,548	225	1,323	395	2,721	491	3,375
Sub-total	8,927	1,697	7,230	2,983	15,690	3,699	19,461	
Gloucester South	Urban area GSC	911	65	846	114	1,601	142	1,986
	Urban area GSW	421	65	356	114	740	142	918
	Sub-total	1,332	130	1,202	228	2,341	283	2,904
Cheltenham South & West	Urban area CA1	514	111	403	195	903	242	1,121
	Urban area CA4	510	112	398	196	896	243	1,111

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1		Scenario 2	
					2014 - 2018	2014 - 2031 (whole plan)	2014 - 2018	2014 - 2031 (whole plan)
					Population	Population	Population	Population
	Rural area D	237	46	191	81	417	100	517
	Strategic allocation - South Cheltenham	1,075	350	725	615	1,889	763	2,344
	Strategic allocation - Up Hatherley	795	-	795	-	1,397	-	1,733
	Sub-total	3,131	619	2,512	1,087	5,502	1,349	6,825
Cheltenham North	Urban area CA2	509	111	398	195	895	242	1,110
	Urban area CA3	514	111	403	195	903	242	1,121
	Urban area CA5	837	419	418	736	1,471	913	1,825
	Rural area C	237	46	191	81	417	100	517
	Rural area H	240	46	194	81	422	100	523
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	8,488	870	10,527
	Sub-total	7,166	1,132	6,034	1,990	12,595	2,468	15,622
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	483	183	600
	Rural area B	237	46	191	81	417	100	517
	Ashchurch MOD	2,125	-	2,125	-	3,735	-	4,633
	Sub-total	2,637	130	2,507	228	4,635	283	5,749
JCS total (excluding committed development)		23,193	3,708	19,485	6,517	40,764	-	-
Committed development		10,007			-	17,589	-	-
Total Draft JCS New Housing		33,200				58,353	-	-

Application of these scenarios within the IDP relates primarily to social and community infrastructure, where benchmark standards provide a useful means for undertaking preliminary assessments of demand. In some cases, such as the education standards provided by the County Council, household size and demographics are already taken into account and therefore the two Scenarios are not utilised in the same way.

The potential implications of population growth and demographic change for infrastructure requirements are discussed within sector-specific sections of the IDP in Chapter 4. In this regard, the conclusions within the publication ‘Understanding Gloucestershire 2013: A high level analysis of need in Gloucestershire’ is very helpful (document prepared by the County Council Strategic Needs Analysis Team). Key demographic issues identified for Gloucestershire as a whole from this document are as follows:

- 40% of the growth between now and 2021 will be accounted for by natural growth and 60% by internal migration.
- The number of older people aged 65 and above in the County has been growing by an average of 1,500 people per year over the last 10 years. Projections suggest that this will double to an increase of about 3,100 people on average between now and 2021. Long-range projections covering the next twenty years are not yet available but the increase is expected to accelerate post 2021 as a result of rising life expectancy and the demographic impacts of two generations of baby boomers. Significantly, the projected percentage increase of the older population is greater in Gloucestershire than in England over the period 2021-2031 (27% compared to 24%).
- In particular, the number of people aged 75 and over (the ages at which Gloucestershire County Council adult care and other support services are most likely to be required) is projected to increase by an annual average of 1,700 between 2011 and 2021.

Table 8 - Ageing Population in Gloucestershire - rates of growth for numbers of older people aged 65 and above<sup>4</sup>

Age range	Gloucestershire Population Growth	
	2001 - 2011	2011 - 2021
65 and above	14%	29%
75 and above	10%	33%
85 and above	29%	38%

<sup>4</sup> Source: ‘Understanding Gloucestershire 2013’ (Gloucestershire County Council, Dec 2013), Page 10.

## 3.4 Corporate Plans

### 3.4.1 Gloucestershire County Council Strategy (2011-2015), Meeting the Challenge

This 2014-2015 update of the County Strategy sets a clear vision which is “to use the resources available to us to improve quality of life for Gloucestershire people”.

The Strategy presents actions for 2014/15 under four key themes. The elements of the strategy which are considered of relevance to this IDP are summarised below under each of the themes.

#### *Getting our own house in order*

- Continue to rationalise our property estate in order to generate £45m capital receipts;
- Carry out a council wide review of transport in order to generate savings of £0.5m;
- Establish a commercial unit in order to further develop expertise at letting, negotiating and managing its contracts.

#### *Protecting vulnerable people*

- Continue to transform social care, focussing on providing short term support to maximise people’s independence, and giving people choice over the services they receive;
- Continue to roll out our Families First Programme, providing flexible, focussed support to families with the highest levels of need, helping parents into employment, children and young people back into school and reducing disruptive behaviour; and
- Target funding for housing-based support on people rather than buildings and developing more flexible models of locality-based support.

#### *Supporting active communities*

- Launch a quarter of a million pound ‘Youth Local’ scheme that will encourage County Councillors and local community groups to work together to increase sporting, social and cultural activities for young people;
- Explore ways of joining up a range of council services through a single, local, ‘shop front’ within communities; and
- Consult and refresh our Integrated Risk Management Plan for the Fire & Rescue Service.

#### *Building a sustainable county*

- Continue to work with our Local Enterprise Partnership to address the infrastructure constraints to economic growth through the government’s Growing Places Fund;
- Promote the vital importance of the A417 ‘Missing Link’ and campaign for the A417 Loop to be included in the Highways Agency’s major scheme development programme. Other major transport infrastructure improvements

include the delivery of Cinderford Spine Road, the development of Elmbridge Park and Ride and junction capacity improvements;

- Continue to promote apprenticeships both within the County Council and with local employers;
- Continue the roll out of superfast broadband across rural communities;
- Continue to reduce waste, recycle more and move away from landfill, with the aim of achieving recycling rates of 70% which will put Gloucestershire amongst the highest in Europe; and
- Move towards a carbon-neutral position across our estate by maximising income from the generation of renewable energy from our property assets.

All of these actions have the potential to affect how infrastructure is delivered across Gloucestershire.

### **3.4.2 Gloucestershire Local Enterprise Partnership Strategic Economic Plan for Growing Gloucestershire 2013**

The Gloucestershire Local Enterprise Partnership (LEP) Strategic Economic Plan (SEP) sets out the economic vision for Gloucestershire and aims deliver a business plan to drive growth at a rate of 4.8% GVA per annum (averaged over the plan period).

The SEP aims to achieve growth through focusing on knowledge intensive sectors, supporting business, developing skills and maximising the connections and opportunities of the motorway corridor.

The SEP states that its number one transport priority is addressing the weakness of the strategic highways road network and the missing link on the A417/A419. The Plan aims to resolve the problems associated with the missing link to achieve economic, environmental and safety improvements of the Route Based Strategy (RBS) work for further development between March 2014 and March 2015. Also to include it in the Government's major scheme programme for delivery from April 2015 onwards.

The SEP identifies its number one growth priority to be at Junction 10 of the M5 where the LEP proposals are to create an all-ways junction (four way vehicle intersection). The existing junction arrangement at Junction 10 does not provide access to and from the south (Bristol and A417 to Swindon and M4 corridor). The LEP aims to bring forward a significant employment and mixed use site within the vicinity of this junction. Once provided this will significantly increase the opportunity to develop land within the surrounding area.

### **3.4.3 Cheltenham Borough Council Corporate Strategy 2010 – 2015 and Action Plan 2013-2014**

The Corporate Strategy sets out an aspirational goal for the long-term future of Cheltenham as follows:

*“We want Cheltenham to deliver a sustainable quality of life, where people, families, their communities and businesses thrive; and in a way which cherishes*

*our cultural and natural heritage, reduces our impact on climate change and does not compromise the quality of life of present and future generations.”*

Strategic projects and key milestones within the current Action Plan include those that relate specifically to infrastructure provision and funding:

ENV7 – we will implement recommendations of the November 2012 Cabinet Report, setting out how we will meet the 30% carbon reduction target by 2015 and our aspiration to reduce carbon emissions by 40% by 2020:

- explore the potential for Smart metering to help in bridging the gap;
- continue to explore other initiatives to deliver financial and carbon savings; and
- start to look in more detail at the case for installing a biomass boiler at Leisure@ as a potential replacement for the combined heat and power unit on expiry of the lease in 2015.

ECD3 – We will continue to support the Cheltenham Development Task Force, including:

- Work with Gloucestershire County Council (GCC) over implementation of Local Sustainable Transport Fund including: pedestrian way-finding; cycle routes; junction improvements; modal shift; Boots corner.
- Work with a range of partners to enable a programme of public realm improvements to be carried out, including: Promenade phase 3; pedestrianisation ; and St Mary’s Churchyard.

COM2 – We will explore how best the Council can work in partnership to tackle high profile crime in Cheltenham:

- We will work with the new Police & Crime Commissioner to ensure that we gain their support for enhancing partnership working in Cheltenham to tackle crime.

COM12 – We will implement the preferred strategy for our leisure and cultural services:

- Subject to the outcome of a procurement process, create a new charitable trust to operate our leisure and cultural services from 2014-2015.
- COM13 – We will conclude a sports facilities strategy for CBC-owned sports facilities and a feasibility study for the Prince of Wales stadium:
- We will have a developed Sports Strategy & Prince of Wales (PoW) Stadium feasibility study for approval by Cabinet.

COM14 – We will support efforts to get more people actively involved in their communities so that we create more resilient communities across the whole borough:

- Help create a resident-led partnership that will coordinate the lottery-funded Big Local project in the St Peters and the Moors area.
- Support the asset-based community development projects in the The Elms and Springbank to produce community-owned plans for their areas.

- Provide advice, information and support to the five parish councils and other neighbourhood groups that are interested in developing Neighbourhood Plans (cross-reference to Neighbourhood Planning section below).

A&C2 – We will re-open the Art Gallery and Museum (this has now been achieved).

A&C3 – We will conclude the Town Hall feasibility study.

### 3.4.4 Gloucester City Council Corporate Plan 2011-2014

Gloucester CC's Corporate Plan, 'Transforming Your City' sets out a framework for delivering Gloucester's future. It highlights the need for the city to bring its history to life, strengthen the economy and help improve prospects for everyone. Corporate priorities include those that relate specifically to infrastructure provision and funding:

#### *Strengthen Gloucester's economy*

- We will work with partners to improve educational attainment, training opportunities and job prospects for local people.
- We will work to deliver the regeneration of the city, particularly King's Quarter, Blackfriars, the Railway Triangle and Greyfriars.

#### *A city for everyone*

- We will target voluntary and community sector grants to help meet the council's priorities.

#### *Creating pride in our city*

- We will find new ways to "tell the story" of Gloucester, including a major refurbishment of our museums, better interpretation of monuments and buildings.
- We will implement our Climate Change Strategy, leading by example and encouraging others to do their bit.
- We will improve the facilities at the Blackbridge athletics track (this has now been achieved)
- We aspire to a new all-weather track in Gloucester.
- We will work with Gloucester City Football Club to enable them to return to a ground in the city as soon as possible.

### 3.4.5 Tewkesbury Borough Council Plan 2012-2016

Tewkesbury BC have established five priorities, two of which refer to infrastructure provision and funding actions:

#### *Improve recycling and care for the environment*

- Promote waste minimisation and aspire to increase our recycling rate through the implementation of the Sights on 60% recycling campaign.
- Continued work with partners to provide flood resilience measures: (a) to deliver flood alleviation projects funded by GCC; (b) produce a flood and



water management supplementary planning document; (c) advise and signpost local communities when applying for external funding for flood resilience measures.

### ***Provide customer focussed community support***

- Support and promote joint working arrangements with Gloucestershire's County Council's Child and Family Support Services, Gloucestershire Constabulary and other agencies to achieve better outcomes for residents.
- Work with town and parish councils to deliver the localism agenda, including: deliver the programme of work for Community Infrastructure Levy; provide appropriate support for Neighbourhood Planning; and provide support for community development through the council's Community Concept Framework including Place Planning.
- Help support the health and well-being of our residents, through: work with partners to promote sports and leisure activities; progress the work streams for a new leisure facility; deliver year one of the Health and Wellbeing Strategy (2013-15).

The three further corporate priorities are: to use resources effectively and efficiently; promote economic development; and develop housing relevant to local needs.

## **3.5 Sustainable Community Strategies**

### **3.5.1 Cheltenham's Sustainable Community Strategy 2008-2011: 'Our Future, Our Choice'**

Although now slightly outdated, the strategy identifies a number of challenges for the area. The main challenge for the strategy is to provide a long term framework for Cheltenham to reduce its reliance on carbon-based energy sources and make adaptations in response to the changes occurring through climate change. This requires a coordinated approach at a number of levels:

- Using land planning frameworks and urban design to reduce travel and promote sustainable transport;
- Promotion of better building designs with a focus on becoming zero carbon;
- Promotion of local and renewable sources of energy;
- Promotion of local food production and distribution and encouraging less wasteful consumption of resources;
- Positive ways of strengthening the local economy, building social and economic connections at the local level and increasing community self-reliance.

### **3.5.2 Gloucester City Vision 2012-2022**

The City Vision sets out the strategic vision for Gloucester up to 2022; this document has replaced the Sustainable Community Strategy for Gloucester City. The document outlines a clear focus on improving the local economy as decided by the Partnership Board and the local residents.

The key aims as chosen by the residents of Gloucester are as follows:

- A flourishing economy and City Centre which meets the needs of our residents, businesses and visitors;
- A vibrant evening economy;
- A City which improves through regeneration and development;
- A City where people feel safe and happy in their community;
- A healthy City with opportunities available to all.

A number of challenges for the area have been identified:

***Health, deprivation and communities:***

- Four of Gloucester's wards (Podsmead, Kingsholm and Wotton, Matson and Robinswood and Westgate) are amongst the 10% most deprived in the county.
- The life expectancy for women varies from 86 in the more affluent areas to under 79 in the deprived areas. For men there was a nine year gap.
- Health outcomes are worse in some areas; these problems can be linked to levels of deprivation.
- The City has higher levels of smoking, obesity and rates of alcohol related hospital admissions than the County average.
- 1,560 households have no access to basic banking and a further 4,690 households have no current accounts.

***Economy, skills and unemployment:***

- 59% of visitors said the City didn't meet their expectations and 52% of people didn't visit Gloucester in the evening, with reasons ranging from: they feel unsafe, lack of choice and some people felt Gloucester catered for a younger market.
- Performance in many of the City's schools is high, although educational achievement as a whole for the City's children is lower than we aspire.

### **3.5.3 Sustainable Community Strategy for Tewkesbury Borough 2008-2028**

This document encompasses the following vision:

'A Borough of healthy, strong, thriving and sustainable communities, both rural and urban, where people want to live, work and visit.'

The key priorities for the period between 2011-2014 are as follows:

- ***Children, Young People and Families*** –
  - Safe and accessible places for children and young people to take part in a range of activities;
  - Children feeling safe outside of school;
  - Supporting children and young people with emotional well-being
- ***Community Safety*** –
  - Reduce the levels of fear of crime;

- Reduce incidents of ASB and reduced levels of alcohol and drug misuse.
- ***Economy and Enterprise*** –
  - Develop the vibrancy of the Borough’s business centres and reducing the skills gap;
  - Maximise support for local businesses.
- ***Environmental*** –
  - Increase levels of reuse and recycling;
  - Reduce the Borough’s carbon footprint and increase levels of biodiversity.
- ***Health and Wellbeing*** –
  - Improve physical wellbeing through increased physical activity and healthier eating;
  - Improve mental wellbeing and increase the social and physical activity of older people.
- ***Housing***
  - Meet housing needs through the provision of affordable housing and improving the quality of the housing stock thus producing a balanced housing market;
  - Meet the needs of the homeless through implementing the Homelessness Strategy.

### 3.6 Community and Neighbourhood Plans

A large proportion of towns and parish councils situated within the JCS area have produced community plans that set out local needs and infrastructure schemes to be taken into account by the IDP.

The Localism Act 2011 introduced new rights and powers to allow local communities to shape new development in their areas through the preparation of Neighbourhood Plans. Successful adoption of a Neighbourhood Plan following a local referendum enables the local community to manage a larger proportion of Community Infrastructure Levy (CIL) receipts as a Neighbourhood Fund. In Tewkesbury Borough the following three neighbourhood plan areas have been formally registered: Winchcombe; Churchdown and Innsworth (combined); Down Hatherley, Norton and Twigworth (combined).

Community Plans and future Neighbourhood Plans that have a bearing on infrastructure requirements and priorities within the sub-areas are set out below.

Table 9 – Community and Neighbourhood Plans

JCS Sub-Areas	Strategic allocations and Econometric sub-areas	Community & Neighbourhood Plans
Cheltenham - North, East and Central	North West Cheltenham, Areas: C, H, CA2, CA3, CA5	A Neighbourhood Plan area for Winchcombe and Sudeley has been approved by Tewkesbury Borough Council. There are five parish councils in the Cheltenham admin boundary; Swindon and

<b>JCS Sub-Areas</b>	<b>Strategic allocations and Econometric sub-areas</b>	<b>Community &amp; Neighbourhood Plans</b>
Cheltenham - South and West	South Cheltenham (Leckhampton) and Up Hatherley, Areas D, CA1 and CA4	Prestbury Parish Councils in the north; Leckhampton with Warden Hill; Up Hatherley and Charlton Kings in the south. None of these have parish plans to date.
Gloucester - North	Innsworth, North Churchdown, South Churchdown and North Brockworth Areas: E, F, G, GW, GC and GNE	The following two neighbourhood plan areas have been formally registered: Churchdown and Innsworth (combined); Down Hatherley, Norton and Twigworth (combined).
Gloucester - South	Areas: GSC and GSW	Hardwicke Neighbourhood Plan
Tewkesbury and Ashchurch	Ashchurch MOD Areas: A and B	To date (September 2013) no applications have been received from parish/town councils in this area to register their land for preparation of a neighbourhood plan.

Where available, these community plans are taken into account in the commentary on potential infrastructure priorities for different locations within Chapter 5.

## 4 Infrastructure Assessment by Sector

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### 4.1 Community & Culture

#### 4.1.1 Libraries

##### Overview

*The way in which library services are provided in Gloucestershire is being reformed taking account of pressure on the financing of public services and the move towards providing digital services. The County Council intends to retain a network of library buildings across the JCS area with the aim that the majority of people should be able to get to a library within a reasonable journey by foot, by public transport or by a short car journey of around 20 minutes. In some cases libraries have been transferred to community management under the County Council “Big Community Offer”.*

*Libraries will increasingly act as the local access point for a range of public and digital services and therefore the additional demand for these services generated by new development justifies developer contributions towards the maintenance and enhancement of these facilities, where viable.*

*Based on a preliminary high level assessment of demand, it is predicted that the cost of library services to serve new development across the JCS area would be in the order of £6.7m.*

##### Responsibilities for delivery

Gloucestershire County Council is responsible for the delivery of library services across the JCS area. Under the public libraries and Museums Act 1964 there is a statutory requirement to provide a comprehensive and efficient library service for all.

Responsibilities for museums and libraries, previously undertaken by the Museums, Libraries and Archives Council (MLA), was transferred to the Arts Council in October 2011. Whilst not responsible for direct provision or funding of library services, the Arts Council is responsible for supporting and developing the libraries sector.

##### Sector plans & strategies

**Gloucestershire County Council ‘A Strategy for Library Services in Gloucestershire’ (April 2012)** – this strategy takes into account pressures on public sector spending and the growing importance of digital information resources. The new strategy proposes a library service that encompasses different delivery mechanisms through:

- Digital means and via development of the virtual library
- Services targeted to support vulnerable people
- A reconfigured network of libraries.

- Engagement with communities and volunteers
- Development of partnership with other public sector agencies

## Infrastructure baseline and deficits

There are currently 15 libraries provided by the County Council in the JCS area, plus the Community Library at Brockworth, that serve a total population of 319,363 (2011 census). The libraries are set out in the table below for each IDP sub-area:

Table 10 – Existing libraries within the JCS area<sup>5</sup>

JCS Sub-Area	Strategic allocations and Econometrics sub-areas	Library/Children’s Centre (and sub-area)	Opening Times
Cheltenham - North, East and Central	North West Cheltenham Areas: C, H, CA2, CA3, CA5	Charlton Kings Library and Children's Centre (CA3)	5 Days – 35 Hours
		Hesters Way Library (CA5)	6 Days – 21 Hours
		Prestbury Library (CA2)	4 Days – 18.5 Hours
		Cheltenham (including Children's library) – Archives (CA2)	6 days – 54 Hours
		Bishops Cleeve Library and Children's Centre (Area C)	6 Days – 40 Hours
		Winchcombe Library and Children's Centre (Area C)	5 Days – 28 Hours
Cheltenham – South West	South Cheltenham and Up Hatherley Areas D, CA1 and CA4	Up Hatherley Library and Children's Centre (Area CA4) People would be also likely to access Charlton Kings Library and Children’s Centre.	5 Days – 35 Hours
Gloucester - North	Innsworth, North Churchdown, South Churchdown and North Brockworth Areas: E, F, G, GW, GC and GNE	Hucclecote Library (GNE)	6 Days – 35 Hours
		Longlevens Library (GNE)	6 Days – 35 Hours
		Brockworth Community Library (Area F)	5 Days – 24 Hours
		Churchdown Library (Area F)	5 Days – 30 Hours
		Gloucester Library including Music and Performing Arts	6 Days – 54 Hours
Gloucester - South	Areas: GSC and GSW (plus the Gloucester Urban Fringe in the Stroud District area)	Quedgeley Library (GSW)	5 Days – 35 Hours
		Tuffley Library (GSW)	5 Days – 21 Hours
		Matson Library (GSC)	5 Days – 21 Hours

<sup>5</sup> Source: <http://www.gloucestershire.gov.uk/libraries> (accessed June 2013)

JCS Sub-Area	Strategic allocations and Econometrics sub-areas	Library/Children’s Centre (and sub-area)	Opening Times
Tewkesbury and Ashchurch	Ashchurch MOD Areas: A and B	Tewkesbury Library (Area A)	6 Days – 44 Hours

During December 2012 the County Council introduced a replacement mobile library service. The newly refurbished van stops at 56 locations in rural areas of the County with visits on a four-week cycle. Modernised facilities include a satellite and computer for internet access, thereby enabling access to information and the services of other public sector partners, such as health for example.

In addition, a ‘virtual Library’ website is in operation across Gloucestershire and is available to anyone with internet access. The County Council also operates a ‘Housebound Library Service’, which enables people to pre-arrange a visit by a librarian.

Against a background of public spending cuts and changes in the ways library services are used, such as increasing demand for digital, web-based services, the County Council undertook a review of existing assets and what the library service should look like in the future. Three important elements of the strategy highlighted here are:

***A reconfigured network of libraries and the Big Community Offer*** - In April 2012 the County Council decided to apply a reduction of £1.8m (25%) in the context of library services and the new Library Strategy provided for the retention of 31 council run libraries, and provision of two mobile library services and the Virtual Library.

Under the County Council’s Community Offer eight communities were invited to submit business cases for running a community library once council funding was withdrawn. By 1 January 2013, eight community run libraries had been established across the county. As part of the Big Community Offer encouraging third sector community groups to manage services, these libraries receive on-going support in the form of a cash revenue funding stream of £10,000 per year, provision of PCs and data lines enabling internet access and provision of the Libraries Management System for administering the library loan system. In addition, the library building was made available to them through: a lease arrangement with a ‘peppercorn rent’ (£0); or 20% discount on market value if the library asset was purchased by the community; or up to 50% share of sale proceeds to invest in an alternative community venue for the library provision. An example of the above would be the Brockworth Community Library located in the Gloucester-north sub-area.

***Co-location of facilities*** – The County Council Strategy identifies libraries as important access points to public services in Gloucestershire and therefore the provision of space for other organisations within library buildings is a logical step. An example of this within the JCS area is Charlton Kings Children’s Centre and Hester’s Way Children’s Centre which also provide library facilities. The two services are well suited to provide co-locational facilities due to their opening hours and the range of resources they offer.

***Development of the Virtual Library*** - The County Council's strategy is that libraries will continue to be key places in the community where people will be able to access broadband and use computers. They will continue to provide support to assist people with accessing digital public services and digital communication, and digital information. As such, the library service will continue to play an important role in ensuring that computer and digital services are accessible to all. The County Council aims to continue with the expansion of the services available through its own virtual library which means wherever the Internet is available anyone will be able to use these digital services 24/7.

#### **4.1.1.1 Assessment of infrastructure needs and costs**

A preliminary high level assessment of library service infrastructure needed to support development in the JCS area has been undertaken using Arts Council benchmark standards. The Arts Council publication *'The Community Infrastructure Levy: advice note for culture, arts and planning professionals'* (April 2012) provides standards to guide the level of provision of library space, as set out below:

- Provision of 30m<sup>2</sup> of Library space per 1000 people. An estimated capital cost of £3,500/m<sup>2</sup> is given for England based on 2009/10 prices. Rebasing this estimated cost for 2013<sup>6</sup> and a Gloucestershire location results in a capital cost of £3,839/ m<sup>2</sup>, rounded to £3,800/ m<sup>2</sup>.

An assessment of library space to support new development based on this standard is set out in the table below:

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<sup>6</sup> BCIS Online – costs rebased to Q2 2013



Table 11 - Assessment of need for libraries

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	5.01	£19,035	476	14.29	£54,301	207	6.21	£23,609	591	17.72	£67,349
	Urban area GNE	519	180	339	316	9.49	£36,067	912	27.37	£103,993	392	11.77	£44,734	1,131	33.94	£128,982
	Urban area GW	1,200	421	779	740	22.20	£84,356	2,109	63.28	£240,445	918	27.53	£104,627	2,616	78.48	£298,224
	Rural area E	355	161	194	283	8.49	£32,260	624	18.72	£71,132	351	10.53	£40,012	774	23.22	£88,225
	Rural area F	239	45	194	79	2.37	£9,017	420	12.60	£47,889	98	2.94	£11,183	521	15.63	£59,396
	Rural area G	236	45	191	79	2.37	£9,017	415	12.44	£47,288	98	2.94	£11,183	514	15.43	£58,651
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	11.86	£45,084	5,405	162.14	£616,141	491	14.72	£55,917	6,704	201.11	£764,199
	Strategic allocation - North Churchdown	845	150	695	264	7.91	£30,056	1,485	44.56	£169,314	327	9.81	£37,278	1,842	55.26	£209,999
	Strategic allocation - South Churchdown	639	150	489	264	7.91	£30,056	1,123	33.69	£128,037	327	9.81	£37,278	1,393	41.79	£158,804
	Strategic allocation - North Brockworth	1,548	225	1,323	395	11.86	£45,084	2,721	81.62	£310,175	491	14.72	£55,917	3,375	101.24	£384,709
	<b>Sub-total</b>	<b>8,927</b>	<b>1,697</b>	<b>7,230</b>	<b>2,983</b>	<b>89.48</b>	<b>£340,030</b>	<b>15,690</b>	<b>470.71</b>	<b>£1,788,714</b>	<b>3,699</b>	<b>110.98</b>	<b>£421,738</b>	<b>19,461</b>	<b>583.83</b>	<b>£2,218,538</b>
Gloucester South	Urban area GSC	911	65	846	114	3.43	£13,024	1,601	48.04	£182,538	142	4.25	£16,154	1,986	59.58	£226,402
	Urban area GSW	421	65	356	114	3.43	£13,024	740	22.20	£84,356	142	4.25	£16,154	918	27.53	£104,627
	<b>Sub-total</b>	<b>1,332</b>	<b>130</b>	<b>1,202</b>	<b>228</b>	<b>6.85</b>	<b>£26,048</b>	<b>2,341</b>	<b>70.24</b>	<b>£266,894</b>	<b>283</b>	<b>8.50</b>	<b>£32,308</b>	<b>2,904</b>	<b>87.11</b>	<b>£331,029</b>
Cheltenham South & West	Urban area CA1	514	111	403	195	5.85	£22,241	903	27.10	£102,991	242	7.26	£27,586	1,121	33.62	£127,739
	Urban area CA4	510	112	398	196	5.88	£22,359	896	26.87	£102,107	243	7.30	£27,732	1,111	33.33	£126,643
	Rural area D	237	46	191	81	2.43	£9,217	417	12.50	£47,488	100	3.01	£11,432	517	15.50	£58,899
	Strategic allocation - South Cheltenham	1,075	350	725	615	18.46	£70,130	1,889	56.68	£215,399	763	22.89	£86,982	2,344	70.31	£267,159
	Strategic allocation - Up Hatherley	795	-	795	-	-	£0	1,397	41.92	£159,295	-	-	£0	1,733	51.99	£197,573
	<b>Sub-total</b>	<b>3,131</b>	<b>619</b>	<b>2,512</b>	<b>1,087</b>	<b>32.62</b>	<b>£123,948</b>	<b>5,502</b>	<b>165.07</b>	<b>£627,280</b>	<b>1,349</b>	<b>40.46</b>	<b>£153,732</b>	<b>6,825</b>	<b>204.74</b>	<b>£778,014</b>
Cheltenham North	Urban area CA2	509	111	398	195	5.85	£22,241	895	26.84	£101,989	242	7.26	£27,586	1,110	33.29	£126,497
	Urban area CA3	514	111	403	195	5.85	£22,241	903	27.10	£102,991	242	7.26	£27,586	1,121	33.62	£127,739

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost
	Urban area CA5	837	419	418	736	22.09	£83,956	1,471	44.13	£167,711	913	27.40	£104,130	1,825	54.74	£208,011
	Rural area C	237	46	191	81	2.43	£9,217	417	12.50	£47,488	100	3.01	£11,432	517	15.50	£58,899
	Rural area H	240	46	194	81	2.43	£9,217	422	12.66	£48,089	100	3.01	£11,432	523	15.70	£59,645
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	21.04	£79,948	8,488	254.63	£967,593	870	26.09	£99,159	10,527	315.82	£1,200,103
	<b>Sub-total</b>	<b>7,166</b>	<b>1,132</b>	<b>6,034</b>	<b>1,990</b>	<b>59.69</b>	<b>£226,820</b>	<b>12,595</b>	<b>377.86</b>	<b>£1,435,860</b>	<b>2,468</b>	<b>74.03</b>	<b>£281,325</b>	<b>15,622</b>	<b>468.66</b>	<b>£1,780,894</b>
<b>Tewkesbury &amp; Ashchurch</b>	Rural area A	275	84	191	148	4.43	£16,831	483	14.50	£55,102	183	5.49	£20,876	600	17.99	£68,343
	Rural area B	237	46	191	81	2.43	£9,217	417	12.50	£47,488	100	3.01	£11,432	517	15.50	£58,899
	Ashchurch MOD	2,125	-	2,125	-	-	£0	3,735	112.05	£425,789	-	-	£0	4,633	138.98	£528,105
	<b>Sub-total</b>	<b>2,637</b>	<b>130</b>	<b>2,507</b>	<b>228</b>	<b>6.85</b>	<b>£26,048</b>	<b>4,635</b>	<b>139.05</b>	<b>£528,379</b>	<b>283</b>	<b>8.50</b>	<b>£32,308</b>	<b>5,749</b>	<b>172.46</b>	<b>£655,347</b>
<b>JCS total (excluding committed development)</b>		<b>23,193</b>	<b>3,708</b>	<b>19,485</b>	<b>6,517</b>	<b>195.50</b>	<b>£742,894</b>	<b>40,764</b>	<b>1,222.93</b>	<b>£4,647,127</b>	-	-	-	-	-	-
<i>Committed development</i>		10,007			-	-	-	17,589	527.66	£2,005,115	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		<b>33,200</b>			-	-	-	<b>58,353</b>	<b>1,750.59</b>	<b>£6,652,242</b>	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail).. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

Taking account of the County Council's Strategy for library services summarised above, it is anticipated that the additional demand for services (and related funding) could be channelled towards maintaining and enhancing the existing library network, including the Virtual Library, and providing services for more vulnerable groups such as the elderly.

In summary, the provision of libraries across the JCS sub-sections varies across the JCS area, although it should be noted that the sub-areas used to inform a high level assessment are not based on accurate mapping of facility catchments:

- **Cheltenham – North, East and Central sub-area.** This sub-area contains a total of six libraries, with the majority opening between five and six days with the exception of Prestbury which is only open for four days. There is an opportunity at Prestbury to extend the service opening hours, however this would be demand permitting.

Taking into account the potential scale of development at North West Cheltenham, there may be potential for development to contribute towards increased opening hours at the closest facility, Hester's Way Library. While this library is open 6 days a week, it is only open for a full day on Tuesdays.

- **Cheltenham – South and West sub-area.** This sub-area has just one facility, the Up Hatherley Library and Children's Centre, although new residents in the area would also be able to access facilities in central Cheltenham. The Up Hatherley library is open five days a week across a 35 hour period and is located in close proximity to two strategic allocations namely, South Cheltenham – Up Hatherley (795 Dwellings) and South Cheltenham (1,075 Dwellings). Should these strategic allocations come forward for development, there may be potential to increase opening hours and the extent of facilities available at this library.
- **Gloucester – North sub-area.** This sub-area has five libraries, one of which includes the Music and Performing Arts Centre which is open 54 hours per week. The other libraries are open either five or six days throughout the week. The Gloucester – North sub-area is of substantial size and contains a large number of potential strategic allocations for development, so provision may need to be re-assessed in the future.

Development at North Churchdown and South Churchdown has the potential to support both Longlevens and Churchdown Libraries.

- **Gloucester – South sub-area.** This sub-area contains three libraries, all of which are open five days a week. Tuffley and Matson Libraries are, however, only open for 21 hours over the 5 day period.
- **Tewkesbury and Ashchurch sub-area** covers a fairly large area but has a population of 81,943 which is considerably smaller than Cheltenham and Gloucester. There is currently one facility serving this area which is the Tewkesbury Library; this establishment is open 44 hours over six days. Further strategic development at Ashchurch MOD could help support the enhancement of facilities at Tewkesbury library and/or the provision of outreach services for vulnerable groups such as the elderly.

## 4.1.2 Community Centres

### Overview

*There is an existing network of community centres operated by town/parish councils and community groups across the JCS area. In each case where development comes forward it will be necessary to consider whether the demand generated by new development is best accommodated through enhancements to existing facilities or provision of new community centres. Based on a preliminary high level assessment of demand, it is predicted that the cost of community centres to serve new development in the JCS area will be around £14.1m (based on 33,200 dwellings as set out in the Draft JCS).*

*Proposals for new facilities should be considered in partnership with community groups that may be willing to take on long term management of buildings. Where large new developments are proposed, the appointment of community development or youth support officers should be considered for an interim period, to help establish community groups that could later take on this role independently.*

#### 4.1.2.1 Responsibility for delivery

The provision and maintenance of community and cultural facilities, such as community and village halls, will rely upon a mix of public (including use of Parish precept); voluntary and community sector investment, although the JCS authorities will have an important leadership and coordination role to play.

#### 4.1.2.2 Sector plans and strategies

There is no single county or district-wide strategy for community centres, however information on existing provision and future plans has been gathered from a range of sources, in particular:

***Gloucestershire County Council ‘Young People’s Services Change Programme Public Consultation Paper’ (November 2010)*** – This paper highlights that there are numerous community, sports, voluntary and faith organisations already providing activities for young people in their local area. The County Council’s strategy is to work with these organisations to ensure a broad range of activities are available rather than deliver these services independently. This means the County Council will stop running youth centres, but offer the opportunity for communities to take over the running of these buildings and provide funding support of £50,000 to each District.

***Gloucester City Council Community Audit (Autumn 2012)*** – This paper seeks to illustrate the meaning of a community facility and establish how many community facilities are currently available within the area. The paper also assesses the adequacy of the provision and suggests ways in which this could be improved. The paper provides an important part of an evidence base for use in policy making.

***Parish Plans and Neighbourhood Plans*** – Communities with existing Parish Plans and emerging Neighbourhood Plans are summarised within Chapter 3 of this report.

The Gloucestershire Rural Community Council Parish/Community Led Planning Database provides further useful information taken into account in the preparation of this study.

#### **4.1.2.3 Infrastructure baseline**

For the majority of potential strategic allocations for development there are existing community centres in neighbouring urban areas/neighbourhoods, although the capacity, range of facilities and state of repair of community buildings will vary from place to place. The table below provides brief details of the community centres closest to the strategic allocations for development, based on information available from the Gloucestershire Rural Community Council village hall database, the Gloucester City Council Community Audit (Audit 2013) and Tewkesbury Village and Community Halls map (draft, March 2013). It should be noted that this does not include all potential rooms that may be used for community and social purposes. For instance, scout huts, church halls, sports pavilions provide further examples of facilities that provide space for community groups.

Table 12 – Community centres within sub-areas<sup>7</sup>

JCS Sub-area	Strategic allocations	Existing community centres	Description
Cheltenham - North, East and Central	North West Cheltenham	Nearest existing facilities at Uckington & Elmstone Hardwicke Village Hall and Swindon Village Hall	Uckington & Elmstone Village Hall capacity 130; one meeting room.
	Cheltenham Urban Areas (CA2, CA3, CA5)	Prestbury Hall (Area CA2)	Hall capacity 160; two meeting rooms.
		Oakley Community Resource centre, Clyde Crescent, Cheltenham (CA2)	
		Parklands Community Centre, Wymans Road, Whaddon, Cheltenham (CA2)	
		Gas Green Youth and Community Centre, Cheltenham (CA5)	
		Hindu Community Centre, Swindon Road, Swindon Village, Cheltenham (CA5)	
		Springbank Community Resource Centre, Springbank	
		St. Mark's and Hesters Way Community Centre, Brooklyn Rd, Cheltenham (CA5)	
	Tewkesbury sub-areas C and H	St Michael's Hall, Bishop's Cleeve (Area C)	Hall capacity of 100; two meetings rooms. The Hall is central to Bishops Cleeve and is on a local bus route.
		Bishop's Cleeve Village Hall - The Tithe Barn (Area C)	Hall capacity 150; three meeting rooms.
		Winchcombe Guide Hall (Area C)	Hall capacity 90; one meeting room.
		Woodmancote Old Village Hall (Area C)	Hall capacity 60; one meeting room.
		Oxenton Village Hall (Area C)	Hall capacity 50; one meeting room.
		Gotherington Village Hall (Area C)	Hall capacity 100; one meeting room.
		Alderton Village Hall (Area C)	Hall capacity 120; two meeting rooms.
		Woodmancote New Village Hall (Area C)	Hall capacity 150; two meeting rooms.
	Bishop's Cleeve Community Building (Area C)	Hall capacity 105; three meeting rooms.	

<sup>7</sup> Source: <http://www.grcc.org.uk/village-hall-database/village-hall-database> (accessed April 2013); and Gloucester City Council Community Audit (Autumn 2012)

JCS Sub-area	Strategic allocations	Existing community centres	Description
		Gretton Village Hall (Area C)	Hall capacity 130; three meeting rooms.
		Apperley Village Hall (Area H)	Hall capacity 150; two meeting rooms.
		Winchcombe, Abbey Fields Community Centre (Area C)	Hall capacity 200; three meeting rooms.
		Southam Village Hall (Area C)	Hall capacity 65; two meeting rooms.
		New hall facility to be constructed within the Homelands development at Bishops Cleeve (s106 Planning Obligation requirement).	
Cheltenham – South West	Up Hatherley,	Nearest existing facility at the Reddings and District Community Association, North Road West, The Reddings, Cheltenham (CA4)	
	South Cheltenham (Leckhampton)	Nearest existing facilities at the Shurdington Social Centre and Century Halls; and Leckhampton Village Hall and Hillview Community Centre (details below)	Shurdington Social (Millenium) Centre provides a Shurdington Century Hall provides a 50ft x 30ft main hall, with seating for around 200 people.
	Cheltenham Urban Areas (CA1 & CA4)	Hesters Way Community Resource Centre, Cheltenham (CA1)	
		Uckington & Elmstone Hardwicke Village Hall (CA1)	Hall capacity 130; one meeting room.
		Hillview Community Centre, nr Caernarvon Rd, Cheltenham (CA4)	
		Leckhampton Village Hall (Area CA4)	Hall capacity of 130; two meeting rooms. A well maintained Grade 2 listed building which has recently undergone a refurbishment programme including re-roofing.
		Up Hatherley Village Hall (Area CA4)	Hall capacity 60; one meeting room. Medium sized hall in a quiet village - the hall has been completely redecorated both inside and out and the frontage has a new front wall, block paved courtyard, raised flower beds and external lighting (movement sensitive).
Tewkesbury sub-area D	Badgeworth Village Hall (Area D)	Hall capacity 60; one meeting room.	
Gloucester - North	North Churchdown & South Churchdown	Nearest existing facilities at Churchdown Community Association Centre and Longlevens Village Hall	Churchdown Community Association Centre capacity 400; three meeting rooms. Longlevens Village Hall capacity 100; two meeting rooms.

JCS Sub-area	Strategic allocations	Existing community centres	Description	
	Innsworth & Twigworth	Innsworth Community Hall	Hall capacity 110; three meeting rooms.	
	North Brockworth	Brockworth Community Centre	Hall capacity 92; three meeting rooms.	
	Gloucester Urban Areas (GW, GC and GNE)		Abbeydale Sports & Community Centre (Area GNE)	Hall capacity 120; four meeting rooms.
			Abbeydale Community Centre (GNE)	Main Hall Capacity 120; four further rooms.
			Hucclecote Community Centre (GNE)	Unknown
			Coney Hill Youth and Community Centre (GNE)	Unknown
			Coney Hill Neighbourhood Centre and Community College (GNE)	Unknown
			Longlevens Community Centre (GNE)	Unknown
			Elmscroft Community Centre (GNE)	Unknown
			Parry Hall Youth and Community Centre (GC)	Unknown
			Trust Centre (GC)	Unknown
			Friendship Café (GC)	Incorporates - youth centre, community centre, gym and city farm.
			Kingsholm & Wotton Community Centre/Spartans RFC (GW)	One large room suitable for meetings and two small rooms holding 8 people each.
	Tewkesbury sub-areas G and E		Chaceley Village Hall (Area G)	Hall capacity 45; one meeting room.
			Tirley Village Hall (Area G)	Hall capacity 100; one meeting room.
			Sandhurst Village Hall (Area G)	Hall capacity 64; one meeting room.
			Forthampton Village Hall (Area G)	Hall capacity 100; one meeting room.
			Norton Village Hall (Area G)	Hall capacity 150; two meeting rooms.
			Ashleworth Memorial Hall (Area G)	Hall capacity 150; one meeting room.



JCS Sub-area	Strategic allocations	Existing community centres	Description
		Minsterworth Village Hall (Area G)	Hall capacity 150; two meeting rooms.
		Maisemore Village Hall (Area G)	Hall capacity 200; three meeting rooms.
	Tewkesbury sub-area F	GL3 Community Hub (Area F)	Hall capacity 150; two meeting rooms. Large sports hall which can cater for around 150 people seated.
		Barnwood Reading Room (Area: F)	Hall capacity 50; one meeting room
		Hucclecote, Pineholt Village Hall (Area F)	Hall capacity 100; two meeting rooms.
		Longford Village Hall (Area F)	Hall capacity 150; one meeting room.
		Down Hatherley Village Hall (Area F)	Hall capacity 80; two meeting rooms.
Gloucester - South	Whaddon (none immediately close)	Nearest existing facility at Brookthorpe	Hall capacity 60; one meeting room.
	Gloucester Urban Areas (GSC & GSW)	Quedgeley Community Centre (GSW)	Hall one – 250 people, hall two – 150 people, committee room – 25 people, office – 15 people.
		Equals Youth Centre (GSW)	Unknown
		The Redwell Centre (GSC)	Offers: lounge, sports hall, full equipped kitchen, meeting room and arts room.
		St Hilda’s Hall (GSC)	Offers: large main hall, kitchen and toilets.
	Stroud District Council, GUF	Proposed Hunt’s Grove Community Centre	See project details below
Tewkesbury and Ashchurch	Ashchurch MOD	Nearest existing facilities at Ashchurch Village Hall, and the Rayshill and Northway Village Hall (formerly Alex Cunningham facilities) in Northway	Ashchurch Village Hall capacity 80; one meeting room
	Tewkesbury Urban Area (A)	Twyning, Ann Townend Hall (Area A)	Hall capacity 60; one meeting room.
		Twyning Village Hall (Area A)	Hall capacity 100; one meeting room.
		Tredington Village Hall (Area A)	Hall capacity 40; two meeting rooms.

JCS Sub-area	Strategic allocations	Existing community centres	Description
	Tewkesbury Rural Area (B)	Laverton Village Hall (Area B)	Hall capacity 70; one meeting room.
		Dumbleton Village Hall (Area B)	Hall capacity 150; two meeting rooms.
		Alderton Village Hall (Area B)	Hall capacity 160; three meeting rooms.
		Burland Parish Hall (Area B)	Hall capacity 60.
		Toddington Village Hall (Area B)	Hall capacity 160; two meeting rooms.
		Tewkesbury Wheatpieces Community Centre (Area B)	Hall capacity 160; three meeting rooms.
		Teddington Village Hall (Area B)	Hall capacity 50; one meeting room.

#### 4.1.2.4 Assessment of infrastructure needs and costs

In order to gauge the level of provision that would be appropriate to support growth in the JCS development scenarios, a preliminary high level assessment of need has been undertaken. This uses a neighbourhood accessibility standard provided in the publication ‘Shaping Neighbourhoods – A Guide for Health, Sustainability and Vitality’ (Spon 2003, Figure 4.9). Assumptions informing the standard are as follows:

- A community centre per 4,000 population, which equates to a community centre per 1,740 dwellings (based on an average household size of 2.3). Many settlements within the JCS area that do have a community centre may not have a current population of 4,000 and are nevertheless able to support community centres. This is of particular relevance for rural areas, but also wards in urban areas, and therefore the standard is intended as a guide only.
- The Village and Community Halls Design Guidance Note (Sport England, 2001) sets out a number of standard floor plans for different sizes of hall. A two hall design with a plan area of 645m<sup>2</sup> is considered a reasonable template as it would allow for a range of activities to be undertaken during higher demand periods at evenings and weekends.
- An estimated capital cost of £1,500/m<sup>2</sup> (rounded) is applied based on Building Cost Information Services (BCIS) Online information (Q2 2013, costs rebased for Gloucestershire location) and SPONS 2012 example community centre achieving BREEAM Very Good (cost rebased to 2013 and Gloucestershire location). This results in an estimated cost of £967,500 for the Sport England template community centre.

A high level assessment of community centre provision to support new development based on this standard is set out in the table below:

Table 13 - Assessment of need for Community Centres

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 – 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	26.92	£40,387	476	76.81	£115,210	207	33.39	£50,092	591	95.26	£142,895
	Urban area GNE	519	180	339	316	51.02	£76,523	912	147.09	£220,642	392	63.27	£94,912	1,131	182.44	£273,662
	Urban area GW	1,200	421	779	740	119.32	£178,980	2,109	340.10	£510,156	918	147.99	£221,988	2,616	421.83	£632,745
	Rural area E	355	161	194	283	45.63	£68,446	624	100.61	£150,921	351	56.60	£84,893	774	124.79	£187,187
	Rural area F	239	45	194	79	12.75	£19,131	420	67.74	£101,606	98	15.82	£23,728	521	84.01	£126,022
	Rural area G	236	45	191	79	12.75	£19,131	415	66.89	£100,331	98	15.82	£23,728	514	82.96	£124,440
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	63.77	£95,654	5,405	871.52	£1,307,274	491	79.09	£118,640	6,704	1,080.94	£1,621,409
	Strategic allocation - North Churchdown	845	150	695	264	42.51	£63,769	1,485	239.49	£359,235	327	52.73	£79,093	1,842	297.04	£445,558
	Strategic allocation - South Churchdown	639	150	489	264	42.51	£63,769	1,123	181.11	£271,658	327	52.73	£79,093	1,393	224.62	£336,937
	Strategic allocation - North Brockworth	1,548	225	1,323	395	63.77	£95,654	2,721	438.73	£658,101	491	79.09	£118,640	3,375	544.16	£816,241
<b>Sub-total</b>	<b>8,927</b>	<b>1,697</b>	<b>7,230</b>	<b>2,983</b>	<b>480.96</b>	<b>£721,445</b>	<b>15,690</b>	<b>2,530.09</b>	<b>£3,795,133</b>	<b>3,699</b>	<b>596.54</b>	<b>£894,807</b>	<b>19,461</b>	<b>3,138.06</b>	<b>£4,707,096</b>	
Gloucester South	Urban area GSC	911	65	846	114	18.42	£27,633	1,601	258.20	£387,293	142	22.85	£34,274	1,986	320.24	£480,359
	Urban area GSW	421	65	356	114	18.42	£27,633	740	119.32	£178,980	142	22.85	£34,274	918	147.99	£221,988
	<b>Sub-total</b>	<b>1,332</b>	<b>130</b>	<b>1,202</b>	<b>228</b>	<b>36.84</b>	<b>£55,267</b>	<b>2,341</b>	<b>377.52</b>	<b>£566,273</b>	<b>283</b>	<b>45.70</b>	<b>£68,547</b>	<b>2,904</b>	<b>468.23</b>	<b>£702,347</b>
Cheltenham South & West	Urban area CA1	514	111	403	195	31.46	£47,189	903	145.68	£218,517	242	39.02	£58,529	1,121	180.68	£271,026
	Urban area CA4	510	112	398	196	31.63	£47,440	896	144.43	£216,642	243	39.23	£58,840	1,111	179.13	£268,700
	Rural area D	237	46	191	81	13.04	£19,556	417	67.17	£100,756	100	16.17	£24,255	517	83.31	£124,967
	Strategic allocation - South Cheltenham	1,075	350	725	615	99.20	£148,795	1,889	304.68	£457,014	763	123.03	£184,551	2,344	377.89	£566,834
	Strategic allocation - Up Hatherley	795	-	795	-	-	£0	1,397	225.32	£337,978	-	-	£0	1,733	279.46	£419,194
	<b>Sub-total</b>	<b>3,131</b>	<b>619</b>	<b>2,512</b>	<b>1,087</b>	<b>175.32</b>	<b>£262,981</b>	<b>5,502</b>	<b>887.27</b>	<b>£1,330,907</b>	<b>1,349</b>	<b>217.45</b>	<b>£326,175</b>	<b>6,825</b>	<b>1,100.48</b>	<b>£1,650,721</b>
Cheltenham North	Urban area CA2	509	111	398	195	31.46	£47,189	895	144.26	£216,391	242	39.02	£58,529	1,110	178.93	£268,389

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 – 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost	Population	Demand (sqm)	Capital Cost
	Urban area CA3	514	111	403	195	31.46	£47,189	903	145.68	£218,517	242	39.02	£58,529	1,121	180.68	£271,026
	Urban area CA5	837	419	418	736	118.75	£178,129	1,471	237.22	£355,834	913	147.29	£220,933	1,825	294.23	£441,340
	Rural area C	237	46	191	81	13.04	£19,556	417	67.17	£100,756	100	16.17	£24,255	517	83.31	£124,967
	Rural area H	240	46	194	81	13.04	£19,556	422	68.02	£102,031	100	16.17	£24,255	523	84.37	£126,549
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	113.08	£169,627	8,488	1,368.63	£2,052,951	870	140.26	£210,388	10,527	1,697.51	£2,546,271
	<b>Sub-total</b>	<b>7,166</b>	<b>1,132</b>	<b>6,034</b>	<b>1,990</b>	<b>320.83</b>	<b>£481,247</b>	<b>12,595</b>	<b>2,030.99</b>	<b>£3,046,479</b>	<b>2,468</b>	<b>397.93</b>	<b>£596,889</b>	<b>15,622</b>	<b>2,519.03</b>	<b>£3,778,542</b>
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	23.81	£35,711	483	77.94	£116,911	183	29.53	£44,292	600	96.67	£145,004
	Rural area B	237	46	191	81	13.04	£19,556	417	67.17	£100,756	100	16.17	£24,255	517	83.31	£124,967
	Ashchurch MOD	2,125	-	2,125	-	-	£0	3,735	602.27	£903,401	-	-	£0	4,633	746.99	£1,120,486
	<b>Sub-total</b>	<b>2,637</b>	<b>130</b>	<b>2,507</b>	<b>228</b>	<b>36.84</b>	<b>£55,267</b>	<b>4,635</b>	<b>747.38</b>	<b>£1,121,067</b>	<b>283</b>	<b>45.70</b>	<b>£68,547</b>	<b>5,749</b>	<b>926.97</b>	<b>£1,390,457</b>
JCS total (excluding committed development)		23,193	3,708	19,485	6,517	1,050.80	£1,576,207	40,764	6,573.24	£9,859,859	-	-	-	-	-	-
Committed development		10,007			-	-	-	17,589	2,836.18	£4,254,273	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		<b>33,200</b>						<b>58,353</b>	<b>9,409.42</b>	<b>£14,114,132</b>						

**Note:** Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail).. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.

Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.

The assessment indicates that the provision of a single community centre, based on the Sport England template described (645m<sup>2</sup>), should be considered for those strategic allocations (or clusters of new developments) where around 1,700 or more dwellings is proposed. This is not to suggest, however, that a single size of community centre should apply in all cases, or that smaller developments would not generate demand for community facilities (the demand is therefore expressed in sqm in the table above). It is important to note that the need for and size of a community centre in relation to new development should be considered in light of the capacity, accessibility and quality of existing and forthcoming provision in the area. This applies to strategic developments, as well as new development within existing urban areas and rural communities.

Taking a pragmatic view, financing the modernisation and maintenance of existing community centres is a challenge for the third sector organisations that manage these facilities in many cases. The JCS authorities seek to provide support, including funding where possible, to these organisations. For this reason, and depending on the scale and location of new development, in some cases finance may be directed towards supporting and enhancing existing facilities through maintenance, refurbishment and revenue payments, rather than provision of new halls.

#### 4.1.2.5 Planned infrastructure projects

Current projects identified through the review work are listed below.

- **Bishop's Cleeve, Homelands new community facility** – the s106 Planning Obligation for the Homelands development provides for the provision of a new community hall.
- **Cheltenham – North, East & Central, Cheltenham Town Hall Feasibility Study** – A Town Hall feasibility study is currently underway and is scheduled to report back to Cheltenham BC Cabinet during the autumn 2014.
- **Gloucester – South, Quedgeley Parish Council** have produced a neighbourhood plan which aims to further the provision of free community facilities. This includes construction of a Community Centre for QPC on the land reserved for such purposes at Kingsway centre, as required by the planning permission approval. The plan aims to secure provision within 12 months.
- **Gloucester – South, Hunt's Grove Community Centre** - Committed development at Hunt's Grove provides for a community centre comprising a main hall, children's room, craft room, meeting room/parish office, informal seating area/display space, meeting room, office and café/kitchen.
- **Tewkesbury & Aschurch, Wormington Village Hall Project** - Tewkesbury Borough Council has awarded a grant of £57,700 to Wormington Village Society's village hall project. The construction of a new sustainable village hall is likely to cost in the region of £230,000. Construction was due to start autumn 2013<sup>8</sup>.

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<sup>8</sup> Source: <http://tewkesbury.gov.uk/index.aspx?articleid=2437>

### 4.1.2.6 Funding Sources

In order to maintain and improve community centres, communities often rely on funding from local and national charitable trusts, the Lottery and local fundraising efforts, as well as use of the parish precept in some cases.

The JCS authorities will continue to work with partner organisations to identify sources of funding to maintain, enhance and where required, provide new community facilities to support development. Funding sources could include developer contributions through S106/CIL, subject to the prioritisation of planning obligations/CIL infrastructure schedules.

### 4.1.3 Youth Support Services

#### 4.1.3.1 Responsibility for delivery

Youth Support Teams in Gloucestershire provide a range of services targeted at vulnerable young people aged 11 – 19 (up to 25 for young people with special needs). Gloucestershire County Council is the commissioning authority for Youth Support Services and has a statutory responsibility to provide support for young people at risk. The Youth Support Team commissions the following services:

- Youth Offending Service
- Looked After Children
- Care Leaver's Support Services (for those aged 16+)
- Early Intervention and Prevention Service for 11-19 year olds
- Support for young people with learning disabilities and/or disabilities
- Positive activities for young people with disabilities
- Support with housing and homelessness
- Help and support to tackle substance misuse problems and other health issues
- Support into education, training and employment
- Support for teenage parents

Youth support area teams for the JCS area are as follows:

- Cheltenham – There are two youth support teams in Cheltenham, based at Grosvenor Hall, Grosvenor Street (sub-area CA5) and Whaddon Youth Support Centre, Dart Road (sub-area CA2).
- Gloucester - There are two youth support teams in Gloucester, based at the Gloucester Youth Support Centre, Westgate Street (sub-area GW) and the Vibe Youth Support Centre, Druid's Lane, Stanway Road (sub-area GC).
- Tewkesbury – The Tewkesbury Youth Support team are based on Link Road, Tewkesbury.

Community development functions, providing support to new communities as they become established within new developments, are provided by the Borough and City Councils. Parish and town councils, as well as some community groups, contribute towards the employment of youth workers (finance permitting).

#### 4.1.3.2 Assessment of infrastructure needs and costs

During consultation with Gloucestershire Youth Support Services three main measures relating to new development were identified.

Firstly, population growth and new residential development results in increased demand for Youth Support Services for vulnerable young people, with the result that it is necessary to increase the capacity of the single Youth Support Centre in each District. Gloucestershire County Council have calculated that the cost of providing services amounts to £21,000/annum per 1,000 dwellings, with the expectation that costs relating to new development would apply for an 8 year period from construction with. Assuming support services for the 8 year period, a total cost of £168,000 per 1,000 dwellings would therefore apply.

A preliminary assessment of need for Youth Support Services based on this standard is provided in the table below. It should be noted that, as the benchmark standard is based on the number of dwellings, rather than population, only Scenario 2 as set out at section 3.3 is applied in this instance.



Table 14 - Assessment of need for Youth Support Services

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)		
					Population	Service cost/annum	Service cost for 5 years	Population	Service cost/annum	Service cost for 8 years
Gloucester North	Urban area GC	271	95	176	207	£5,691	£28,455	N/A	£5,691	£45,528
	Urban area GNE	519	180	339	392	£10,899	£54,495	N/A	£10,899	£87,192
	Urban area GW	1,200	421	779	918	£25,200	£126,000	N/A	£25,200	£201,600
	Rural area E	355	161	194	351	£7,455	£37,275	N/A	£7,455	£59,640
	Rural area F	239	45	194	98	£5,019	£25,095	N/A	£5,019	£40,152
	Rural area G	236	45	191	98	£4,956	£24,780	N/A	£4,956	£39,648
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	491	£64,575	£322,875	N/A	£64,575	£516,600
	Strategic allocation - North Churchdown	845	150	695	327	£17,745	£88,725	N/A	£17,745	£141,960
	Strategic allocation - South Churchdown	639	150	489	327	£13,419	£67,095	N/A	£13,419	£107,352
	Strategic allocation - North Brockworth	1,548	225	1,323	491	£32,508	£162,540	N/A	£32,508	£260,064
Sub-total	8,927	1,697	7,230	3,699	£187,467	£937,335	N/A	£187,467	£1,499,736	
Gloucester South	Urban area GSC	911	65	846	142	£19,131	£95,655	N/A	£19,131	£153,048
	Urban area GSW	421	65	356	142	£8,841	£44,205	N/A	£8,841	£70,728
	Sub-total	1,332	130	1,202	283	£27,972	£139,860	N/A	£27,972	£223,776
Cheltenham South & West	Urban area CA1	514	111	403	242	£10,794	£53,970	N/A	£10,794	£86,352
	Urban area CA4	510	112	398	243	£10,701	£53,507	N/A	£10,701	£85,611
	Rural area D	237	46	191	100	£4,977	£24,885	N/A	£4,977	£39,816

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)		
					Population	Service cost/annum	Service cost for 5 years	Population	Service cost/annum	Service cost for 8 years
	Strategic allocation - South Cheltenham	1,075	350	725	763	£22,575	£112,875	N/A	£22,575	£180,600
	Strategic allocation - Up Hatherley	795	-	795	-	£16,695	£83,475	N/A	£16,695	£133,560
	Sub-total	3,131	619	2,512	1,349	£65,742	£328,712	N/A	£65,742	£525,939
Cheltenham North	Urban area CA2	509	111	398	242	£10,689	£53,445	N/A	£10,689	£85,512
	Urban area CA3	514	111	403	242	£10,794	£53,970	N/A	£10,794	£86,352
	Urban area CA5	837	419	418	913	£17,577	£87,885	N/A	£17,577	£140,616
	Rural area C	237	46	191	100	£4,977	£24,885	N/A	£4,977	£39,816
	Rural area H	240	46	194	100	£5,040	£25,200	N/A	£5,040	£40,320
	Strategic allocation - North West Cheltenham	4,829	399	4,430	870	£101,409	£507,045	N/A	£101,409	£811,272
	Sub-total	7,166	1,132	6,034	2,468	£150,486	£752,430	N/A	£150,486	£1,203,888
Tewkesbury & Ashchurch	Rural area A	275	84	191	183	£5,775	£28,875	N/A	£5,775	£46,200
	Rural area B	237	46	191	100	£4,977	£24,885	N/A	£4,977	£39,816
	Ashchurch MOD	2,125	-	2,125	-	£44,625	£223,125	N/A	£44,625	£357,000
	Sub-total	2,637	130	2,507	283	£55,377	£276,885	N/A	£55,377	£443,016
JCS total (excluding committed development)		23,193	3,708	19,485	-	£487,044	£2,435,222	-	£487,044	£3,896,355
Committed development		10,007			-	£210,147	£1,050,735	-	£210,147	£1,681,176
Total Draft JCS New Housing		33,200			-	£697,191	£3,485,957	-	£697,191	£5,577,531

A second aspect of Youth Support Services where new development is of importance relates to the opportunity to provide training, apprenticeships and employment during the construction of new schemes. The recession following the global credit crunch of 2008 has resulted in a bulge in youth unemployment in Gloucestershire. 30% of Job Seekers Allowance claimants across the County are aged under 25 years and 32% of these remain unemployed for 6+ months.<sup>9</sup> Local planning authorities are therefore urged to consider the agreement and implementation of Employment and Skills Charters working with developers, to help facilitate the creation of employment opportunities within the construction sector.

The third recommended measure is to ensure that facilities for young people within major new developments are brought forward early in the phasing schedule (by way of appropriate planning conditions) and that a Community Development Officer is appointed to help establish pioneer community activities and services.

The Kingsway development in Gloucester has been identified as an example of where the absence of community infrastructure during the early years of occupation of the estate was a contributing factor to escalating anti-social behaviour, particularly amongst young people. A youth worker is now to be appointed to assist in tackling issues and improve the availability of facilities for young people.

For those developments that are considered to be of a scale that would warrant the appointment of a community development / youth worker officer (the majority of the potential strategic allocations for development), a basic annual cost allowance of £30,000 - £35,000 is recommended by Gloucestershire County Council.

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<sup>9</sup> *'Grow Gloucestershire: A youth employment and skills strategy for Gloucestershire'*  
(Gloucestershire County Council Youth Economic Stimulus Project, July 2012)

## 4.2 Education

Education forecasts for the purpose of this IDP have been supplied by Gloucester County Council and are summarised below.

### 4.2.1 Early Year's education and childcare

#### Overview

*The Childcare Act 2006 requires Local Authorities to provide universal childcare provision for 3 to 4 year olds to ensure that there is sufficient good quality childcare available for parents who want to work, train for work, or who are already in work. The Government is also committed to introducing a new targeted entitlement for 2 year olds to access free early education. This will be introduced in two phases, with free early education for 20% of the least advantaged two-year-olds from September 2013, with the number of places increasing to provide for 40% of the least advantaged children from September 2014. Ensuring there is sufficient capacity within the network of Children's Centres, nurseries, pre-school playgroups and child-minders will therefore be of great importance.*

*A detailed assessment of the need for additional Early Year's places will rely on the provision of updated baseline information, as well as more detailed information on planned housing mix and type (dwellings size and tenure) for each development. Therefore, at this stage, a preliminary high level assessment of need has been undertaken by Gloucestershire County Council. This suggests that planned development would result in the need for around 1039 Early Year's places provided at a capital cost of around £12.2m (Draft JCS levels of development).*

#### Responsibilities for Delivery

Early Years education is currently defined as full-time or part-time education from the start of the term following the child's 3rd birthday and up to compulsory school age, although coverage is broadening in certain circumstances to include two year olds. Early Years education places are provided through partnership working between the responsible Local Authority (LA) and providers in the maintained, private, voluntary and independent sectors. Gloucestershire County Council's Children's Centres operate some local services through on-site pre-school nurseries to contribute towards local childcare provision, although childcare provision across the county is predominantly delivered through day nurseries and pre-school playgroups that offer full and sessional day care. Other local options include child-minders, nursery classes within independent schools and privately operated nursery schools.

The Childcare Act 2006 requires LAs to provide universal childcare provision for 3 to 4 year olds to ensure that there is sufficient good quality childcare available for parents who want to work, train for work, or who are already in work. The Government is also committed to introducing a new targeted entitlement for 2 year olds to access free early years education. This is part of the Government's Fairness Premium, to drive up social mobility and improve life chances.

Department for Education *Statutory Guidance for Local Authorities on the Delivery of Free Early Education for Three and Four Year Olds and Securing Sufficient Childcare* (September 2012) summarises the responsibilities of English LAs under the 2006 Act:

- **2 year old entitlement** – the free entitlement to early education was initially extended to some 2 year olds through a national pilot. Gloucestershire has been part of the pilot since 2007, delivering the free entitlement to the most vulnerable and disadvantaged 2 year olds. The Government now plans that the new entitlement for 2 year olds will be implemented across the country in two phases. In September 2013 (phase one), around 130,000 (20%) of 2 year olds in England will be able to access free early education places. From 2014 (phase 2), the entitlement will be extended to around 260,000 (40%) of two year olds.
- **3 and 4 year olds entitlement** – Regardless of their parents’ ability to pay, all eligible children are able to take up high quality early education. LA’s are required by legislation to make available sufficient free early education places offering 570 hours a year over no fewer than 38 weeks of the year for every eligible child (the equivalent for 15 hours/week for 38 weeks a year).
- **Childcare for older children** – In addition, LAs are required by legislation to secure sufficient childcare, as far as reasonably practicable, for working parents (or parents studying or training for employment), for children aged 0-14 (or up to 18 for disabled children).

### **Infrastructure related sector specific plans and strategies**

***The Childcare Sufficiency Assessment (April 2011)*** - The Childcare Act 2006 formalises the process of gathering information on the planning and development of childcare, and requires LAs to undertake a thorough ‘sufficiency assessment’ every three years, and to update this information regularly in the interim periods. The latest *Childcare Sufficiency Assessment* was prepared by Gloucestershire County Council (CC) Childcare Team and published in April 2011. The assessment sets out details of the level of provision at that time within the County for Early Years provision and, more specifically, details of the supply and demand of facilities.

### ***The Gloucestershire Strategic Infrastructure Delivery Plan (October 2010)***

The Gloucestershire Strategic Infrastructure Delivery Plan (SIDP) provided an initial assessment of Early Years education needs linked to future growth in the County up to 2026, as determined during 2009 and 2010. The section on Social and Community Infrastructure applied locally derived standards for the number of early year’s education places anticipated to be generated through new development.

## **Infrastructure baseline**

The following information is taken from the Gloucestershire County Council website which maintains a regularly updated directory of childcare centres within the County. For the JCS area the directory identifies a total of 21 Children’s Centres, which vary between large centres offering a wide range of services throughout the week, mostly in more deprived areas and smaller ‘bases’ that offer occasional activities and staff outreach. Children’s Centres form part of the local

provision package and sit alongside day nurseries, pre-school playgroups, childminders, and nursery classes provided within independent schools and privately operated nursery schools.

Of the 21 Children’s Centres in the JCS area, seven are located in Cheltenham, nine in Gloucester and five in Tewkesbury. The table below sets out the Children’s Centres located in the various sub-areas of the JCS area. The establishments shaded in grey, were considered to have significant problems at the point of survey, particularly in terms of an imbalance between the local population, the availability of places for sufficient early years’ provision and its affordability.

Table 15 – Children’s Centres within sub-areas

JCS Sub-Area	Strategic allocations and Sub-areas	Local Children’s Centres reach and cluster areas	Gap analysis – based on 2011 Childcare Sufficient Assessment <sup>10</sup>
Cheltenham - North, East and Central	North West Cheltenham Areas: C, H, CA2, CA3, CA5	Charlton Kings Children's Centre	Match of supply and demand.
		Gardners Lane Children's Centre	Further assessment required for population. Some gaps identified for need.
		Leckhampton Children's Centre	Further assessment required for population.
		Oakwood Children's Centre	Further assessment needed for population. Gaps identified for need.
Cheltenham - South and West	South Cheltenham (Leckhampton) and Up Hatherley Areas D, CA1 and CA4	Hesters Way Children's Centre	Significant gaps identified for places and population.
		Rowanfield Children's Centre	Some gaps exist for places and affordability.
		Up Hatherley Library Children's Centre	-
Gloucester - North	Innsworth & Twigworth, North Churchdown, South Churchdown and North Brockworth Areas: E, F, G, GW, GC and GNE	Bartongate Children's Centre	Significant problems with affordability and need. Also some gaps regarding available places and population.
		Finlay and Tredworth Children's Centre	Significant gaps between places and need. Less significant issues with affordability.
		Kaleidoscope Children's Centres	Further assessment needed for affordability and particularly need.

<sup>10</sup>Section 8 of the Childcare Sufficiency Assessment identifies those areas where demand is high and gaps have been identified in current provision. The Childcare Sufficiency Assessment utilises two gradings of issues that need to be addressed.

JCS Sub-Area	Strategic allocations and Sub-areas	Local Children's Centres reach and cluster areas	Gap analysis – based on 2011 Childcare Sufficient Assessment <sup>10</sup>
		The Lighthouse Children's Centre	Some gaps identified with population, places and affordability. Particular problems with need.
		The Compass Children's Centre The Link Children's Centre (Formerly Robinswood)	Further assessment needed of population. Slight gaps identified for places, affordability and need.
Gloucester - South	Areas: GSC and GSW	The Beacon Children's Centre	-
		Quedgeley Library Children's Centre	Some gaps identified for need and available places. Further assessment required of population.
		The Oaks Children's Centre	Gaps identified with places and affordability.
Tewkesbury and Ashchurch	Ashchurch MOD Areas: A and B	Bishops Cleeve Library Children's Centre	Attention needed to address gap in demand.
		Brockworth Children's Centre	Demand is high, issues with provision and affordability need addressing.
		Jigsaw Children's Centre (Dual Site)	Gaps identified with need.
		Winchcombe Library Children's Centre	Gaps identified relating to places, affordability and need.
		Noah's Ark & Northway/Ashchurch Children's Centres	Gap identified between population and places available.

## Assessment of infrastructure needs and costs

A detailed local assessment of the need for early years places to accommodate growth will require an up to date data review of capacities and any anticipated future changes in provision. Equally important will be the provision of information on the proposed housing mix and type including aspirations on tenure, likely to be supported through the JCS area.

Nevertheless, in order to inform the emerging Core Strategy a high level indicative assessment of theoretical demand has been completed. This represents a formulaic 'demand' analysis that provides an indicative review of required education 'places' associated with the delivery of new housing units across the

three JCS authorities. It does not factor in any surplus provision that may exist in a locality that is earmarked to accommodate new housing at a given time.

The analysis applies different formulae to a theoretical breakdown of housing units by housing type extrapolated from the Gloucestershire SHMA Updated (March 2014) and an indicative capital cost of £11,682 per generated place. This is the figure calculated by Gloucestershire County Council for the purposes of S.106 assessment as of April 2014;

- Applying a ratio of 7.467 (housing) and 1.994 (flats or apartments) places per 100 dwellings, GCC estimate a demand for 1039 new early years places over the plan period at an estimated capital cost of £12.2m.

It is important to note that this indicative assessment has included all potential dwellings in its calculations and has excluded the application of qualifying homes. Any further assessment of need will need to consider the impact of the proposed housing mix and type (i.e. size and tenure) at each location in order to ensure that only homes that qualify for demand calculation are considered.

Capital costs applied are to assist in high-level indicative whole-plan infrastructure delivery assessment work and may not accurately reflect the actual capital cost of associated with providing the 'right' infrastructure solution in a given locality.

The Gloucestershire standard is well established and has been successfully used in local planning for a number of years, including for the consideration of development proposals. It is based upon statistical research into estimating future theoretical demand, which was carried out by Gloucestershire County Council's Chief Executive's Support Unit (CESU) and Business Services (Property) Directorate<sup>11</sup>. In line with good practice, the County Council are reviewing the standard.

The following table sets out the results of the indicative assessment of demand from growth for Early Year's provision across the JCS area. Theoretical demand results have been broken down by strategic allocations and non-strategic growth areas. The estimated capital cost associated with this remains at a JCS level at this stage. The assessment has not undergone further analysis to establish a potential need, which would need to factor in the potential impact of utilising any existing or emerging surplus provision over the plan period. As the Core Strategy develops a more detailed and localised analysis will be needed.

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<sup>11</sup> *Child Population of New Developments in Gloucestershire: An investigation into the Numbers of Children Likely to be Resident on New Housing Developments in Gloucestershire* - Gloucestershire County Council (GCC): Chief Executive's Support Unit (CESU) (June 2007)



Table 16 – Indicative Assessment of theoretical demand for Early Year’s / Care places

<b>State-Funded Early Years Education (for anticipated qualifying 2, 3 and 4 yr olds) Infrastructure:</b>		<b>Indicative Modelled Capital Cost (Based on 2014 figures)</b>	<b>1st Five Years</b>	<b>Indicative Modelled Capital Cost (Based on 2014 figures) - 1st Five Years</b>	<b>Remaining Years</b>
<b>Total theoretical 'demand' generated:</b>		<i>Rounded to the nearest £0.1m</i>	<b>2014/15-2018/19</b>	<i>Rounded to the nearest £0.1m</i>	<b>2019/20 - 2030/31</b>
<b>JCS Strategic Allocations</b>					
North West Cheltenham	287	£3,400,000	42	£500,000	245
South Cheltenham	18	£200,000	6	£100,000	12
Brockworth	86	£1,000,000	13	£200,000	73
Innsworth & Twigworth	72	£800,000	22	£300,000	50
North Churchdown	31	£400,000	14	£200,000	17
South Churchdown	50	£600,000	14	£200,000	36
MOD Ashchurch	123	£1,400,000	1	£0	122
<b>Non-strategic Growth - Cheltenham District Area</b>					
	127	£1,500,000	31	£400,000	96
<b>Non-strategic Growth - Gloucester District Area</b>					
	195	£2,300,000	88	£1,000,000	107
<b>Non-strategic Growth - Tewkesbury District Area</b>					
	50	£600,000	18	£200,000	32
<b>Infrastructure JCS-wide Totals: -</b>		<b>1039</b>	<b>£12,200,000</b>	<b>£3,100,000</b>	

**CAVEATS -**

The data provided represents a formulaic 'demand' analysis that provides an indicative review of required education 'places' associated with the delivery of new housing units across the three JCS authorities. It does not factor in any surplus provision that may existing in a locality that is earmarked to accommodate new housing at a given time;  
 The different formulae used apply theoretical prevalence ratios of education places generated for different housing types in the recent past.  
 The analysis applies different formulae to a theoretical breakdown of housing units by housing type extrapolated from the Gloucestershire SHMA Updated (March 2014);  
 The delivery of new housing is based on the JCS Trajectory work to support the Pre-Submission Version JCS document and was provided to Gloucestershire County Council - May 2014;  
 The indicative capital costs equate to £11,682 per generated place. This is figure calculated by Gloucestershire County Council for the purposes of S.106 assessment and are correct as of April 2014;  
 Capital costs applied are to assist in high-level indicative whole-plan infrastructure delivery assessment work and may not accurately reflect the actual capital cost of associated with providing the 'right' infrastructure solution in a given locality.

The County Council have advised that facilities for early years childcare should ideally have a local focus so as to ensure that users – young children, parents and employees, can achieve reasonable and flexible access without the need to heavily rely upon motorised travel. Evidence to support local transport planning work – namely the Gloucestershire Manual for Streets, indicates that early year’s infrastructure should occur within ‘walkable neighbourhoods’. This would mean facilitating sufficient local choice within 10 minutes or 800 metres safe walking distance of residential areas. In addition, consideration should also be given to the emerging trend of working parents, whereby facilities close to places of work are utilised rather than those close to home. As a consequence any future assessment of need, that seeks to incorporate existing and emerging surplus’ in provision should seek to try and factor in these circumstances.

## Current projects

In terms of infrastructure projects, the County Council are currently undertaking a major commissioning exercise for the running of all of its 39 Children’s Centres for a period of up to 7 years. Newly commissioned services were due to be agreed by mid-2013 and further consultation should be undertaken with the County in relation to this exercise and its outcomes.

## Funding

**Early Years Single Funding Formula** - Funding is channelled through Gloucestershire CC via the Early Years Single Funding Formula (EYSFF) to a mix of local authority, private, voluntary, independent nurseries and accredited childminders.

The aim of the EYSFF introduced by the Government is to distribute funding based on common principles. In Gloucestershire the EYSFF was introduced in 2010 and is based on participation of children, so only funds occupied places. The formula consists of a base (hourly) rate plus an annual supplement for deprivation (statutory requirement). The introduction of the EYSFF decreased the base rate, but introduced an annual supplement for deprivation. In April 2010 when the EYSFF was introduced, the hourly base rate was £3.22. This rate increased to £3.25 in April 2011.

## 4.2.2 Primary & Secondary School Education

### Overview

*The education system is currently in a period of transition as management and funding arrangements are changed to reflect the coalition Government’s objectives. The Government wants to provide schools with greater management and budgetary freedoms, with the result that many schools, particularly secondary schools at this time, are converting to Academy status. Local Authorities will retain a strategic coordinating role to ensure that all children have a school place and will continue to allocate funding for state schools until such time as they convert to Academies.*

*Planning for future school capacity is complicated by the desire to enable parent/student choice and changes to the popularity of different schools. This means that pupils may not attend the closest school to new development and the County Council therefore uses School Planning Areas to gauge changes in capacity requirements across a wider area.*

*At this stage of the infrastructure planning process, preliminary high level assessments of need have been undertaken by GCC which results in a projected demand for 3,680 primary school places across the JCS area at a capital cost of around £43m; and 2,008 secondary school places at a cost of around £31.3m.*

## Responsibilities for delivery

Published by the Department of Education in November 2010, The Importance of Teaching White Paper sets out the Government's intended direction of travel for the schools system and funding. A principal objective of the Government is to increase the autonomy of schools and reduce bureaucratic constraints at the national and local levels. Based on a review of international experience and the high performance of Academies and City Technology Colleges (CTCs) in the UK, the Government wants to provide schools with greater management and budgetary freedoms, while Local Authorities (LAs) will retain a strategic coordinating role.

In summary, the White Paper states that the Government will:

- Restore all original freedoms to Academies, while ensuring there is a level playing field on admissions (particularly in relation to Special Educational Needs).
- Dramatically extend the Academies programme, opening it to all schools.
- Ensure lowest performing schools are considered for conversion to Academies to effect educational transformation.
- Ensure there is support for schools to collaborate through Academy chains and multi-school trusts and federations.
- Support teachers and parents to set up new Free Schools to meet parental demand, especially in areas of deprivation.
- With respect to the on-going role of LAs, the White Paper proposes to give LAs a strong strategic role as champions for parents, families and vulnerable pupils. They should promote educational excellence by:
  - ensuring a good supply of strong schools and high quality school places;
  - co-ordinating fair admissions to schools for every child;
  - retain responsibility for school transport arrangements which promote fair access;
  - support vulnerable pupils, including Looked After Children, those with Special Educational Needs and those outside mainstream education;
  - support maintained schools performing below the floor standards to improve quickly or convert to Academy status with a strong sponsor;
  - use their democratic mandate to stand up for the interests of parents and children; and
  - develop their own school improvement strategies.

Importantly, while the majority of schools are LA maintained, funding will continue to pass to them through the LA, which is Gloucestershire County Council for the JCS area. As more schools become Academies, funding will be provided directly by the Government to improve funding consistency nationwide.

Local authorities will, over time, play a role in commissioning new provision and overseeing the transition of failing schools to new management.

In practical terms, where there is a need for a new school, the Government advises that the first choice will be a new Academy or Free School. Where a local authority is unable to identify a suitable sponsor to open a new school, it will be able to contact the Secretary of State, so that they can work together to find a sponsor.

### **Infrastructure related sector specific plans and strategies**

The Gloucestershire Strategic Infrastructure Delivery Plan (April 2011) - The Gloucestershire Strategic Infrastructure Delivery Plan (SIDP) provided an initial assessment of primary and secondary education needs in the County up to 2026, as determined during 2009 and 2010. The section on Social and Community Infrastructure presented locally applied standards for the anticipated number of education places that would be generated through new development, for primary and secondary education (up to age 16 years).

### **Infrastructure baseline – Primary Schools**

The local authorities of the JCS accommodate just over 100 state-funded primary schools that provide education for child aged between 4 and 11yrs old. There are also a small number of state-funded primary schools that lie within neighbouring districts, but are close to the district administrative boundary and therefore have the potential to attract resident pupils from the JCS area. The majority of primary-level schools for JCS provide education of the full 6-year primary period. However, there are some infant and junior only schools that cater for pupil aged 4 – 7 yrs and 7 – 11 yrs.

State-funded primary schools in Gloucestershire are organised into local school planning areas. These represent collections of schools that have a broad physio-geographic relationship by virtue of the established local trends of serving similar local neighbourhoods. Local school planning areas have been used to assist in assessment of local capacities for forecasting revenue and capital funding requirements from national government.

As of 2012, the majority of primary schools covering the JCS area reported to have little or no space to accommodate additional child spaces. There were also a small number of schools, which operated above their indicative capacity.

In addition, due to the existence of several committed development sites, there are at least three new primary schools likely to come on stream in the next few years. The additional provision generated by these new schools is planned to be taken up by the newly located residents occupying the new developments. The introduction of these new schools is unlikely to result in a general uplift in primary school place provision related to the JCS area.

## Infrastructure baseline – secondary schools

There are just over 20 state-funded secondary schools located within the JCS area. These schools substantially cater for local communities that fall within the three local authorities, although they may accommodate some children and young people from surrounding districts. This is as a consequence of parental choice – favouring a school located within the JCS area, the relative proximity to an alternative secondary school(s) located outside of the JCS area and as a result of achieving eligibility and then seeking access to selective education, which forms part of the localised provision within Gloucester City and Cheltenham Borough. A total of five schools operate a selection policy (i.e. grammar school) based upon ability determined via exam at year 6 (11yrs). There are also children and young people that reside within the JCS area, whom choose to commute to schools within surrounding districts.

State-funded Secondary schools in Gloucestershire are organised into local school planning areas under similar circumstances to Gloucestershire's primary schools. However, there are fewer local planning areas than for primary schools to reflect their more 'strategic', than local reach.

The JCS area is also home to a small number of independent schools that operate outside of the state system. These establishments cater for children and young people throughout all education phases - primary, secondary and post-16 education.

## Assessment of infrastructure needs and costs

Providing a meaningful assessment of need for new school places requires careful consideration. It is not a simple exercise of identifying unmet need by deducting the anticipated number of new pupils generated by new development from the current unused number of places available in the closest state-funded local school. A number of other factors need to be taken into account such as facilitating parental choice, which is a supported aspiration of the LA, and acknowledging emerging trends in the popularity of schools and subsequent ability of individual establishments to manage such changes over time. Furthermore, in parts of the JCS area certain accessibility challenges exist between residential areas and the location of local schools, which may make simple radial proximity assessments to determine potential school catchments unrealistic. Detailed site-by-site accessibility assessments will therefore need to be considered when seeking to establish more specific growth-related infrastructure needs.

The theoretical assessment of demand is based upon locally derived Gloucestershire CC Standards for primary and secondary education and locally derived estimated costs:

- 27.76 (housing) and 2.75 (flats and apartments) primary school places per 100 dwellings and a capital cost per place of £11,682 leads to a demand for 3,680 places at an estimated cost of £43m.
- 13.87 (housing) and 0.276 (flats and apartments) secondary school places per 100 dwellings and a capital cost of £15,101 per generated place leads to a demand for 1,752 secondary (11-16) and 256 sixth-form places at an estimated cost of £31.3m.

These calculations are shown in Tables 17 and 18.

Table 17 - Assessment of theoretical demand for Primary Education places.

State-Funded Primary Education Infrastructure:		Indicative Modelled Capital Cost (Based on 2014 figures)	1st Five Years	Indicative Modelled Capital Cost (Based on 2014 figures) - 1st Five Years	Remaining Years
JCS Strategic Allocations	Total theoretical 'demand' generated:	<i>Rounded to the nearest £0.1m</i>	2014/15-2018/19	<i>Rounded to the nearest £0.1m</i>	2019/20 - 2030/31
North West Cheltenham	1007	£11,800,000	147	£1,700,000	860
South Cheltenham	237	£2,800,000	74	£900,000	163
Brockworth	298	£3,500,000	45	£500,000	253
Innsworth & Twigworth	248	£2,900,000	74	£900,000	174
North Churchdown	106	£1,200,000	50	£600,000	56
South Churchdown	172	£2,000,000	50	£600,000	122
MOD Ashchurch	428	£5,000,000	5	£100,000	423
<b>Non-strategic Growth - Cheltenham District Area</b>	447	£5,200,000	108	£1,300,000	339
<b>Non-strategic Growth - Gloucester District Area</b>	563	£6,600,000	299	£3,500,000	264
<b>Non-strategic Growth - Tewkesbury District Area</b>	174	£2,000,000	63	£700,000	111
<b>Infrastructure JCS-wide Totals: -</b>	<b>3680</b>	<b>£43,000,000</b>		<b>£10,800,000</b>	
<p><b>CAVEATS -</b>                      The data provided represents a formulaic 'demand' analysis that provides an indicative review of required education 'places' associated with the delivery of new housing units across the three JCS authorities. It does not factor in any surplus provision that may existing in a locality that is earmarked to accommodate new housing at a given time;                      The different formulae used apply theoretical prevalence ratios of education places generated for different housing types in the recent past.                      The analysis applies different formulae to a theoretical breakdown of housing units by housing type extrapolated from the Gloucestershire SHMA Updated (March 2014);                      The delivery of new housing is based on the JCS Trajectory work to support the Pre-Submission Version JCS document and was provided to Gloucestershire County Council - May 2014;                      The indicative capital costs equate to £11,682 per generated place. This is figure calculated by Gloucestershire County Council for the purposes of S.106 assessment and are correct as of April 2014;                      Capital costs applied are to assist in high-level indicative whole-plan infrastructure delivery assessment work and may not accurately reflect the actual capital cost of associated with providing the 'right' infrastructure solution in a given locality.</p>					

### ***Spatial Principles for Future Infrastructure Provision***

Provision for primary schools will need to be locally focussed to ensure that its key users – children, parents and employees, can achieve reasonable accessible choice to education without the need to heavily rely upon motorised travel. Evidence to support local transport planning work – namely the Gloucestershire Manual for Streets, indicates that primary school infrastructure should ideally be considered as part of a ‘walkable neighbourhoods’. This would mean facilitating sufficient local choice within 10 minutes or 800 metres safe walking distance of residential areas.

In terms of the requirement for new standalone facilities, it would not be unreasonable to expect development of 800 + dwellings to generate specific localised demand for a new primary school. However, for reasons of asset efficiency and economies of scale it would be preferred if new standalone provision was designed to accommodate up to 2-form entry / 420 places or with the potential to expand to this size and scale of provision with the least amount of disruption and cost.

Table 18 - Assessment of theoretical demand for Secondary Education places.

State-Funded Secondary Education (including Sixth-Form provision) Infrastructure:			Indicative Modelled Capital Cost (Based on 2014 figures)		1st Five Years	Indicative Modelled Capital Cost (Based on 2014 figures) - 1st Five Years (HIGH)	Remaining Years
JCS Strategic Allocations	Total theoretical 'demand' generated:		High' Indicative Cost	Low' Indicative Cost	2014/15-2018/19 Secondary 11-16 + Sixth-Form	Rounded to the nearest £0.1m	2019/20 - 2030/31 Secondary 11-16 + Sixth-Form
	Secondary 11-16	Sixth-Form	Rounded to the nearest £0.1m	Rounded to the nearest £0.1m			
North West Cheltenham	489	69	£8,700,000	£7,400,000	82	£1,200,000	476
South Cheltenham	115	16	£2,100,000	£1,700,000	41	£600,000	90
Brockworth	144	20	£2,600,000	£2,200,000	25	£400,000	139
Innsworth & Twigworth	120	17	£2,100,000	£1,800,000	41	£600,000	96
North Churchdown	51	7	£900,000	£800,000	27	£400,000	31
South Churchdown	83	12	£1,500,000	£1,300,000	27	£400,000	68
MOD Ashchurch	207	29	£3,700,000	£3,100,000	2	£0	234
<b>Non-strategic Growth - Cheltenham District Area</b>	217	31	£3,900,000	£3,300,000	59	£1,100,000	189
<b>Non-strategic Growth - Gloucester District Area</b>	241	43	£4,300,000	£3,600,000	168	£3,000,000	116
<b>Non-strategic Growth - Tewkesbury District Area</b>	85	12	£1,500,000	£1,300,000	35	£600,000	62
<b>Infrastructure JCS-wide Totals: -</b>	<b>1752</b>	<b>256</b>	<b>£31,300,000</b>	<b>£26,500,000</b>		<b>£8,300,000</b>	

**CAVEATS -**

The data provided represents a formulaic 'demand' analysis that provides an indicative review of required education 'places' associated with the delivery of new housing units across the three JCS authorities. It does not factor in any surplus provision that may exist in a locality that is earmarked to accommodate new housing at a given time; The different formulae used apply theoretical prevalence ratios of education places generated for different housing types in the recent past. The analysis applies different formulae to a theoretical breakdown of housing units by housing type extrapolated from the Gloucestershire SHMA Updated (March 2014); The delivery of new housing is based on the JCS Trajectory work to support the Pre-Submission Version JCS document and was provided to Gloucestershire County Council - May 2014; The indicative capital costs equate to £15,101 per generated secondary place (between 11-16) and £17,832 per generated secondary places that also incorporates sixth-form provision. These figures are calculated by Gloucestershire County Council for the purposes of S.106 assessment and are correct as of April 2014; Capital costs applied are to assist in high-level indicative whole-plan infrastructure delivery assessment work and may not accurately reflect the actual capital cost of associated with providing the 'right' infrastructure solution in a given locality.



There is greater flexibility regarding accessibility to secondary-level education. The choice of school made by parents and children are less dictated by local accessibility. This circumstance is further complicated in Gloucestershire by the presence of selective (grammar) schools and religious orientation. Children access secondary schools by a variety of different transport modes including private car, bus, train, cycling and walking. Nevertheless, there remains a keenness to reduce the need to travel by private car, which should be incorporated into the consideration for future provision need with new development.

In terms of the requirement for new standalone facilities, it would not be unreasonable to expect development of around 5,000 + dwellings to generate demand for a new secondary school.

## Current projects

For 2013 - 2014, the majority of capital projects involving primary and secondary schools in the JCS area, are concerning with refurbishment and re-modelling. Only a limited amount of additional capacity is being proposed within the existing network of schools. As previously advised there are a number of new primary schools expected in the near future, however these are directly attributable to new residential developments and not designed to provide for extra places.

## Funding

The Dedicated School Grant - As set out above under Responsibilities for Delivery, the County Council will remain responsible for the allocation of funding to schools until they reach a stage of converting to Academy status. The Government's proposal in the White Paper is to simplify funding and provide greater flexibility by giving autonomous schools a single funding stream, the Dedicated Schools Grant. This will be based on a national funding formula to improve consistency and fairness of funding levels.

The Government also proposes to target more resources towards the most disadvantaged areas, primarily through the application of a 'Pupil Premium', which means schools will receive extra money for each pupil from a deprived background.

Schools Capital Spending – the Building Schools for the Future programme was ended by the Government as it considered that large sums of money were being wasted on bureaucracy. This has resulted in a 60% reduction in education capital spending, but the Government has committed to spend £15.8 bn between 2011-12 and 2014-15. The priority for spending has shifted from new build programmes towards addressing the poor condition of the existing school estate and ensuring that there are enough places for the predicted increase in the number of school age children, particularly at the primary level (paragraphs 8.24 and 8.25 of the Importance of Teaching White Paper, 2010).

## 4.2.3 Further Education

### Overview

*In 2008 the Government set requirements that by 2013 all 17 and 18 year olds should remain in education or training. This requirement will have clear implications for capacity at the existing Further Education institutions in the JCS area.*

*The Education Funding Agency (EFA) has put in place a 16-19 Demographic Growth Fund to assist institutions provide the additional accommodation, however further research will be required to understand whether this will enable the creation of sufficient student places taking account of proposed new development.*

*A preliminary high level assessment of estimated demand has been undertaken by GCC concludes that 193 additional places would be required at a capital cost of approximately £2.8m (Draft JCS development levels).*

### Responsibilities for Delivery

The Education Funding Agency (EFA), an executive agency of the Department for Education, is responsible for the funding of 16-19 provision in academies, general further education colleges, sixth-form colleges and independent provision. Funding allocations administered by the EFA are designed to support the Government's aims for raising the age of participation in education or training. The Education and Skills Act 2008 sets out that from summer 2013, all young people will be required to continue in education or training. This change is being implemented in two phases:

- From summer 2013, all young people will be required to continue in education or training until the end of the academic year in which they turn 17.
- From 2015 they will be required to continue in education or training until their 18th birthday.

This requirement will have clear implications for the capacity of Sixth-Form and Further Education providers, while Local Authorities will have a statutory responsibility to secure sufficient education and training places in their areas, taking into account quality and other factors.

### Baseline and assessment of need

The following secondary schools provide post-16, sixth form education across the JCS area:

#### **Cheltenham:**

- All Saints' Academy, Cheltenham
- Balcarras School
- Cheltenham Bournside School and Sixth Form Centre
- Cleeve School

- The Cotswold Academy
- Pate's Grammar School

**Gloucester:**

- Beaufort Community School
- Chosen Hill School
- Churchdown School
- The Crypt School
- Gloucester Academy
- High School for Girls
- Millbrook Academy
- Ribston Hall High School
- St Peter's Catholic High School and Sixth Form Centre
- Sir Thomas Rich's School

**Tewkesbury:**

- Tewkesbury School

The JCS area is also served by several Further Education (FE) colleges that offer a range of academic and vocational courses. These establishments tend to serve a much wider catchment area. Hosted within the JCS area is Gloucestershire College, which has a campus' located in Cheltenham and Gloucester as well as sites nearby within Forest of Dean District. FE colleges outside of the JCS area, but which may attract resident students include; South Gloucestershire & Stroud (SGS) College which has a campus in Stroud (and a campus in Filton, near Bristol) and Cirencester College, which lies on the outskirts of Cirencester.

## Assessment of infrastructure needs and costs

The high-level assessment of demand applies the following assumptions:

- 4.8 places per 100 dwellings (housing)
- 0.5 places per 100 dwellings (flats and apartments)

The indicative capital costs equate to £15,101 per generated place. These calculations lead to a theoretical demand of 193 places at an estimated cost of £2.8m.

The present local approach to demand for post-16 education does not take into account recent changes in government policy concerning the rise in participation in either education or skills-based training for employment for 16 - 19 yr olds.

The theoretical demand for FE places across the JCS area is provided in Table 19:

Table 19 - Assessment of theoretical demand for Further Education places

State-Funded Further Education ( <i>post-16</i> ) (College or facilities) Infrastructure:		Indicative Modelled Capital Cost (Based on 2014 figures)	1st Five Years	Indicative Modelled Capital Cost (Based on 2014 figures) - 1st Five Years	Remaining Years
JCS Strategic Allocations	Total theoretical 'demand' generated:	<i>Rounded to the nearest £0.1m</i>	2014/15-2018/19	<i>Rounded to the nearest £0.1m</i>	2019/20 - 2030/31
North West Cheltenham	55	£800,000	8	£100,000	47
South Cheltenham	13	£200,000	4	£100,000	9
Brockworth	16	£200,000	2	£0	14
Innsworth & Twigworth	13	£200,000	4	£100,000	9
North Churchdown	6	£100,000	3	£0	3
South Churchdown	9	£100,000	3	£0	6
MOD Ashchurch	23	£300,000	0	£0	23
<b>Non-strategic Growth - Cheltenham District Area</b>	24	£400,000	6	£100,000	18
<b>Non-strategic Growth - Gloucester District Area</b>	25	£400,000	16	£200,000	9
<b>Non-strategic Growth - Tewkesbury District Area</b>	9	£100,000	3	£0	6
<b>Infrastructure Totals: -</b>	<b>193</b>	<b>£2,800,000</b>		<b>£600,000</b>	

**CAVEATS -**

The data provided represents a formulaic 'demand' analysis that provides an indicative review of required education 'places' associated with the delivery of new housing units across the three JCS authorities. It does not factor in any surplus provision that may existing in a locality that is earmarked to accommodate new housing at a given time; The different formulae used apply theoretical prevalence ratios of education places generated for different housing types in the recent past. The analysis applies different formulae to a theoretical breakdown of housing units by housing type extrapolated from the Gloucestershire SHMA Updated (March 2014); The delivery of new housing is based on the JCS Trajectory work to support the Pre-Submission Version JCS document and was provided to Gloucestershire County Council - May 2014; The indicative capital costs equate to £15,101 per generated place. The assumption is that the cost of providing a brand new additional full-time post-16 Further Education place (outside of a secondary school setting) would be the same as providing a full capital funded secondary school place. Capital costs applied are to assist in high-level indicative whole-plan infrastructure delivery assessment work and may not accurately reflect the actual capital cost of associated with providing the 'right' infrastructure solution in a given locality.

## Current Projects

It is understood that South Gloucestershire and Stroud College are planning a new sports centre and classrooms at its Stroud campus which may bring increased local capacity.

## Funding Sources

The Government has put in place a series of funding mechanisms to support Further Education capital and infrastructure spending, which are administered by the Education Funding Agency (EFA):

- ***Devolved Formula Capital (DFC)*** – Sixth-form colleges will receive DFC payments for the 2012-2013 financial year of £4,000 per institution plus £22.50 per full-time learner. This is to be allocated to planned capital and maintenance works.
- ***Sixth-form college Building Condition Improvement Fund (BCIF)*** – BCIF funding will be available during 2012-13 to help improve colleges in the lowest two condition categories.
- ***16-19 Demographic Growth (Basic Need) Fund (DGCF)*** - The purpose of the DGCF is to provide funding to create accommodation for new learners aged 16 to 19 in local areas, arising from increases in the local population or increases in participation by young people who were not in education, employment or training (NEET). In particular, the EFA wants to identify new learners with learning difficulties and/or disabilities (LLD/D) who require local provision.

## 4.3 Emergency Services

### 4.3.1 Ambulance Service

#### Overview

*The Great Western Ambulance Service that previously served Gloucestershire has now merged with the South Western Ambulance Service NHS Foundation Trust. As a result of the merger, the new organisation is undertaking a review of the combined estate to understand where disposal, re-provision or new facilities would be appropriate or required. It is not anticipated that the review work will identify any major or key infrastructure projects in the JCS area, but investment in facilitated standby points, Public Access Defibrillators and Community First Responders Schemes is advocated.*

#### 4.3.1.1 Responsibilities for delivery

South Western Ambulance Service NHS Foundation Trust (SWASFT) provides services across Gloucestershire as well as Cornwall, Devon, Somerset, Dorset, Wiltshire and the former Avon area. The trust employs more than 4,000 staff across 120 operational sites, responding to over 660,000 incidents. The trust covers an area of 9,600 square miles with a population of more than 5.3m people.

#### 4.3.1.2 Baseline and assessment of needs

Emergencies in Gloucestershire County are responded to by a number of ambulances and rapid response vehicles that are strategically located at Ambulance Stations and Standby Points. There is a requirement to respond to 75% of all Red Calls (Life Threatening) Emergencies) within 8 minutes and therefore the location of these vehicles is of paramount importance. The Ambulance Stations in the JCS area are set out below:

- Tewkesbury Ambulance Station; and
- Staverton Ambulance Station (located between Cheltenham and Gloucester).
- The ambulance service also operates a principal clinical hub and admin centre from Gloucester.

Following the merger of the Great Western Ambulance Service (GWAS) with SWASFT, a new Estate Strategy is being developed to cover the enlarged area. The current requirement is for existing ambulance stations to be supported by local Standby Points where, if feasible, staff facilities for rest breaks and vehicle parking are provided.

The information in the table below is based on feedback provided by SWASFT during September 2013. This includes several references to the need for further investment in the Gloucestershire Fire and Rescue Service (GFRS) Co-Responder Scheme. There are several pilot sites for this approach to joint-working, which is described as a unique model for the delivery of front-line operations in the UK. A practical example is the increasing co-responding medical responses fire fighters provide in rural areas of the county to support life ahead of the arrival of paramedics.

The ambulance service welcomes engagement in the plan-making process and pre-application discussions so that opportunities for co-location and joint working can be investigated. For example, where new healthcare facilities are planned, in some cases it may be beneficial for the ambulance service to establish a satellite ambulance station or standby point.

A number of ‘standby points’ also exist within the area. A standby point is simply a small space (usually 15m x 15m floor space with rest area, desk, kitchen and access to toilet, with associated parking for 1 ambulance and 1 car) within an existing building (.e.g. GP surgery, fire station) that can be used by ambulance staff (potentially a crew of 3) whilst they await a call or take a meal or rest break. These points are strategically located to better serve the population of an area that might be some distance from the main ambulance station. ‘Stand by’ points can be a reasonably effective and low cost response to meeting the demands arising from strategic growth proposals such as those proposed within the Joint Core Strategy. Such points can be provided as part of new community or retail buildings within new developments.

### 4.3.1.3 Key infrastructure projects

As stated above, the two existing trusts were working together prior to acquisition in early 2013 to develop an Estate Strategy covering the wider area. Initial reviews are continuing in the GWAS area following the approval of the GWAS Estate Strategy in May 2011 – these do not include any major or key infrastructure projects in the JCS area. The table below sets out comments on requirements for the ambulance service at strategic allocations.

Table 20 - Ambulance service requirements relating to development

JCS Sub-Area	Strategic allocations and Sub-areas	Comment on requirements from ambulance service
Cheltenham - North, East and Central	North West Cheltenham,	Investment in a Public Access Defibrillator is required.
	Areas: C, H, CA2, CA3, CA5	No commentary is provided
Cheltenham – South West	Up Hatherley	A new Standby Point would be required to cover this area
	South Cheltenham (Leckhampton)	Covered by above
	Areas D, CA1 and CA4	No commentary is provided
Gloucester - North	Innsworth & Twigworth	This area can be covered by existing resources – in addition investment in a Public Access Defibrillator is required.
	North Churchdown	This area can be covered by existing resources
	South Churchdown	This area can be covered by existing resources
	North Brockworth	A new Standby Point would be required to cover this area
	Areas: E, F, G, GW, GC and GNE	No commentary is provided



JCS Sub-Area	Strategic allocations and Sub-areas	Comment on requirements from ambulance service
Gloucester - South	Areas: GSC and GSW (plus the Gloucester Urban Fringe in the Stroud District Area)	No commentary is provided
Tewkesbury and Ashchurch	Ashchurch MOD	A new Standby Point would be required to cover this area
	Areas: A and B	No commentary is provided

## 4.3.2 Fire and Rescue Service

### Overview

*The Gloucestershire Fire and Rescue Service undertook a comprehensive review of its estate during 2005 and secured a £multi-million Private Finance Initiative to deliver four new fire stations around Gloucester and Cheltenham.*

*Development proposed within the JCS is not expected to result in a requirement for major new infrastructure (although further consultation with the Fire & Rescue Service is required to confirm this). Nevertheless, continuing engagement with the Fire and Rescue Service is recommended to ensure that development proposals enable rapid response times, and include safety measures such as sprinkler systems and fire hydrant provision as appropriate.*

#### 4.3.2.1 Responsibilities for delivery

The Fire and Rescue service for the whole of Gloucestershire is delivered by the Gloucestershire Fire and Rescue Service. From 2012 the service was delivered from 22 community fire stations across the County.

#### 4.3.2.2 Sector plans and strategies

The Gloucestershire Fire and Rescue Service ***Integrated Risk Management Plan 2012 – 2015*** notes that in 2005 Gloucestershire Fire and Rescue Service carried out a review of the best way to continue to protect their service area. From this review it was noted that the County needed better located fire stations, to enable faster responses to life threatening incidents.

Using the Government’s Private Finance Initiative the Fire Service successfully secured a multi-million pound project in 2010 to build four new community fire stations. The new community fire stations are being built at Shepherd Road (incorporating the Life Skills Centre) and Cheltenham Road East in Gloucester (replacing existing fire station on Eastern Avenue) and Keynsham Road (existing fire station demolished and rebuilt) and Uckington in Cheltenham.

The Gloucestershire Fire and Rescue Service Integrated Risk Management Plan 2012 – 2015 states that the number of firefighters with specialist skills and vehicles at each station reflects the existing risks within the area, giving the most



efficient and effective emergency response to the local community, as well as county wide resilience for larger scale incidents.

### 4.3.2.3 Infrastructure baseline and deficits

Of the 22 stations in Gloucestershire, five are crewed permanently 24 hours a day and one is crewed during the day with retained firefighters at night. The other sixteen stations, located in the smaller towns are crewed by retained firefighters only (where firefighters respond to emergencies from their main jobs or from home as and when required). The Gloucestershire Fire and Rescue Headquarters is located in Quedgeley, Gloucester, where a Tri-Service Co-Responding scheme is based (see Ambulance section (4.5.1) for further information).

The table below shows each of the community fire stations the JCS area and the fire equipment available at each station.

Table 21 - Fire and Rescue Stations in the JCS area<sup>12</sup>

Community Fire and Rescue Stations	Day crewing / Wholetime / Retained	Fire Equipment
Gloucester North, Cheltenham Rd East	Wholetime	1 x fire engine, 1 x pump rescue, aerial ladder platform, specialist incident support unit
Gloucester South, Shepherd Rd	Wholetime	1 x pump rescue, rescue boat and DEFRA boat
Cheltenham East, Keynsham Road	Wholetime/Retained	1 pump rescue, 1 x fire engine, enhanced logistical support vehicle, aerial ladder, platform and water carrier
Cheltenham West, Uckington	Wholetime	1 x pump rescue, multi-role lorry
Tewkesbury Community Fire Station and Water Rescue Centre, Oldbury Road	Retained (Water Rescue)	1 x pump rescue, 1 x fire engine and boat
Winchcombe, Gretton Road	Retained	1 x fire engine

### 4.3.2.4 Assessment of infrastructure needs

As detailed above the Gloucestershire Fire and Rescue Service reviewed their services in 2005 and embarked on the creation of four new community fire stations, which were completed in 2012. The location of existing and new fire stations has been carefully considered and together they provide an emergency response to any incident in the County. No further major infrastructure is expected to be required in response to the Core Strategy proposals.

During consultation with the Gloucestershire Fire and Rescue Service, the following matters were raised with respect to ensuring the appropriate design of new development:

- Access points and road sizing within developments are important when ensuring that rapid response times can be achieved. Consultation with the Fire

<sup>12</sup> Source: Gloucestershire County Council “Integrated Risk Management Plan” (2012-2015)

and Rescue Service is recommended at the pre-application stage when development proposals are at an early stage.

- Fitting housing with sprinkler systems is recommended as an important safety measure, particularly within affordable housing developments. This can also form an important form of mitigation where target response times cannot be met due to the location or layout of development.
- Fire hydrants will be required within new developments, typically spaced 50m apart. Developers should consult with the Fire and Rescue Service on layout and minimum standards for hydrants, which are normally secured by a condition attached to a planning permission.

The Fire and Rescue Service places a great deal of emphasis on accident prevention through education, awareness raising and advice. A complete package of care is provided that is aimed at providing advice and education for every age group from the very young to the elderly and vulnerable. This includes the appointment of Community Safety Advisers (CSAs) that visit homes and give advice to the most vulnerable members of the community.

Specific points raised in relation to strategic allocations for development in the JCS area are as follows:

Table 22 - Fire & Rescue Service comments on strategic allocations for development

JCS Sub-area	Strategic Location	Comment
JCS Sub-Area Cheltenham - North, East and Central	Strategic allocations and Sub-areas	No further comments on specific requirements received. Requirements to be established at design stage.
	North West Cheltenham, Areas: C, H, CA2, CA3, CA5	
Cheltenham - South West	Up Hatherley	No further comments on specific requirements received. Requirements to be established at design stage.
	South Cheltenham (Leckhampton)	
	Areas D, CA1 and CA4	
Gloucester - North	Innsworth & Twigworth	No further comments on specific requirements received. Requirements to be established at design stage.
	North Churchdown	
	South Churchdown	
	North Brockworth Areas: E, F, G, GW, GC and GNE	
Gloucester - South	Areas: GSC and GSW (plus the Gloucester Urban Fringe in the Stroud District Area)	Position of access point and layout of development will be of particular importance in the Stroud District Council Gloucester Urban Fringe to ensure that target response times can be met.
Tewkesbury and Ashchurch	Ashchurch MOD	No further comments on specific requirements received. Requirements to be established at design stage.
	Areas: A and B	

### 4.3.3 Police Services

#### Overview

*Gloucestershire Constabulary operates the Policing Area covering the JCS sub-areas and currently maintains seven police stations. The combined authorities have an obligation to consider crime and disorder reduction in the exercise of all their duties.*

*Gloucestershire Constabulary has concluded that the proposed level of growth across the JCS area could increase pressure on the existing police services and a number of infrastructure projects are currently being planned.*

*The police service has seen substantial budget reductions as part of the Government's Comprehensive Spending Review and the constabulary has emphasised that developer contributions (through S106 Planning Obligations or CIL) will be necessary to provide the minor level of police infrastructure necessary to support growth, as no other funding sources are available.*

*Contributions in the order of £129 per dwelling will be sought towards the following projects and services: a new Central Custody Suite at Quedgeley costing around £11.9m; a new police station in Cheltenham costing around £2.7m; a new police station in Gloucester costing around £4m, refurbishment of facilities at Barton Street, Gloucester (cost unknown at present) and a potential new station at Highnam costing in the region of £1.4m. Failure to secure appropriate developer contributions may necessitate additional borrowing by the Constabulary, reducing the amount of money available for operational policing.*

#### 4.3.3.1 Responsibilities for delivery

**Gloucestershire Constabulary** has a statutory responsibility to ensure that the JCS area is a safe place to live and work; where crime and fear of crime is reduced.

The Crime and Disorder Act 1998 introduced a wide range of measures for preventing crime and disorder. Section 17 (as amended by Schedule 9 of the Police and Justice Act 2006), imposes an obligation on every local authority and other specified bodies to consider crime and disorder reduction in the exercise of all their duties. This duty extends to spatial planning and by clear association the infrastructure planning required to facilitate growth in a sustainable way.

#### 4.3.3.2 Sector plans and strategies

**Police and Crime Commissioner's Police and Crime Plan ( 1 April 2013)** - A Police and Crime Plan replaces the "old" Local Policing Plan and sets out to reduce crime by: involving all of Gloucestershire's criminal justice agencies in one joined-up strategy, bringing together the Police, Crown Prosecution Service, Courts, Probation Service and HM Prison Service and including community and voluntary sectors. It is the first time the county's police, criminal justice services, community and voluntary sectors have all been included in a co-ordinated approach to reducing crime. Commissioner Surl's vision can be described as "less crime, more peace and good order". The Police and Crime Commissioner's priorities are:

- Accessibility and accountability

- Older but not overlooked
- Young people becoming adults
- Safe days and nights for all
- Safe and social driving

***'People First Policing' 2012 – 2013*** - The Policing Plan for Gloucestershire, 'People First Policing' 2012 – 2013, set out the purpose of Gloucestershire Constabulary as an organisation is “to keep people safe from harm and to inspire the highest levels of public confidence in us, their local police.” The Constabulary’s mission is “to consistently deliver first class policing that meets the expectations and needs of individuals and communities.” Key activities identified for the year were:

- Improve: the deployment of police officers and staff; and organisational structures, processes and systems.
- Achieve the savings required. The Government’s Comprehensive Spending Review requires the constabulary to make savings of £18m. This will include the closure of Police Stations, which will be replaced with Police Points that enable members of the public to meet local officers through locally arranged surgery hours.
- Realise opportunities for collaboration and sharing resources. This includes the establishment of Police Points in shared accommodation such as Council offices or libraries.
- Neighbourhood Policing and Mobile Information are important aspects of the constabularies approach to policing.
- **Neighbourhood Policing** is identified as being at the heart of Gloucestershire Constabulary with teams established in each of our 55 communities, staffed by Police Officers and Police Community Support Officers. “The on-going success of these teams is built through improvements in the quality of our engagement and communication as we continue tackling local priorities identified by our communities. Research suggests that people who feel well informed about local policing feel more confident in their local police and are more likely to believe that levels of local crime and anti-social behaviour have improved”.
- **Mobile Information** will enable Officers to make enquires and provide updates using hand-held BlackBerry devices reducing the requirement to return to a police station to access systems.

#### ***Asset Management Strategy (April 2013)***

The Asset Management Strategy is a strategic level document to guide the delivery of an estate that meets operational needs, including the requirements of planned growth in the County. The strategy covers a 20 year period and lists the high level priorities, but does not include timescales for the delivery of any projects. Priority projects are:

- Centralised Custody Suite – this project was initiated in October 2011 and it is anticipated building work will start in the summer of 2013
- New Gloucester Police Station – a site has been purchased and an outline business case approved, but no timescales as yet.

- New Cheltenham Police Station – a site has been identified but to date no further progress has been made on this project.

### 4.3.3.3 Baseline

Gloucestershire Constabulary has recently been restructured and now operates with six Local Policing Areas, commanded by Superintendents, corresponding with the six District authorities. Local policing is provided by response teams in each area and nine Neighbourhood Policing Teams, two each in Cheltenham and Gloucester and one in Tewkesbury, the Forest of Dean and the Cotswolds. Within the Local Policing Areas are fifty-five neighbourhoods, each with identified officers and locally agreed priorities.

There are currently seven police stations covering the JCS area; there are facilities in Cheltenham at Lansdown Road and Hesters Way, in Gloucester at Bearland, Hucclecote, Barton Street and Quedgeley Police Station and a facility at the Council Offices in Tewkesbury with some specialist services centralised at police Headquarters in Quedgeley.

The Constabulary has also set up a number of Policing Points across the County which are leased and therefore supported by revenue budgets.

Table 23 - Police Stations in the JCA area

Name of facility	Key Functions	Infrastructure required
St James, Quedgeley	Neighbourhood policing	This building will be retained.
Lansdown Road, Cheltenham	Neighbourhood policing and response	The majority of the buildings on site are 1970's and no longer fit for purpose. A feasibility study has been carried out and the decision taken to relocate to a new build facility at Bishops Cleeve. This decision has taken into account the proposed increase in growth on the north side of Cheltenham and a number of other factors.
Bearland, Gloucester	Neighbourhood policing and response	Bearland is a 1970's building which in its current state is not fit for purpose. It is leased from the County Council and requires a complete refurbishment to bring it into the 21st century and to provide the right kind of accommodation for modern day policing to meet the needs of planned growth. The facility is likely to be replaced with a new facility.
Hucclecote, Gloucester	Neighbourhood policing and response	Hucclecote Police Station, although younger, requires modernisation or replacement and options are currently being explored; disposal is a possibility.
Barton Street, Gloucester	Neighbourhood policing	This building is likely to be retained and refurbished.
Hesters Way, Cheltenham	Neighbourhood policing	This building will be retained.
Council Offices, Tewkesbury	Neighbourhood policing and response	The local poling team have moved into office space in the Borough Council building.

**Central Custody Facility** - When assessing the additional property infrastructure that is required to meet planned growth in the JCS area, it is also necessary to look at the whole of the County and the level of growth proposed in other local authority areas. The central custody suite in Gloucestershire is one of the central specialist facilities in Gloucestershire utilised by Neighbourhood Policing Teams in the JCS area. A decision has already been made to replace custody facilities as the current suites are increasingly becoming unfit for purpose. However, the suites also do not have the capacity to meet the needs of planned growth, so if the replacement facility with extra capacity is not provided officers will be forced to take arrestees to other county custody suites such as West Mercia or Wiltshire or not to make arrests. The new facility, which is planned for construction at an identified site close to Police Headquarters in Waterwells is required to replace the existing custody facilities at Gloucester, Bearland and Lansdown Road, Cheltenham, but has also been designed so as to provide additional capacity for planned growth across the County.

In terms of the number of Police Officers and staff, recruitment has been frozen for a number of years and only recently has the constabulary been able to commence recruiting new Police Officers. However, these will only be replacing the officers who have retired as the overall establishment has been cut. The current funding arrangements will not allow for growth.

Potential constraints/issues faced by the Police characteristics of the JCS sub-areas are:

- The main areas of population in the county are centres on Gloucester and Cheltenham, the main town in the north being Tewkesbury.
- Cheltenham and Gloucester have the highest levels of crime. Both of these areas have a complex and diverse mixture of residential and business premises; they also have areas of considerable deprivation despite the area as a whole being considered affluent. The type and level of crime existing is commensurate with that found in any large town/city, demanding a similar level of resources.
- Vibrant night-time economies operate in both areas which contributes to even greater demands on existing police resources.
- It is important to note that Cheltenham has the largest night time economy between Bristol and Birmingham which operates well into the small hours and requires significant police resources to manage demand on a 24/7 basis.
- In terms of future constraints and issues; there are currently around 95,000 police incidents per annum which is 65% of the total number recorded in the County. The proposed growth in the area could lead to a 13% increase in the number of incidents in the JCS area; this figure is based on population figures provided by the County Council. Such an increase will lead to increased pressure on existing services.

The Constabulary is confident that in the future there will be greater need for mobility and therefore a greater requirement for non-property infrastructure (vehicles and mobile ICT equipment) to allow officers to be 'on the streets' for large parts of their working day in such a large rural area.

#### 4.3.3.4 Assessment of infrastructure needs and costs

Gloucestershire Constabulary has advised that the growth related impacts of effective and efficient policing are twofold:

- **Population growth** - Policing is essentially a population driven service; with any increase in population there is a concomitant increase in the pressure on the ability of the Police to fulfil their obligation under the Police Act 1996 to deliver an efficient and effective Police service. The causal relationship between population size and levels of crime is supported by academic research. Put simply, if a population increases there is a proportionate increase in the level of crime.
- **Dispersal or concentration of property** - New housing is delivered (broadly) either through redevelopment and intensification of existing urban areas, or through the development of new peripheral green field sites. Each will impact on delivery of policing; either through a concentration of population within an existing urban area, which places greater demand on existing facilities/staff; or by spreading the growing population more widely within an area, thereby facilitating a need for additional facilities located more closely to new centres of population.
- Economic growth is also a key Government policy objective. Economic growth creates a greater stock of premises to be policed, which impacts for similar reasons (to residential growth) on the delivery of policing. Maintenance of a visible police presence is a key deterrent to crime, and therefore an increase in the amount and dispersal of all types of property necessarily increases demands on policing infrastructure.

In broad terms, Gloucestershire Constabulary has concluded that the proposed level of growth within the JCS area will place pressure on Gloucestershire Constabulary's infrastructure within the JCS area. The Constabulary has sought to identify the minimum level of additional infrastructure necessary to cater for the increased demands on policing generated by the planned level of growth. This has been assessed at the county-wide and district level and both for property and non-property infrastructure.

In line with guidance from the Association of Chief Police Officers (ACPO) (which advises Police Forces nationally), Gloucestershire Constabulary has prepared a county-wide formula in order to provide a quantitative assessment of infrastructure needs and costs for each Local Policing Area. The formula produces an indicative figure that is based on the premise that an increase in population will necessitate further recruitment and associated infrastructure provision. This indicative figure has enabled the Constabulary and its Local Area Commanders to identify levels of additional infrastructure which are proportionate to the levels of growth proposed.

Infrastructure investment required to support development in the JCS area is summarised below:

##### **Property infrastructure:**

- **Centralised Custody Suite at Waterwells, Quedgeley (£11.9m)** – see description of project above.

- ***New police station for Cheltenham costing around £2.7m*** - A site has been identified but to date no further progress has been made on this project. The Constabulary plans to build a new police station on land in its ownership at Bishops Cleeve Business Park which will eventually replace functions currently provided from Lansdown Road in Cheltenham. Again the site at Bishops Cleeve has been chosen for a number of reasons including its proximity to the strategic allocations for growth around Cheltenham, notably North West Cheltenham. Again there will be a police point provided in the town centre.
- ***New police station for Gloucester costing around £4m*** - A site has been purchased and an outline business case approved but no timescales as yet. This facility is to be built to replace an existing outmoded building. The site at Eastern Avenue has been selected and purchased as the replacement police station site for Gloucester for a number of reasons including its ability to provide an effective policing base from which to police proposed growth in Gloucester and its environs. In particular the proposed strategic residential developments at Innsworth, Staverton and North Brockworth are likely to be policed from this new police station. A police point will also be provided in the city centre.
- ***Refurbishment of Barton Street Police Station in Gloucester (cost unknown).***
- ***New Highnam Police Station*** - Potential provision of a new police station in the Highnam area costing around £1.4m. This is not currently part of the Asset Management Plan.

#### **Non-property infrastructure:**

The planned new growth in the JCS Area has been identified to require the setting up of 50 new Police Officer posts and 103 staff posts costing a combined amount of £1,081,000. The estimated costs applied using the ACPO formula allow for:

- Uniform and protective equipment;
- Patrol cars - the Constabulary has a replacement programme but additional vehicles can only be purchased if additional funding is available. The proposed growth within the County would have an impact on the number of vehicles required and this is reflected in the formula. The formula accounts for costs in terms of a patrol car. If a mobile police station were funded the individual costs would be higher but fewer patrol cars would be required.
- Cost of recruitment
- Training
- IT Equipment, airwave /telephony - as the JCS covers a large rural area, officers will be expected to rely on mobile data and vehicles rather than returning to police stations to complete paperwork.
- Airwave/telephony
- Furniture

In addition to the above, there are on-going plans to introduce mobile technology which will again be subject to funding and staffing resources. In terms of vehicles, the proposed growth within the County would have an impact on the number of vehicles required – this is reflected in the formula.



In accordance with the ACPO formula, the funding to be sought from developers through S106 Planning Obligations or CIL would equate to around £129 per dwelling.

Of note is that for Hunt's Grove, the committed development provides for the appointment of a Community Warden (or police officer as an alternative option) along with a financial contribution towards CCTV.

Gloucestershire Constabulary has stressed that if developer contributions towards policing infrastructure cannot be secured, the Constabulary would only be able to provide a reduced service which would impact detrimentally on sustainability of planned development. Failure to secure appropriate developer contributions/CIL funding for police infrastructure may necessitate additional borrowing by the Constabulary, reducing the amount of money available to deliver operational policing. Failure to secure appropriate developer contributions/CIL funding for infrastructure to police new growth will put the public at risk because of:

- inability to respond to police incidents within safe parameters of risk; and
- dilution of police presence within communities which will result in higher levels of criminality.

#### 4.3.3.5 Funding

The delivery of growth and new development within the JCS area imposes additional pressure on Gloucestershire Constabulary's infrastructure base, which is critical to the delivery of effective policing and to securing safe and sustainable communities. The Police Service does not receive any dedicated funding for capital projects. While revenue funding is provided by the Home Office and the Council Tax precept, capital spending is predominantly financed by prudent borrowing. Borrowing to provide infrastructure necessarily has an impact on the delivery of safe and sustainable communities because loans ultimately have to be repaid from revenue budgets, the corollary of which is a reduction in the funding available to deliver operational policing.

As part of the Government's Comprehensive Spending Review (CSR) announced in November 2010, Gloucestershire Constabulary has been forced to rationalise its estate and plan for future financial cuts in order to achieve its CSR requirements of an £18m saving over four years. This has included the consolidation of policing services at some police stations and the closure of other police stations. Any receipts generated from the disposal of existing facilities cannot be 'ring-fenced' or dedicated to new capital spending projects; instead the funds are required by statute to be reinvested into the running of the police estate as a whole. Income is therefore ploughed back into areas such as building maintenance; replacement of operational equipment and operational funding. As a consequence in practical terms there is no 'pot' of money available to provide new facilities, where expansion, replacement or upgrading is required. Capital receipts from the sale of stations are committed to supplementing other funding streams within Gloucestershire Constabulary (to minimise potential impacts on frontline services). Post-CSR, through its Estate Plan, the Force has sought to streamline its infrastructure base to reduce operational costs whilst maintaining frontline presence to match the existing population and maintain delivery of an efficient and effective police service.

To this end, the baseline position for this document reflects the post-CSR spending cuts. Therefore, any net additional growth within the Local Policing Area will place some additional pressures on policing infrastructure.

## 4.4 Energy

### 4.4.1.1 Responsibilities for delivery

Following the privatisation of the English energy industry in 1990, responsibilities for energy generation and distribution has been dispersed to numerous private sector infrastructure operators, as described further throughout this report section, with oversight and regulation provided by the industry regulator Ofgem. More recently, however, in response to energy security and climate change drivers, both the national and local tiers of government have become increasingly active in strategy and planning processes and promoting low carbon energy generation.

### 4.4.2 Electricity generation

#### 4.4.2.1 Responsibilities for delivery

Security of energy supply in terms of generation capacity is a matter safeguarded at the national level and there is not a requirement to demonstrate there is sufficient supply overall to ensure Core Strategy soundness, however the JCS authorities do have a responsibility to assist in the achievement of UK targets to reduce emissions of greenhouse gases.

The Climate Change Act 2008 sets a target to reduce greenhouse gas emissions in the UK by at least 80 per cent from 1990 levels by 2050. To achieve this, nationwide there will need to be an increase in energy generation from renewable sources, a new generation of nuclear power stations, the development of newer and sometimes smaller scale generation techniques such as anaerobic digestion and the replacement of existing coal-fired power stations with cleaner alternatives, including the commercial deployment of carbon capture and storage technology.

The NPPF states that ‘...local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources’ (paragraph 97). They should (in summary):

- have a positive strategy to promote energy generation from renewable and low carbon sources;
- design policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed;
- consider identifying suitable areas for renewable and low carbon energy sources;
- support community-led initiatives for renewable and low carbon energy; and
- identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy sources.

#### 4.4.2.2 Sector plans and strategies

**Gloucestershire Renewable Energy Study (2010-2011)** A two stage study looking at the potential for renewable energy in Gloucestershire in the period to 2026<sup>13</sup>, forms part of the JCS evidence base. The Stage 2 report considers that in the Cheltenham and Gloucester areas there is little wind and biomass resource given the built-up nature of the districts, however there is potential for utilising renewable heat in both areas. Tewkesbury offers good opportunities for hydropower. There is reasonable wind potential and little existing biomass resource but the area is well suited to growing energy crops.

#### 4.4.2.3 Current and planned infrastructure projects

Current major energy generation proposals within the JCS area are listed below:

- **Solar Farm, Bishop's Cleeve, Tewkesbury** – a planning application has been submitted for a 41.01 hectare solar park to include the installation of solar panels to generate electricity, with transformer housings, security fencing and cameras, landscaping and other associated works. The application is pending consideration (Application ref: 12/01220/FUL).

#### 4.4.3 Electricity Transmission

This study is primarily concerned with understanding whether there are any engineering or other obstacles that would prevent or delay the connection of development sites to the electricity and gas grid/network, resulting in implications for site delivery or phasing.

##### 4.4.3.1 Responsibilities for Delivery

The extra high-voltage transmission grid (275kV and 400kV) in England is owned and operated by National Grid Electricity Transmission (NGET). The regional distribution network operator for the JCS area is Western Power Distribution (WPD), who are responsible for distributing electricity from the national grid to consumers.

##### 4.4.3.2 Assessment of Infrastructure Needs

Electricity is transferred from generation to point of use via Transmission and Distribution networks. Transmission networks (TN) in England typically operate at 275kV and above whereas the Distribution network (DN) generally operates from 132kV down to the 230V supplied to domestic customers.

The Stage 2 report of the Gloucestershire Renewable Energy Feasibility Study confirms that '*...there is a relatively even distribution of circuits across Gloucestershire and there are no areas of the County which are remote from the grid..... however, a connection to the closest point of grid infrastructure is not guaranteed and any generation development should be assessed on its own merits*' (Section 9.2 GCC 2011).

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<sup>13</sup> Gloucestershire County Council (2010) Renewable Energy Study and Resource Assessment  
Gloucestershire County Council (2011) Renewable Energy Study 2 – Resource Assessment

With respect to the TN network operated by National Grid, there is potential that strategic allocations for development could coincide with the existing network of high voltage lines, with implications for the acceptability, layout or viability of development. A map showing the locations of the TN network in relation to potential strategic allocations for development is provided at Appendix B. Table 24 below sets out whether National Grid infrastructure may coincide with a strategic location for development and should therefore be investigated in further detail.

WPD have provided feedback in relation to the proposed strategic development locations, as set out in the table below. With respect to the timescales for providing site connection upgrades, WPD advise that the installation of 11kV circuits from primary substations are not normally significant as the majority of circuits are installed in the public highway. Typically 3km of cable could be installed within 2-3 months, depending on the route and any engineering difficulties. Where a 33kV circuit reinforcement is required (none are expected for the JCS area at this stage, subject to the completion of more detailed studies) the timescale for implementation is significantly greater as the route is more likely to cut across third party land. A 15km 33kV circuit (overhead) could potentially take between 2-3 years, depending on negotiations with the landowners.

Table 24 - Electricity Transmission and Distribution by Econometrics sub-area / strategic location

Econometrics Sub-area	Existing urban area / Strategic Allocation	Transmission Network – Comment based on map of National Grid assets at Appendix B	Distribution Network – Comment from Western Power Distribution
Cheltenham BC			
CA1 (West)	Urban area	No National Grid infrastructure within close proximity	Anticipated combined demand ~3MVA. Geographically the nearest primary substation is Cheltenham 132/11kV site. The demand at Cheltenham can currently accommodate the proposals. We have recently seen several applications to connect significant demand at Cheltenham, if this demand were to materialise then 11kV reinforcement (new switchboard) at Cheltenham would be required. The proposed developments will probably necessitate some 11kV circuit reinforcement works, but further detailed assessment will be required before this can be confirmed.
CA2 (North)	Urban area	No National Grid infrastructure within close proximity	Anticipated combined demand ~9MVA. Geographically the nearest primary substations are Cheltenham 132/11kV site (see notes above) and Marle Hill 132/11kV site. The demand at Marle Hill can currently accommodate the proposals. The development will almost certainly necessitate 11kV circuit reinforcement works, but further detailed assessment will be required before this can be confirmed.
	North West Cheltenham (cross-boundary)	No National Grid infrastructure within close proximity	
CA3 (South East)	Urban area	Overhead powerline passes to the east of urban area	Anticipated combined demand ~0.5MVA. Geographically the nearest primary substation is Montpellier 132/11kV site. There is currently ample capacity at Montpellier to accommodate the proposals. Further 11kV circuit studies will be required to identify if reinforcement work is required.
CA4 (South West)	Urban area	Overhead powerline passes to the south of urban area	Anticipated combined demand ~1.8MVA. Geographically the nearest primary substation is Cheltenham 132/11kV site. The demand at Cheltenham can currently accommodate the proposals. We have recently seen several applications to connect significant demand at Cheltenham, if this demand were to materialise then 11kV reinforcement (new switchboard) at Cheltenham would be required. The proposed developments will probably necessitate some 11kV circuit reinforcement works, but further detailed assessment will be required before this can be confirmed.
	Leckhampton (cross-boundary)	Overhead powerline passes close to the south of strategic location. Matter to be kept under review.	
	Up Hatherly (cross-boundary)	Overhead powerline passes close to the south of strategic location. Matter to be kept under review.	
CA5 (Central)	Urban area	No National Grid infrastructure within close proximity.	

Econometrics Sub-area	Existing urban area / Strategic Allocation	Transmission Network – Comment based on map of National Grid assets at Appendix B	Distribution Network – Comment from Western Power Distribution
Gloucester CC			
GW	Urban area	Overhead powerline passes close to the northwest of Gloucester. Matter to be kept under review.	Anticipated combined demand ~1.5MVA. Geographically the nearest primary substation is Commercial Road 132/33/11kV site. Works are currently on-going at Commercial Road to increase the capacity of the site, this is due for completion end 2013, after which there will be ample capacity to accommodate the proposed development. Further 11kV circuit studies will be required to identify if reinforcement work is required.
GNE	Urban area	Overhead powerline passes close to the northeast of Gloucester. Matter to be kept under review.	Anticipated combined demand ~0.5MVA. Geographically the nearest primary substation is Rotol 33/11kV site. Works are currently on-going at Rotol to increase the capacity of the site, this is due for completion end 2015, after which there will be ample capacity to accommodate the proposed development. Further 11kV circuit studies will be required to identify if reinforcement work is required.
GSC	Urban area	No National Grid infrastructure within close proximity.	Anticipated combined demand ~0.5MVA. Geographically the nearest primary substation is Eastern Avenue 132/11kV site. There is currently ample capacity at Eastern Avenue to accommodate the proposals. Further 11kV circuit studies will be required to identify if reinforcement work is required.
GSW	Urban area	No National Grid infrastructure within close proximity.	The anticipated demand requirement for this site is ~2.5MVA. Geographically the nearest primary substation is Tuffley 33/11kV site which is near capacity. We have made provision to install an additional primary substation at Hardwicke, but progression of this scheme depends on load growth in the area. The proposed developments will probably necessitate some 11kV circuit reinforcement works, but further detailed assessment will be required before this can be confirmed.
GC	Urban area	No National Grid infrastructure within close proximity.	Anticipated combined demand ~1.5MVA. Geographically the nearest primary substation is Commercial Road 132/33/11kV site. Works are currently on-going at Commercial Road to increase the capacity of the site, this is due for completion end 2013, after which there will be ample capacity to accommodate the proposed development. Further 11kV circuit studies will be required to identify if reinforcement work is required.

Econometrics Sub-area	Existing urban area / Strategic Allocation	Transmission Network – Comment based on map of National Grid assets at Appendix B	Distribution Network – Comment from Western Power Distribution
Tewkesbury BC			
A	Tewkesbury & rural area	No National Grid infrastructure within close proximity.	The anticipated demand requirement for proposed sites ~3MVA. Geographically the nearest primary substation is Tewkesbury 132/11kV site. There is currently ample capacity at Tewkesbury to accommodate the proposals. Further 11kV circuit studies will be required to identify if reinforcement work is required.
B	Rural area Aschurch/MOD	Overhead powerline passes to the east of potential strategic location for development	
C	Bishop’s Cleeve & rural area	Overhead powerline passes to the east of Bishops Cleeve	Anticipated combined demand ~1.5MVA. Geographically the nearest primary substation is Bishops Cleeve 66/11kV site. Works are currently on-going at Bishops Cleeve to increase the capacity of the site, this is due for completion end 2013, after which there will be ample capacity to accommodate the proposed development. Further 11kV circuit studies will be required to identify if reinforcement work is required.
D	Rural area	Overhead powerline passes through sub-area.	No comment at this stage.
E	Urban area (Brockworth) North Brockworth	Overhead powerline passes to northwest of strategic location and A417.	The anticipated demand requirement for this site is ~2.5MVA. Geographically the nearest primary substation is Brockworth 33/11kV site. There is currently ample capacity at Brockworth to accommodate the proposals. Further 11kV circuit studies will be required to identify if reinforcement work is required.
F	Urban area (Innsworth & North Churchdown) Innsworth & Twigworth	Overhead powerlines pass through sub-area. National Grid and other overhead powerlines pass through Innsworth Strategic Location and may have implications for the acceptability, layout or viability of development.	

<b>Econometrics Sub-area</b>	<b>Existing urban area / Strategic Allocation</b>	<b>Transmission Network – Comment based on map of National Grid assets at Appendix B</b>	<b>Distribution Network – Comment from Western Power Distribution</b>
	South Churchdown	Overhead powerline passes close to the west of the strategic location for development. Matter to be kept under review.	
G	Rural area	Overhead powerline passes close to the north and west of the strategic location for development. Matter to be kept under review.	Anticipated combined demand ~5MVA. Geographically the nearest primary substation is Commercial Road 132/33/11kV site. Works are currently on-going at Commercial Road to increase the capacity of the site, this is due for completion end 2013, after which there will be ample capacity to accommodate the proposed development. Further 11kV circuit studies will be required to identify if reinforcement work is required.
H	Rural area	No National Grid infrastructure within this sub-area.	No comment at this stage.



## 4.4.4 Gas Distribution

### 4.4.4.1 Responsibilities for delivery

The National Grid Gas (NGG) transmits gas from the production beachhead and import terminals to regional distribution companies or Distribution Operators (DO's) that operate the network of pipelines serving consumers. Wales & West Utilities (WWU) are the DO for the JCS area.

### 4.4.4.2 Assessment of infrastructure needs and current projects

With respect to the high pressure National Grid Gas network, there is potential that strategic allocations for development could coincide with the existing network of pipelines, with implications for the acceptability, layout or viability of development. Pipeline routes are protected by HSE regulated buffer zones which control neighbouring land uses – the regulations permit residential development within the outer zone (155m either side of the pipeline) and employment land and public playing fields within the outer and middle zones (125m either side of the pipeline). A map showing the locations of the National Grid network in relation to potential strategic allocations for development is provided at Appendix B. Table 25 below sets out whether National Grid infrastructure may coincide with a strategic location for development and should therefore be investigated in further detail.

WWU require relatively detailed information on development sites before they can provide formal feedback on network capacities and constraints. This should include the size and shape of sites, number of units and indicative layout and phasing. However it is understood that Wales & West Utilities can respond to developer connection requests within a relatively short time frame.

Table 25 – Gas distribution network by sub-area / strategic location

Econometrics Sub-area	Existing urban area / Strategic Location	Comment based on map of National Grid assets at Appendix B1	Distribution network – Comment from Wales & West Utilities
Cheltenham BC			
CA1 (West)	Urban area	No National Grid infrastructure within close proximity	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
CA2 (North)	Urban area	No National Grid infrastructure within close proximity	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
	North West Cheltenham (cross-boundary)	No National Grid infrastructure within close proximity	
CA3 (South East)	Urban area	No National Grid infrastructure within close proximity	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
CA4 (South West)	Urban area	No National Grid infrastructure within close proximity	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
	Leckhampton & Brizen Farm (cross-boundary)	No National Grid infrastructure within close proximity	
	Up Hatherly (cross-boundary)	No National Grid infrastructure within close proximity	
CA5 (Central)	Urban area	No National Grid infrastructure within close proximity.	
GW	Urban area	No National Grid infrastructure within close proximity	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
GNE	Urban area	No National Grid infrastructure within close proximity	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.

<b>Econometrics Sub-area</b>	<b>Existing urban area / Strategic Location</b>	<b>Comment based on map of National Grid assets at Appendix B1</b>	<b>Distribution network – Comment from Wales &amp; West Utilities</b>
GSC	Urban area	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
GSW	Urban area	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
GC	Urban area	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
A	Tewkesbury & rural area	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
B	Rural area Aschurch/MOD	National Grid pipeline passes south of A46. Detailed map required to confirm location of pipeline.	
C	Bishop’s Cleeve & rural area	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
D	Rural area	Very limited development proposed.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
E	Urban area (Brockworth)	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
	North Brockworth		
F	Urban area (Innsworth & North Churchdown)	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
	Innsworth & Twigworth	No National Grid infrastructure within close proximity.	

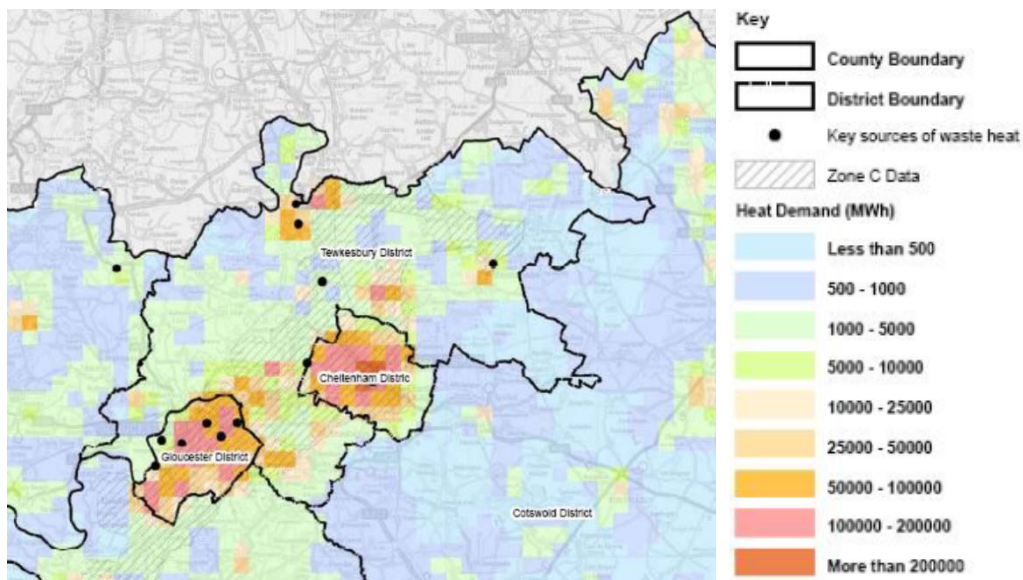
<b>Econometrics Sub-area</b>	<b>Existing urban area / Strategic Location</b>	<b>Comment based on map of National Grid assets at Appendix B1</b>	<b>Distribution network – Comment from Wales &amp; West Utilities</b>
	South Churchdown	No National Grid infrastructure within close proximity.	
G	Rural area	No National Grid infrastructure within close proximity.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.
H	Rural area	No National Grid infrastructure within this sub-area.	Comments requested for refresh of IDP. Wales & West require more detailed site information in order to understand the sites and provide a detailed response.

## 4.4.5 Heat Distribution

### 4.4.5.1 Sector plans and strategies

The Gloucestershire Renewable Energy Feasibility Study has looked at the potential for district heat networks. It illustrates that there are areas in Cheltenham and Gloucester where there is potentially sufficient demand intensity that large district heating networks fuelled by low carbon fuels such as biomass or waste may be viable, as shown in the figure below. These include Central Cheltenham, North Gloucester and Quedgeley. It is also noted that small networks may be viable at other sites. Many of the strategic allocations in this area are on the periphery of larger built up areas so demand is not as intense as the central areas.

**Figure 2 - Heat Demand in JCS area (recreated from Gloucestershire County Council (2011) Renewable Energy Study 2 – Resource Assessment, Figure 8.1)**



The study has also identified potential sites for the deployment of stand-alone installations or ‘anchor loads’. These include business parks, boarding schools, etc. A summary of sites with good potential for renewable heating is shown below:

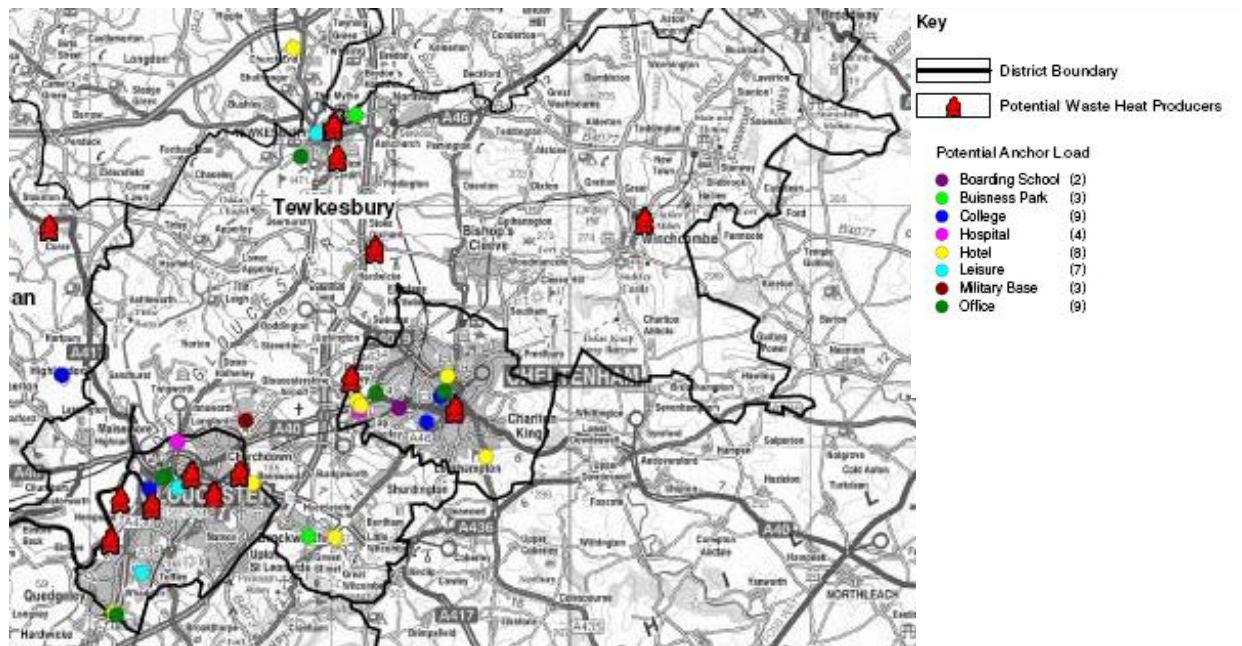
Table 26 - Potential renewable heating sites within JCS area

JCS Authority	Renewable Heating Sites
<b>Cheltenham</b>	2 x Potential Waste Heat Producers 4 x Hotels 2 x Offices 1 x Boarding School 1 x Hospital
<b>Gloucester</b>	6 x Potential Waste Heat Producers 1 x Hospital 2 x Offices 2 x Leisure

JCS Authority	Renewable Heating Sites
	1 x College 1 x Hotel
<b>Tewkesbury</b>	4 x Potential Waste Heat Producers 1 x Leisure 1 x Business Park 1 x Office 1 x Military Base

The feasibility study considers where particular forms of energy are most suitable, in terms of new residential development, and concludes that new build flats/apartment complexes provide the best opportunities, along with other large high density uses such as hospitals, while noting that the use of heat networks may be possible for other forms of development.

**Figure 3 - Sites with Good Potential for Renewable Heating - recreated from Gloucestershire County Council (2011) Renewable Energy Study 2 – Resource Assessment, Figure 8.1**



With respect to potential future projects, the Cheltenham Corporate Strategy identifies a desire to look in more detail at the case for installing a biomass boiler at Leisure@ as a potential replacement for the combined heat and power unit on expiry of the lease in 2015.

#### 4.4.5.5 Funding sources

##### *The UK Green Investment Bank*

The following priority sectors have been determined for the UK Green Investment Bank:

- Offshore wind power generation;



- Commercial and industrial waste processing and recycling;
- Energy from waste generation, including gasification, pyrolysis and anaerobic digestion for the production of heat and/ or power;
- Non-domestic energy efficiency, including onsite renewable energy generation and heat; and
- Support for the Green Deal.

At least 80% of the funds will be invested in these priority sectors.

There is initial capitalisation up to £3 billion until 2015, which the GIB will have powers to borrow (subject to debt falling as a % of GDP) subject to State aid clearance from DG Competition and the European Commission.

## 4.5 Healthcare

### 4.5.1.1 Responsibilities for Delivery

Healthcare structures in Gloucestershire, as across England, are in a period of transition as a result of the Coalition Government's recent health reform plans. Subject to the changes proposed by the Health and Social Care Act 2012, the Gloucestershire Primary Care Trust administration level has been phased out. From April 2013 the responsibility for commissioning and managing primary and secondary healthcare services and the management of healthcare estates moved to the following organisations and groups:

- **NHS England (formerly the NHS Commissioning Board)** – Established in October 2011 as an independent body, at arm's length to the Government, the Commissioning Board's first responsibility was the authorisation of locally based Clinical Commissioning Groups (CCGs) across England. From April 2013 the NHS England became responsible for commissioning **Primary Healthcare** from CCGs in ways that support consistent, high standards of quality across the county.
- **Gloucestershire Clinical Commissioning Group (GCCG)** – In Gloucestershire there is one county-wide Clinical Commissioning Group, with a locality sub-structure. The CCG is a membership organisation and currently membership includes all of the 85 GP practices in the county. Within the JCS area there are three CCG localities: Cheltenham; Gloucester City; and Tewkesbury, Newent and Staunton. From April 2013 the GCCG became responsible for commissioning **Secondary Healthcare** services from the Gloucestershire Hospitals NHS Foundation Trust and other equivalent providers. This is a key element of the Government's objective to establish a clinically-led commissioning system.
- **Secondary Healthcare providers** – The principal secondary healthcare provider for the county is the Gloucestershire Hospitals NHS Foundation Trust, which provides countywide acute hospital services from two large district general hospitals, Cheltenham General Hospital and Gloucestershire Royal Hospital. Gloucestershire Care Services NHS Trust (established in April 2013) delivers nursing and community hospital services. There are eight community hospitals in the county and a major building programme aimed at enhancing or replacing several of them is currently in progress.

- **Gloucestershire County Council and the Gloucestershire Shadow Health and Wellbeing Board** – Established by Gloucestershire County Council, the Board is a high-level strategic group whose purpose is to drive the new health and social care agenda and improve outcomes through monitoring, forward planning and promotion of public health. The Board has oversight of the Joint Strategic Needs Assessment (JSNA) and has a duty to produce a Joint Health and Wellbeing Strategy that identifies key priorities for health and local government commissioning. The County Council and Gloucestershire Clinical Commissioning Group (GCCG) also have a joint statutory responsibility to ensure the use of the Joint Strategic Needs Assessment to inform commissioning and the board has to ensure that GCCG has demonstrated its use in its commissioning plans for the NHS.
- **PropCo** - A Government-owned limited company, NHS Property Services, has taken over ownership and management of that part of the former Primary Care Trust estate that have not transferred to NHS community care providers under the healthcare reform plans. It is intended that PropCo will: hold property for use by community and primary care services, including social enterprises; cut costs of administering the estate overall by consolidating the management of over 150 estates; deliver and develop cost-effective property solutions for community health services; and dispose of property surplus to NHS requirements. It should be noted that some GP surgeries are owned independently.

## 4.5.2 Primary Healthcare

Primary healthcare services which have typically fallen under the direct control of Primary Care Trusts (PCTs) in the past include General Practitioners (GPs), nurses, therapists, dentists, optometrists and pharmacists. This study has focussed on the provision of GP and dentists surgeries as key local services.

### 4.5.2.1 General Practitioners (GPs)

### 4.5.2.2 Responsibilities for delivery and baseline

As summarised above, the Cheltenham, Gloucester City and Tewkesbury (including Newent and Staunton) GCCG Localities will oversee Primary Healthcare in the JCS area, with funding provided by the NHS England.

### 4.5.2.3 Plans and strategies

- **Joint Strategic Needs Assessment (JSNA)** - The Joint Strategic Needs Assessment (JSNA) is a 'live' strategic planning tool which brings together the latest information on the health and wellbeing of people who live in Gloucestershire and people who use Gloucestershire public services. The JSNA looks at all the factors which impact on health and wellbeing, including income, work, environment and housing; and individual lifestyle behaviours, like smoking and alcohol consumption.
- **Joint Health and Wellbeing Strategy: Fit for the Future (2012 – 2032)** - The JSNA informs Gloucestershire's Joint Health and Wellbeing Strategy. The strategy sets out the key priorities for action to improve the health of Gloucestershire's population at different stages of life. It does not yet provide



information on what interventions or programmes will be put in place to achieve improvements, but identifies the following key principles that will guide the development of actions plans:

- Supporting communities to take an active role in improving health.
- Encouraging people to adopt healthy lifestyles to stop problems from developing.
- Taking early action to tackle symptoms or risks.
- Helping people to take more responsibility for their health.
- Helping people to recover quickly from illness and return home to their normal homes.
- Supporting individuals or communities where life expectancy is lower than the county average or where quality of life is poor.

#### 4.5.2.4 Assessment of infrastructure need and costs

As part of the IDP refresh, the Gloucestershire Clinical Commissioning Group (GCCG) has provided the following comments:

- Many of the existing surgeries in the area are at or close to capacity;
- NHS England who oversee primary care provision would strongly urge early discussions with the planning teams regarding the provision of primary care. This will ensure that healthcare provision is provided by way of Community Infrastructure Levy (CIL) or Section 106 contributions.
- In many cases, early dialogue allows for the CCG to discuss possible re-locations of surgeries within proposed residential development sites. These re-located premises will be built to the latest Primary Care standards and will have the ability to expand as the population increases with further development.

*“The draft JCS outlines the need for the provision of 33,200 new houses by 2031 which would create the need to accommodate 77,000 new patients with primary care. At 1800 patients per GP this would therefore mean an increase in GPs of 32 WTE. Under new guidelines for GP Surgeries, each GP would require 150m<sup>2</sup> thus resulting in a need for an additional 6450m<sup>2</sup>. Current build costs for surgeries are approximately £2,000 per m<sup>2</sup> and therefore contributions for these developments would amount to £9,725,500 over the period.*

*GCCG supports the overarching aims of the JCS strategy to support people’s housing needs as good housing is essential for wellbeing. We are pleased to see the inclusion of health in the strategic objectives and we believe the delivery of these objectives needs to be carefully managed through the local plans to ensure that the objectives are delivered.”*

An assessment of the additional GPs and associated surgery space that would be required to support growth has been undertaken in line with comments received. This IDP also incorporates a brief commentary on the implications of an ageing population for healthcare and what this could mean for the evolution of local services and priorities. The assessment has been based on benchmark standards and has assumed that a reasonable average GP list size should be maintained.

Based on the advice of the Gloucestershire Clinical Commissioning Group, the demand for doctors and surgeries is based on:

- An average GP patient list size of 1,800 patients per GP; and
- A capital cost of delivering surgeries based on a standard of 150m<sup>2</sup> per GP, at a capital cost of £2,000/m<sup>2</sup> (the floorspace capital cost of £2,000/ m<sup>2</sup> is based on £1,500 m<sup>2</sup> plus VAT plus 12% fees).

This assessment indicates that residential development set out in the infrastructure planning development scenarios would generate the following:

- Total population growth over the plan period could result in the demand for an additional 32 GPs, with an estimated capital cost of £9.7m to provide surgery space;
- Demand for GPs at a larger proposed strategic allocation, such as North West Cheltenham (4,829 dwellings), results in predicted demand for around 4.7 GPs (Scenario 1) to 5.8 GPs (Scenario 2);
- Smaller proposed developments, such as Urban Area GC (271 dwellings), results in predicted demand for GPs of around 0.26 to 0.33 GPs depending on the mix of dwellings provided.

Table 27 - Assessment of need for General Practitioner positions (GPs)

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.09	£27,829	476	0.26	79,387	207	0.12	£34,517	591	0.33	£98,463
	Urban area GNE	519	180	339	316	0.18	£52,729	912	0.51	£152,036	392	0.22	£65,400	1,131	0.63	£188,570
	Urban area GW	1,200	421	779	740	0.41	£123,328	2,109	1.17	£351,528	918	0.51	£152,963	2,616	1.45	£436,000
	Rural area E	355	161	194	283	0.16	£47,163	624	0.35	£103,994	351	0.19	£58,497	774	0.43	£128,983
	Rural area F	239	45	194	79	0.04	£13,182	420	0.23	£70,013	98	0.05	£16,350	521	0.29	£86,837
	Rural area G	236	45	191	79	0.04	£13,182	415	0.23	£69,134	98	0.05	£16,350	514	0.29	£85,747
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.22	£65,912	5,405	3.00	£900,792	491	0.27	£81,750	6,704	3.72	£1,117,250
	Strategic allocation - North Churchdown	845	150	695	264	0.15	£43,941	1,485	0.83	£247,535	327	0.18	£54,500	1,842	1.02	£307,017
	Strategic allocation - South Churchdown	639	150	489	264	0.15	£43,941	1,123	0.62	£187,189	327	0.18	£54,500	1,393	0.77	£232,170

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.22	£65,912	2,721	1.51	£453,472	491	0.27	£81,750	3,375	1.87	£562,440
	Sub-total	8,927	1,697	7,230	2,983	1.66	£497,120	15,690	8.72	£2,615,079	3,699	2.06	£616,577	19,461	10.81	£3,243,477
Gloucester South	Urban area GSC	911	65	846	114	0.06	£19,041	1,601	0.89	£266,869	142	0.08	£23,617	1,986	1.10	£330,997
	Urban area GSW	421	65	356	114	0.06	£19,041	740	0.41	£123,328	142	0.08	£23,617	918	0.51	£152,963
	Sub-total	1,332	130	1,202	228	0.13	£38,082	2,341	1.30	£390,197	283	0.16	£47,233	2,904	1.61	£483,960
Cheltenham South & West	Urban area CA1	514	111	403	195	0.11	£32,516	903	0.50	£150,571	242	0.13	£40,330	1,121	0.62	£186,753
	Urban area CA4	510	112	398	196	0.11	£32,689	896	0.50	£149,279	243	0.14	£40,544	1,111	0.62	£185,151
	Rural area D	237	46	191	81	0.04	£13,475	417	0.23	£69,427	100	0.06	£16,713	517	0.29	£86,110
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.34	£102,529	1,889	1.05	£314,911	763	0.42	£127,167	2,344	1.30	£390,583
	Strategic allocation - Up Hatherley	795	-	795	-	-	£0	1,397	0.78	£232,888	-	-	£0	1,733	0.96	£288,850

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
	Sub-total	3,131	619	2,512	1,087	0.60	£181,210	5,502	3.06	£917,076	1,349	0.75	£224,754	6,825	3.79	£1,137,448
Cheltenham North	Urban area CA2	509	111	398	195	0.11	£32,516	895	0.50	£149,107	242	0.13	£40,330	1,110	0.62	£184,937
	Urban area CA3	514	111	403	195	0.11	£32,516	903	0.50	£150,571	242	0.13	£40,330	1,121	0.62	£186,753
	Urban area CA5	837	419	418	736	0.41	£122,742	1,471	0.82	£245,191	913	0.51	£152,237	1,825	1.01	£304,110
	Rural area C	237	46	191	81	0.04	£13,475	417	0.23	£69,427	100	0.06	£16,713	517	0.29	£86,110
	Rural area H	240	46	194	81	0.04	£13,475	422	0.23	£70,306	100	0.06	£16,713	523	0.29	£87,200
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	0.39	£116,883	8,488	4.72	£1,414,609	870	0.48	£144,970	10,527	5.85	£1,754,537
	Sub-total	7,166	1,132	6,034	1,990	1.11	£331,608	12,595	7.00	£2,099,211	2,468	1.37	£411,293	15,622	8.68	£2,603,647
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	0.08	£24,607	483	0.27	£80,559	183	0.10	£30,520	600	0.33	£99,917
	Rural area B	237	46	191	81	0.04	£13,475	417	0.23	£69,427	100	0.06	£16,713	517	0.29	£86,110
	Ashchurch MOD	2,125	-	2,125	-	-	£0	3,735	2.07	£622,498	-	-	£0	4,633	2.57	£772,083

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
	Sub-total	2,637	130	2,507	228	0.13	£38,082	4,635	2.57	£772,484	283	0.16	£47,233	5,749	3.19	£958,110
<b>JCS total (excluding committed development)</b>		23,193	3,708	19,485	6,517	3.62	£1,086,103	40,764	22.65	£6,794,046	-	-	-	-	-	-
<b>Committed development</b>		10,007			-	-	-	17,589	9.77	£2,931,454	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		33,200						58,353	32.42	£9,725,500	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail). For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

The locations of the nearest existing GP surgeries with respect to proposed strategic allocations for development within the JCS area are set out in the table below. Existing patient list sizes are also shown to give an impression of relative capacity, however it should be noted that General Practitioners have recommended that the data on the number of GPs is updated to reflect Whole Time Equivalent (WTE) partners, to improve the accuracy of the average patient list size recorded here.

Table 28 - JCS Area Doctors Surgeries

JCS Sub-area	Strategic Location	Surgeries within Strategic allocations (or closest available)	Number of GPs <sup>14</sup>	Patient list size <sup>15</sup>	Average patient list size per GP	Description / comment
<b>Cheltenham - North, East and Central</b>	<b>North West Cheltenham</b>	Nearest surgeries at St Paul's Medical Centre (see below)	-	-	-	St Paul's Medical Centre contains a number of GP practices with a combined patient list of more than 48,000. Further consultation is required to understand whether there is capacity for the surgery to accommodate demand from the large scale of development proposed at North West Cheltenham.
	<b>Cheltenham Urban Areas (CA2, CA3, CA5)</b>	Berkeley Place Surgery, High Street	6	7,407	1,235	
		Corinthian Surgery, St Paul's Medical Centre, Swindon Road	6	8,663	1,444	
		The Portland Practice, St Paul's Medical Centre, Swindon Road	9	13,373	1,486	
		The Royal Crescent Surgery	4	6,631	1,658	
		Royal Well Surgery, St Paul's Medical Centre, Swindon Road	4	6,705	1,676	
		Sevenposts Surgery, Prestbury Road, Prestbury	7	9,837	1,405	
		St Catherines Surgery, St Paul's Medical Centre, Swindon Road	7	9,458	1,351	
		St George's Surgery, St Paul's Medical Centre, Swindon Road	6	9,996	1,666	
	<b>Tewkesbury Rural Area (Areas C and H)</b>	Greyholme, Church Road, Bishop's Cleeve	7	9,837	1,405	
The Surgery, Stoke Road, Bishop's Cleeve		No info	9,476	-		

<sup>14</sup> Data on number of GPs sourced from NHS Choices website in August 2013.

<sup>15</sup> Data source from [www.apho.org.uk](http://www.apho.org.uk) National General Practices Profiles (accessed April 2013)



JCS Sub-area	Strategic Location	Surgeries within Strategic allocations (or closest available)	Number of GPs <sup>14</sup>	Patient list size <sup>15</sup>	Average patient list size per GP	Description / comment
Cheltenham – South West	Up Hatherley	Nearest surgeries at The Hatherly Bank surgery and The Leckhampton Surgery (see below)	-	-	-	The Hatherley Bank and Leckhampton surgeries are both relatively large, with a combined patient list size of around 26,000. Further consultation is required to understand whether there is capacity for the surgery to accommodate demand from development in the south Cheltenham area.
	South Cheltenham (Leckhampton)					
	Cheltenham Urban Areas (CA1, CA4)	Hatherley Surgery, Glebe Farm Court Road	9	13,373	1,486	
		The Leckhampton Surgery, Moorend Park Rd	9	12,548	1,394	
		Overton Park Surgery, Overton Park Road	8	11,199	1,400	
		Sixways Clinic, London Road, Charlton Kings	6	10,563	1,761	
		St Catherine’s Surgery, Hesters Way Healthy Living Centre	6	9,458	1,576	
		Springbank Surgery, Springbank Way	No info (assume 1)	1,072	1,072	
		The Surgery, Crescent Bakery, St Georges Place	4	6,110	1,528	
		Underwood Surgery, St Georges Road & University of Gloucestershire	7	9,802	1,400	
Yorkleigh Surgery, St Georges Road	5	8,675	1,735			
Tewkesbury Rural Area (Area D)	No surgeries within this sub-area.	-	-	-		

JCS Sub-area	Strategic Location	Surgeries within Strategic allocations (or closest available)	Number of GPs <sup>14</sup>	Patient list size <sup>15</sup>	Average patient list size per GP	Description / comment
Gloucester - North	Innsworth & Twigworth	Nearest surgeries – St Johns Avenue, Churchdown and Longlevens Surgery, Church Road	-	-	-	<p>The Longlevens and Churchdown surgeries are located closest to three potential strategic allocations for development along the A40 corridor.</p> <p>The Churchdown surgery is already relatively large, with a patient list size of over 13,000. It is understood that the surgery is exploring options for relocation and this may be influenced by the JCS Preferred Option and phasing of development in the area.</p> <p>Longlevens surgery is a medium sized surgery with around 6,700 patients.</p>
	North Churchdown	Nearest surgeries – St Johns Avenue, Churchdown and Longlevens Surgery, Church Road	-	-	-	
	South Churchdown	Nearest surgeries – St Johns Avenue, Churchdown and Longlevens Surgery, Church Road	7	13,285	1,898	
	North Brockworth	Nearest surgery – The Surgery, Abbotswood Rd, Brockworth	5	8,278	1,656	The existing surgery in Brockworth is medium-sized with around 8,300 patients. Further consultation is required to understand whether there is capacity for the surgery to accommodate demand from development in the Brockworth area, taking into account the extent of committed development Cooper’s Edge.
	Gloucester Urban Areas (GW, GC and GNE)	Barnwood Medical Practice, Barnwood Road	5	6,059	1,212	Barnwood Medical Practice to relocate to new primary care centre on Horton Road (see current projects below).
		Bartongate Surgery, Barton Street	5	8,864	1,773	
		Cheltenham Road	5	8,022	1,604	
		College Yard Surgery	3	4,394	1,465	
Glevum Way Surgery		12	17,267	1,439		
Gloucester Health Access Centre		No info (assume 1)	482	482		
Health Centre, The Park	6	7,900	1,316			

JCS Sub-area	Strategic Location	Surgeries within Strategic allocations (or closest available)	Number of GPs <sup>14</sup>	Patient list size <sup>15</sup>	Average patient list size per GP	Description / comment
		Heathville Road	8	10,010	1,251	Heathville Medical Practice to relocate to new primary care centre on Horton Road (see current projects below).
		Hucclecote Surgery, Brookfield Road	6	8,949	1,492	
		Kingsholm Surgery, Alvin Street	2	4,720	2,360	
		London Road Medical Practice, London Road	5	5,480	1,096	London Road Medical Practice to relocate to new primary care centre on Horton Road (see current projects below).
		Longlevens Surgery, Church Rd	4	6,691	1,673	
		Pavilion Family Doctors	8	13,489	1,686	
		Rosebank Surgery, Stroud Road	5	21,551	4,310	
		St Michael's Surgery, St Michael's Square	12	17,267	1,439	
		Wheatway Surgery	12	17,267	1,439	
		The Vaughan Centre, Southgate Street	No info	No info		The Vaughan Centre provides service for homeless people.
	<b>Tewkesbury Rural Areas (G, F and E)</b>	St Johns Avenue, Churchdown	7	13,285	1,898	
		The Surgery, Abbotswood Rd, Brockworth	5	8,278	1,656	
		Nearest Surgery – Highnam Surgery, Lassington Lane	3	4,394	1,465	
<b>Gloucester - South</b>	<b>Gloucester Urban Areas (GSW, GSC)</b>	Matson Lane Surgery, Matson Lane	3	2,075	692	
		Quedgeley Medical Centre	1	3,753	3,753	

JCS Sub-area	Strategic Location	Surgeries within Strategic allocations (or closest available)	Number of GPs <sup>14</sup>	Patient list size <sup>15</sup>	Average patient list size per GP	Description / comment
		Saintbridge Surgery, Askwith Road	4	7,983	1,996	
		Severnvale Surgery, Quedgeley	7	21,551	3,079	
		St James Family Doctors, Quedgeley Health Campus	8	13,489	1,686	
		Tuffley Lane, Gloucester	1	4,181	4,181	
		Warwick Avenue, Tuffley	7	10,010	1,430	
<b>Tewkesbury and Ashchurch</b>	<b>Ashchurch MOD</b>	Nearest surgeries are located within Tewkesbury, Bredon and Beckford	-	-	-	It is expected that the potential strategic allocations for development would be served by a cluster of surgeries in Tewkesbury. Further consultation is required to understand whether there is capacity for the surgery to accommodate demand from development in the Tewkesbury area.
			-	-	-	
	<b>Tewkesbury sub-area A</b>	Church Street Practice, Tewkesbury	10	12,628	1,263	
		Jesmond House Practice, Tewkesbury	4	4,908	1,227	
		Wartledge Surgery, Tewkesbury	6	7,185	1,198	
		Bredon Hill Surgery, Bredon	3	5,170	1,723	
	<b>Tewkesbury sub-area B</b>	Beckford Village Hall, Beckford				

## *Demographic Considerations*

A foremost issue with respect to future healthcare delivery across Gloucestershire is that of the ageing population, which is expected to lead to increased demand for healthcare services and a transformation in service delivery. The number of older people aged 65+ in the county has been growing by an average of 1,500 people per year over the last 10 years or so. Projections suggest that this will double to an increase of about 3,100 people on average between now and 2021. Long-range projections covering the next twenty years are not yet available but the increase is expected to accelerate post 2021 as a result of rising life expectancy and the demographic impacts of two generations of baby boomers. The projected percentage increase of the older population is greater in Gloucestershire than in England over the period 2021-2031 (27% compared to 24%).

‘Ready for Ageing?’<sup>16</sup>, a recent report prepared for a House of Lords select committee, advises that a rapidly ageing society means many more people living more years, often with one or more chronic long-term health conditions; a consequence of this and other pressures is a large increase in health and social care costs. Predicted increases in demand for health and social care from 2010 to 2030 for people aged 65 and over in England and Wales include:

- people with diabetes: up by over 45%
- people with arthritis, coronary heart disease, stroke: each up by over 50%
- people with dementia (moderate or severe cognitive impairment): up by over 80% to 1.96 million
- people with moderate or severe need for social care: up by 90%

The treatment and care of people with long-term conditions accounted for 70% of the total health and social care spend in England in 2010, so the large increases in the number of older people with long-term conditions will create significant extra costs. ‘Care at home – whenever possible’ provides a summary statement for the recommended evolution of service delivery, which would:

- be more focused on prevention, early diagnosis, intervention, and managing long-term conditions to prevent degeneration, with much less use of acute hospitals;
- be centred on the individual person, with patients engaged in decisions about their care and supported to manage their own conditions in their own homes so that they can be prevented from deteriorating;
- have the home as the hub of care and support, including emotional, psychological and practical support for patients and caregivers;
- ensure older people only go into hospitals or care homes if essential, although they must have access to good specialist and diagnostic facilities to ensure early interventions for reversible conditions and prevent decline into chronic ill health.

‘Ready for Ageing’ concludes that a remarkable shift in NHS services will be needed to deliver this. Older people with long-term conditions need good, joined-up primary care, community care and social care, with effective out-of hour

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<sup>16</sup> House of Lords Select Committee on Public Service and Demographic Change ‘Ready for Ageing?’ – report’ (14 March 2013)

services. Such services make it possible to minimise hospital stays. The report remarks that time in hospitals is often not what older people want or need, and is expensive.

While the details of policy and service delivery mechanisms are yet to be worked through in full, there is a clear implication for the demands placed on primary healthcare and community care services.

#### 4.5.2.5 Current projects

There is a current significant project to provide a new primary healthcare centre in Gloucester, involving the co-location of three existing GP surgeries:

- **Horton Road Primary Care Centre** – the new primary care centre will provide for the relocation of the Barnwood Medical Practice, Heathville Road Surgery and London Road Medical Practice. The existing surgery premises are no longer fit for purpose, with constraints that make them unsuitable for delivery of modern primary care services. The new primary care centre will provide new and extended accommodation as follows: accommodation to enable medical practices to meet the needs of an ever increasing patient list; minor surgery; integrated pharmacy; provision of more specialised ‘secondary services’; and facilities for training and research. Planning permission has been granted and works have commenced on site.

#### 4.5.2.6 Dentists

#### 4.5.2.7 Responsibilities for delivery and baseline

Under the Health and Social Care Act 2012, responsibility for commissioning and managing NHS dental contracts moved from local PCTs to NHS England (previously the NHS Commissioning Board) in April 2013. Most dental care is provided by privately operated general dental practitioner surgeries, for whom NHS contracts are very important. Some treatment, however, is carried out directly by NHS community dental services and hospital dental departments.

Local Dental Networks (LDNs) now clinically lead on and own the delivery of:

- quality and performance improvement and assurance;
  - local implementation of NHS England Strategy;
  - planning and designing local care pathways and services;
  - oral health strategy and improvement; and
  - clinical and professional leadership and engagement.
- Dental Provision is measured by UDAs (units of dental activity) or UOAs (units of orthodontic activity). Contractors are commissioned to provide a specific volume of activity, which across the Gloucestershire County totals 844,866 UDAs and 42,218 UOAs, at a cost of £20.5m.

#### 4.5.2.8 Assessment of Infrastructure Needs and Costs

A preliminary assessment of predicted demand for additional dental services assumes that a current average Dentist list size is maintained at the District's surgeries. The demand for dentists is based on the average number of dentists in the South West region of 0.5 per 1,000 population (taken from the NHS Information Centre *NHS Dental Statistics for England: 2010/2011*). The capital cost of delivering surgeries is based on a standard of 130m<sup>2</sup> per Dentist, at a capital cost of £1,400/m<sup>2</sup> (floorspace standard taken from NHS London Healthy Urban Developments Unit model, with estimated cost based on BCIS Online Q2 2013 information and Spons 2012 surgery example, rebased for 2013 and Gloucestershire location).

The assessment of need based on the benchmark standards (see Table 29) indicates the following:

- Total population growth over the plan period could result in the demand for an additional 29.2 dentists, with an estimated capital cost of £5.3m to provide surgery space.
- Demand for dentists at a larger proposed allocation, such as North West Cheltenham (4,829 dwellings), results in predicted demand for around 4.2 dentists (Scenario 1) to 5.2 dentists (Scenario 2), depending on the mix of dwellings provided.
- Smaller proposed developments, such as Urban Areas GC (271 dwellings), results in predicted demand for around 0.08 to 0.3 dentists, depending on the mix of dwellings provided.

Table 29 - Assessment of need for Dentists

JCS Sub-area	Econometric s area / Allocations	New Dwelli ngs	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost	Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.08	£15,195	476	0.24	£43,345	207	0.12	£34,517	591	0.33	£98,463
	Urban area GNE	519	180	339	316	0.16	£28,790	912	0.46	£83,012	392	0.22	£65,400	1,131	0.63	£188,570
	Urban area GW	1,200	421	779	740	0.37	£67,337	2,109	1.05	£191,935	918	0.51	£152,963	2,616	1.45	£436,000
	Rural area E	355	161	194	283	0.14	£25,751	624	0.31	£56,781	351	0.18	£31,939	774	0.39	£70,425
	Rural area F	239	45	194	79	0.04	£7,198	420	0.21	£38,227	98	0.05	£8,927	521	0.26	£47,413
	Rural area G	236	45	191	79	0.04	£7,198	415	0.21	£37,747	98	0.05	£8,927	514	0.26	£46,818
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.20	£35,988	5,405	2.70	£491,832	491	0.25	£44,636	6,704	3.35	£610,019
	Strategic allocation - North Churchdown	845	150	695	264	0.13	£23,992	1,485	0.74	£135,154	327	0.16	£29,757	1,842	0.92	£167,631
	Strategic allocation - South Churchdown	639	150	489	264	0.13	£23,992	1,123	0.56	£102,205	327	0.16	£29,757	1,393	0.70	£126,765



JCS Sub-area	Econometric s area / Allocations	New Dwelli ngs	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost	Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.20	£35,988	2,721	1.36	£247,596	491	0.25	£44,636	3,375	1.69	£307,092
	Sub-total	8,927	1,697	7,230	2,983	1.49	£271,427	15,690	7.85	£1,427,833	3,699	1.85	£336,651	19,461	9.73	£1,770,938
Gloucester South	Urban area GSC	911	65	846	114	0.06	£10,396	1,601	0.80	£145,710	142	0.07	£12,895	1,986	0.99	£180,724
	Urban area GSW	421	65	356	114	0.06	£10,396	740	0.37	£67,337	142	0.07	£12,895	918	0.46	£83,518
	Sub-total	1,332	130	1,202	228	0.11	£20,793	2,341	1.17	£213,047	283	0.14	£25,789	2,904	1.45	£264,242
Cheltenham South & West	Urban area CA1	514	111	403	195	0.10	£17,754	903	0.45	£82,212	242	0.12	£22,020	1,121	0.56	£101,967
	Urban area CA4	510	112	398	196	0.10	£17,848	896	0.45	£81,507	243	0.12	£22,137	1,111	0.56	£101,092
	Rural area D	237	46	191	81	0.04	£7,357	417	0.21	£37,907	100	0.05	£9,125	517	0.26	£47,016
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.31	£55,981	1,889	0.94	£171,941	763	0.38	£69,433	2,344	1.17	£213,259

JCS Sub-area	Econometric s area / Allocations	New Dwelli ngs	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost	Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost
	Strategic allocation - Up Hatherley	795	-	795	-	-	£0	1,397	0.70	£127,15 7	-	-	£0	1,733	0.87	£157,71 2
	Sub-total	3,131	619	2,51 2	1,087	0.54	£98,94 1	5,502	2.75	£500,72 4	1,349	0.67	£122,7 16	6,825	3.41	£621,04 6
<b>Cheltenham North</b>	Urban area CA2	509	111	398	195	0.10	£17,75 4	895	0.45	£81,412	242	0.12	£22,02 0	1,110	0.55	£100,97 5
	Urban area CA3	514	111	403	195	0.10	£17,75 4	903	0.45	£82,212	242	0.12	£22,02 0	1,121	0.56	£101,96 7
	Urban area CA5	837	419	418	736	0.37	£67,01 7	1,471	0.74	£133,87 4	913	0.46	£83,12 1	1,825	0.91	£166,04 4
	Rural area C	237	46	191	81	0.04	£7,357	417	0.21	£37,907	100	0.05	£9,125	517	0.26	£47,016
	Rural area H	240	46	194	81	0.04	£7,357	422	0.21	£38,387	100	0.05	£9,125	523	0.26	£47,611
	Strategic allocation - North West Cheltenham	4,829	399	4,43 0	701	0.35	£63,81 8	8,488	4.24	£772,37 7	870	0.43	£79,15 4	10,527	5.26	£957,97 7
	Sub-total	7,166	1,132	6,03 4	1,990	0.99	£181,0 58	12,595	6.30	£1,146, 169	2,468	1.23	£224,5 66	15,622	7.81	£1,421, 591
<b>Tewkesbury &amp; Ashchurch</b>	Rural area A	275	84	191	148	0.07	£13,43 5	483	0.24	£43,985	183	0.09	£16,66 4	600	0.30	£54,555

JCS Sub-area	Econometric s area / Allocations	New Dwelli ngs	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost	Populat ion	Dema nd	Capit al Cost	Populat ion	Dema nd	Capital Cost
	Rural area B	237	46	191	81	0.04	£7,357	417	0.21	£37,907	100	0.05	£9,125	517	0.26	£47,016
	Ashchurch MOD	2,125	-	2,125	-	-	£0	3,735	1.87	£339,884	-	-	£0	4,633	2.32	£421,558
	Sub-total	2,637	130	2,507	228	0.11	£20,793	4,635	2.32	£421,776	283	0.14	£25,789	5,749	2.87	£523,128
<b>JCS total (excluding committed development)</b>		23,193	3,708	19,485	6,517	3.26	£593,012	40,764	20.38	£3,709,549	-	-	-	-	-	-
<b>Committed development</b>		10,007			-	-	-	17,589	8.79	£1,600,574	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		33,200			-	-	-	58,353	29.18	£5,310,123	-	-	-	-	-	-

**Note:** Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail). For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.

Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.

### **4.5.2.9 Recent and current projects**

No current projects to establish new dentists' surgeries within the District have been identified.

## **4.5.3 Secondary Healthcare**

### **4.5.3.1 Responsibilities for delivery**

At present, Gloucestershire Hospitals NHS Foundation Trust provides countywide acute hospital services from two large district general hospitals, Cheltenham General Hospital and Gloucestershire Royal Hospital.

Gloucestershire Care Services NHS Trust (established in April 2013) delivers nursing and community hospital services. There are eight community hospitals in the county and a major building programme aimed at enhancing or replacing several of them is currently in progress.

### **4.5.3.2 Plans & Strategies**

Gloucestershire Hospitals NHS Foundation Trust "Forward Plan Strategy Document" (2013-2014) – this sets out the Trust's priorities for the next three years, that will enable it to deliver appropriate, high quality and cost-effective services for its patients.

Gloucestershire Care Services NHS Trust "Our priorities for 2013-2014" – The document sets out the Trust's ambition to provide comprehensive community and social care, with the aim of providing services as part of a seamless pathway between acute hospital and primary care. This includes specialist community provision that increasingly delivers local treatments as an alternative to hospital care. No specific capital projects are identified in this summary document.

### **4.5.3.3 Baseline**

In 2012/13 the Hospitals Trust secured around 80% of the locally available acute funding and therefore retains the majority of the market share in Gloucestershire. The Hospitals Trust is also a net 'importer' of patients for the services they deliver, suggesting that more patients come from surrounding counties into the Trust than those who leave the Gloucestershire area to providers outside the county.

One of the seven Community Hospitals currently operated by Gloucestershire Care Services NHS Trust are located within the JCS area, providing local facilities in Tewkesbury. Tewkesbury Community Hospital has recently been replaced with a new £10m purpose-built hospital (opened 7th October 2013) in the centre of the town. The new hospital has 20 inpatient beds (single bedroom, with ensuite facilities), x-ray, a minor injuries unit, facilities for out-patients

clinic, theatre with recovery suite for day case and minor surgical procedures, and an assessment and rehabilitation unit.<sup>17</sup>

The following table summarises the average number of beds available and percentage of occupied beds by sector for hospitals operated by Gloucestershire NHS Foundation Trust and Gloucestershire Care Services. The information shown is sourced from the Department of Health Unify2 data collection (KH03 – January to March 2012), with the number of beds available per 1,000 population based on the county population of 596,984 (2011 census estimate). This does not account for movement of people across county boundaries for treatment, such as use of hospitals in Swindon or Bristol.

Table 30 - Availability of hospital beds in Gloucestershire

Bed Type	Number available	Number available / 1,000 pop	Number occupied	% Occupied	% Occupied, England average
General & Acute (Hospitals Trust)	980	-	908	92.6%	-
General & Acute (PCT)	80	-	76	95.4%	-
General & Acute Sub-total	1,060	1.78	984	92.8%	89%
Learning Disabilities	-	-	-	-	
Maternity	46	0.08	39	85.1%	61%
Mental Illness	-	-	-	-	
Total	1,106	1.85	1,023	92.5%	86.9%

These figures demonstrate that there is less than 10% spare capacity in the system for General and Acute beds and that the level of bed occupation is higher than the average for England. This is particularly the case for maternity beds.

#### 4.5.3.4 Assessment of infrastructure needs and costs

The Hospital Trust’s Annual Plan refers to the challenges posed by a growing and ageing population, noting that the population of Gloucestershire will increase from 597,200 to 636,400 over a ten year period and that the population is ageing at a higher than national average rate. Key areas of investment identified by the Hospitals Trust are:

- developing the workforce;
- developing information technology and communications infrastructure; and
- developing buildings and equipment infrastructure – each year the Trust plans to create a financial surplus to enable it to maintain a capital programme. Priorities for the capital programme over the next three years include a satellite radiotherapy unit in Hereford, improvements to the clinical areas

<sup>17</sup> Source: <http://www.glos-care.nhs.uk/our-services/community-hospitals/tewkesbury-hospital> (accessed October 2013)

around the trust, new and replacement equipment, and implementation of SmartCare and our technology blueprint.

In order to provide a preliminary high level assessment of long term acute care needs for the purpose of this study, a standards based approach has been utilised. This applies an overall target that the average number of General and Acute beds of 1.78 per 1,000 population is maintained. Capital costs have been estimated based on a floorspace standard of 50m<sup>2</sup> per bed (based on the NHS London Healthy Urban Development Unit model) and cost per bed of £1,700/m<sup>2</sup>, based on BCIS Online April 2013 information with cost rebased to a Gloucestershire location.

The results of the assessment is summarised in Table 31, and indicate that the total population growth over the plan period would result in the need for around 104 additional acute care bedspaces at an estimated cost of £8,8m.

Table 31 - Assessment of need for General and Acute Care Hospital Beds

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.30	£25,263	476	0.85	£72,067	207	0.37	£31,334	591	1.05	£89,385
	Urban area GNE	519	180	339	316	0.56	£47,868	912	1.62	£138,018	392	0.70	£59,370	1,131	2.01	£171,184
	Urban area GW	1,200	421	779	740	1.32	£111,957	2,109	3.75	£319,118	918	1.63	£138,860	2,616	4.66	£395,801
	Rural area E	355	161	194	283	0.50	£42,815	624	1.11	£94,406	351	0.62	£53,103	774	1.38	£117,091
	Rural area F	239	45	194	79	0.14	£11,967	420	0.75	£63,558	98	0.17	£14,843	521	0.93	£78,830
	Rural area G	236	45	191	79	0.14	£11,967	415	0.74	£62,760	98	0.17	£14,843	514	0.92	£77,841
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.70	£59,835	5,405	9.62	£817,739	491	0.87	£74,213	6,704	11.93	£1,014,240
	Strategic allocation - North Churchdown	845	150	695	264	0.47	£39,890	1,485	2.64	£224,712	327	0.58	£49,475	1,842	3.28	£278,710
	Strategic allocation - South Churchdown	639	150	489	264	0.47	£39,890	1,123	2.00	£169,930	327	0.58	£49,475	1,393	2.48	£210,764
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.70	£59,835	2,721	4.84	£411,662	491	0.87	£74,213	3,375	6.01	£510,583
Sub-total	8,927	1,697	7,230	2,983	5.31	£451,285	15,690	27.93	£2,373,968	3,699	6.59	£559,728	19,461	34.64	£2,944,428	
Gloucester South	Urban area GSC	911	65	846	114	0.20	£17,286	1,601	2.85	£242,263	142	0.25	£21,439	1,986	3.54	£300,479
	Urban area GSW	421	65	356	114	0.20	£17,286	740	1.32	£111,957	142	0.25	£21,439	918	1.63	£138,860
	Sub-total	1,332	130	1,202	228	0.41	£34,571	2,341	4.17	£354,220	283	0.50	£42,878	2,904	5.17	£439,339
Cheltenham South & West	Urban area CA1	514	111	403	195	0.35	£29,518	903	1.61	£136,689	242	0.43	£36,612	1,121	1.99	£169,535
	Urban area CA4	510	112	398	196	0.35	£29,675	896	1.59	£135,516	243	0.43	£36,806	1,111	1.98	£168,080
	Rural area D	237	46	191	81	0.14	£12,233	417	0.74	£63,026	100	0.18	£15,172	517	0.92	£78,171

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
	Strategic allocation - South Cheltenham	1,075	350	725	615	1.10	£93,076	1,889	3.36	£285,876	763	1.36	£115,442	2,344	4.17	£354,572
	Strategic allocation - Up Hatherley	795	-	795	-	-	£0	1,397	2.49	£211,415	-	-	£0	1,733	3.08	£262,218
	Sub-total	3,131	619	2,512	1,087	1.94	£164,502	5,502	9.79	£832,522	1,349	2.40	£204,032	6,825	12.15	£1,032,575
Cheltenham North	Urban area CA2	509	111	398	195	0.35	£29,518	895	1.59	£135,359	242	0.43	£36,612	1,110	1.98	£167,886
	Urban area CA3	514	111	403	195	0.35	£29,518	903	1.61	£136,689	242	0.43	£36,612	1,121	1.99	£169,535
	Urban area CA5	837	419	418	736	1.31	£111,425	1,471	2.62	£222,584	913	1.63	£138,200	1,825	3.25	£276,071
	Rural area C	237	46	191	81	0.14	£12,233	417	0.74	£63,026	100	0.18	£15,172	517	0.92	£78,171
	Rural area H	240	46	194	81	0.14	£12,233	422	0.75	£63,824	100	0.18	£15,172	523	0.93	£79,160
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	1.25	£106,107	8,488	15.11	£1,284,182	870	1.55	£131,604	10,527	18.74	£1,592,768
	Sub-total	7,166	1,132	6,034	1,990	3.54	£301,034	12,595	22.42	£1,905,663	2,468	4.39	£373,372	15,622	27.81	£2,363,590
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	0.26	£22,338	483	0.86	£73,131	183	0.33	£27,706	600	1.07	£90,704
	Rural area B	237	46	191	81	0.14	£12,233	417	0.74	£63,026	100	0.18	£15,172	517	0.92	£78,171
	Ashchurch MOD	2,125	-	2,125	-	-	£0	3,735	6.65	£565,104	-	-	£0	4,633	8.25	£700,897
	Sub-total	2,637	130	2,507	228	0.41	£34,571	4,635	8.25	£701,261	283	0.50	£42,878	5,749	10.23	£869,772
JCS total (excluding committed development)		23,193	3,708	19,485	6,517	11.60	£985,964	40,764	72.56	£6,167,635	-	-	-	-	-	-
Committed development		10,007			-	-	-	17,589	31.31	£2,661,174	-	-	-	-	-	-



JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost	Population	Demand (GPs)	Capital Cost
<b>Total Draft JCS New Housing</b>		33,200						58,353	103.87	£8,828,809	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail). For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

It is understood from initial discussions with the Gloucestershire Hospitals NHS Foundation Trust that they are undertaking their own service planning based on the Office of National Statistics (ONS) 2011-based Subnational Population Projections. Therefore, assuming the population projections underpinning the JCS do not exceed the ONS projections that inform the Hospital Trusts own planning processes, there is a reasonable expectation that sufficient capacity will be made available. The hospitals typically serve wide catchments and therefore the precise locations of development are less of a concern, subject to transport accessibility considerations.

As shown in the table below, for the year 2021 the lower growth scenario assumed for the JCS area equates to a slightly lower population projection than the ONS 2011-based Interim projection, while the higher growth scenario is around 700 people higher than the ONS projection. Further consultation with the Hospitals Trust needs to be undertaken to discuss these differences in the projections and longer term service provision for the period 2021 to 2031.

Table 32 - Comparison of ONS 2011-based population projections and JCS population projections

Population Projections	2011	2021	2031
ONS 2011-based Interim Projections	319,835	351,377	-
JCS Population Projection (Lower growth scenario) <sup>18</sup>	319,835	349,521 <sup>19</sup>	379,206
JCS Population Projection (Higher growth scenario)	319,835	352,075	384,315

For the Gloucestershire Care Services NHS Trust, the specific location of development is of greater relevance as the Community Hospitals tend to serve smaller catchment areas. The Care Services NHS Trust are in the process of updating their estates strategy and therefore the emerging development plans for the JCS area and Gloucestershire as a whole can be factored into this process.

#### 4.5.3.5 Recent and current projects

The following building projects have been identified through the IDP review work to date, : the provision of a satellite radiotherapy unit in Herefordshire by the Hospitals NHS Trust; and modernisation and relocation of Tewkesbury Community Hospital, a £10m purpose built hospital which opened in October 2013.

<sup>18</sup> JCS Population Projections figures provided by Nathaniel Lichfield & Partners (from 'The new Household Projections and their implications for the Cheltenham Borough Council, Gloucester City Council and Tewkesbury Borough Council areas', Cambridge Centre for Housing and Planning Research, May 2013).

<sup>19</sup> Population figure for 2021 based on projected population change between 2011 and 2031, divided by two.

## 4.6 Flood management, water supply and wastewater

### 4.6.1 Flood risk management

#### 4.6.1.1 Responsibilities for delivery

When preparing the Joint Core Strategy it is the responsibility of Cheltenham BC, Gloucester CC and Tewkesbury BC to ensure that inappropriate development in areas at risk of flooding is avoided, but where development is necessary in flood risk areas, this can be provided safely and without increasing flood risk elsewhere. Local development plans should be supported by Strategic Flood Risk Assessment and develop policies to manage flood risk from all sources, using opportunities offered by new development to reduce the causes and impacts of flooding (NPPF, paragraph. 100).

Wider responsibilities for flood risk management are complex and shared amongst a number of organisations. A summary of responsibilities most relevant to the IDP is provided below<sup>20</sup> and a full list of responsibilities is attached at Appendix C.

**The Environment Agency (EA)** – With its national role, the EA has a strategic overview of all sources of flooding and coastal erosion (as defined in the Flood and Water Management Act). It is responsible for flood and coastal erosion risk management activities on main rivers and the coast, regulating reservoir safety, and working in partnership with the Met Office to provide flood forecasts and warnings. It must also look for opportunities to maintain and improve the environment for people and wildlife while carrying out all of its duties.

The Environment Agency is a ‘category one responder’ to flood events under the Civil Contingencies Act.

**Gloucestershire County Council (GCoC) as Lead Local Flood Authority (LLFA)** – The LLFA is required to perform roles that include:

- prepare and maintain a strategy for local flood risk management in their areas;
- maintain a register of assets and designate flood risk management assets;
- investigate significant local flooding incidents and publish the results;
- establish approval bodies for Sustainable Drainage Systems (SuDS); and
- play a lead role in emergency planning and recovery after a flood event.
- As the Highways Authority, GCoC has lead responsibility for providing and managing highway and roadside drainage under the Highways Act 1980.
- **Cheltenham BC, Gloucester CC and Tewkesbury BC** – all LAs are ‘category one responders’ to flood events under the Civil Contingencies Act and are also able to designate flood risk management assets.

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<sup>20</sup> Summary of Local Government Association information:  
<http://www.local.gov.uk/web/guest/local-flood-risk-management/>

- **Water and wastewater companies** – Water companies are responsible for the provision, maintenance and operation of public sewers and works for the purposes of ‘effectually draining’ their area. They are also responsible for managing the risk of flooding to water supply and sewerage facilities and the risk to others from the failure of their infrastructure. The utilities are partners in developing the county flood defence strategy and must share data with the LLFA.
- **Lower Severn Internal Drainage Board (IDB)** – IDBs are local public authorities established in areas of special drainage need within the UK. They have permissive powers to undertake works to reduce flood risk and manage water levels within their respective drainage areas. The Lower Severn IDB area includes land alongside the River Severn at Gloucester and as far north as Tewkesbury.
- **Site developers** – site developers must demonstrate that their proposals would not increase flooding elsewhere and, if the site is in an area at risk of flooding, demonstrate that the development is appropriately flood resilient and resistant (NPPF, para. 103).

#### 4.6.1.2 Sector plans and strategies

The following plans and strategies have been reviewed to inform the IDP:

**Gloucestershire County Council Preliminary Flood Risk Assessment (PFRA)(Nov 2011)** – Undertaken in compliance with the EC Floods Directive and UK Flood Risk Regulations (2009), the PFRA is a high level screening exercise to identify the areas of most significant ‘flood risk areas’ across Europe. Using national criteria approved by Defra it was found that there are ten ‘Flood Risk Areas’ in England, none of which are in Gloucestershire. GCoC did not propose to add any new ‘Flood Risk Areas’ for the PFRA, but have identified actions that include the development Surface Water Management Plans for the most vulnerable areas.

**Severn Estuary Shoreline Management Plan (SMP)(2000) and SMP2 (Dec, 2010)** – The aim of the Shoreline Management Plan is to provide the basis for sustainable coastal defence policies within the Severn Estuary and to develop objectives for the future management of the shoreline. Sustainable coastal defence policies need to take account of the inter-relationships between defences, developments and processes within the Estuary, and they should avoid as far as possible tying future generations into inflexible and expensive options for defence. Actions identified in relation to the shoreline in the JCS area (Gloucester and Tewkesbury) include:

- research to identify where new Managed Realignment defences will be, when they will be built and they should be constructed;
- undertake a study into opportunities to remove flood embankments;
- encourage utility providers (water and electricity) to undertake an assessment of the current and future risks and resilience of their assets to flooding.

**Severn Tidal Tributaries Catchment Flood Management Plan (CFMP)(Dec 2009)** – CFMPs are intended to provide an understanding of the scale and extent of flooding now and in the future and set policies for managing flood risk within the river catchment. The Gloucester streams, partly located within the City

Council area and Tewkesbury District, both fall within the Severn Tidal Tributaries CFMP plan area. The CFMP identifies that there is a relatively high level of fluvial flood risk throughout this sub-area and tide-locking is a further significant source of flooding.

Essential infrastructure at risk includes six electricity sub-stations, one emergency response centre, three schools, 3km of A and B class roads and a section of railway line.

Actions identified for the CFMP plan area include: ensure floodplains are not inappropriately developed; encourage urban best practices in land-use to restore more sustainable natural floodplains; review how effective and sustainable each flood defence is; remove sediment more frequently from key points on the Dimore Brook; and seek opportunities to sustain and increase the amount of floodplain grazing on lower reaches of the Gloucester streams.

***Severn Estuary Flood Risk Management Strategy (2013 Consultation)*** – The Strategy is the Environment Agency’s plan to manage tidal flood risks in the Severn Estuary. The three main objectives of the strategy are:

- To define a 100 year plan of investment for flood defences by the Environment Agency and local authorities.
- To prioritise other flood risk management measures such as providing advice to utility companies to protect critical infrastructure, development control advice and flood warning investment.
- To decide where we should create new inter-tidal wildlife habitats to compensate for losses of habitat caused by rising sea levels.

***Gloucestershire Flood Risk Management Strategy – Consultation Draft (July 2013)*** – the County Council are in the process of preparing a Local Flood Risk Management Strategy, which was published for consultation during the summer 2013. The strategy is being prepared in consultation with a Flood Risk Management Partnership Group, which includes representatives from Cheltenham BC, Gloucester CC and Tewkesbury BC. A list of initial priority locations is identified in the draft strategy, helping target limited financial resources to the areas of greatest risk and promote transparency in decision-making (see assessment section below for further details).

***Level 1 Strategic Flood Risk Assessment (SFRA)(Sep 2008)*** – Gloucestershire County Council together with Cheltenham BC, Gloucester CC and Tewkesbury BC commissioned the SFRA to inform the preparation of Local Plans. The aim of the SFRA is to map all forms of flood risk and use this as an evidence base to locate new development primarily in low flood risk areas (Zone 1). Where development cannot be located in Flood Zone 1, the planning authority should apply the Sequential Test to land use allocations and, where necessary, the Exception Test (requiring a Level 2 SFRA).

***Level 2 Strategic Flood Risk Assessment (SFRA)(October 2011) and Additional Assessment (January 2013)*** – The JCS SFRA Level 2 provides a more detailed assessment of areas which have been identified as potential development locations.

Groundwater Scoping Study – The County Council is in the process of preparing a groundwater study that will cover the JCS area (confirmation requested from the County Council).

#### 4.6.1.3 Assessment of local infrastructure needs and costs

In order to provide an overview of flood risk management infrastructure needs, this study provides a summary review of flood risk and proposed mitigation measures for each of the JCS sub-areas and strategic allocations.

Proposed strategic development locations within the JCS are informed by Strategic Flood Risk Assessments (SFRA Levels 1 and 2). Developable areas within the strategic allocations are located within areas that are at low risk of flooding (Flood Zone 1) unless informed by more detailed flood risk assessment.

As described in Table 33 below, for most of the strategic locations, only small parts of the site are located with Flood Zones 2 and 3 (medium and high risk), and therefore it should be possible to avoid development in these areas through the careful masterplanning of development proposals. The more constrained strategic locations in this regard, given the higher proportion of land at risk of flooding, are:

- Innsworth, to the north of Gloucester; and
- The part of the south Churchdown strategic location located to the north of the A40.
- Nevertheless, it is still expected to be possible to achieve significant numbers of dwellings within these large sites, based on more detailed flood risk assessment and design work.

For each strategic location identified within the Joint Core Strategy, a Site Specific Flood Risk Assessment will be required to demonstrate flood risk to the site is appropriately managed and that flood risk is not increased elsewhere (NPPF paragraph 103). It is not expected at this stage that any unusually onerous site specific flood risk management infrastructure requirements will arise. The Environment Agency has also advised that, providing developers undertake adequate and appropriate surface water drainage management, the allocations are not anticipated to require further infrastructure provision as a result of exacerbating flood risk.

The SFRA Level 2 does identify that certain sites within the urban area of Cheltenham are affected in flood modelling of 1 in 20 year events, with a much larger number of sites affected during the 1 in 1,000 year event. In the case of Gloucester City, it is identified that large parts of the existing urban area are at risk from fluvial, tidal, canal and surface water flooding. Further work may therefore be required to identify flood risk management measures that enable development and potentially help to alleviate flood risk in neighbouring parts of the two urban areas.

Some existing areas of flood risk within the JCS area are to be targeted through projects identified in the Draft Gloucestershire Flood Risk Management Strategy. Eight flood risk management projects within the JCS area are identified as Initial Priority Locations for investment (as set out in Table 33 below for each JCS sub-area). In some cases there may be potential for joined-up investment in packages

of flood risk management measures that benefit both strategic allocations for development and existing properties.

With respect to the Environment Agency's long term plan to manage tidal flood risks in the Severn Estuary, the coverage of the Severn Estuary Flood Risk Management Strategy (2013 Consultation) extends as far north as the Hempsted area of Gloucester. The consultation document sets out the following recommendation for defences adjoining Quedgeley, Rea and Hempsted:

- ***Quedgeley, Rea and Hempsted*** – Properties in Quedgeley are protected by high ground which includes the Gloucester and Sharpness Canal. Most properties in this area have a risk of flooding from the River Severn of a 1 in 200 chance or less in any year. A sea level rise of 0.1m (by 2030) would mean the embankments would need to be raised to sustain the current level of protection to properties. The EA intends to continue to maintain the defences (as funds allow) and to sustain the current level of protection, as the high number of properties in this area, as well as industry and infrastructure, means there are high economic benefits for ensuring the continued integrity of the defences.

The Environment Agency therefore provides a commitment, subject to funding pressures, to continue to protect these areas of Gloucester from tidal flood risk.

Drainage capacity has been a factor in recent flooding events in Gloucestershire and it is recommended that the JCS or associated development management policies should include policy emphasising the need for this potential cause of flooding to be assessed robustly within site-specific Flood Risk Assessments. The need for early engagement with the relevant wastewater utility provider, the Environment Agency and County Council should be highlighted within the policy, on the basis that planning conditions requiring capacity upgrades (where necessary) could influence how quickly development can be brought forward (see also wastewater section below).

Table 33 – Review of flood risk management information by sub-area and strategic location for development

JCS Sub-area	Strategic Location	SFRA Level 2	Draft Flood Risk Management Strategy Initial Priority Locations and Mitigation Measures				
			Location	Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
<b>Cheltenham - North, East and Central</b>	North West Cheltenham	In general, the risk of fluvial flooding is largely confined to the area immediately adjacent to the modelled watercourses. The main risk areas are within the upper reaches of Hyde Brook and rural floodplain adjacent to River Swilgate, so development to be laid out to avoid these areas.					
	Cheltenham Urban Areas (CA2, CA3, CA5)	For two sites assessed (C2 and C16) modelling for the 1 in 20 year event shows a risk of fluvial flooding, including central parts of the site for C2. During a 1 in 1000 year event, the majority of sites are shown to be at risk.	Oakley Ward	- 200 properties flooded in 2007 due to overtopping of watercourses and surface runoff - SW mapping has confirmed this flood risk	- SWMP completed for the area - Mitigation measures being considered £1m-£2m	Scheme to be completed by end 2015, subject to design and planning approval	GCC (and Cheltenham BC) FDGiA funding with contribution from GCC
	Tewkesbury Rural Area (Areas C and H)		Bishop's Cleeve and Woodmancote CPs	- 100 properties flooded in July 2007 - Flooding also occurred in 1998, 2000 and 2012 - Flooding due to surface runoff and groundwater	- SWMP ongoing - SWMP has identified range of measures including diversion, storage and property protection £1m-£2m	SWMP and funding application to be completed in 2013	GCC (Tewksbury BC and Bishop's Cleeve and Woodmancote PC's) FDGiA application submitted
			Winchcombe CP	- 100 properties flooded in Winchcombe and a further 23 in Greet, predominantly from the highway network and the Isbourne	- Significant improvement works undertaken since 2007, but there remains a flood risk from the River Isbourne.	PLP in Broadway Close to be progressed in 2013/2014 Further action in Winchcombe	GCC and Tewkesbury BC Funding to be confirmed



JCS Sub-area	Strategic Location	SFRA Level 2	Draft Flood Risk Management Strategy Initial Priority Locations and Mitigation Measures				
			Location	Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
					- Tewkesbury BC is seeking to install PLP to 8 homes off Broadway Rd.	uncertain at this stage	
<b>Cheltenham – South West</b>	Up Hatherley	Risk of fluvial flooding generally restricted to area immediately adjacent to Hatherly Brook, although there are some further low risk areas, including minor roads in the SFRA Level 2 study area. There is significant surface water runoff from the south that would need to be managed.					
	South Cheltenham (Leckhampton)	In general, the risk of fluvial flooding is restricted to the area immediately adjacent to the watercourse. Areas of risk are: area upstream of Church Rd on the western branch of Hatherly Brook; rural land adjacent to eastern branch of Hatherly Brook; and parts of Church Rd, Kidnappers Lane and Merlin Way. It is recommended that historical flood risk areas should be treated as Flood Zone 3a, ideally remaining as open space.					
	Cheltenham Urban Areas (CA1, CA4)	See commentary for North, East and Central Cheltenham.					
	Tewkesbury Rural Area (Area D)						

JCS Sub-area	Strategic Location	SFRA Level 2	Draft Flood Risk Management Strategy Initial Priority Locations and Mitigation Measures				
			Location	Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
Gloucester - North	North Churchdown	Large parts of strategic allocation are affected by both fluvial and surface water flooding, including risk of flooding to A38 in 1 in 100 year event. Historic data also highlights that incidents of flooding have occurred, highlighting the need to ensure development is directed towards parts of the strategic location in Flood Zone 1.					
	Innsworth & Twigworth	Large parts of strategic allocation are affected by both fluvial and surface water flooding, including risk of flooding to A38 in 1 in 100 year event. Historic data also highlights that incidents of flooding have occurred, highlighting the need to ensure development is directed towards parts of the strategic location in Flood Zone 1.					
	South Churchdown	North of the A40, only 38% of the site is located in Flood Zone 1, with large parts of the site at risk of surface water, groundwater and reservoir flooding. 85% of the strategic allocation south of A40 is developable without the need to carry out extensive flood risk management work.					
	North Brockworth	The majority of the strategic allocation lies outside the Horsebere Brook channel that is able to accommodate the majority of flows up to a 1 in 100 year event. It is recommended that areas affected by					

JCS Sub-area	Strategic Location	SFRA Level 2	Draft Flood Risk Management Strategy Initial Priority Locations and Mitigation Measures				
			Location	Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
		Flood Zones 2, 3a and 3b are left as open space.					
	Gloucester Urban Areas (GW, GC and GNE)	Modelling indicates that large parts of the Gloucester City urban area are at risk from fluvial, tidal, canal and surface water flooding. Within the lower reaches of the River Twyver, the influence of the River Seven on the watercourse can be clearly seen. It is thought that the accumulation of silt within the River Twyver channel exacerbate flood risk.	Kingsholm and Wotton Ward	- 70 properties flooded in 2007 - Dominant flooding mechanism is sewer flooding and from the Twyver	- Severn Trent Water (STW) has completed Phase 1 sewerage improvements - SWMP ongoing and may identify mitigation measures	SWMP to be completed by end 2013	STW (for phase 2) and GCC/Gloucester City Council Funding to be confirmed
			Westgate Ward	- 200 properties flooded in 2007, with dominant flooding from the Severn - Modelling also indicates flood risk due to exceedance from sewers	- SWMP currently being progressed and may identify mitigation measures £>1m	SWMP to be completed by end 2013	GCC (and EA, Gloucester City Council and Severn Trent Water) Funding to be confirmed
	Tewkesbury Rural Areas (G, F and E)						
<b>Gloucester - South</b>	Gloucester Urban Areas (GSW, GSC)	As for Gloucester North Urban Area – see above.	Matson and Robinswood Ward	- 75 properties flooded in 2007 due to fluvial flooding (overtopping of Saintbridge) and surface runoff - Modelling has confirmed flooding due to surface runoff and watercourses	- SWMP currently being undertaken - SWMP will identify mitigation measures £500k - £1m	SWMP to be completed by end 2013	GCC (EA, Gloucester City Council and Severn Trent Water) Funding to be confirmed

JCS Sub-area	Strategic Location	SFRA Level 2	Draft Flood Risk Management Strategy Initial Priority Locations and Mitigation Measures				
			Location	Summary of flooding incidents	Mitigation measures & Estimated cost	Timescale for action	Responsible organisation (& partners) & Funding
Tewkesbury and Ashchurch	Ashchurch MOD	Site fully located within Flood Zone 1. Risk of surface water and groundwater flooding in some locations. De-culverting of watercourse on site strongly encouraged.					
	Tewkesbury Town and Rural Areas (A & B)		Northway CP	- Significant flooding in 2007 to Oak Drive and Sallis Close/Kestrel Way - SW mapping has confirmed this flood risk	- SWMP ongoing for the area - In Oak Drive proposal for a low level flood bund - In Sallis Close removing risk of blockage of M5 culvert is the preferred measure - Work programmed for Hardwicke Bank £100-£250k	SWMP to be completed by end 2013 Oak Drive scheme to be in place by end 2015 Sallis Close timescales unknown	GCC (Tewkesbury BC and EA) Oak Drive to be funded through FDGiA (with GCC contribution) Hardwicke Bank funded by local residents and parish council Sallis Close funding unsure
			Tewkesbury CP	- Long history of flooding and over 600 properties flooded in 2007 - Flooding mechanisms are complicated but dominant mechanism is from Main Rivers	- SWMP currently being progressed for Tewkesbury - Mitigation measures being considered for Ashchurch Rd and Coventry Close. £>2m	SWMP to be completed by end 2013 Timescale for other measures uncertain	GCC, Tewkesbury BC and GCC Currently identified measures being funded by GCC.

#### 4.6.1.4 Funding Sources

There are a range of funding routes that could be pursued to deliver flood risk management infrastructure:

##### **Developer flood risk management and financial contributions (S106/CIL)**

Typically, where new development takes place, the onus falls upon the developer to demonstrate that flood risk to the site is appropriately managed and that flood risk is not increased elsewhere (NPPF paragraph 103). This can involve the delivery of on-site flood risk management measures and/or contributions to off-site flood risk management infrastructure through S106 Planning Obligations or a Community Infrastructure Levy.

##### **Flood Defence Grant-in-Aid: Defra Resilience Partnership Funding**

During 2011 Defra announced changes to the way funding is allocated to flood and coastal defence projects. The reformed funding programme, entitled Resilience Partnership Funding, aims to allow more schemes to go ahead and to give each community more of a say in what is done to protect them. Instead of meeting the full costs of a limited number of schemes, the new partnership approach to funding flood and coastal resilience will mean Government money is potentially available towards the cost of any worthwhile scheme, where other local committed funds are available. Government funding levels will be based on:

- the numbers of households protected;
- the damages being presented; and
- the other benefits a project would deliver.

Overall Defra expect more schemes to go ahead than if the previous ‘all or nothing’ approach to funding were to continue. The ability of the JCS authorities to demonstrate that match funding could be achieved through developer contributions or another source is therefore likely to be essential for accessing flood risk management grant funding from the Government.

##### **Local Action through an Environment Agency Local Levy**

Section 17 of the Flood and Water Management Act 2010 enables the Environment Agency to issue a levy in respect of flood and coastal erosion risk management functions carried out by the Environment Agency. Income is raised by way of a levy agreed with local authorities and is used to support locally important flood risk management projects that are not considered to be national priorities and hence do not attract national funding through flood defence grant in aid.

It is estimated that every £1 currently being invested in new and improved defences in the UK reduces the long-term costs of flooding by on average £8, providing a financial incentive for action at the local level. The cost of flood risk management works also can also appear more attractive when offset against projected increases in insurance premiums and excesses if no action is taken.

There are currently no Environment Agency Local Levy projects in the JCS area.

**Gloucestershire One-Off Levy** - There is a precedent for local action to raise funds for flood risk management works. Following the severe floods in 2007, nearly £29m was provided by the Government to assist with the recovery from the flooding, but no significant finance was made available for flood risk management measures that would make the county less vulnerable in the future. Politicians in Gloucestershire, with a record of maintaining low council tax rises, consulted the community on whether they would pay a one-off levy to raise a 'fighting fund'. There was a positive response and an extra 1.1% council tax rise for 2008/09 was turned into a fighting fund of nearly £10m.

**Private Beneficiary Investment** – This comprises voluntary contributions from private beneficiaries and could include local businesses, landlords, etc. This method is becoming increasingly common, although can be time consuming to agree and underpin with legal agreements.

**General Drainage Charge / Special Drainage Charge** – These charges comprise money raised from landowners to fund additional works by the Environment Agency. This mechanism has been used to raise £3m a year in the Anglian region, primarily for projects that protect agricultural areas.

**Investing in Britain's Future (June 2013)** - The Government's recent publication introduces a specific long term funding settlement for flood defences, rising to £370mil in 2015-16 and then protected in real terms to 2020-21. This provides a total of £2.3billion and represents a real annual increase of 18% compared with the Spending Review 2010 period. This is intended to:

- fund a pipeline of projects across England;
- deliver improved protection to at least 300,000 homes;
- support an ambition to increase the efficiency of this investment by at least 10% across the investment period compared to a 2014-15 baseline;
- make it easier for communities and businesses to contribute towards schemes, allow public money to go further and help more schemes be built; and
- support the insurance industry in maintaining available and affordable flood cover for households.

## 4.6.2 Water and wastewater

### 4.6.2.1 Responsibilities for delivery

**Severn Trent Water (STW)** - STW provides water supply and wastewater services to the JCS area.

**The Environment Agency** – the Environment Agency has a role as regulator with respect to managing water resources under the Water Framework Directive. This includes the granting of Environmental Permits held by the water utility companies (these permits were previously known as Abstraction Licences and Discharge Consents, but are now Environmental Permits under the Environmental Permitting Regulations 2010).

### 4.6.2.2 Sector plans and strategies

**Water Resource Plans** - All water supply companies are required to produce Water Resource Plans covering a period of 25 years, which should demonstrate the predicted demand and supply requirements resulting from population growth. The preparation of Local Plans and the associated Infrastructure Delivery Plans should feed into this process, providing water companies with important information on planned development levels.

Severn Trent are in the process of preparing a Water Resource Plan for the period 2015 – 2040 and published a consultation draft during the spring 2013.

**Asset Management Plans** - Water and wastewater companies also produce 5 year business plans, known as Asset Management Plans (AMPs), setting out their planned infrastructure projects for that period. The Current AMP5 period covers 1st April 2010 to 31st March 2015. AMP6 will cover the period from 1st April 2015 to 31st March 2020 and the water companies' draft Business Plans will be submitted to Ofwat in August 2013.

**Severn River Basin Management Plan (December 2009)** – The plan sets out the pressures facing the water environment in this river basin district and the actions that will address these. The plan is prepared under the Water Framework Directive and will be reviewed on a six year cycle.

### 4.6.2.3 Baseline infrastructure and deficits

STW does not provide details of specific projects within the 2010 – 2015 AMP Business Plan, but does set out overall commitments for the five year period. For water supply these are<sup>21</sup>:

- Increase the reliability of services by protecting assets from flooding and providing alternative supplies.
- Use water resources more sustainably by reducing leakage.
- Promote greater water efficiency and metering with our customers.
- Sustain high levels of drinking water quality.
- Investigate how the need for carbon intensive and expensive treatment processes can be reduced.
- For waste water services the key commitments are:
- Solve 885 internal sewer flooding problems and 678 external sewer flooding problems.
- Tackle odour issues at 16 sewage treatment works across the STW region.
- Reduce the number of pollution incidents.
- Deliver improvements to treatment processes to make a contribution to improving the natural environment and compliance with European Union standards.

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<sup>21</sup> Source: “Our commitment to your services – Severn Trent Water’s investment plans for 2010-15”

Stated priorities for Wessex Water within their Final AMP Business Plan (2010 – 2015), with respect to wastewater services, include:

- Reduce risk of internal flooding at 338 properties and external flooding at 170 properties.
- Improvements at two critical pumping stations to avoid customer flooding.
- Work to eliminate 700 sewer misconnections to reduce pollution.

The emphasis within waste water investment plans on works to prevent flooding from sewers highlights the importance of ensuring sufficient capacity is provided within sewage and drainage networks to accommodate new development, along with appropriate design measures.

#### 4.6.2.4 Assessment of infrastructure needs and costs

As part of the process of preparing the IDP, the water and wastewater utility companies have been asked to comment on whether they see any specific infrastructure needs arising from the growth levels set out in the JCS IDP Development Scenario circulated for comment during March 2013.

#### 4.6.2.5 Water supply

With respect to water supply, the draft Water Resource Management Plan takes account of future development and sets out the interventions Severn Trent Water propose to maintain the supply-demand balance. The JCS area is predominantly located within the “Strategic Grid” water resource zone, which extends to cover a large part of Severn Trent’s service area across the midlands to the north.

Section 3.2.1 of the draft Water Resource Plan advises that the “...Strategic Grid Zone is likely to require significant future investment because of the need to reduce environmentally unsustainable abstractions and to meet the longer term challenge of future climate change impacts.” In the short term, the single biggest challenge relates to reductions to River Wye water abstraction licences<sup>22</sup>. Severn Trent therefore set out a series of measures (figure 3.1 of the draft Water Resource Plan) that will enable them to respond to this challenge over a ten year period. These include measures such as leakage reduction, aquifer storage and recovery schemes, reservoir expansion, and borehole re-commissioning. These schemes are located across a wide geographical area, as far north as Birmingham, giving an impression of the strategic nature of the water resource planning and infrastructure investment for this water management zone.

Severn Trent Water conclude that the supply and demand investment measures identified gives them high confidence that they can meet demand for water over the next 25 years.

It is anticipated that these water restraint issues could translate into specific water use targets for developments and the JCS authorities should consider further work in order to provide evidence to explore this issue and support water-use standards to be developed and set.

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<sup>22</sup> Abstraction reductions anticipated in response to the Environment Agency Review of Consents on the River Wye, as required under the Habitats Directive.



#### 4.6.2.6 Wastewater

In terms of the capacity of the sewerage system and wastewater treatment plants, Severn Trent have provided a commentary for each of the strategic allocations for development. The information in the table below is provided as a guide only and it is important that the utility companies are consulted early by developers to ensure that water and wastewater infrastructure issues are given adequate consideration.

The Environment Agency have advised that they do not anticipate ‘showstopper’ issues arising for the development scenarios or growth options identified in the JCS. They identify that in those instances where additional treatment capacity is required at sewage works to accommodate the additional growth, this may mean tighter controls in any Environmental Permits to ensure no deterioration in the ecological status of the receiving water bodies. In addition, there should be no increase in the frequency of operation and volume discharged from existing Combined Sewer Overflows (CSOs) and no new CSOs as a result of additional development. Through further consultation the Environmental Agency have identified the following considerations at key STWs:

- **Hayden STW** - This works discharges to the River Chelt, into Water Framework Directive (WFD) water body GB109054032820 R Chelt - source to confluence Leigh Brook. This water body is classified as poor (potential) due to biological elements at less than good status under WFD (2009, baseline classification). Point source sewage discharges may be contributing to this failure.

If there is insufficient capacity under the current environmental permit to accommodate all the proposed growth, a new permit will be required. Whilst there may not be any land or other physical constraints to expansion, in terms of environmental capacity, the River Chelt affords little dilution for the discharge from the works and the quality parameters on the existing permit are already quite stringent, with an ammonia limit of 3 mg/l. This should be flagged as a risk within the IDP. Whilst we understand Severn Trent Water would be providing the infrastructure and paying for it, we consider further clarity is needed on whether the timescales for the provision of upgraded infrastructure would have an impact on the phasing of the development.

**Tewkesbury STW:** This works discharges to the River Avon, into Water Framework Directive (WFD) water body GB109054039800 River Avon - Tolsey Lane to confluence River Severn. This water body is classified as poor (potential) due to biological and physico-chemical elements at less than good status under WFD (2009, baseline classification). Point source sewage discharges are identified as contributing to this failure. Environmental capacity risk is considered low.

- **Netheridge STW:** This works discharges to the River Severn, into WFD water body GB530905415403- Severn Upper. This water body is classified as moderate (potential) due to mitigation measures assessment associated with its designation as a heavily modified water body (2009, baseline classification). Environmental capacity risk is considered low.
- **Innsworth STW** – as indicated above this works has closed and the environmental permit surrendered with effect from 30 June 2013.

In a number of cases in Table 34, STW has advised that hydraulic modelling is undertaken in order to confirm capacity to accommodate the proposed developments. This is recommended in areas where a desk top review of development has indicated there may be adverse impact from the proposed development.

Developers should contact STW to request modelling through the following website: <http://www.stwater.co.uk/developers/>.

While this is optional it is intended to provide the developer with an early indication of any likely issues with sewerage capacity which may assist in the application for planning permission. The developer would be required to pay the hydraulic modelling charges and a report will be created by STW which outlines what, if necessary, is required to accommodate the development.

STW has a general duty under section 94 (clauses 1a and 1b) of the Water Industry Act (1991):

- To provide, improve and extend such a system of public sewers (whether inside its area or elsewhere) and so to cleanse and maintain those sewers and any lateral drains which belong to or vest in the undertake as to ensure that the area is and continues to be effectually drained; and
- To make provision for the emptying of those sewers and such further provision (whether inside its area or elsewhere) as is necessary from time to time for effectually dealing, by means of sewage disposal works or otherwise, with the contents of those sewers.

In effect, STW have an obligation to provide such additional capacity as may be required to treat additional flows and loads arising from new domestic development. STW request that developers contact their team as early in the planning process as possible.

## Funding

The utility companies would expect the funding for any site connections and necessary upgrades to the local water supply and wastewater networks for each settlement to come from site developers.

Ongoing maintenance of the water and wastewater networks, including any strategic water resource projects (such as new reservoirs), are funded by ratepayers. Investment plans set out in the Water Resource Management Plans and AMPs and subsequent variations in rates paid are regulated by Ofwat.

Table 34 – Potential impact of strategic allocations for development on sewerage infrastructure assets<sup>23</sup>.

Econometrics Sub-area	Potential Strategic Location	STW Catchment	Sewage Treatment Works (STW) Comment	Sewerage Comment	Potential impact on sewerage infrastructure
Sub-Area CA2 (North)	North West Cheltenham (cross-boundary)	Hayden STW	Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then we do not envisage any issues as there are no land or other physical constraints preventing expansion.	The only existing sewerage system in this area is in the small village of Elmstone Hardwick which drains to a small sewage treatment works at Stoke Orchard. Significant investment will be required to drain these two very large sites but the intention would be to pump all flows to the main sewage treatment works at Hayden. It is strongly recommended that hydraulic modelling is undertaken in order to understand the impact of these sites.	High - very large sites
Sub-Area CA4 (South West)	South Cheltenham (Leckhampton & Brizen Farm) (cross-boundary)			Due to the ground topography there are multiple connection points for this site. As long as surface water is dealt with sustainably and foul only flows are connected to the sewer, further to hydraulic modelling, there does not appear to be any issue with this site.	Low - subject to hydraulic modelling
Sub-Area CA4 (South West)	Up Hatherly (cross-boundary)			It may be difficult to connect this site into the system via gravity due to ground topography. However, as long as surface water is dealt with sustainably and foul only flows are connected to the sewer, further to hydraulic modelling, there does not appear to be any issues with this site.	Low - subject to hydraulic modelling
Sub-Area B	Aschurch/MOD	Tewkesbury STW	Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then we do not envisage any issues as there are no	The ground topography of this site suggests it will be able to drain to west into the Tewkesbury sewerage catchment. However, the site seems to be very flat which could cause difficulties. All pipes are fairly large diameters with flows being pumped most the way to the treatment works. There are some known flooding incidents downstream of this site, however they are offline and may not interact with the direction of flow. This is a very large site however and	Medium - very large site

<sup>23</sup> These are desktop assessments undertaken by Severn Trent Water on the basis of preliminary development site boundaries. The desktop assessments are based on readily available information and have not been subject to detailed hydraulic modelling.

Econometrics Sub-area	Potential Strategic Location	STW Catchment	Sewage Treatment Works (STW) Comment	Sewerage Comment	Potential impact on sewerage infrastructure
			land or other physical constraints preventing expansion.	hydraulic modelling is recommended in order to understand the impact of flows.	
Sub-Area E	North Brockworth	Netheridge STW	Comparison of current measured dry weather flow against the consented dry weather flow indicates there is reasonable spare capacity at this treatment works. Should additional treatment capacity be required in order to accommodate future development above the existing capacity then we do not envisage any issues as there are no land or other physical constraints preventing expansion.	These are all very large sites, with each have multiple possible connection points. Once in the network, flows have a very long way to travel before reaching the treatment works. Initial hydraulic modelling undertaken following a developer enquiry indicates that there is expected to be sufficient capacity but it is recommended that more detailed hydraulic modelling is undertaken in order to ascertain the impact of flows from these sites on the network.	Medium - Large site but initial modelling work indicates no major capacity constraints
Sub-Area F	North Churchdown			These are all very large sites, with each have multiple possible connection points. Once in the network, flows have a very long way to travel before reaching the treatment works. It is strongly recommended that hydraulic modelling is undertaken in order to ascertain the impact of flows from these sites on the network.	High - large site a very long distance from the treatment works
Sub-Area F	South Churchdown			These are all very large sites, with each have multiple possible connection points. Once in the network, flows have a very long way to travel before reaching the treatment works. It is strongly recommended that hydraulic modelling is undertaken in order to ascertain the impact of flows from these sites on the network.	High - large site a very long distance from the treatment works
Sub-Area F	Innsworth & Twigworth	Innsworth STW	Comparison of current measured dry weather flow against the consented dry weather flow indicates there is minimal spare capacity to accommodate this number of potential dwellings. Investment is expected to provide additional capacity for a further 3000 dwellings but there are no land or other physical constraints which would	Currently all flows are pumped to the treatment works. This site is right next to the treatment works and flows will have to drain the the nearby pumping stations. Providing surface water is dealt with sustainably and foul only flows are connected to the model, further to hydraulic modelling, it is not envisaged that flows from this site will cause any issues. However, there is a known flooding incident that could be exacerbated by the extra flows and being located	Low - next to the treatment works

Econometrics Sub-area	Potential Strategic Location	STW Catchment	Sewage Treatment Works (STW) Comment	Sewerage Comment	Potential impact on sewerage infrastructure
			prevent expansion of the treatment works. There is however concern that the close proximity of this development to an existing treatment may result in odour nuisance and therefore this should be considered as part of the development master plan layout.	right next to the treatment works, this site may be subject to smell complaints in the future.	

## 4.7 Information and Communications Technology

### Overview

*Securing high speed broadband has important implications for economic competitiveness and the ability of households to access the online services of other infrastructure and service providers. Within the JCS area, telecommunication exchanges within urban areas such as Gloucester City Centre, central Cheltenham and Tewkesbury have been upgraded to super-fast broadband (fibre optic cables to the cabinet) through the BT Openreach programme. Where this has not yet occurred within and around the main urban areas, the on street network cabinets are scheduled for upgrade in the near future.*

*It is recommended that strategic developments located in close proximity to the main urban areas are encouraged to provide fibre optic connections from the upgraded cabinets to premises from the outset. For all developments of 25 dwellings or more, the business case for implementing these connections is expected to be within reasonable limits of viability.*

*This will, however, leave the rural communities that fall into the ‘final third’ category in the UK that will suffer from below average internet speeds and a lack of competition between services. In order to combat this, the Borders Broadband initiative has secured £14.4m from the Government towards rolling out fibre broadband in rural areas, which has been boosted with a further £7.5m investment by Gloucestershire County Council and £6m from Herefordshire County Council. The two county councils have now formed a non-profit making collaboration with BT Openreach called ‘Fastershire’, which has the aim of bringing fibre broadband to around 90% of homes by the end of 2016. The ‘fastershire’ initiative will apply to locations in more rural areas, where there is typically not a viable business case to achieve broadband provision without public funding support.*

#### 4.7.1.1 Responsibilities for delivery

Telecommunications cover a wide range of services including voice, audio visual, mobile telephone and internet. BT has a universal service obligation to provide telephone connections. A number of internet infrastructure providers, including BT Openreach, Cable & Wireless and Virgin Media, compete to provide connections to businesses and households. BT Openreach operates as a wholesale network access provider, meaning that other internet providers can ‘rent’ the fibre optic and copper cable provided when providing services to businesses and households.

Improving the provision of local broadband is an infrastructure priority for Gloucestershire. It forms an integral element of the County Council’s economic stimulus package – Grow Gloucestershire.

Gloucestershire’s Local Enterprise Partnership GFirst, Herefordshire Council, Gloucestershire County Council and BDUK (Broadband Delivery UK) manage an initiative called Borders Broadband, which aims to secure private investment in new fast broadband infrastructure for rural areas in Gloucestershire and

Herefordshire. This has led to the creation of Fastershire, a non-profit making collaboration by the two County Councils and BT Openreach.

#### 4.7.1.2 Assessment of infrastructure needs and current projects

The provision of ICT infrastructure may not be a key factor in determining the soundness of the Joint Core Strategy, but will have implications for the economic competitiveness of the JCS area and the ability of households to access the online services of other infrastructure and service providers (e.g. library services, healthcare and education). This study has focussed on internet access as an important measure, and in particular the provision of high speed broadband connectivity.

##### *BT Openreach upgrades*

Internet infrastructure providers have been working on an on-going basis to upgrade the national broadband network. As an example, it is the aim of BT Openreach that by 2014 two-thirds of UK premises will have super-fast broadband (download speeds of up to 300Mbps), through the process of laying fibre optic cables over the current copper lines. The Fibre to the Cabinet (FTTC) local exchange upgrades being undertaken by BT Openreach are capable of offering download speeds of up to 80Mbps and upload speeds of 20Mbps. Where a Fibre to the Premises (FTTP) connection is also installed, replacing the existing copper network between the local exchange and individual properties, download speeds of up to 300Mbps can be achieved. The actual internet speed achieved also depends on other factors such as the length of the connection. From 2014, BT Openreach propose that they only provide FTTP connections to new homes.

The table below sets out for each JCS sub-area and potential strategic allocation, where the local exchange has been upgraded. This shows that exchanges within the main urban areas of Cheltenham, Gloucester and Tewkesbury have already been upgraded and are accepting orders. Barnwood to the East of Gloucester and Quedgeley to the South of Gloucester also have exchanges that are accepting orders. There are, however, still exchanges close to the main urban areas, such as Churchdown and Shurdington, where the date of upgrade has yet to be confirmed.

In order to ensure that new properties benefit from superfast broadband, it is recommended that developers are urged to liaise with internet infrastructure providers from an early stage and install FTTP connections when new properties are constructed. The County Council is consulting on proposals that may recommend the use of planning conditions to ensure new communications infrastructure will achieve Next-generation Access standards<sup>24</sup> (see ‘Local Developer Guide – Infrastructure & Services with new development.’ Public Consultation Version, August 2013). For developments over a threshold of 25 dwellings, and which are served by an upgraded exchange, it is expected that the business case for providing FTTP infrastructure from 2014 will fall within acceptable limits of viability (subject to consideration of total development viability). Cheltenham BC, Gloucester CC, and Tewkesbury BC may wish to consider either cross-referencing an approved County Council policy, or

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<sup>24</sup> The UK Office of Communications (Ofcom) defines Next-generation Access (NGA) as super-fast broadband that provides a maximum download speed that is greater than 24Mbps.



incorporating similar development management policy with the JCS or subsequent local plans.

Table 35 - BT Openreach Superfast Broadband upgrades at local exchanges

JCS Sub-area	Strategic allocations and Econometrics sub-areas	Status of super-fast broadband provision <sup>25</sup> - based on proximity to urban areas – Cheltenham, Gloucester and Tewkesbury
North, East and Central Cheltenham	North West Cheltenham	Local exchange at Cheltenham now accepting orders – assumes connection of strategic location to this exchange.
	Area: C	Local exchange at Bishop’s Cleeve listed as Future Exchange with upgrade date to be confirmed.
	Area: H	Local exchange at Combe Hill listed as Future Exchange with upgrade date to be confirmed.
	Area: CA2	Local exchange at Cheltenham now accepting orders.
	Area: CA3	Local exchange at Cheltenham now accepting orders.
	Area: CA5	Local exchange at Cheltenham now accepting orders.
South and West Cheltenham	Up Hatherley	Local exchange at Cheltenham now accepting orders – assumes connection of strategic location to this exchange.
	South Cheltenham – Leckhampton	Local exchange at Cheltenham now accepting orders – assumes connection of strategic location to this exchange.
	Area: D	Local exchange at Shurdington not currently in rollout plans.
	Area: CA1	Local exchange at Cheltenham now accepting orders.
	Area: CA4	Local exchange at Cheltenham now accepting orders.
North Gloucester	Innsworth & Twigworth (3,075 Dwellings)	Local exchange at Gloucester now accepting orders - assumes connection of strategic location to this exchange.
	North Churchdown (845)	Local exchange at Churchdown listed as Future Exchange with upgrade date to be confirmed
	South Churchdown (639)	Local exchange at Churchdown listed as Future Exchange with upgrade date to be confirmed
	North Brockworth (1,548 Dwellings)	Nearest local exchange is at Barnwood which is now accepting orders.
	Area: E	Nearest local exchange is at Barnwood which is now accepting orders.
	Area: F	Local exchanges at Twigworth and Churchdown listed as Future Exchanges with upgrade date to be confirmed
	Area: G	Local exchange at Twigworth listed as Future Exchange with upgrade date to be confirmed

<sup>25</sup> <http://www.superfast-openreach.co.uk/where-and-when/> (accessed July 2013)



JCS Sub-area	Strategic allocations and Econometrics sub-areas	Status of super-fast broadband provision <sup>25</sup> - based on proximity to urban areas – Cheltenham, Gloucester and Tewkesbury
	Area: GW	Local exchange at Gloucester now accepting orders.
	Area: GC	Local exchange at Gloucester now accepting orders.
	Area: GNE	Local exchange at Gloucester now accepting orders.
South Gloucester	Area: GSC	Local exchange at Quedgeley now accepting orders.
	Area: GSW	Local exchange at Quedgeley now accepting orders.
Tewkesbury and Ashchurch	Ashchurch MOD (2,125 Dwellings)	Local exchange at Tewkesbury now accepting orders.
	Area: A	Local exchange at Tewkesbury now accepting orders.
	Area: B	Local exchange at Tewkesbury now accepting orders.

### ***Borders Broadband Project***

Taking account of the current programme of exchange upgrades in the main urban areas, and potential for new households to achieve superfast broadband connections from the outset, this will still leave the 'final third' of properties in rural areas that are hard-to-reach, or simply not commercially viable to connect with private funding alone.

Within the UK, £830m of public funding has been set aside for Broadband Delivery UK (BDUK the UK Government's broadband delivery authority) to address this challenge of poor coverage in rural areas. The Borders Broadband project covering Herefordshire and Gloucestershire is one of four initial pilots that have been set up, which secured £14.4m from the Government towards rolling out fibre broadband in rural areas. This has been boosted with a further £7.5m investment by Gloucestershire County Council and £6m from Herefordshire County Council. The two county councils have now formed a non-profit making collaboration with BT Openreach called 'Fastershire', which has the aim of bringing fibre broadband to around 90% homes by the end of 2016.

Industrial areas and business parks are a key priority for the provision of fibre broadband and the project should also benefit those premises that currently receive downstream speeds of less than 2Mbps. Ofcom believe that around 20% of premises in the counties currently receive less than 2Mps but that percentage will reduce close to zero as a result of the Fastershire project.<sup>26</sup>

As well as securing an improved broadband infrastructure via the Borders Broadband project, new wireless technologies such as mobile 4G (Fourth Generation), LTE (Long-Term Evolution) data services and TV white-space (technology that uses areas of the airwaves reserved for TV broadcasts) should become more available over time. These technologies may have a role in providing fast data services in rural areas in the future.

<sup>26</sup> Source: <http://www.fastershire.com/questions-and-answers?tabId=5149>

### 4.7.1.3 Funding

In addition to the Borders Broadband initiative, GFirst (the Local Enterprise Partnership for Gloucestershire) and the County Council has worked with other South West local authority partners and Peninsula Enterprise to secure European funding for a project which will provide a high-speed broadband business support programme. The programme will offer a series of awareness-raising events, specialist advice and support, to target and drive up demand, exploitation and growth of businesses in the eligible areas.

## 4.8 Open Space, Sport and Recreation

This section of the IDP covers the provision of a range of sports, leisure and amenity facilities including indoor facilities (swimming pools and sports halls); outdoor playing pitches; outdoor open space for informal recreation; childrens' play space; and accessible natural greenspace.

### Responsibilities for delivery

Sports and recreation facilities are owned and managed by a range of public, private and third sector organisations, including schools and private gym operators. Some of the key providers of sports and recreation facilities available for community use within the JCS area are listed below:

- **Active Gloucestershire** is a company limited guarantee with charitable status, which is part of the national network of county sport and physical activity partnerships in England that works to increase participation in physical activity and sport.
- **Cheltenham Borough Council** - There are significant changes occurring within Cheltenham Borough Council with regards to responsibilities for delivery. The Council has recently decided to proceed with the creation of a charitable trust for leisure and culture, and has commissioned a series of Leisure Facilities Strategies and Feasibility Studies to inform investment priorities in the future.
- **Aspire Sports and Cultural Trust, Gloucester** - Aspire is a charitable trust that operates on a not-for-profit basis. The Trust operates GL1 Leisure Centre in Gloucester, Oxstalls Sports Park, Estcourt Close and Xpress Fitness Cheltenham.
- **Tewkesbury Borough Council**, together with the **Swimming Bath Trust**, owns and operates the Cascades Leisure Centre in Tewkesbury town.

Alongside formal indoor and outdoor sports facilities, it is also desirable to provide spaces for informal recreation. These include play spaces for children and recreational areas for young people, as well as parks and gardens. In many instances informal open spaces are owned and managed by the three JCS authorities, although in some cases (particularly within new development) these may be maintained by a management company.

Natural England promote the provision of natural and semi-natural open space alongside new development through the Accessible Natural Greenspace Standards (ANGSt). These areas are commonly transferred for management by third sector groups, such as Gloucestershire Wildlife Trust and the Wildfowl and Wetlands Trust.

### Plans and Strategies

**Cheltenham Green Space Strategy (2009 - 2024)** – The draft outline strategy focuses on all publicly accessible green space, regardless of owner or manager, within the borough and sets out a 15 year vision for green space.

**Cheltenham Leisure Facilities Strategy (June 2013)** – The leisure strategy seeks to identify how the council should prioritise and focus and its resources for the

future provision of leisure in Cheltenham, taking into account proposed development.

**Cheltenham – New Facility Opportunities at Leisure@ (January 2013)** – This study seeks to identify and appraise development opportunities for the leisure facility Leisure@, with the aim of generating increased revenue and developing the marginal impact of these investment proposals on the current business to improve profitability.

**Cheltenham – Prince of Wales Stadium Feasibility Study (May 2013)** – This study seeks to assess the best approach to use the facility to deliver the agreed leisure outcomes and in particular improve its leisure performance.

**Gloucester City Open Space Strategy (Cabinet, December 2013)** - Gloucester City Council have recently completed an Open Space Strategy and the document will be considered by the City Council Cabinet during December 2013. The final report will inform an update to the IDP during late 2014.

**Gloucester City Playing Pitch Strategy (2005)** – A full re-write of the City Council’s Playing Pitch Strategy is underway at the time of writing and it is intended that a draft document will be available for consultation during late 2014.

**Gloucester City New Housing and Open Space Supplementary Planning Guidance (SPG)(June 2001)** – This SPG has been adopted for development management purposes and sets out the standards for open space provision associated with new housing development. Costing information contained within the document is now dated, but the City Council update this annually. It is intended that the SPD will be rewritten in a new form as part of the City Plan process in the next couple of years.

**Tewkesbury Borough Council – Playing Pitch and Outdoor Sports Assessment and Strategy (March 2008)** – this report presents the findings of a quality assessment of outdoor sports facilities, based on consultation, data analysis and GIS mapping work.

## 4.8.1 Indoor Sports

### Baseline

It is not within the scope of the IDP study to undertake a full audit of sports facilities, which would rely upon a detailed audit of the quantity and quality of facilities across the JCS area. At this stage a brief summary is provided of the available evidence base, and key existing sports facilities within each of the JCS authorities are identified.

#### **Cheltenham**

In the case of Cheltenham, the recently completed Leisure Facilities Strategy is particularly helpful, providing an overview of sports provision relative to the existing population, as well as projected population increases. The Leisure Facilities Strategy study cuts across the individual types of sports provision defined in the IDP, so relevant points and projects are included throughout section 4.10 of the report.

To provide an overview, the main sporting provision in Cheltenham, provided for the local community by the Council are the facilities in and around Pittville Park. The park is the largest ornamental park in Cheltenham and provides a range of sporting, leisure and recreational activities for residents and visitors, which include:

- Outdoor recreational facilities, such as golf course, fishing, boating lake/boathouse, children's play areas, tennis courts and BMX park, as well as informal park and open space.
- Leisure@ Cheltenham – providing swimming pools, indoor sports facilities which deliver a range of sporting activities.
- Prince of Wales Stadium – providing a rugby and athletics stadium providing events and community activities.

The feasibility study concludes that, for Cheltenham, there is not a general need for the development of new major facilities, but there may be the need for targeted investments to improve existing facilities. Importantly, the authors note that the feasibility study is based on Cheltenham as a whole, and there may be some local areas which require additional provision. This would be particularly relevant for major housing developments and proposed strategic allocations.

## Swimming Pools

Within the JCS area there are seven swimming facilities that provide for public access. Brief details of the swimming pools are provided below:

- Leisure@ Cheltenham - three pools: main access (33.3m), diving pool (23.8m) and teaching pool (12.8m x 12.8m), open seven days a week;
- GL1, Gloucester – GL1 provides a complex of four swimming pools: an 8-lane 25m competition pool; a 4 lane 25m pool; a shallow pool for learning; and a children's fun pool;
- Beaufort School Sports Centre, Tuffley, Gloucester – shared use public swimming is available at Beaufort School.
- Sir Thomas Richs's School Sports Centre, Elmbridge, Gloucester – shared use of swimming facilities, including swimming lessons.
- Brockworth Sports Centre – one 25m swimming pool, kayaking, scuba diving, gym studio etc. open seven days a week.
- Cascades Leisure Centre, Tewkesbury - two pools open seven days a week for a variety of activities;
- Tewkesbury School Sports Centre – this 20m pool is open to members of the public during evenings and weekends.

There are a number of further swimming pools which are located within schools or private clubs, such as the Riverside Sports and Leisure Club in northwest Gloucester, where access is more limited or membership is required. A full audit of facilities would be required to confirm the quantity, quality and accessibility of leisure provision within the JCS area.

In the case of Cheltenham, the Leisure Facilities Study concludes that if all facilities are taken into account, there is in general an over provision, even when

population increases are taken into account. The study goes on to note, however, that many of the existing facilities have limited community use and if these are excluded then there is a shortfall in provision, even at the current population levels.

With respect to facilities in Gloucester, it is understood that the shared use pools at Beaufort School and Sir Thomas Rich's School would require substantial investment to bring them up to standard for continued long term use.

Further audit and assessment work would be need to be undertaken to establish the current level of provision across the JCS area in detail and priorities for accommodating increased demand in the future, taking into account the quantity and quality of facilities and public accessibility.

### *Assessment of future need*

Sport England have created the Sports Facility Calculator (SFC) to help local authorities quantify how much additional demand for key community sports facilities is generated by new development. The SFC covers swimming pools, sports halls and indoor bowling rinks as important indoor facilities (swimming pools and sports halls are considered by this study).

Utilising the Sport England SFC tool to undertake a preliminary assessment of potential need, it is predicted that additional demand for between three and four swimming pools would arise from new development. It is recommended that further assessment and viability work is undertaken to understand whether new pool provision would be viable, and if so, the best location for new facilities taking account of the typically large catchment areas of swimming facilities and preferred locations for new development.

Table 36 - Assessment of need for swimming pools

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1		
					2014 - 2031 (whole plan)		
					Population	Demand (Pools)	Capital Cost
Gloucester North	Urban area GC	271	95	176	476	0.02	£40,427
	Urban area GNE	519	180	339	912	0.05	£77,423
	Urban area GW	1,200	421	779	2,109	0.10	£179,012
	Rural area E	355	161	194	624	0.03	£52,958
	Rural area F	239	45	194	420	0.02	£35,653
	Rural area G	236	45	191	415	0.02	£35,206
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	5,405	0.27	£458,719
	Strategic allocation - North Churchdown	845	150	695	1,485	0.07	£126,055
	Strategic allocation - South Churchdown	639	150	489	1,123	0.06	£95,324
	Strategic allocation - North Brockworth	1,548	225	1,323	2,721	0.13	£230,926
Sub-total	8,927	1,697	7,230	15,690	0.78	£1,331,703	
Gloucester South	Urban area GSC	911	65	846	1,601	0.08	£135,900
	Urban area GSW	421	65	356	740	0.04	£62,804
	Sub-total	1,332	130	1,202	2,341	0.12	£198,704
Cheltenham South & West	Urban area CA1	514	111	403	903	0.04	£76,677
	Urban area CA4	510	112	398	896	0.04	£76,019
	Rural area D	237	46	191	417	0.02	£35,355

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1		
					2014 - 2031 (whole plan)		
					Population	Demand (Pools)	Capital Cost
	Strategic allocation - South Cheltenham	1,075	350	725	1,889	0.09	£160,365
	Strategic allocation - Up Hatherley	795	-	795	1,397	0.07	£118,596
	Sub-total	3,131	619	2,512	5,502	0.27	£467,012
Cheltenham North	Urban area CA2	509	111	398	895	0.04	£75,931
	Urban area CA3	514	111	403	903	0.04	£76,677
	Urban area CA5	837	419	418	1,471	0.07	£124,861
	Rural area C	237	46	191	417	0.02	£35,355
	Rural area H	240	46	194	422	0.02	£35,802
	Strategic allocation - North West Cheltenham	4,829	399	4,430	8,488	0.42	£720,376
	Sub-total	7,166	1,132	6,034	12,595	0.62	£1,069,002
Tewkesbury & Ashchurch	Rural area A	275	84	191	483	0.02	£41,024
	Rural area B	237	46	191	417	0.02	£35,355
	Ashchurch MOD	2,125	-	2,125	3,735	0.18	£317,001
	Sub-total	2,637	130	2,507	4,635	0.23	£393,380
<b>JCS total (excluding committed development)</b>		23,193	3,708	19,485	40,764	2.02	£3,459,801
<b>Committed development</b>		10,007			17,589	0.87	£1,492,814
<b>Total Draft JCS New Housing</b>		33,200			58,353	2.89	£8,704,926



## Sports Halls

The table below sets out the publically accessible sports centres for each of the JCS sub-areas, together with some of the private facilities that would be accessible from strategic allocations for development. This should not be treated as a full audit of existing facilities available across the JCS, but as an initial indication of where additional demand could arise should development at the proposed strategic allocations come forward. The large sports centres such as Leisure@ Cheltenham and GL1 typically serve large, cross-border catchment areas and this will need to be taken into account in future facility planning.

Community centres in villages often fulfil the role of providing additional space for fitness and leisure activities, and in some instances provide sufficient space for badminton courts and indoor bowls etc. Schools also contribute to the overall level of sports provision in an area, although the level of community access to these varies. As indicated in the table below, schools in the Quedgeley area of south Gloucester play an important role in providing sports facilities for the local community.

Table 37 – Sports Centres within the JCS area<sup>27</sup>

JCS Sub-Area	Strategic allocations and Sub-areas	Leisure centres within settlements (or closest available)	Facilities
Cheltenham - North, East and Central Areas: C, H, CA2, CA3, CA5	North West Cheltenham	Leisure@Cheltenham (together with private facilities incl. La Fitness, Simply Gym and The Seasons Conference Centre)	Aerobics, athletics, badminton, circuits, disability athletics, diving, football, gym, cycling, movement & dance, netball, personal trainer, pilates, powerplate, squash, swimming, table tennis, tennis, yoga and zumba.
South and West Cheltenham Areas D, CA1 and CA4	Up Hatherley	Leisure@Cheltenham and Bournside Sports Centre (together with private facilities incl. Sport Connection, La Fitness, Reach Fitness and Vittoria Walk YMCA.)	See Leisure@ facilities above, plus cricket, football, general gym, rounders, rugby union and softball at Bournside Sports Centre.
	South Cheltenham (Leckhampton)		
Gloucester - North Areas: E, F, G, GW, GC and GNE	Innsworth & Twigworth	GL1 Leisure Centre and Oxstalls Sports Centre (together with private facilities incl. Riverside Sports & Leisure Club; and DW Sports Fitness)	GL1: Gymnastics, badminton, bowls, canoeing, disability sports (bowling, martial arts, swimming and table tennis), general gym, squash, swimming, taekwondo, basketball.  Oxstalls Sports Centre: includes tennis; kids activities and soft play; and synthetic playing pitches.
	North Churchdown		
	South Churchdown		

<sup>27</sup> Source: [www.spogo.co.uk](http://www.spogo.co.uk) – developed by ukactive using a Sport England lottery grant (accessed September 2013).

JCS Sub-Area	Strategic allocations and Sub-areas	Leisure centres within settlements (or closest available)	Facilities
	North Brockworth	GL1 Leisure Centre and Brockworth Sports Centre  (together with private facilities incl. Gloucestershire Health & Racquets Club and Virgin Active)  The newly opened Gloucester Academy on Painswick Road will provide shared use sports facilities.	See GL1 facilities above, plus football, cricket, general gym, rounders, rugby union, and swimming.
Gloucester - South Areas: GSC and GSW	-	Beaufort Sports Centre and Severn Vale School (within school facilities) and Waterwells Sports Centre (primarily football facilities).  Robin Greaves Sports Hall recently opened at Waterwells Playing Field (Quedgeley) in 2012.  Abbeydale Community Centre and Quedgeley Community Centre also have large indoor halls regularly used for sports.	Beaufort Sports Centre: Five a side football, basketball, badminton, cricket, general gym, zumba, spin, pilates, karate, swimming, cricket, two football pitches, rounders, rugby union, softball, multi-use games area and health and fitness studio.
Tewkesbury and Ashchurch Areas: A and B	Ashchurch MOD	Cascades Swimming Pool & Health Suite and Tewkesbury School Sports Centre (within school facility) (together with private facilities incl. Tewkesbury Park Hotel Leisure Club)	Swim school, gym and health suite and aqua aerobics.  Court sports hall, badminton courts, 20m swimming pool, fitness Studio, meeting rooms studio, gymnasium, tennis and all weather pitch.

### *Assessment of future need*

To provide a preliminary high level assessment of need, utilising the Sport England SFC tool it is predicted that additional demand for the equivalent of 3 sports halls would arise from new development (sports halls typically provide 4 to 6 courts). In some cases, an alternative approach to the provision of new facilities would be to facilitate improvements to existing leisure and community centres, and improving hours of access, across the JCS area. For instance, the Cheltenham Leisure Facilities Strategy advocates further investment in the Central Sports Hub (see below) and Tewkesbury Borough Council are in the process of considering options for the replacement of the Cascades Swimming Pool & Health Suite.

Moving forward, it will be necessary to consider in further detail the extent of surplus or shortfall of existing sports provision of all types, together with the demands arising from new development. Further consultation will be required to establish a preferred responsible body for constructing, operating and maintaining new facilities. Options may include the creation of community leisure facilities on schools sites (preferably providing access seven days per week, including during school days). Long term business planning will be necessary to ensure that new facilities remain viable, and that the establishment of new facilities does not undermine the operations of existing facilities.

Table 38 - Assessment of need for sports halls

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 – 2018	2019 - 2031	Scenario 1		
					2014 - 2031 (whole plan)		
					Population	Demand	Capital Cost
<b>Gloucester North</b>	Urban area GC	271	95	176	476	0.03	£52,646
	Urban area GNE	519	180	339	912	0.06	£100,824
	Urban area GW	1,200	421	779	2,109	0.15	£233,120
	Rural area E	355	161	194	624	0.04	£68,965
	Rural area F	239	45	194	420	0.03	£45,847
	Rural area G	236	45	191	415	0.03	£45,847
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	5,405	0.38	£597,369
	Strategic allocation - North Churchdown	845	150	695	1,485	0.10	£164,155
	Strategic allocation - South Churchdown	639	150	489	1,123	0.08	£124,136
	Strategic allocation - North Brockworth	1,548	225	1,323	2,721	0.19	£300,724
Sub-total	8,927	1,697	7,230	15,690	1.09	£1,734,216	
<b>Gloucester South</b>	Urban area GSC	911	65	846	1,601	0.11	£176,977
	Urban area GSW	421	65	356	740	0.05	£81,786
	Sub-total	1,332	130	1,202	2,341	0.16	£258,763
<b>Cheltenham South &amp; West</b>	Urban area CA1	514	111	403	903	0.06	£99,853
	Urban area CA4	510	112	398	896	0.06	£98,996
	Rural area D	237	46	191	417	0.03	£46,041
	Strategic allocation - South Cheltenham	1,075	350	725	1,889	0.13	£208,836
	Strategic allocation - Up Hatherley	795	-	795	1,397	0.10	£154,442

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 – 2018	2019 - 2031	Scenario 1		
					2014 - 2031 (whole plan)		
					Population	Demand	Capital Cost
	Sub-total	3,131	619	2,512	5,502	0.38	£608,169
Cheltenham North	Urban area CA2	509	111	398	895	0.06	£98,882
	Urban area CA3	514	111	403	903	0.06	£99,853
	Urban area CA5	837	419	418	1,471	0.10	£162,601
	Rural area C	237	46	191	417	0.03	£46,041
	Rural area H	240	46	194	422	0.03	£46,624
	Strategic allocation - North West Cheltenham	4,829	399	4,430	8,488	0.59	£938,113
	Sub-total	7,166	1,132	6,034	12,595	0.87	£1,392,113
Tewkesbury & Ashchurch	Rural area A	275	84	191	483	0.03	£53,423
	Rural area B	237	46	191	417	0.03	£46,041
	Ashchurch MOD	2,125	-	2,125	3,735	0.26	£412,816
	Sub-total	2,637	130	2,507	4,635	0.32	£512,281
<b>JCS total (excluding committed development)</b>		23,193	3,708	19,485	40,764	2.83	£4,505,541
<b>Committed development</b>		10,007			17,589	1.22	£1,944,024
<b>Total Draft JCS New Housing</b>		33,200			58,353	4.05	£11,336,028

## Current projects

For Cheltenham, the Leisure Facilities Strategy identifies a number of key strategic actions, including those set out below:

**Cheltenham – Central Sports Hub expansion** – Enhancement of the facilities at the Central Sports Hub (to include Leisure@, Pittville Park and Prince of Wales Stadium), with scope to invest to broaden the range of facilities available and enhance existing as set out below:

- Extending the fitness gym facility to maintain and grow market share;
- Installation of a 3G artificial pitch to provide a high quality year round facility for football and rugby;
- Creation of a competition standard BMX facility;
- Investment to improve the quality of meeting rooms, function areas and hospitality provision within the Prince of Wales Stadium; and
- Physical connection of the cricket hall to the main building and consideration of a range of possible alternative activities that broaden the leisure offer and enhance the family leisure appeal (e.g. climbing).

Please note that these are not firm plans at this stage. Cheltenham Borough Council advise that there is a need to strengthen public transport and walking and cycling routes to the Central Sports Hubs, particularly from new developments.

**Cheltenham sports partnership initiative** – development of partnerships with schools, colleges and university to build and develop both community use agreements and the network of locally focussed facilities.

In addition to the enhancement of the Central Sports Hub, Cheltenham Borough Council has identified a need to improve access to community sports facilities at a local level, particularly in the South Cheltenham area.

**Tewkesbury New Replacement Leisure Facility** – The cost of refurbishing the existing Cascades Leisure Centre is estimated at £3.8m so the council aims to make considerable savings by providing new energy-efficient facilities on the council grounds. The proposed new centre is likely to include a 25m main pool and 20m learner pool, fitness studio, dance studio, health suite and a cafe<sup>28</sup>.

### 4.8.2 Playing pitches and recreational open space

In order to provide an initial assessment of demand for outdoor open space arising from new development, this study uses a combination of the Fields in Trust (FIT) Benchmark Standards and Natural England Accessible Natural Greenspace Standards (ANGSt). These standards allow open space provision to be broken down into a number of categories that are considered separately in the following sub-sections:

- playing pitches and outdoor sports;
- informal open space;

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<sup>28</sup> Source: 'Preferred location for a new leisure centre revealed' - <http://tewkesbury.gov.uk/index.aspx?articleid=2322>

- children's playspace and facilities for young people; and
- accessible natural greenspace.

Further background information on the FIT and ANGSt standards are provided in the relevant sub-sections below.

These national benchmark standards have been checked against locally derived planning standards and policies utilised by the JCS authorities, in order to reflect local audits of existing open space provision and demand. In the main, the JCS authorities standards are based on the FIT Benchmark Standard and its predecessor, the 'Six Acre Standard', which recommends total provision of around 2.4ha per 1,000 population.

Cheltenham Borough Council has adapted the 'Six Acre Standard', based on assessment of playing pitch provision and demand within Cheltenham (see section 5, Play Space in Residential Development). Taking account of local needs the Council has set a slightly higher standard of 2.65ha (6.5 acres), as set out in the comparison table below (excl. accessible natural greenspace). This standard is based on relatively old information (from 2003) and the more recent Green Space Strategy for Cheltenham (2009-2024) recommends that the Council needs to explore and develop local standards for green space provision.

Gloucester City Council (GCC) have a formally adopted standard of 2.8 Ha per 1,000 population (2002 Local Plan), utilising FIT standards as guidance to update their local space standards. Gloucester City Council has the highest open space standard which is due to an existing shortfall in the availability of informal open space and the addition of an 'informal recreation' category, supplementing the FIT informal play space area. Gloucester has designated 0.4 Ha per 1,000 people for this category.

Tewkesbury Borough Council aims to provide 2.43 Ha of outdoor playing space per 1,000 people, aligning with the national Fit Benchmark Standards (Local Plan policy RCN1, March 2006). Within each category of open space the Local Plan policy sets out a range for provision, providing flexibility to take account of local circumstances.

Table 39 - Playing pitch and open space standards

JCS Authority	FIT Benchmark Standards				Accessible Natural Green Standards (ANGSt)
	Equipped Children’s playspace/ provision for young (per 1,000 people)	Informal Playing and Open Space (per 1,000 people)	Playing Pitches (per 1,000 people)	Open Space (per 1,000 people)	Local Accessible Natural Greenspace (per 1,000)
	0.25 Ha	0.55 Ha	1.2 Ha	0.4 Ha	1 Ha
Cheltenham Borough Council	Children’s Outdoor Playing Space: 0.6-0.8ha (1.5-2acres)		Youth and Adult Outdoor Playing Space: 1.85 – 1.96ha (4.5-4.8 acres)		-
Gloucester City Council	0.25 Ha	0.55 Ha +0.4Ha for Informal Recreation.	1.6 Ha		-
Tewkesbury Borough Council	0.2 – 0.3Ha	0.5 – 0.5 Ha	1.6 – 1.8 Ha		-

As illustrated in the table, there are some local variations to the national benchmark standards, but for the purpose of providing an initial assessment of need, the FIT Benchmark Standards provided a reasonable starting point and are applied in the assessment below. Clearly for individual sites, local authorities may choose to apply existing local standards, or updated policy standards based on recent audits of open space provision.

### Playing pitches and other outdoor sports

The Fields in Trust (FIT) Benchmark Standards for All Outdoor Sports, Playing Pitches and Informal Play Space and Children’s Play Space (2008) provide a means for gauging the appropriate level of provision of outdoor amenity space. FIT is the operating name of the National Playing Fields Association, the organisation whose recommendations on planning for and providing outdoor recreational facilities are known as the “Six Acre Standard”. In 2006 FIT commissioned a postal survey of local planning authorities throughout the UK to provide an evidence-based framework for recommended Benchmark Standards on open space provision, to succeed the Six Acre Standard.

The FIT Benchmark Standard differentiates between playing pitches (football, rugby, hockey, and cricket) and space for other outdoor sports (e.g. bowling, tennis, athletics) and therefore the same distinction is made in the preliminary high level assessment below. Separate Urban, Rural and Overall Standards are also presented by FIT, reflecting the varying characteristics of local authorities that responded to the 2006 survey. For the JCS area the Overall Standard has been applied, as follows:



- 1.2ha playing pitch provision per 1,000 population, with estimated capital cost based on the Sport England Planning Contributions Kitbag cost for a natural turf senior football pitch.
- 0.4ha other outdoor sport provision per 1,000 population, with estimated capital cost based on Sport England Planning Contributions Kitbag costs for an outdoor bowling green, tennis courts and athletics track (average cost taken).

Utilising these benchmark standards shows that the demand for new playing pitches resulting from population growth could be in the order of 70ha (at an estimated cost of £6.8m) based on Scenario 1.

Table 40 - Assessment of need for playing pitches

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.2	19,536	476	0.57	£55,730	207	0.2	24,231	591	0.7	69,121
	Urban area GNE	519	180	339	316	0.4	37,016	912	1.09	£106,729	392	0.5	45,911	1,131	1.4	132,376
	Urban area GW	1,200	421	779	740	0.9	86,576	2,109	2.53	£246,773	918	1.1	107,380	2,616	3.1	306,072
	Rural area E	355	161	194	283	0.3	33,109	624	0.75	£73,004	351	0.4	41,065	774	0.9	90,546
	Rural area F	239	45	194	79	0.1	9,254	420	0.50	£49,149	98	0.1	11,478	521	0.6	60,959
	Rural area G	236	45	191	79	0.1	9,254	415	0.50	£48,532	98	0.1	11,478	514	0.6	60,194
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.5	46,270	5,405	6.49	£632,356	491	0.6	57,389	6,704	8.0	784,310
	Strategic allocation - North Churchdown	845	150	695	264	0.3	30,847	1,485	1.78	£173,769	327	0.4	38,259	1,842	2.2	215,526
	Strategic allocation - South Churchdown	639	150	489	264	0.3	30,847	1,123	1.35	£131,407	327	0.4	38,259	1,393	1.7	162,983
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.5	46,270	2,721	3.26	£318,337	491	0.6	57,389	3,375	4.0	394,833
Sub-total	8,927	1,697	7,230	2,983	3.6	348,978	15,690	18.83	£1,835,785	3,699	4.4	432,837	19,461	23.4	2,276,921	
Gloucester South	Urban area GSC	911	65	846	114	0.1	13,367	1,601	1.92	£187,342	142	0.2	16,579	1,986	2.4	232,360
	Urban area GSW	421	65	356	114	0.1	13,367	740	0.89	£86,576	142	0.2	16,579	918	1.1	107,380
	Sub-total	1,332	130	1,202	228	0.3	26,734	2,341	2.81	£273,918	283	0.3	33,158	2,904	3.5	339,740
Cheltenham South & West	Urban area CA1	514	111	403	195	0.2	22,826	903	1.08	£105,701	242	0.3	28,312	1,121	1.3	131,101
	Urban area CA4	510	112	398	196	0.2	22,948	896	1.07	£104,794	243	0.3	28,462	1,111	1.3	129,976

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
	Rural area D	237	46	191	81	0.1	9,460	417	0.50	£48,738	100	0.1	11,733	517	0.6	60,449
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.7	71,975	1,889	2.27	£221,067	763	0.9	89,271	2,344	2.8	274,190
	Strategic allocation - Up Hatherley	795	-	795	-	-	-	1,397	1.68	£163,487	-	-	-	1,733	2.1	202,773
	Sub-total	3,131	619	2,512	1,087	1.3	127,209	5,502	6.60	£643,787	1,349	1.6	157,778	6,825	8.2	798,488
<b>Cheltenham North</b>	Urban area CA2	509	111	398	195	0.2	22,826	895	1.07	£104,673	242	0.3	28,312	1,110	1.3	129,826
	Urban area CA3	514	111	403	195	0.2	22,826	903	1.08	£105,701	242	0.3	28,312	1,121	1.3	131,101
	Urban area CA5	837	419	418	736	0.9	86,165	1,471	1.77	£172,124	913	1.1	106,870	1,825	2.2	213,485
	Rural area C	237	46	191	81	0.1	9,460	417	0.50	£48,738	100	0.1	11,733	517	0.6	60,449
	Rural area H	240	46	194	81	0.1	9,460	422	0.51	£49,355	100	0.1	11,733	523	0.6	61,214
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	0.8	82,052	8,488	10.19	£993,056	870	1.0	101,769	10,527	12.6	1,231,685
	Sub-total	7,166	1,132	6,034	1,990	2.4	232,789	12,595	15.11	£1,473,646	2,468	3.0	288,728	15,622	18.7	1,827,760
<b>Tewkesbury &amp; Ashchurch</b>	Rural area A	275	84	191	148	0.2	17,274	483	0.58	£56,552	183	0.2	21,425	600	0.7	70,142
	Rural area B	237	46	191	81	0.1	9,460	417	0.50	£48,738	100	0.1	11,733	517	0.6	60,449
	Ashchurch MOD	2,125	-	2,125	-	-	-	3,735	4.48	£436,994	-	-	-	4,633	5.6	542,003
	Sub-total	2,637	130	2,507	228	0.3	26,734	4,635	5.56	£542,284	283	0.3	33,158	5,749	6.9	672,593
<b>JCS total (excluding committed development)</b>		23,193	3,708	19,485	6,517	7.8	762,444	40,764	48.92	£4,769,420	-	-	-	-	-	-

JCS Sub-area	Econometrics area / Allocations	New Dwelling s	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Popul ation	Demand (ha)	Capital Cost	Popul ation	Demand (ha)	Capital Cost	Popul ation	Demand (ha)	Capital Cost	Popul ation	Demand (ha)	Capital Cost
Committed development		10,007			-	-	-	17,589	21.11	£2,057,881	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		33,200						58,353	70.02	£6,827,301	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail).. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

Table 41 - Assessment of need for facilities for other outdoor sports

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.1	66,523	476	0.67	£664,182	207	0.3	288,780	591	0.8	823,784
	Urban area GNE	519	180	339	316	0.4	441,154	912	1.28	£1,271,994	392	0.5	547,163	1,131	1.6	1,577,652
	Urban area GW	1,200	421	779	740	1.0	1,031,810	2,109	2.95	£2,941,028	918	1.3	1,279,752	2,616	3.7	3,647,750
	Rural area E	355	161	194	283	0.4	394,588	624	0.87	£870,054	351	0.5	489,407	774	1.1	1,079,126
	Rural area F	239	45	194	79	0.1	110,289	420	0.59	£585,755	98	0.1	136,791	521	0.7	726,510
	Rural area G	236	45	191	79	0.1	110,289	415	0.58	£578,402	98	0.1	136,791	514	0.7	717,391
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.6	551,443	5,405	7.57	£7,536,383	491	0.7	683,953	6,704	9.4	9,347,360
	Strategic allocation - North Churchdown	845	150	695	264	0.4	367,628	1,485	2.08	£2,070,974	327	0.5	455,969	1,842	2.6	2,568,624
	Strategic allocation - South Churchdown	639	150	489	264	0.4	367,628	1,123	1.57	£1,566,097	327	0.5	455,969	1,393	2.0	1,942,427
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.6	551,443	2,721	3.81	£3,793,926	491	0.7	683,953	3,375	4.7	4,705,598
	Sub-total	8,927	1,697	7,230	2,983	4.2	4,159,103	15,690	21.97	£21,878,794	3,699	5.2	5,158,527	19,461	27.2	27,136,223

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Gloucester South	Urban area GSC	911	65	846	114	0.2	159,306	1,601	2.24	£2,232,730	142	0.2	197,586	1,986	2.8	2,769,251
	Urban area GSW	421	65	356	114	0.2	159,306	740	1.04	£1,031,810	142	0.2	197,586	918	1.3	1,279,752
	Sub-total	1,332	130	1,202	228	0.3	318,611	2,341	3.28	£3,264,541	283	0.4	395,173	2,904	4.1	4,049,003
Cheltenham South & West	Urban area CA1	514	111	403	195	0.3	272,045	903	1.26	£1,259,740	242	0.3	337,417	1,121	1.6	1,562,453
	Urban area CA4	510	112	398	196	0.3	273,491	896	1.25	£1,248,932	243	0.3	339,210	1,111	1.6	1,549,048
	Rural area D	237	46	191	81	0.1	112,739	417	0.58	£580,853	100	0.1	139,830	517	0.7	720,431
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.9	857,800	1,889	2.65	£2,634,670	763	1.1	1,063,927	2,344	3.3	3,267,776
	Strategic allocation - Up Hatherley	795	-	795	-	-	-	1,397	1.96	£1,948,431	-	-	-	1,733	2.4	2,416,635
	Sub-total	3,131	619	2,512	1,087	1.5	1,516,075	5,502	7.70	£7,672,626	1,349	1.9	1,880,385	6,825	9.6	9,516,342
Cheltenham North	Urban area CA2	509	111	398	195	0.3	272,045	895	1.25	£1,247,486	242	0.3	337,417	1,110	1.6	1,547,254
	Urban area CA3	514	111	403	195	0.3	272,045	903	1.26	£1,259,740	242	0.3	337,417	1,121	1.6	1,562,453
	Urban area CA5	837	419	418	736	1.0	1,026,909	1,471	2.06	£2,051,367	913	1.3	1,273,673	1,825	2.6	2,544,306
	Rural area C	237	46	191	81	0.1	112,739	417	0.58	£580,853	100	0.1	139,830	517	0.7	720,431
	Rural area H	240	46	194	81	0.1	112,739	422	0.59	£588,206	100	0.1	139,830	523	0.7	729,550
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	1.0	977,892	8,488	11.88	£11,835,185	870	1.2	1,212,877	10,527	14.7	14,679,156

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
	Sub-total	7,166	1,132	6,034	1,990	2.8	2,774,369	12,595	17.63	£17,562,836	2,468	3.5	3,441,045	15,622	21.9	21,783,149
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	0.2	205,872	483	0.68	£673,985	183	0.3	255,343	600	0.8	835,943
	Rural area B	237	46	191	81	0.1	112,739	417	0.58	£580,853	100	0.1	139,830	517	0.7	720,431
	Ashchurch MOD	2,125	-	2,125	-	-	-	3,735	5.23	£5,208,070	-	-	-	4,633	6.5	6,459,558
	Sub-total	2,637	130	2,507	228	0.3	318,611	4,635	6.49	£6,462,908	283	0.4	395,173	5,749	8.0	8,015,932
JCS total (excluding committed development)		23,193	3,708	19,485	6,517	9.1	9,086,770	40,764	57.07	£56,841,705	-	-	-	-	-	-
Committed development	10,007				-	-	-	17,589	24.62	£24,525,719	-	-	-	-	-	-
Total Draft JCS New Housing	33,200							58,353	81.69	£81,367,423	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail).. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

With respect to the provision of playing pitches and other outdoor sports facilities, Cheltenham Borough Council have advised that there is a need to identify larger sites to justify providing supporting infrastructure (e.g. changing rooms / car parks / social facilities etc.), rather than a range of smaller sites that could suffer from limited facilities and be relatively expensive to maintain per unit area.

As identified within the indoor sports section above, an appraisal of options for providing new facilities will need to be undertaken. This may involve promoting enhanced community use of school facilities, looking at opportunities to improve facilities at existing sports area, as well as investment in new playing pitches and outdoor sports facilities.

## Current projects

Current and recent planned projects for playing pitches and outdoor sports are set out below:

- Blackbridge athletics track improvements, Gloucester – Funding and planning permission were secured for improvements to the Blackbridge athletics track, resulting in an upgrade to provide a 400m 6 lane track with floodlights. The works were completed in 2012 (a City Council Corporate Plan objective).

## Recreational open space and accessible natural greenspace

The open space currently available in each JCS area varies considerably. For comparison, the tables below indicate the available space for a number of open space categories. The information is taken from the latest available policy document:

Table 42 Cheltenham Green Space Strategy (2009)

Typology Level 1	Amount of Green Space (Ha)	Amount of Green Space (Ha) per 1000 Population
Amenity Green Space	61.43	0.56
Cemeteries & Churchyards	25.67	0.23
Civic Space	1.08	0.01
Green Corridor	11.15	0.10
Natural & Semi-natural Green Space	97.81	0.89
Outdoor Sports Facilities	65.15	0.59
Parks & Gardens	78.74	0.72
Provision for children & Young People	0.41	0.00
Total:	341.43	3.10



Table 43 Gloucester City Open Space Strategy: Draft for Consultation (December 2012)

Main Open Space Type	Area (Ha)	Primary Uses
Country park/nature reserve/countryside (type D)	198.51	Informal recreation, habitat management
Allotments (type C)	16.93	Food growing
Cemeteries (type G)	27.03	Burials, informal recreation
Other open space (types A,B,E,F,H,I,J)	275.79	Parks, civic spaces, amenity land etc. Informal recreation, sport and play
<b>Total:</b>	<b>518.37</b>	

### Tewkesbury Borough Council – Playing Pitch and Outdoor Sports Assessment and Strategy

There is not currently a comprehensive breakdown of open space available within Tewkesbury Council’s evidence base. The Playing Pitch and Outdoor Sports Assessment and Strategy states that within allocated sites for residential development of ten dwellings or more, provision of outdoor playing space will be expected to be made in accordance with the aspirational standards. The provision may either be on site or via a commuted sum to upgrade existing local facilities.

#### Assessment of infrastructure needs and costs

Two sets of standards facilitate a high level assessment of open space provision and there is potential for some overlap between the two, as in some instances open space is designed to provide both recreation and nature conservation functions.

The national *FIT Benchmark Standards* includes provision for play with an emphasis on provision for children and young people, but does also include an allowance for ‘Informal Playing Space’ that could cater for a wider range of user groups.

The Natural England *Accessible Natural Greenspace Standards (ANGSt)* seek to address the variability of access to natural greenspaces by promoting the provision of sites within easy reach of people’s homes. Natural England confirm that, in this context, natural does not necessarily mean the site has to be rare or notable enough to be designated. The table below sets out the FIT and ANGSt standards and indicates where there is potential for areas of informal open space to contribute to the objectives of both benchmarks.

Table 44 - FIT Benchmark and ANGSt greenspace standards

<i>FIT Benchmark Standards</i>		<i>Natural England ANGSt</i>		<i>Comment</i>
<i>Type</i>	<i>Standard</i>	<i>Type<sup>29</sup></i>	<i>Standard</i>	
Designated Children’s Playing Space	0.25Ha per 1,000 population	-	-	FIT set out guidelines for <sup>30</sup> :

<sup>29</sup> Natural England do not provide a title for each standard and therefore the Local, Neighbourhood, Parish and District level site types have been provided to give a sense of scale distribution.

<sup>30</sup> Local Areas for Play (LAP), Local Equipped Areas for Play (LEAP) and Neighbourhood Equipped Areas for Play (NEAP).

<i><b>FIT Benchmark Standards</b></i>		<i><b>Natural England ANGSt</b></i>		<i><b>Comment</b></i>
<i><b>Type</b></i>	<i><b>Standard</b></i>	<i><b>Type<sup>29</sup></b></i>	<i><b>Standard</b></i>	
Informal Playing Space	0.55Ha per 1,000 population	Local natural greenspace	Site of min. 2Ha within 300m	LAPs – located within 100m; LEAPs – located within 400m; and NEAPs – located within 1km.
-	-	Neighbourhood natural greenspace	Site of min. 20Ha within 2km	
-	-	Parish Cluster natural greenspace	Site of 100Ha within 5km	-
-	-	District natural greenspace	Site of 500Ha within 10km	
-	-	Local Nature Reserves	1Ha per 1,000 population	

## Facilities for Children and Young People

A preliminary high level assessment of demand for children’s playspace and provision for young people has been undertaken utilising the FIT Benchmark Standard of 0.25Ha per 1,000 population. An estimated capital cost for provision of £495,000/Ha has been derived from a 2008 play area model build-up, with costs rebased to 2013.

Table 45 - Assessment of need for playspace for children and young people

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014-2018	2019-2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.0	20,663	476	0.12	£58,945	207	0.1	25,629	591	0.1	73,109
	Urban area GNE	519	180	339	316	0.1	39,151	912	0.23	£112,887	392	0.1	48,560	1,131	0.3	140,013
	Urban area GW	1,200	421	779	740	0.2	91,571	2,109	0.53	£261,010	918	0.2	113,575	2,616	0.7	323,730
	Rural area E	355	161	194	283	0.1	35,019	624	0.16	£77,215	351	0.1	43,434	774	0.2	95,770
	Rural area F	239	45	194	79	0.0	9,788	420	0.11	£51,984	98	0.0	12,140	521	0.1	64,476
	Rural area G	236	45	191	79	0.0	9,788	415	0.10	£51,332	98	0.0	12,140	514	0.1	63,667
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.1	48,939	5,405	1.35	£668,838	491	0.1	60,699	6,704	1.7	829,558
	Strategic allocation - North Churchdown	845	150	695	264	0.1	32,626	1,485	0.37	£183,794	327	0.1	40,466	1,842	0.5	227,960
	Strategic allocation - South Churchdown	639	150	489	264	0.1	32,626	1,123	0.28	£138,988	327	0.1	40,466	1,393	0.3	172,386
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.1	48,939	2,721	0.68	£336,703	491	0.1	60,699	3,375	0.8	417,612
	Sub-total	8,927	1,697	7,230	2,983	0.7	369,111	15,690	3.92	£1,941,696	3,699	0.9	457,808	19,461	4.9	2,408,281
Gloucester South	Urban area GSC	911	65	846	114	0.0	14,138	1,601	0.40	£198,150	142	0.0	17,535	1,986	0.5	245,765
	Urban area GSW	421	65	356	114	0.0	14,138	740	0.18	£91,571	142	0.0	17,535	918	0.2	113,575
	Sub-total	1,332	130	1,202	228	0.1	28,276	2,341	0.59	£289,721	283	0.1	35,071	2,904	0.7	359,340

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014-2018	2019-2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Cheltenham South & West	Urban area CA1	514	111	403	195	0.0	24,143	903	0.23	£111,799	242	0.1	29,945	1,121	0.3	138,664
	Urban area CA4	510	112	398	196	0.0	24,272	896	0.22	£110,840	243	0.1	30,104	1,111	0.3	137,475
	Rural area D	237	46	191	81	0.0	10,005	417	0.10	£51,549	100	0.0	12,410	517	0.1	63,937
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.2	76,128	1,889	0.47	£233,821	763	0.2	94,421	2,344	0.6	290,008
	Strategic allocation - Up Hatherley	795	-	795	-	-	-	1,397	0.35	£172,919	-	-	-	1,733	0.4	214,471
	Sub-total	3,131	619	2,512	1,087	0.3	134,548	5,502	1.38	£680,929	1,349	0.3	166,880	6,825	1.7	844,555
Cheltenham North	Urban area CA2	509	111	398	195	0.0	24,143	895	0.22	£110,712	242	0.1	29,945	1,110	0.3	137,315
	Urban area CA3	514	111	403	195	0.0	24,143	903	0.23	£111,799	242	0.1	29,945	1,121	0.3	138,664
	Urban area CA5	837	419	418	736	0.2	91,136	1,471	0.37	£182,054	913	0.2	113,036	1,825	0.5	225,802
	Rural area C	237	46	191	81	0.0	10,005	417	0.10	£51,549	100	0.0	12,410	517	0.1	63,937
	Rural area H	240	46	194	81	0.0	10,005	422	0.11	£52,202	100	0.0	12,410	523	0.1	64,746
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	0.2	86,786	8,488	2.12	£1,050,347	870	0.2	107,640	10,527	2.6	1,302,743
	Sub-total	7,166	1,132	6,034	1,990	0.5	246,219	12,595	3.15	£1,558,664	2,468	0.6	305,385	15,622	3.9	1,933,208
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	0.0	18,271	483	0.12	£59,815	183	0.0	22,661	600	0.1	74,188
	Rural area B	237	46	191	81	0.0	10,005	417	0.10	£51,549	100	0.0	12,410	517	0.1	63,937
	Ashchurch MOD	2,125	-	2,125	-	-	-	3,735	0.93	£462,205	-	-	-	4,633	1.2	573,272
	Sub-total	2,637	130	2,507	228	0.1	28,276	4,635	1.16	£573,569	283	0.1	35,071	5,749	1.4	711,397

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014-2018	2019-2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
JCS total (excluding committed development)		23,193	3,708	19,485	6,517	1.6	806,431	40,764	10.19	£5,044,579	-	-	-	-	-	-
Committed development		10,007			-	-	-	17,589	4.40	£2,176,605	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		<b>33,200</b>						<b>58,353</b>	<b>14.59</b>	<b>£7,221,184</b>	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail). For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

## Informal Playing and Open Space

Informal playing and amenity space is most commonly found in residential areas and includes informal recreation spaces, green spaces and village greens in and around housing. As explained above, there may be some overlap in provision of informal open space and accessible natural greenspace, assuming open space is designed to have high biodiversity value. A high level assessment of demand for informal playing space has been undertaken utilising the FIT Benchmark Standard of 0.55Ha per 1,000 population. An estimated capital cost of £17,000/Ha has been applied based on 2010 data (rebased to 2013).

Table 46 - Assessment of need for informal open space

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.1	1,561	476	0.26	£4,454	207	0.1	1,936	591	0.3	5,524
	Urban area GNE	519	180	339	316	0.2	2,958	912	0.50	£8,529	392	0.2	3,669	1,131	0.6	10,579
	Urban area GW	1,200	421	779	740	0.4	6,919	2,109	1.16	£19,721	918	0.5	8,581	2,616	1.4	24,460
	Rural area E	355	161	194	283	0.2	2,646	624	0.34	£5,834	351	0.2	3,282	774	0.4	7,236
	Rural area F	239	45	194	79	0.0	740	420	0.23	£3,928	98	0.1	917	521	0.3	4,872
	Rural area G	236	45	191	79	0.0	740	415	0.23	£3,878	98	0.1	917	514	0.3	4,810
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.2	3,698	5,405	2.97	£50,534	491	0.3	4,586	6,704	3.7	62,678
	Strategic allocation - North Churchdown	845	150	695	264	0.1	2,465	1,485	0.82	£13,887	327	0.2	3,057	1,842	1.0	17,224
	Strategic allocation - South Churchdown	639	150	489	264	0.1	2,465	1,123	0.62	£10,501	327	0.2	3,057	1,393	0.8	13,025
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.2	3,698	2,721	1.50	£25,440	491	0.3	4,586	3,375	1.9	31,553
Sub-total	8,927	1,697	7,230	2,983	1.6	27,888	15,690	8.63	£146,706	3,699	2.0	34,590	19,461	10.7	181,959	
Gloucester South	Urban area GSC	911	65	846	114	0.1	1,068	1,601	0.88	£14,971	142	0.1	1,325	1,986	1.1	18,569
	Urban area GSW	421	65	356	114	0.1	1,068	740	0.41	£6,919	142	0.1	1,325	918	0.5	8,581
	Sub-total	1,332	130	1,202	228	0.1	2,136	2,341	1.29	£21,890	283	0.2	2,650	2,904	1.6	27,150
Cheltenham South & West	Urban area CA1	514	111	403	195	0.1	1,824	903	0.50	£8,447	242	0.1	2,263	1,121	0.6	10,477
	Urban area CA4	510	112	398	196	0.1	1,834	896	0.49	£8,375	243	0.1	2,275	1,111	0.6	10,387

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
	Rural area D	237	46	191	81	0.0	756	417	0.23	£3,895	100	0.1	938	517	0.3	4,831
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.3	5,752	1,889	1.04	£17,667	763	0.4	7,134	2,344	1.3	21,912
	Strategic allocation - Up Hatherley	795	-	795	-	-	-	1,397	0.77	£13,065	-	-	-	1,733	1.0	16,204
	Sub-total	3,131	619	2,512	1,087	0.6	10,166	5,502	3.03	£51,448	1,349	0.7	12,609	6,825	3.8	63,811
Cheltenham North	Urban area CA2	509	111	398	195	0.1	1,824	895	0.49	£8,365	242	0.1	2,263	1,110	0.6	10,375
	Urban area CA3	514	111	403	195	0.1	1,824	903	0.50	£8,447	242	0.1	2,263	1,121	0.6	10,477
	Urban area CA5	837	419	418	736	0.4	6,886	1,471	0.81	£13,755	913	0.5	8,540	1,825	1.0	17,061
	Rural area C	237	46	191	81	0.0	756	417	0.23	£3,895	100	0.1	938	517	0.3	4,831
	Rural area H	240	46	194	81	0.0	756	422	0.23	£3,944	100	0.1	938	523	0.3	4,892
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	0.4	6,557	8,488	4.67	£79,360	870	0.5	8,133	10,527	5.8	98,430
	Sub-total	7,166	1,132	6,034	1,990	1.1	18,603	12,595	6.93	£117,766	2,468	1.4	23,074	15,622	8.6	146,065
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	0.1	1,380	483	0.27	£4,519	183	0.1	1,712	600	0.3	5,605
	Rural area B	237	46	191	81	0.0	756	417	0.23	£3,895	100	0.1	938	517	0.3	4,831
	Ashchurch MOD	2,125	-	2,125	-	-	-	3,735	2.05	£34,922	-	-	-	4,633	2.5	43,314
	Sub-total	2,637	130	2,507	228	0.1	2,136	4,635	2.55	£43,336	283	0.2	2,650	5,749	3.2	53,750
JCS total (excluding committed development)		23,193	3,708	19,485	6,517	3.6	60,930	40,764	22.42	£381,146	-	-	-	-	-	-



JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
<b>Committed development</b>		10,007			-	-	-	17,589	9.67	£164,455	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		33,200						58,353	32.09	£545,601	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail).. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

## Current informal open space projects

Cooper's Edge Development, Brockworth – In November 2012, an application was approved for public open space, play facilities and associated landscape works comprising: Neighbourhood Equipped Area for Play (NEAP), Multi Use Games Area (MUGA) and Skate Park.

## Local Accessible Natural Greenspace

In order to provide an initial high level assessment for the provision of accessible natural greenspace, the Natural England ANGSt for the provision of local greenspaces of 2Ha within 300m of new development has been applied. Based on an assumption that the occupants of homes within a circular area (300m radius; 30 dwellings per ha) are able to access a 2ha site, a standard of approximately 1ha per 1,000 population results.<sup>31</sup>

The assessment of need in the table below is based on this standard of 1ha per 1,000 population and an estimated capital cost of £240,000/ha has been applied, derived from a semi-natural open space cost build up from a 2008 case study and Spens 2010 data (costs rebased to 2013).

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<sup>31</sup> Area of 300m radius circle = 282,780sqm or 28.3Ha. Assume density of 30 dwelling per Ha results in catchment of 848 dwellings. This equates to 1,950 people based on an average household size of 2.3 people.

Table 47 - Assessment of need for Accessible Natural Greenspace

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Gloucester North	Urban area GC	271	95	176	167	0.2	40,074	476	0.48	£114,317	207	0.2	49,704	591	0.6	141,787
	Urban area GNE	519	180	339	316	0.3	75,930	912	0.91	£218,932	392	0.4	94,176	1,131	1.1	271,541
	Urban area GW	1,200	421	779	740	0.7	177,592	2,109	2.11	£506,201	918	0.9	220,267	2,616	2.6	627,840
	Rural area E	355	161	194	283	0.3	67,915	624	0.62	£149,751	351	0.4	84,235	774	0.8	185,736
	Rural area F	239	45	194	79	0.1	18,983	420	0.42	£100,818	98	0.1	23,544	521	0.5	125,045
	Rural area G	236	45	191	79	0.1	18,983	415	0.41	£99,553	98	0.1	23,544	514	0.5	123,475
	Strategic allocation - Innsworth & Twigworth	3,075	225	2,850	395	0.4	94,913	5,405	5.40	£1,297,140	491	0.5	117,720	6,704	6.7	1,608,840
	Strategic allocation - North Churchdown	845	150	695	264	0.3	63,275	1,485	1.49	£356,450	327	0.3	78,480	1,842	1.8	442,104
	Strategic allocation - South Churchdown	639	150	489	264	0.3	63,275	1,123	1.12	£269,552	327	0.3	78,480	1,393	1.4	334,325
	Strategic allocation - North Brockworth	1,548	225	1,323	395	0.4	94,913	2,721	2.72	£652,999	491	0.5	117,720	3,375	3.4	809,914
	Sub-total	8,927	1,697	7,230	2,983	3.0	715,853	15,690	15.69	£3,765,713	3,699	3.7	887,870	19,461	19.5	4,670,606
Gloucester South	Urban area GSC	911	65	846	114	0.1	27,419	1,601	1.60	£384,291	142	0.1	34,008	1,986	2.0	476,635
	Urban area GSW	421	65	356	114	0.1	27,419	740	0.74	£177,592	142	0.1	34,008	918	0.9	220,267
	Sub-total	1,332	130	1,202	228	0.2	54,838	2,341	2.34	£561,883	283	0.3	68,016	2,904	2.9	696,902

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
Cheltenham South & West	Urban area CA1	514	111	403	195	0.2	46,824	903	0.90	£216,823	242	0.2	58,075	1,121	1.1	268,925
	Urban area CA4	510	112	398	196	0.2	47,072	896	0.90	£214,962	243	0.2	58,384	1,111	1.1	266,617
	Rural area D	237	46	191	81	0.1	19,404	417	0.42	£99,975	100	0.1	24,067	517	0.5	123,998
	Strategic allocation - South Cheltenham	1,075	350	725	615	0.6	147,642	1,889	1.89	£453,472	763	0.8	183,120	2,344	2.3	562,440
	Strategic allocation - Up Hatherley	795	-	795	-	-	-	1,397	1.40	£335,358	-	-	-	1,733	1.7	415,944
	Sub-total	3,131	619	2,512	1,087	1.1	260,942	5,502	5.50	£1,320,590	1,349	1.3	323,646	6,825	6.8	1,637,925
Cheltenham North	Urban area CA2	509	111	398	195	0.2	46,824	895	0.89	£214,714	242	0.2	58,075	1,110	1.1	266,309
	Urban area CA3	514	111	403	195	0.2	46,824	903	0.90	£216,823	242	0.2	58,075	1,121	1.1	268,925
	Urban area CA5	837	419	418	736	0.7	176,748	1,471	1.47	£353,075	913	0.9	219,221	1,825	1.8	437,918
	Rural area C	237	46	191	81	0.1	19,404	417	0.42	£99,975	100	0.1	24,067	517	0.5	123,998
	Rural area H	240	46	194	81	0.1	19,404	422	0.42	£101,240	100	0.1	24,067	523	0.5	125,568
	Strategic allocation - North West Cheltenham	4,829	399	4,430	701	0.7	168,312	8,488	8.49	£2,037,037	870	0.9	208,757	10,527	10.5	2,526,533
	Sub-total	7,166	1,132	6,034	1,990	2.0	477,516	12,595	12.60	£3,022,863	2,468	2.5	592,262	15,622	15.6	3,749,251
Tewkesbury & Ashchurch	Rural area A	275	84	191	148	0.1	35,434	483	0.48	£116,004	183	0.2	43,949	600	0.6	143,880
	Rural area B	237	46	191	81	0.1	19,404	417	0.42	£99,975	100	0.1	24,067	517	0.5	123,998
	Ashchurch MOD	2,125	-	2,125	-	-	-	3,735	3.73	£896,398	-	-	-	4,633	4.6	1,111,800

JCS Sub-area	Econometrics area / Allocations	New Dwellings	2014 - 2018	2019 - 2031	Scenario 1						Scenario 2					
					2014 - 2018			2014 - 2031 (whole plan)			2014 - 2018			2014 - 2031 (whole plan)		
					Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost	Population	Demand (ha)	Capital Cost
	Sub-total	2,637	130	2,507	228	0.2	54,838	4,635	4.63	£1,112,377	283	0.3	68,016	5,749	5.7	1,379,678
<b>JCS total (excluding committed development)</b>		23,193	3,708	19,485	6,517	6.5	1,563,988	40,764	40.76	£9,783,426	-	-	-	-	-	-
<b>Committed development</b>		10,007			-	-	-	17,589	17.59	£4,221,294	-	-	-	-	-	-
<b>Total Draft JCS New Housing</b>		33,200						58,353	58.35	£14,004,720	-	-	-	-	-	-

*Note: Scenario 2 is helpful in establishing a worst case scenario increase in demand for local infrastructure within a specific sub-area or allocation (see Section 3.3 on page 35 and 36 for further detail).. For instance, a new housing development comprised mainly of family housing would result in a higher demand for certain types of community infrastructure than that reflected by calculations based on Scenario 1.*

*Scenario 2 should not however be used to explore a JCS wide requirement as it does not accurately reflect overall housing mix and demand across the JCS area and therefore has not been totalled.*

### 4.8.3 Herefordshire and Gloucestershire Canal Trust

***Herefordshire & Gloucestershire Canal Restoration*** – The Herefordshire and Gloucestershire Canal Trust has the ultimate aim of completing the full restoration of the Canal from Gloucester to Hereford. The canal follows an almost entirely rural course through Gloucestershire and Herefordshire. Although much of the canal has been filled in, a surprising number of lock cottages, wharf buildings and bridges remain. Several stretches of the canal, as well as the canal basin at Over, have now been restored by volunteers and the Waterways Recovery Group. The Trust is now also developing the canal on more recent sites at Moat Farm and Kymin East.

## 4.9 Transport and Public Realm

### 4.9.1 Responsibilities for delivery

Gloucestershire County Council is the Local Authority responsible for overall transport strategy and planning across the county. A range of further organisations are involved in the delivery of transport services for the JCS area, as summarised below:

#### 4.9.1.1 Highways

***Highways Agency*** - The Highways Agency is responsible for operating, maintaining and improving the Strategic Road Network (SRN). Within the JCS area the SRN comprises:

- The M5 between the borders with Worcestershire and Stroud District, including Junctions 9, 10, 11, and 11a and parts of Junction 8.
- The section of M50 within Tewkesbury borough, including Junction 1.
- The A40 between M5 Junction 11 and the boundary with the Forest of Dean District (at Highnam Woods).
- The A46 between M5 Junction 9 and the boundary with Worcestershire, north-east of the Teddington Hands roundabout; and
- The A417 between M5 Junction 11a and the boundary with Cotswold District close to the Air Balloon Roundabout.
- In responding to the Draft JCS, the HA identified the following:
- Overall concerns of cross routing trips across motorway junctions;
- Increases in demand for trips along SRN corridors; and
- Issues of severance caused by the SRN – particularly at Tewkesbury and Ashchurch.
- In addition to this, the Agency is responsible for other sections of the SRN which run close to, but outside of the JCS area. This includes the A40 corridor where there are cross border issues.

**Local Highways Authority** – Gloucestershire County Council (GCoC) is the local highways authority responsible for the maintaining and enhancing the local road network in the JCS area.

### 4.9.1.2 Rail

**Network Rail** - Network Rail are responsible for the maintenance and enhancement of rail infrastructure. Network Rail is also the landlord of virtually all stations on the network, although all the stations in Gloucestershire are leased to train operators.

In response to the Draft JCS, Network Rail requested that the Core Strategy includes a policy that requires developers to fund any qualitative improvements required in relation to existing facilities and infrastructure as a direct result of increased patronage from new development. The likely impact and level of improvements required will be specific to each station and each development meaning standard charges and formulae may not be appropriate. Therefore in order to fully assess the potential impacts, and the level of developer contribution required, it is essential that where Transport Assessments are submitted in support of planning applications these quantify in detail the likely impact on the rail network. Upgrades to rail infrastructure may include:

- Improved signalling;
- Passing loops;
- Car parking;
- Improved access arrangements;
- Platform extensions.

**Train Operators** – Figure 6 below shows the train operators that provide services to Gloucestershire. Within the JCS area, First Great Western operates rail services between Bristol and Worcester, with stops at Gloucester and Cheltenham Spa, as well as services on the Oxford to Worcester line that includes a stop at Ashchurch for Tewkesbury. First Great Western is responsible for the management and improvement of these stations.

The Cross Country franchise operates national intercity trains that cross the county from Bristol to Birmingham and stop at Cheltenham Spa station. Cross Country also operate regional services into Wales with stops at Ashchurch for Tewkesbury, Cheltenham Spa and Gloucester.

Arriva Trains Wales operate services between Cheltenham Spa and Cardiff with a stop at Gloucester.

### 4.9.1.3 Bus

**Gloucestershire County Council** – the County Council is responsible for administering bus route subsidies working in partnership with the JCS authorities and relevant bus network operators.

**Bus network operators** – Stagecoach West operate the majority of bus services within the JCS area, although there are a range of other companies/organisations

that operate strategic services. These include: Third Sector Services, Aston's Coaches, Castelways, Pulhams' Coaches and Swanbrook Transport Ltd.

#### 4.9.1.4 Cycling, walking and public realm

Gloucestershire County is responsible for forward planning of walking and cycling projects through the Local Transport Planning (LTP) process, and also has related responsibilities for maintaining and improving the Public Rights of Way network of footpaths and bridleways. The City, Borough and District Councils, Town and Parish Councils and a variety of community sector organisations (e.g. Sustrans) are also actively involved in promoting and delivering cycling and walking projects.

#### 4.9.2 Sector plans and strategies

The following key sector plans and strategies are identified and have been referred to in this chapter.

##### ***Highways Agency Business Plan 2013-2014 and Department for Transport (DfT) Strategic Road Network Performance Specification 2013-2015***

The DfT has set out five main outcomes for management of the SRN:

- a SRN which supports and facilitates economic growth;
- a SRN which is maintained to a safe and serviceable condition;
- an efficiently and effectively operated SRN;
- a SRN which minimises its negative impacts on users, local communities and the environment; and
- a SRN which balances the needs of individuals and businesses that use and rely on it.

The Business Plan (Annex A) sets out the major schemes to be constructed within the 2013-14 plan period, none of which are located in Gloucestershire. However, the Agency has been successful in bidding for money from Tranche 3 of the DfT's Pinch Point Programme, in partnership with the County Council.

##### ***Gloucestershire Local Transport Plan 3 – 2011-26 Promoting a safe and sustainable transport system (LTP3)***

The vision for transport set out in this plan is to provide "...a safe and sustainable transport network within Gloucestershire", where safe means a transport network that people feel safe and secure using and sustainable means a transport network that is both environmentally and financially sustainable.

The LTP3 sets out the importance of Gloucestershire's transport system, explaining how the County Council can deliver a safe and sustainable transport system in Gloucestershire within the financial constraints that are likely to exist over the period covered by LTP3.

LTP3 has to address national transport priorities at the local level and Gloucestershire have aligned these to four main themes, which are:

- A greener, healthier Gloucestershire



- Sustainable economic growth
- A safer, securer transport system
- Good access to services

The County Council are currently working on a review of the LTP, with the intention that an update will be published in 2015, covering a plan period to 2026.

***The Central Severn Vale Transport Study 2011-2026 (Draft 2010)*** – the CSVT is an important study feeding into LTP3, which examined the forecast impacts of planned developments until 2026, setting out multi-modal transport interventions to accommodate this development wherever possible, as well as addressing transport related problems and issues occurring today. The study was based on planned growth of 56,400 houses in Gloucestershire up to 2026, with 34,800 in the Central Severn Vale (CSV) area. The CSV area contains the significant urban developments of Cheltenham, Gloucester and Tewkesbury and is home to two-thirds of Gloucestershire’s residents as well as much of the County’s commercial business.

***The Network Rail Great Western Route Utilisation Strategy year (RUS)(March 2010)*** – prepared by Network Rail this Strategy covers Gloucestershire and sets out the strategic vision for the future of the rail network across the Great Western region. Development of the strategy followed a well-established process. Initially, an analysis was carried out into the capacity and capability of the existing network and train services taking into account major changes planned over the next 10 years. Future demand was then analysed with a number of “Gaps” identified and options to resolve these gaps appraised. Those which demonstrated the best value for money were included in the strategy. The RUS was based on forecasting of future passenger demand taking into account growth proposals set out in the Draft Regional Spatial Strategy (now abolished) and will therefore need to be updated in due course.

***The Tewkesbury Borough Area Transport Strategy (Draft, 2010)*** – produced as part of the LTP process, specific policies for the Tewkesbury Borough area were established as set out in the table below:

National transport objectives	Tewkesbury objectives
Support economic growth	Provide the transport infrastructure necessary to accommodate new development and the increasing population predicted for Tewkesbury Borough. Support the local economy in the Tewkesbury Borough and provide access to employment for local residents.
Reduce carbon emissions	Encourage the use of sustainable modes of transport in Tewkesbury Borough.
Promote equality of opportunity	Provide access to services, jobs and local shops for all Tewkesbury Borough residents.
Contribute to better safety, security and health	Improve air quality and road safety in Tewkesbury Borough. Make the transport network in the Tewkesbury Borough more resilient.
Improve quality of life and a healthy natural environment	Manage the negative impacts of traffic for local communities in Tewkesbury Borough.

***Cheltenham Transport Plan (2008, 2010)*** – The Borough Council, through the Cheltenham Development Task Force, has been developing a framework for the regeneration of Cheltenham town centre. In three major public consultations between 2006 and 2008, about two-thirds of respondents supported the idea of a series of improvements to public space in the town centre and the traffic changes needed to deliver them – including works to remove through traffic from the heart of the retail area, with only buses and service vehicles being allowed access. Since then both Cheltenham Borough Council and the County Council have been working towards putting these ideas into action:

- 2008 and 2010 Planning documents were agreed (Civic Pride SPD).
- 2010 Cheltenham Development Task Force was set up.
- 2012 Gloucestershire County Council won Government money for changes to the road network and measures to improve green transport initiatives.
- 2012 Cheltenham Borough Council agrees sale of land, providing funds for the public space improvements

***Cheltenham Spa Railway Station Development Brief (April 2000)*** – The Development Brief covers the site of Cheltenham Spa Railway Station and associated land. The site lies between Gloucester Road, Queen's Road and Kensington Avenue. Aims of the development brief are:

- to encourage and facilitate improvements to Cheltenham Spa railway station;
- to make best use of land in the interests of sustainable development;
- to secure greater integration between all modes of transport; and
- to enhance the visual appearance of the area through high standards of development and landscaping.

***Gloucester Central Area Action Plan Preferred Options Consultation (August 2006)*** – This document sets out a Vision that the regeneration of the Central Area will positively promote the use of sustainable modes of transport including walking, cycling, public transport and other alternative modes of travel to the car. Specific measures include:

- Car parking will be rationalised with new car parks provided on the edge of the central area in appropriate locations to reduce congestion.
- The provision of a new bus station will provide a first class public transport interchange with improved linkages with the railway station.
- The role of the gate streets as pedestrian routes will be enhanced.
- Existing barriers to pedestrian movement e.g. the Inner Relief Road will be improved for pedestrians wherever possible and appropriate.

Completion of the Area Action Plan is on hold until the Joint Core Strategy is further progressed.

### **4.9.3 Infrastructure baseline**

Within the Gloucestershire and the JCS area, Cheltenham and Gloucester are the primary focus for economic activity, and contain approximately 74% of the JCS area population. Both settlements are major urban areas and centres for

employment, services, shops and education. Cheltenham and Gloucester have easy access to the M5 and other strategic roads (A417, A40 and A46) and are connected to the mainline railway networks. Over 70% of the residents of the two settlements live and work in the same local authority area. As journey times and distances are short there is potential for these journeys to be made by sustainable modes.

The proposed pattern of development set out in the IDP scenario is for significant development (intensification) within the existing urban areas of Cheltenham and Gloucester, together with a series of urban extensions around the edges of these settlements. This raises challenges with respect to enabling people to travel from the edge of cities to the centres, on routes that are already congested, as well as enabling sustainable modes of travel between Cheltenham and Gloucester. The prospect of impacts on M5 junctions from longer distance commuting to Bristol also needs to be considered.

Further to the north, Tewkesbury and Ashchurch are also located on the M5 corridor and the M50 connecting to Ross-on-Wye. Important roads serving the area are the A38, which runs in a north-south direction providing access to Gloucester, the A435-A438 Evesham-Tewkesbury Road, and the A435 through Bishop's Cleeve that connects to Cheltenham. There is a rail station at Ashchurch, which is served by trains from Birmingham to Cheltenham and Gloucester. Tewkesbury Borough has the typical travel characteristics of rural areas, with a high level of car use, car ownership and relatively long average trips.

The proposal to locate strategic development at Ashchurch would provide a site with good access to strategic transport networks (road and rail). Challenges for new development at Ashchurch will involve providing safe and attractive walking and cycling connections to the existing service centres in Northway and Tewkesbury; as well as encouraging a shift from car commuting to use of public transport, through improvements to the quality and frequency of strategic bus routes.

Some overarching issues relating to the existing transport infrastructure are summarised below:

**Highways** – Within Gloucestershire, there is over 3,000 miles of road, of which 80 miles are motorway or Trunk Road (the Strategic Road Network managed by the Highways Agency) and 3,300 miles are local roads managed by the County Council.

With respect to usage, Figures 5 and 6 show All Vehicle Traffic Flows and HGV Traffic Flows respectively (based on 2009 data – to be updated in subsequent versions of the IDP). These reveal that:

- The M5 is the busiest route in the county, carrying up to 90,000 vehicles a day and over 1,000 HGVs a day.
- The following A class roads are the busiest within the county (our underlining for emphasis):
- the A417/A419 linking Gloucester and Cirencester with Swindon;
- the A419 between M5 J13 and Stroud;

- the A40 that provides the direct link between Gloucester and Cheltenham (All Vehicles); and links to South Wales (via Ross-on-Wye) in the west and Oxford to the east (HGV traffic)
- the A4109 between M5 J10 and Cheltenham; and
- the M50 which links the M5 and Ross-on-Wye.

Development proposals within the IDP scenario would further increase traffic levels on these routes. Within the Tewkesbury Borough Area Transport Strategy it was identified that the impacts of high levels of development within the Borough are unclear, but that the increase in traffic could bring the network to capacity on strategic roads such as:

- the M5, Junction 9, 10, 11 and 11a;
- the A38 linking Gloucester, Tewkesbury and the M50;
- the A438/A435 linking Cheltenham, Bishop's Cleeve and Evesham; and
- the A4019 linking Cheltenham with the A38.

Key issues for the highway network identified in the LTP3 are:

- highway maintenance and resilience to climate change in the future with limited budgets;
- highway capacity and traffic congestion;
- improving safety; and
- reducing disruption to the network from essential utility works.

**Rail** - The JCS area is served by three rail routes: the Cross Country operated route between Bristol and Birmingham, with stops at Cheltenham Spa and Ashchurch for Tewkesbury; a Gloucester to Swindon route operated by First Great Western; and an Arriva Trains Wales route between Cheltenham Spa and Newport, which connects Cheltenham with Gloucester to Swindon.

The capacity of the Gloucester to Swindon route to relieve the A419 road link through modal shift is currently limited by frequency constraints for rail services on that route. If no action was taken, the single track between Kemble and Swindon would continue to constrain service frequencies to an hourly service only, reducing travel options between Gloucestershire, Swindon and London. As set out below, a Network Rail project for re-doubling of the line is now underway.

There are proposals to improve facilities at Ashchurch for Tewkesbury station, and there is concern that the car park at the station may reach its capacity.

**Bus** – There are around 89 bus services currently operating within the JCS area, of which 33 are classified as ‘strategic’ bus services. These strategic routes are made up of a combination of fully commercial, part-subsidised and subsidised bus services that are a priority for the County to maintain. Where strategic development has the potential to support the commercialisation of subsidised strategic routes, through increased patronage, this is viewed as a positive step, hence the focus on strategic bus routes within the appraisal below. There is also a desire to enhance the quality and frequency of services where possible, to further encourage travel by public transport.

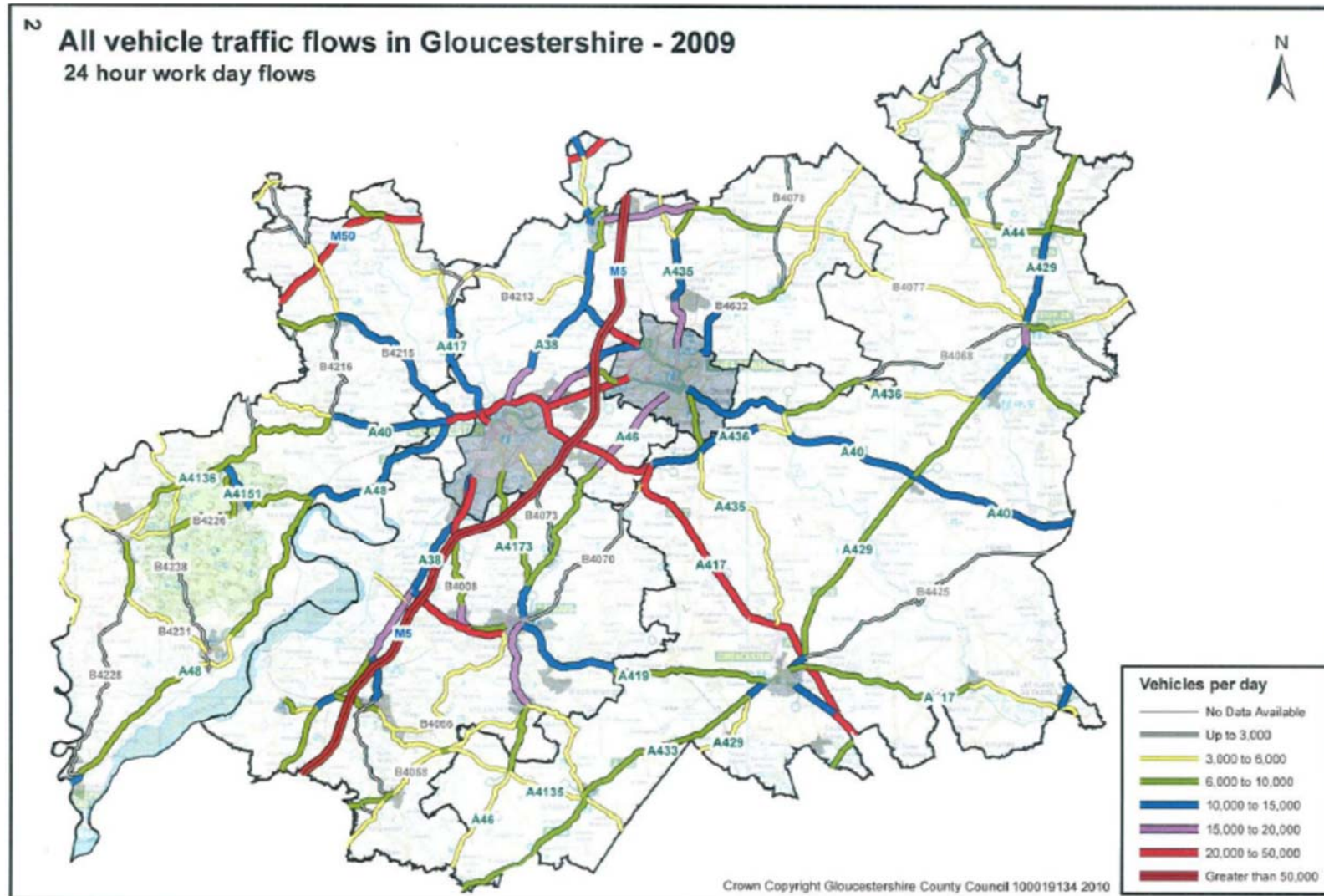
Bus-rail integration is seen as a further important step to ensure that longer distance journeys can be made by public transport.

### ***Walking and cycling***

The LTP3 highlights that measures to encourage walking and cycling can make important contributions to the LTP objectives of reduce CO2 emissions, improving health and quality of life. Reducing the number of short trips that are currently made by car can also help reduce traffic congestion. Broad measures outline in the LTP3 to help encourage walking and cycling include:

- encourage schools to implement and review their travel plans;
- require developers to submit and fund travel plans; and
- support funding bids to improve cycling infrastructure, especially to schools and employment sites.
- Tewkesbury town benefits from a reasonable network of on and off road cycle routes and experiences a level of cycling of some 6% for journey to work purposes. It is intended that proposed development at Ashchurch would link to and help further enhance this network.
- Further work will be required to identify the safety and quality of existing walking and cycling networks within, and around the urban edges of Gloucester and Cheltenham where strategic developments are proposed. The CSVTS does establish a proposal for a network of strategic cycle routes, which are referred to in the appraisal below where relevant. Particular concerns have been raised in relation to pedestrian safety along the A38 north of Gloucester, in the vicinity of the proposed strategic development at Innsworth.

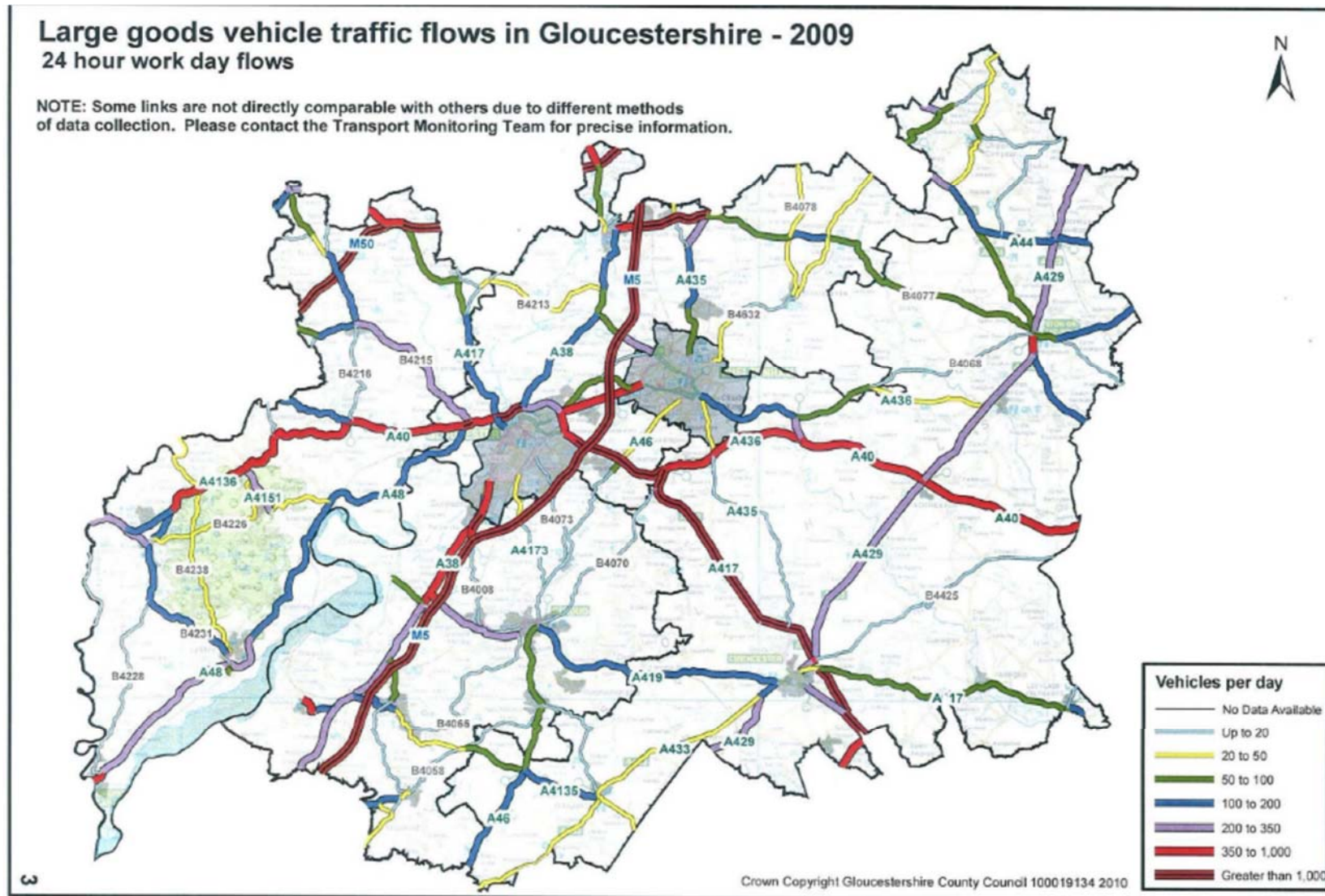
Figure 4 - All Vehicle Traffic Flows in Gloucestershire, 24hr work day flows (2009)



Source: Gloucestershire's Local Transport Plan 2011-26, page 22.

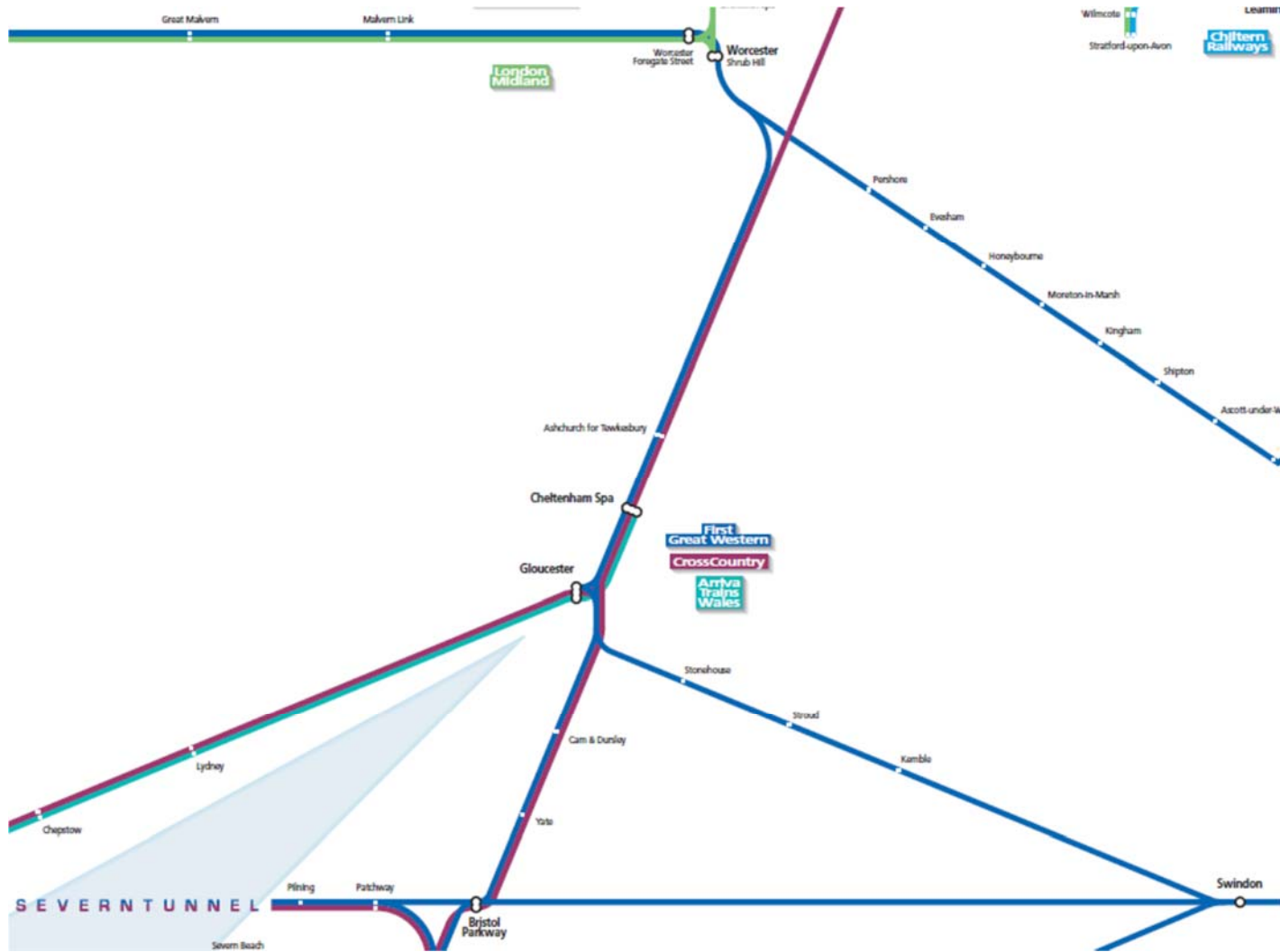


Figure 5 - Large goods vehicle traffic flows in Gloucestershire, 24 hour work day flows (2009)



Source: Gloucestershire's Local Transport Plan 2011-26, page 29

Figure 6- Nation Rail Network Operator Map (extract, Network Rail, March 2013)





#### 4.9.4 Assessment of Infrastructure Needs

Transport infrastructure planning is viewed as essential to ensuring spatially well located and planned new development. The principles and objectives that should underpin a spatial strategy and site design, as recommended by Gloucestershire County Council, are as follows:

- Population density needs to be close to existing major transport corridors to provide the patronage needed to make public transport financially sustainable.
- Travel distances to employment and services should be minimised to encourage walking and cycling to reduce carbon emissions.
- Each of the sites should be fully integrated into the fabric of the existing adjacent settlements. In some instances this may require significant engineering measures.
- Safe and suitable access must be located onto the highway network where it does not result on an unacceptable increase level of congestion.
- All new junctions should provide for safe and attractive movement for all people, including the needs of the people with disabilities.
- Sustainable transport should be given priority on key highway corridors between the site and key services and facilities, to reduce the need for major transport infrastructure. Current public transport provision should be developed in preference to establishing new services.
- All modes (walking, cycling, bus and car) and accesses onto the local street network should be provided where possible to accommodate local demand (i.e. trips under 1km).
- All modes (walking, cycling, bus and car) accesses onto the principal road network should be provided at suitable locations to accommodate demand to adjacent towns or cities.
- If the assignment evidence indicates a demand for significant amounts of movement away from adjacent centres, junctions onto the Strategic Road Network should be considered.

As development proposals come forward, the County Council will require the following detailed assessment work to be undertaken:

- Full Transport Assessments (TAs) and Travel Plans will be required for the majority of planning applications with the exception of small-scale applications. Appropriate guidance for these is set out in the Department for Transport's Guidance on Transport Assessment (March 2007), the Manual for Gloucestershire Streets (Feb 2012, due to be updated) and Gloucestershire Travel Plan Guide for Developers (2012). The scope of studies will need to be agreed with the County Council at an early stage of the planning process. The Highways Agency should also be consulted on these where there is potential for impacts upon the operation of the Strategic Road Network.
- Accessibility Modelling will be required to demonstrate how well the developments fit with access to local services. The County Council has an Accession Model available that can be used for this purpose.

The County Council has confirmed that without access to supporting TAs and further information the dwelling mix at each settlement the advice they have provided will be subject to review. However, local improvements to public transport, walking and cycling are likely in respect of all sites. Large developments are also expected to contribute appropriately to wider strategic transport infrastructure.

Without the benefit of up-to-date transport models, at this stage the Highways Agency has also been unable to provide detailed comments or advise with sufficient certainty on the nature, scale and costs of transport infrastructure which will be required on the Strategic Road Network to support development. Understanding the cumulative impact of all the strategic development allocations affecting M5 Junctions 9, 10, 11, 11A and 12 will be of particular importance.

The Agency is now treating the DfT Circular on the Strategic Road Network and the Delivery of Sustainable Development (September 2013) as carrying significant weight. This explains the Agency's policy on development and development locations as follows:

- Development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section (link or junction) of the strategic road network, or they do not increase demand for use of a section that is already operating at over-capacity levels, taking account of any travel plan, traffic management and/or capacity enhancement measures that may be agreed. However, development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe (paragraph. 9).
- The Agency's prime consideration will be the continued safe operation of its network, even where development proposals would not result in capacity issues (paragraph. 10).
- In determining its contribution to the development of Local Plans, the Highways Agency's aim will be to ensure that the scale and patterns of development are planned in a manner which will not compromise the fulfilment of the primary purpose of the SRN (paragraph 14).
- Through the production of Local Plans, development should be promoted at locations that are or can be made sustainable, that allow for uptake of sustainable transport modes and support wider social and health objectives, and which support existing business sectors as well as enabling new growth (paragraph 16).

Further key points raised in the Circular are as follows:

- Capacity enhancements and infrastructure required to deliver strategic growth should be identified at the Local Plan stage, which provides the best opportunity to consider development aspirations alongside the associated strategic infrastructure needs. Enhancements should not normally be considered as fresh proposals at the planning application stage. The Highways Agency will work with strategic delivery bodies to identify infrastructure and access needs at the earliest possible opportunity in order to assess suitability, viability and deliverability of such proposals, including the identification of potential funding arrangements (paragraph 18).
- The creation of new accesses to the strategic road network can impact on its ability to fulfil the function of facilitating the safe and effective movement of

goods and people in support of economic growth by compromising traffic movement and flow (paragraph. 37).

- Where appropriate, proposals for the creation of new junctions or direct means of access may be identified and developed at the Plan-making stage in circumstances where it can be established that such new infrastructure is essential for the delivery of strategic planned growth (paragraph 39).
- The Highways Agency will adopt a graduated and less restrictive approach to the formation or intensification of use of access to the remainder of the strategic road network. However, the preference will always be that new development should make use of existing junctions. Where a new junction or direct means of access is agreed, the promoter will be expected to secure all necessary consents, and to fund all related design and construction works (paragraph. 43).

Transport modelling has been undertaken and is continuing for the JCS area. We are currently awaiting an updated transport modelling assessment.

#### 4.9.5 Major and cross-boundary transport projects

Through the process of collating information on proposed infrastructure projects and appraising the potential demands of new development, a number of major transport projects have been identified. These include projects that could be considered to serve a county-wide purpose; are cross-boundary in their location or function (in this context cross-boundary refers to the boundary between the JCS area and neighbouring Districts); or may be of importance for facilitating development at two or more strategic allocations within the JCS area. In many cases transport projects help to strengthen the network as a whole, and it therefore becomes difficult to determine those projects that serve only a local purpose, as opposed to a strategic improvement to the network. These projects have been defined as “regionally critical infrastructure” and of the highest priority in delivery terms within the IDP Project Tracker.

The list of major projects below includes a number of major schemes that have been subject to a process of evidence of impact and prioritisation through the Gloucestershire Local Transport Board (GLTB - see funding section below). At a meeting on 17th July 2013 GLTB members adopted the proposed priority schemes and authorised GLTB officers to commence work with promoters of the highest priority schemes, as defined below. These schemes are those that the GLTB is most likely to be able to fund through a Department for Transport (DfT) allocation, however, depending on the final funding allocation, less or more schemes may be progressed through this process. It should also be noted that the GLTB reserves the right to withdraw or re-prioritise any priority scheme should the value for money case or deliverability of the scheme be in doubt. A list of the 10 lower priority schemes, 3 of which are located within the JCS area, is provided at Appendix D1.

##### 4.9.5.1 Highways

- ***A417 Air Balloon Roundabout and “Missing Link”*** - The A417 forms part of the Strategic Road Network in Gloucestershire, linking Swindon and the M4 with Gloucester via Cirencester. The Air Balloon roundabout is a well known congestion point on the A417, located close to the boundary between

Cheltenham Borough Council and Cotswold District Council, on the last remaining section of single carriageway road between Swindon and Gloucester. Delivery of A417 improvements at Crickley Hill, Air Balloon, Nettleton Bottom remains an important objective of both the LTP3 and Gloucestershire Integrated Economic Strategy (2009-2015), the latter of which states:

*“The Gloucestershire First Partners will improve the connectivity of the County by... lobbying relentlessly for high quality rail and road links to London and the SE including the re-duelling of the line between Kemble and Swindon and removing the Nettleton Bottom bottleneck.”*

A recent proposal to reduce problems involved an Experimental Traffic Regulation Order that would prevent right turns. This project had an estimated cost of £80,000, with funding to be provided by the Highways Agency and Gloucestershire County Council, but has now been abandoned following public consultation. A long term strategic project, a “Missing Link” dual carriageway that bypasses the roundabout is estimated to cost in excess of £255m, so funding and delivery would be challenging. The County Council and Highways Agency are currently exploring whether alternative solutions exist that could be delivered in a shorter timescale.

- ***M5 Junction 10 ‘All-ways’ junction*** – Junction 10 currently allows southbound traffic on the M5 to exit to the A4019 Tewkesbury Road, and for traffic on the A4019 to join the M5 in a northbound direction. The provision of an all-ways junction is proposed within LTP3, which would help foster economic development, particularly in the north of Cheltenham and may facilitate strategic housing development. This major scheme has an estimated cost range of £13- 20m.

The County Council and Highways Agency have been successful in obtaining Pinch Point funding for the following highways projects:

- ***M5 Junction 11a to Junction 12 Motorway Incident Detection and Automatic Signalling (MIDAS) system*** – Pinch Point funding of £3.49m towards this scheme has been secured, with implementation scheduled to start during 2013 and completion due during 2014. This system will infill existing sections of managed motorway at adjacent junctions.
- ***A417 C&G and Walls Roundabout Capacity Improvements (Phase 2)*** – Pinch Point funding of £2.2m towards this scheme was secured in May 2013, with the balance of the total £3.1m cost to be shared between contributions from Sainsbury’s and Gloucestershire County Council. The scheme should be completed by March 2015 and involves: C&G roundabout – localised widening (3 to 4 lanes) on A417 approaches; replacement of fixed signalling with flexible system; and localised changes to signing and lining on junction approaches. Walls roundabout – installation of flexible controlled signals, compatible with bus priority technology systems; localised widening on the A417 Corinium Avenue approach; and localised widening of the circulatory carriageway to 3 lanes.
- ***M5 Junction 9 and A46 Ashchurch improvements*** – Pinch Point Programme funding of £1.65m has been secured for this project, which is scheduled to be constructed during 2014. At Alexandra Way the main improvement will involve the provision of an additional through lane on the A46 westbound

approach to the junction. Works at Aston Cross will involve the extension and realignment of a right turning lane on the A46 westbound approach. Pedestrian/cycle facilities at M5 Junction 9 will also be improved and combined with signal control of the A438 approach from Tewkesbury. The proposed measures are predicted to reduce delays in both the morning and evening rush hour.

- **A40/A38 Longford Roundabout part-signalisation** – Pinch Point Programme funding of £230,000 has been secured for this project, which is scheduled to be constructed during 2014. This scheme will provide part-signalisation on the roundabout as queues can become extensive and result in delays. The objective is to reduce congestion at the junction and support capacity increases for future employment and residential development nearby.
- A financial contribution of £200,000 towards improvements at the roundabout was previously proposed as part of the Innsworth planning application.
- **A40/A417 Over Roundabout westbound traffic segregation** – Pinch Point Programme funding of £190,000 has been secured for this project, which is scheduled to be constructed during 2014. The proposed scheme is designed to segregate traffic by movement on the westbound approach and reduce overall queue lengths at the roundabout. The A40 route experiences recurrent congestion and delays between M5 Junction 11 and the Gloucestershire border at Lea. The A40 Over Roundabout experiences recurrent queues and delays in the morning and evening peak periods. This scheme has the potential to support development at the Innsworth strategic location and employment development at the northern Gloucester fringe.

A further highways project relating to the Over Roundabout has been shortlisted as a priority scheme by the GLTB for DfT funding:

- **A40 Over Roundabout and Highnam Lodge Improvements** - Partial signalisation and modifications to the junction layout at the A40 Over Roundabout; and removal of hatchings on the nearside lane of the eastbound carriageway and implementation of signals at Highnam Lodge access. This scheme has an estimated capital cost of £2.23ml, with full funding to be sought through the GLTB process. Construction is scheduled to be undertaken from October 2016 to March 2017.

#### 4.9.5.2 Rail

Strategic rail projects within the JCS area are identified below. The Cheltenham Spa Station Remodelling scheme has been shortlisted by the GLTB for DfT funding:

- **Cheltenham Spa Station Remodelling** – Cheltenham Spa is the busiest station in Gloucestershire, but the facilities have remained largely unchanged despite significant growth in passenger numbers. 1,812,624 passenger journeys were made from the station in 2011/12, compared with 731,388 journeys in 1997/98. The scheme will provide a new high quality train terminus and passenger transport interchange. The scheme consists of two elements: provision of additional track and platform capacity; and a step change in customer facilities, such as bus interchange, car parking, bicycle storage and station amenities. This scheme has an estimated capital cost of £19.2m, with

funding of £3.3m sought through the GLTB process. Construction is scheduled to be undertaken from April 2017 to March 2019.

- **Hunt's Grove new railway station** – A new railway station is proposed at Hunt's Grove station within the LTP3. The scheme has an estimated cost of £15.7m and has potential to serve existing development with the south of Gloucester City and committed/proposed development within the Gloucester urban fringe area of Stroud District.

### 4.9.5.3 Bus

- **Elmbridge Transport Scheme** – This scheme is a £16.5m Park & Ride scheme adjacent to Elmbridge Court roundabout, for which a funding bid was submitted to the DfT under the funding system that has now been replaced by the LTB process. Approval to proceed to planning application stage was awarded in December 2011, and a planning application through the NSIP process will be submitted during the summer 2013. Construction is scheduled to be undertaken in 2015 and 2016. £14.1m has provisionally been awarded to the county council for the scheme, which aims to tackle a congestion hot spot on the strategic road network and to improve public transport services between Cheltenham, Churchdown and Gloucester. Individual scheme elements are:
  - Capacity and safety improvements to the Elmbridge Court junction – by constructing a new “straight on” lane between the A40 Golden Valley bypass to A40 Gloucester Northern bypass (a “hamburger” arrangement).
  - 1,000 space Park & Ride site, adjacent to the Elmbridge Court Business Park, with access off the A40 Golden Valley bypass.
  - 10 minute frequency Park & Ride service from Elmbridge Court to Gloucester city centre; also potentially linking up with the existing Arle Court Park & Ride for Cheltenham town centre.
  - New highway link between B4063 Cheltenham Road East and A40 Golden Valley bypass.
  - Closure, to general traffic, of Cheltenham Road East between the new link road and the Elmbridge Court junction. Buses, pedestrians and cyclists will be exempt from this closure. Access for properties on this section of road, as well as the proposed new fire station, will be retained; and
  - Five bus priority schemes at the following locations:
    - A40 Golden Valley Bypass, Gloucester – bus lane on (Gloucester bound) approach to Elmbridge Court junction from the proposed P&R site;
    - B4063 Cheltenham Road East, Churchdown – bus lanes (in both directions) from Commerce Way to Staverton Cross Roads;
    - A40 Arle Court junction, Cheltenham – bus lanes on the Staverton Lane and A40 (Gloucester bound) approaches;
    - A40 Princess Elizabeth Way, Cheltenham – bus lane on the A40 (Cheltenham bound) approach; and
    - A40 Westal Green Gyratory, Cheltenham – bus lane on the A40 (Gloucester bound) section.



Two county council major transport schemes involving bus priority measures along the A40 corridor have been shortlisted by the GLTB for DfT funding:

- **A40 Bus Lane, Benhall** - The proposed bus lane is approximately 800m in length and begins after the existing “Puffin” crossing at Kingsley Gardens to continue through the Benhall Roundabout (at the junction with Princess Elizabeth Way) and end just before the junction with Whittington Road and GCHQ. The scheme will reduce delays, improve bus journey time predictability and complement eastbound bus priority on the B4063 and A40. The scheme has an estimated capital cost of around £1.19m, with £1.12m to be sought through the LTB process. Construction is scheduled to be undertaken between July 2015 and December 2015.
- **A40 Bus Corridor improvements, Cheltenham** – This scheme is located on the A40/B4063 to the west of Cheltenham town centre at: A40 Arle Court roundabout; A40 / Telstar Road / Whittington Road traffic signal junction; and A40 / A4013 Benhall Roundabout. The scheme is designed to improve journey times and reliability for buses on the A40/B4063 between Gloucester and Cheltenham, particularly between the Arle Court and Benhall Roundabouts. There are four bus priority measures that will complement the Elmbridge Transport Scheme and existing bus priority measures on the A40. In total the scheme is estimated to cost £2.5m, with full funding sought through the LTB process. Construction is scheduled for September 2017 to February 2018.

In addition to the major projects above, there is a desire to implement improvements to the quality of bus services through the implementation of Smart Card ticketing and provision of Real Time Passenger Information on selected strategic routes (project information taken from LTP3):

- **Public Transport Smart Card ticketing** – the introduction of Smart Card ticketing as part of the SW Smart Card Project. The estimated cost for introducing Smart Cards across the Central Severn Vale Transport (CSV T) area, which includes parts of Stroud District as well as the JCS area, is £2,020,000 with roll-out scheduled for the period 2019-2026.
- **Bus Service Real Time Passenger Information (RTPI) expansion and electronic bus priority** – extend use of these technologies to improve the user experience and punctuality of bus services. The estimated cost for implementation across the CSV T area is £5.74M0, with implementation scheduled for the period 2011-2026.

#### 4.9.5.4 Walking and cycling

- **A40 Strategic Cycle Route** – LTP3 scheme serving parts of the JCS area and Forest of Dean by linking: Churcham – Longhope – Maisemore – Hartpury – Highnam – Newent.
- **CSV Cycle Schemes** – a package of routes comprising the following:
  - Kingsditch to Hester’s Way to St Mark’s
  - Up Hatherly to Churchdown to Elmbridge Court
  - Bishop’s Cleeve to north-west Cheltenham

- Staverton to Gloucester (via Down Hatherly, Twigworth and Longford)
- Chargrove to Hatherly to Arle Court
- Ashchurch to Tewkesbury
- Tewkesbury to north-west Cheltenham
- Cheltenham to Kingsditch to north-west Cheltenham Urban Extension
- Cheltenham to Gloucester (via Shurdington and Brockworth)
- Gloucester City schemes (to Railway Triangle, Brockworth, Elmbrige & Kingsway/Hunt's Grove)
- Churcham to Longhope (via A40)

Within the CSVTS, this package of cycling schemes has an estimated capital cost of £18.03m and would be delivered throughout the plan period.

#### 4.9.5.5 Town Centre Strategies

As identified above, both Cheltenham Borough and Gloucester city intend to implement a package of town centre improvements that comprise highways, public transport and walking and cycling improvements. As the residents and occupiers of new development within urban extensions at the fringes of these major urban areas are expected to benefit from these improvements to the town and city centres, contributions towards delivery of projects may be sought. Brief descriptions of the proposed measures are presented below:

- ***Cheltenham Transport Plan (town centre) Boots Corner*** - the Cheltenham Transport Plan sets out a series of highways, junction and public realm improvements within the town centre. A first stage of the project involves changing traffic arrangements to re-establish a civic space at Boots Corner. This project has a total cost of £4.9m and funding has been secured via the DfT LSTF Tranche 2 programme. Works will involve: closure of Boot's Corner to traffic except for buses and exempt vehicles; alterations to the Cheltenham one way system to improve access to car parks and reduce unnecessary journeys; and a sustainable transport package to achieve mode shift to sustainable modes. Further junction alterations set out within the Transport Plan include improvements to: Albion Street/Pittville Street; St Johns Avenue/Albion Street; Orlel Road/Rodney Road; Bath Road / Orlel Road.
- ***Gloucester Central Area Action Plan*** – as set out above within the plans and strategies section, the draft Action Plan sets out a series of car parking and public realm measures, as well as the provision of a new bus station (see references to GLTB schemes below and Appendix D1).

#### 4.9.6 Cheltenham North, East & Central sub-area

The following sub-sections provide an initial constraints and opportunities appraisal in relation to each of the JCS sub-areas and for each of the potential strategic allocations for development.



Potential strategic location for development within the Cheltenham North, East & Central sub-area is North West Cheltenham (4,829 dwellings). The IDP Development Scenario also allows for significant levels of development within the urban area, totalling around 2,337 dwellings (including commitments) across the CA2, CA3 and CA5 areas.

#### 4.9.6.1 North West Cheltenham

**Highways access** – Potential access points for this large potential development allocation include: to the southwest, the A4019 Tewkesbury Road that provides the main route to Cheltenham town centre and M5 J10; to the northwest a lane called The Green/Lowdilow Lane; to the east, Manor Road, which serves the Kingsditch Trading Estate, and the residential road Stantons Drive within Swindon village; and to the northeast Quat Goose Lane and an unnamed rural lane that serves the village of Brockhampton.

Transport opportunities and constraints for this potential strategic location for development are set out below:

**Highways access** – A new main junction onto the east of the A4019 to the east of the site should be provided to accommodate trips into Cheltenham Town Centre and a new main junction onto the A4019 to the west of the site should be provided to accommodate trips outside the Cheltenham area. All transport mode links to Swindon Village the east would be supported, although journey time would need to be managed to discourage use by non-local traffic (initial advice from County Council). The exact location, type and size of junctions is still to be determined.

**Highways** – The Highways Agency advise that North West Cheltenham could be the largest allocation within the JCS area and could therefore result in the greatest impact on the M5. Some parts of the site are within 3km of the town centre, whereas others (adjacent to M5 J10) are more than 5.5km. One of the Agency's main concerns would relate to non-strategic use of the motorway (i.e. junction hopping). As the current motorway junction arrangement only permits travel to and from the north, strategic trips to the south would have to use J11 through Cheltenham unless junction configuration was funded by the developers. There is also the potential for impacts to arise on the A46(T) towards Evesham.

The County Council have warned that the A4019 is congested at peak periods and have raised safety concerns with respect to the B4634 Old Gloucester Road, which provides the most direct link to Gloucester via the B4063 Cheltenham Road. As noted above, the County Council have also identified that strategic development at North Churchdown and South Churchdown could have implications for traffic flows on the B4063 Cheltenham Road, which is viewed as an existing congestion pinch point. Major development at North West Cheltenham could further increase flows on the B4063 and transport assessment work would be required to define appropriate highways mitigations measures.

Major transport schemes that may be of particular relevance to the development include:

- **M5 J10 All-ways Junction** – Major highways scheme within LTP3 with an estimated cost of £13m-£20m (see details above). Assumed completion of this project would have important implications for transport modelling informing a Transport Assessment.

- **A435 Corridor Study proposals** – further details of the A435 corridor study proposals to be provided.
- **Cheltenham Town Centre Transport Plan** – development within and around Cheltenham would benefit from and may be expected to contribute towards the delivery of a package of town centre transport improvements (see details above).

Concerns have been raised by the County Council with respect to the implications of strategic development at North Churchdown and South Churchdown for traffic flows on the B4063 Cheltenham Road, which is viewed as an existing congestion pinch point. Major development at North West Cheltenham could further increase flows on the B4063, which provides a direct route to Gloucester. Further assessment work would be required to define appropriate highways mitigations measures.

**Rail** – Rail services are not directly accessible from this strategic location, with Cheltenham Spa being the closest station. Bus transport would may therefore be the focus for public transport investment, although it is also possible that contributions would be sought towards the **Cheltenham Spa Station Remodelling** major scheme that is currently listed as one of four GLTB priority schemes (see details above).

**Bus** – Strategic bus routes 41/42 that connect Cheltenham with Tewkesbury pass along the A4019 Tewkesbury Road. These services are currently part-subsidised, so development in this area could potentially support a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

No.	Route	Operator	Status
41	Cheltenham – Tewkesbury – Northway	Stagecoach West	Part-subsidised
42	Cheltenham – Walton Cardiff - Tewkesbury – Northway	Stagecoach West	Part-subsidised

### **Walking and cycling**

The North West Cheltenham strategic location for development would benefit from, and could help facilitate the delivery of two strategic cycle routes identified within the CSVTS preferred strategy:

- **Tewkesbury to North West Cheltenham** – this would broadly follow the route of the A4019 Tewkesbury Road past the site.
- **Bishops’ Cleeve to North West Cheltenham** – one alignment option would be for this route to pass directly through the site.

## **4.9.7 Cheltenham South & West sub-area**

Alongside development of around 1,024 dwellings within the urban area (CA1 and CA4, strategic development options for the Cheltenham South & West sub-area include:

- 1,075 dwellings at Leckhampton & Brizen Farm and 795 dwellings in the vicinity of Up Hatherly.

#### 4.9.7.1 Up Hatherly Way

**Highways Access** - A site boundary has not been defined for the Up Hatherly Way strategic development area (795 dwellings proposed within IDP scenario), but the road Up Hatherly Way that currently forms the southwestern perimeter of Cheltenham presents a number of potential access points to development land. Existing small residential developments in the area are accessed from Sunnyfield Lane and Chargrove Lane may also facilitate access points.

Transport opportunities and constraints for this potential strategic location for development are set out below:

**Highways** – Initial comments provided in relation to the South Cheltenham (Leckhampton) potential strategic location for development will be of relevance for the Up Hatherly Way location, given the potential for cumulative effects on the highways network.

The following strategic project may also be of relevance:

- **Cheltenham Town Centre Transport Plan** – development within and around Cheltenham would benefit from and may be expected to contribute towards the delivery of a package of town centre transport improvements (see details above).

**Rail** – Rail services are not directly accessible from this strategic location, with Cheltenham Spa being the closest station. Bus transport would may therefore be the focus for public transport investment, although it is also possible that contributions would be sought towards the **Cheltenham Spa Station Remodelling** major scheme that is currently listed as one of four GLTB priority schemes (see details above).

**Bus** – A service to Cheltenham town centre operates on the eastern part of Up Hatherly Way, but there is no immediately adjacent access to strategic bus routes. The closest available services would be the No. 97/98 service along The Reddings and the No. 46 providing services between Cheltenham and Stroud along Shurdington Road (see Leckhampton).

**Walking and cycling** – the package of strategic cycle routes identified within the CSVTS Preferred Strategy include two that would serve development to the south of Cheltenham:

- Chargrove to Hatherly to Arle Court strategic cycle route
- Cheltenham to Gloucester (via Shurdington and Brockworth)

#### 4.9.7.2 South Cheltenham (Leckhampton)

Transport opportunities and constraints for this potential strategic location for development are set out below:

**Highways Access** - The IDP Development Scenario allocates 1,075 dwellings to this potential location for strategic development. A specific master plan boundary has not been defined, but there is a network of roads in the area that may provide suitable access points to development land: A46 Shurdington Road; Kidnappers' Lane; Farm Lane; Church Road; and Merlin Way.

Within initial comments the County Council advise that a new main junction on to the A46 should be provided to accommodate trips into Cheltenham town centre and outside the area. Provision of all transport mode linkages onto Kidnappers' Lane and Farm Lane would be supported to accommodate local traffic demand, although impacts on existing residents would need to be considered and managed. The exact location, type and size of junctions to be determined through detailed assessment work.

**Highways** - Capacity on the A46 Shurdington Road is limited, particularly at the junction with Leckhampton Lane/Church Road, and congestions occurs at peak periods. Rat running through Leckhampton is evident. Transport assessment and programmed modelling work will provide further information on transport issues and potential mitigation measures.

The following strategic project is also of relevance:

- **Cheltenham Town Centre Transport Plan** – development within and around Cheltenham would benefit from and may be expected to contribute towards the delivery of a package of town centre transport improvements (see details above).

**Rail** – Rail services are not directly accessible from this strategic location, with Cheltenham Spa being the closest station. Bus transport would may therefore be the focus for public transport investment, although it is also possible that contributions would be sought towards the Cheltenham Spa Station Remodelling major scheme that is currently listed as one of four GLTB priority schemes (see details above).

**Bus** - This strategic location for development is located close to the A46 Shurdington Road and would benefit from ready access to strategic bus route 46 operating between Cheltenham town centre and Stroud. This service is currently part-subsidised, so development in this area could potentially support a move towards full commercial status.

Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

No.	Route	Operator	Status
46	Cheltenham – Brockworth – Stroud – Nailsworth – Forest Green	Stagecoach West	Part-subsidised

In addition, the wider benefits of extending other bus services, e.g. the Bishop's Cleeve – Cheltenham – Cheltenham Spa Station – Up Hatherley services, to provide a direct link to the railway station and GCHQ without the need to change buses in Cheltenham town centre.

**Walking and cycling** – the package of strategic cycle routes identified within the CSVTS Preferred Strategy include two that would serve development to the south of Cheltenham:

- Chargrove to Hatherly to Arle Court strategic cycle route
- Cheltenham to Gloucester (via Shurdington and Brockworth)

## 4.9.8 Gloucester North sub-area

Gloucestershire County Council has been successful in securing significant investment for junction improvements along the A40 corridor, which serves proposed strategic allocations for development at, Innsworth, North Churchdown and South Churchdown. Further transport modelling and assessment work will be required to understand whether strategic developments would trigger further improvements to the Over, Longford and Elmbridge junctions.

Major development along the A40 corridor would also benefit from accessibility to strategic bus routes that provide good frequency services to Gloucester and Cheltenham (in particular the number 94 services), helping to support patronage on these routes and potentially contributing towards further enhancement of these services. Planned improvements include bus priority measures on the A40.

As set out within the CSVTS and LTP3, the County Council also proposes a strategic cycle route along the A40 corridor, which has the potential to link a number of the strategic allocations for development with the main centres of Gloucester and Cheltenham.

In the case of North Brockworth, investment through the Pinch Point programme at the C&G and Walls roundabouts contributes to the alleviation of existing capacity issues, and could help to facilitate further development. The location of this site on the No. 10 strategic bus route could support patronage and improvements to these services.

### 4.9.8.1 Innsworth

The IDP development scenario identifies the potential for 3,075 dwellings at Innsworth/Twigworth. In considering the potential transport implications of development, it is useful to refer back to the planning appeal decision documents relating to a previous, albeit smaller development proposal. This sought planning permission for 1,750 new dwellings constructed at a density of 42 dwellings per hectare, with 18% of units provided as affordable housing. A new employment centre was proposed to be built adjacent to the existing Innsworth Technology Park, providing 12,900sqm of class B1(b & c) light industrial uses. A new Local Centre was proposed with access off Innsworth Lane, comprising a mix of retail, office and services, together with space for community uses that could include a community hall and doctor's surgery. To the north of the Local Centre and within the middle of the site a two form entry primary school was proposed. Two areas of playing fields would also be provided, totalling around 4.75ha.

Transport opportunities and constraints at this potential strategic location for development are set out below:

Highways Access – Access options for the strategic location include: the possible creation of a principal access from the A40 dual-carriageway to the south (part of the SRN); access points from Innsworth Lane, Dry Meadow Lane and Frog Furlong Lane along the south and eastern boundary of the area; and access points from the A38 (Tewkesbury Land) and minor road Brook Lane to the northwest.

The HA advise that this location has significant transport implications, but is fairly well-located to Gloucester City Centre (within 3-4km). The former application proposal to share access with the Longford development to the

southwest was replaced in favour of providing a new junction onto the A40 trunk road due to, amongst other factors, flooding issues. At the time of the appeal, the HA favoured provision of a roundabout junction rather than traffic lights. Neither the HA or County Council raised objection to the principal of development at Innsworth, including the new junction with the A40, provided that various existing junctions were improved to accommodate development traffic, encompassing: works to the Longford and Elmbridge roundabouts on the A40, works to the Estcourt Road roundabout on the A38, and improvements to the Hare and Hound traffic signals on the B4063.

Nevertheless, it was acknowledged at the time of the appeal that there is undoubtedly peak period congestion on the highway network and that there had been considerable objection from local people about traffic issues, including concerns about the impact on smaller roads in the area and pedestrian safety. In reaching his decision to refuse planning permission, the Secretary of State identified “*doubt as to the timely delivery of mitigation measures against potential adverse highway impacts and encouragement of sustainable transport*”.

Highways – Within initial feedback the County Council advise that the road network to the west is severely congested at peak periods, and that the road network to the north is rural and heavily constrained. Drawing on major scheme proposals information and the progression of the former planning application for Innsworth, highways projects that may help facilitate development at this location are:

- ***A40 new Innsworth Junction Roundabout*** – providing initial feedback on allocations, the County Council advise that a direct link onto the A40 (SRN) is likely to be necessary, even for local trips.
- ***A40/A417 Over Roundabout westbound traffic segregation*** – Pinch Point Programme funding of £190,000 has been secured for this project, which is scheduled to be constructed during 2014.
- ***A40 Over Roundabout and Highnam Lodge Improvements*** – Priority major scheme subject to decision through GLTB process.
- ***A40/A38 Longford Roundabout part-signalisation*** – Pinch Point Programme funding of £230,000 has been secured for this project, which is scheduled to be constructed during 2014 .
- ***Elmbridge Transport Scheme junction improvements*** – see Strategic Projects above.
- Financial contributions towards roundabout improvements and bus priority measures were previously proposed as part of the Innsworth planning application.
- ***A38 Estcourt Road roundabout improvements*** - A financial contribution was previously proposed to facilitate improvements.
- ***B4063 Hare and Hounds Traffic Signals improvements*** – Staged payments were previously proposed to facilitate improvements.
- ***A38 at Norton safety measures*** – increased traffic levels at Norton may bring forward a requirement for safety measures at the school.



**Rail** – Rail services are not directly accessible from this strategic location, with Gloucester being the closest station. Bus transport may therefore be the focus for public transport investment.

**Bus** – Previous proposals relating to the site involved subsidising improvements to the 97/98 bus service, comprising an annual payments for 10 years. In addition, a payment was proposed for bus stop enhancements in Innsworth.

The 97/98 service is a part-subsidised strategic bus route, with development potentially assisting a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

No.	Route	Operator	Status
97	Gloucester – Innsworth – Churchdown – The Reddings – Cheltenham	Stagecoach West	Part-subsidised
98	Gloucester – Innsworth – Churchdown – The Reddings – Cheltenham	Stagecoach West	Part-subsidised

In addition, the County Council have identified two major scheme proposals to provide bus priority measures on the A40 that would assist reliable journey times along strategic routes:

- **A40 Bus Lane, Benhall** – a priority GLTB scheme (see details above).
- **A40 Bus Corridor improvements, west of Cheltenham** – a priority GLTB scheme (see details above).

Development in the vicinity of Gloucester may also help facilitate the Gloucester **King’s Quarter new Bus Station** major scheme (not currently a GLTB priority scheme).

**Walking and cycling** – Pedestrian safety was raised as a major concern during the determination of the previous application. Increases in traffic could result in dangerous conditions for pedestrians on Innsworth Lane, Frog Furlong Lane, Down Hatherly Lane, which are narrow and lack pavements, as well as the A38 Tewkesbury Road.

Walking and cycling projects associated with the strategic location may include:

- **Innsworth Lane walking and cycling improvements** – As part of the former proposals for the site, staged financial contributions were proposed.
- **A38 Innsworth and Twigworth pedestrian access** – Interventions to provide safe and attractive pedestrian access along the A38 in this area.
- **Staverton to Gloucester Strategic Cycle Route** – Identified within the CSVTS, this route is intended to serve the Twigworth area, providing a link to the city centre.

#### 4.9.8.2 North and South Churchdown

**Highways Access** – Strategic development at Churchdown may extend to the north and/or south of the A40 trunk road. To the north of the A40, access could be potentially be achieved from the B4063 Cheltenham Road East and/or the

residential roads of Parkside Drive, Dancey Road and Grove Road. To the south of the A40, it may be possible to provide access from Pirton Lane and John Daniels Lane. Notably the development area to the south of the A40 is located adjacent to the Elmbridge Transport Scheme Park & Ride site, which proposes to introduce a new junction on to the A40.

Within initial comments, the County Council advise that new main junctions onto the A40 from the western part of the site/s should be provided, to accommodate trips outside Gloucester, as well as a main junction onto the B4063. All transport mode linkages to Churchdown would be supported to accommodate local trips. The exact location, type and size of the junctions would need to be determined through detailed assessment work.

Transport opportunities and constraints at this potential strategic location for development are set out below:

Highways - Subject to detailed transport assessment, the strategic location for development would benefit from a series of planned highways improvements along the A40 corridor (as presented in detail above):

- ***A40/A417 Over Roundabout westbound traffic segregation***
- ***A40 Over Roundabout and Highnam Lodge Improvements*** – Priority major scheme subject to decision through GLTB process.
- ***A40/A38 Longford Roundabout part-signalisation***
- ***Elmbridge Transport Scheme junction improvements***

Concerns have been raised with respect to the implications of strategic development at North Churchdown and South Churchdown for traffic flows on the B4063 Cheltenham Road, which is viewed as an existing congestion pinch point. Further assessment work would be required to define appropriate highways mitigations measures.

**Rail** – Rail services are not directly accessible from this strategic location, with Gloucester being the closest station. Bus transport may therefore be the focus for public transport investment.

**Bus** – Located in close proximity to the Elmbridge Transport Scheme, strategic development at South Churchdown would be well placed to take advantage of proposed high frequency services to Gloucester city centre, as well as strategic services to Cheltenham.

The existing 94/N94/94X/94U services operating between Gloucester and Cheltenham via Churchdown are high frequency, premium and fully commercial routes operated by Stagecoach. The 97/98 services are part-subsidised strategic bus routes, with development potentially assisting a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

No.	Route	Operator	Status
94	Gloucester – Churchdown - Cheltenham	Stagecoach West	Commercial



No.	Route	Operator	Status
N94	Gloucester – Churchdown – Cheltenham (night service)	Stagecoach West	Commercial
94X	Gloucester – Cheltenham (fast service – uses A40 rather than B4063 past Churchdown)		
94U	Gloucester – Cheltenham (fast service also serving University of Gloucestershire main campus)		
97	Gloucester – Innsworth – Churchdown – The Reddings - Cheltenham	Stagecoach West	Part-subsidised
98	Gloucester – Innsworth – Churchdown – The Reddings - Cheltenham	Stagecoach West	Part-subsidised

As identified for Innsworth, bus services serving the South Churchdown proposed strategic location would benefit from the implementation of the following projects:

- **A40 Bus Lane, Benhall** – a priority GLTB scheme (see details above).
- **A40 Bus Corridor improvements, west of Cheltenham** – a priority GLTB scheme (see details above).

Development in the vicinity of Gloucester may also help facilitate the Gloucester **King’s Quarter new Bus Station** major scheme (not currently a GLTB priority scheme – see Appendix D1).

**Walking and cycling** – Should development come forward to both the north and south of the A40, the HA have advised that consideration should be given to how the severance effects of the trunk road would be avoided. Provision of a pedestrian/cycle bridge or underpass would clearly have a major cost implication (a pedestrian/cycle bridge could cost in the region of £2mil).

Given the potential for development in this location to be well served by public transport, careful consideration should also be given to providing safe and attractive pedestrian cycle routes to bus stops. While it may be possible to achieve the majority of such routes within development sites, off-site contributions may also be necessary to provide complete links.

In terms of longer distance commuting by bicycle, development at South Churchdown may help facilitate the **A40 Strategic Cycle Route** project identified in the CSVTS.

### 4.9.8.3 North Brockworth

The IDP development scenario sets out a potential development of 1,548 dwellings at North Brockworth.

An outline planning application for development at North Brockworth, called Perrybrook, has now been submitted to Tewkesbury Borough Council. The proposals are for up to 1,500 dwellings including affordable housing and care provision, 3.3ha of employment land, land for a primary school if needed, provision for a doctor and dental surgeries, neighbourhood convenience outlets, and the provision of over 23ha of formal and informal sport, play and public open space (outline application ref: 12/01256/OUT).

The access strategy and infrastructure improvements for North Brockworth will be agreed through the Transport Assessment and associated traffic modelling for the outline application.

**Highways Access** – The submitted Illustrative Masterplan for the site (Drawing No: 10.67.106/A) shows a number of potential highways access points: a roundabout junction from Delta Way (linking to the A417); a roundabout junction from the B4641 Valiant Way (linking to the A417); a roundabout junction from Court Road, a minor road that provides a convenient route into Brockworth; a junction with Mill Lane; and new junction onto the A46 Shurdington Road to Cheltenham.

Transport opportunities and constraints at this potential strategic location for development are set out below:

**Highways** – The Highways Agency have advised that, if development were to come forward in this location, they would need to be satisfied that the operation of proposed access points into the site (off B4641 Valiant Way and A46 at or close to Mill Lane) do not interfere with the safe and efficient operation of the grade separated roundabouts on the A417.

Subject to detailed transport assessment, the strategic location may benefit from the following improvements to the highways network in the area:

- **A417 C&G and Walls Roundabout Capacity Improvements (Phase 2)** – Pinch Point funding of £2.2mil towards this scheme was secured in May 2013, with the balance of the total £3.1mil cost to be shared between contributions from Sainsbury’s and Gloucestershire County Council (see project details above).
- **A417 C&G Roundabout safety improvements** – Coopers Edge S106 contribution of £480,000 to provision of a left turn filter lane from the A40 southbound to the A417.
- **Abbeymead Avenue/North Upton Lane junction improvements** – Coopers Edge S106 contribution.
- **Shurdington Road improvements** – Coopers Edge S106 contribution (£80,000)
- **Lobleys Drive improvements** - Coopers Edge S106 contribution (£293,000)

**Rail** – Rail services are not directly accessible from this strategic location, with Gloucester being the closest station. Bus transport may therefore be the focus for public transport investment.

**Bus** – Brockworth is currently served by bus routes that include the No. 4 (serving Brockworth and Abbeymead via Coopers Edge) and No. 10 strategic bus services and N10 strategic night service linking with both Gloucester and Cheltenham. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

No.	Route	Operator	Status
4	Brockworth – Abbeydale - Gloucester	Stagecoach West	Part-subsidised

No.	Route	Operator	Status
10/N10	Tuffley – Gloucester – Brockworth – Cheltenham	Stagecoach West	Part-subsidised (10) / Commercial (N10)

Development at North Brockworth may also benefit from, and be expected to contribute towards the following major transport scheme:

- ***Abbeymead & Metz Way Bus Priority measures*** - Abbeymead Avenue and Metz Way are located to the southeast of Gloucester City Centre, between the Coopers Edge development (southwest of Brockworth and adjacent to the Gloucester Business Park) and Gloucester City Centre. A package of bus priority measures (westbound) are proposed, incorporating off carriageway cycle lane improvements. This scheme has been considered through the GLTB prioritisation process, but is not currently one of four priority schemes.

It is noteworthy that a series of bus transport contributions were agreed within the Coopers Edge S106 Planning Obligation, that will further contribute to improvements in the area:

- ***Coopers Edge bus contribution and bus shelters*** – a financial contribution, along with provision and installation of bus shelters on-site and four bus shelters off-site with RTPI.
- ***Barnwood Road (east of Walls roundabout) signal based bus priority scheme***
- ***Hucclecote Road and Ermin Street bus priority measures***
- ***Cranham Gate Restricted Access (contribution of £40,000)***
- ***Lobleys Drive / Upton Lane / Abbeymead Avenue Junction Bus Priority Measures***
- ***Metz Way Bus Priority Measures (eastern avenue to Coney Hill roundabout)***
- ***Metz Way Bus Lane***
- ***Abbeymead Avenue Bus Lane***
- ***Gloucester Bus Station Access Improvements***

***Walking and cycling*** – The North Brockworth strategic location for development is located on the route of a strategic cycle path between Cheltenham and Gloucester (via Shurdington and Brockworth) proposed within the CSVTS. Development in this location may therefore help facilitate the delivery of this project.

#### 4.9.8.4 Gloucester urban areas (GC, GW & GNE)

Development of around 1,990 dwellings is proposed for the Gloucester northern urban area. This IDP does not seek to undertake a site by site assessment, but rather identify those transport projects located within the Gloucester urban area that new development may help facilitate. This may be through the pooling of funds via a CIL:

##### ***Highways:***

- **Gloucester South West By-Pass (GSWBP) widening** – The bypass is only single carriageway for some of its length near the city, such as the part of the route past Llanthony Priory. The prospect of widening and/or provision of bus priority measures is to be considered further.
- **A430 GSWBP / Hempsted Lane Safety improvements** – Hempsted Lane junction onto Frankfurter GSWBP could be improved. There are existing visibility / safety issues entering the new ‘frankfurter’ roundabout from Hempsted Lane, as well as parking / perceived speeding issues on Hempsted Lane.
- **Great Western Road / B4063 London Road junction signalisation** – Junction suffers from congestion, as well as bus movement and parking issues.
- **Bus Station access** – There are existing congestion problems on Station Road.
- **B4072 Parkend Road/ A430 Trier Way / Midland Rd safety improvements** – this area is identified as an accident hotspot (no. 48) and options are to be identified improve safety.
- **Hampden Way access improvements**
- **Rear of Cattle Market Parking solution** – there are currently parking issues on the access road
- **Wheatridge parking solution**
- **Barton Street parking solution** – there are currently parking issues associated with Gardner Denver

#### **Public transport:**

- **Abbeymead & Metz Way Corridor Improvements (Bus priority and cycle paths)** – see details under major and cross-boundary projects above.
- **Gloucester King’s Quarter new Bus Station, public realm and interchange improvements** – see details under major and cross-boundary projects above.

#### **Walking and cycling:**

- **Gloucester City Centre Area Action Plan** – development within and around Gloucester would benefit from and may be expected to contribute towards the delivery of a package of city centre transport improvements (see details above).
- **Blackfriars Kimbrose Triangle shared space improvements** – there are currently ‘shared’ space issues/conflicts, resulting in safety concerns. Measures will continue to be considered in relation to reducing motorised traffic flows and impact, as well as resolving parking and access issues.
- **Sisson Road parking, cycling and walking improvements** - project aims to improve routes to school.
- **CSVTS Strategic Cycle Routes** – the CSVTS identifies a package of Gloucester City cycle routes, fanning out from the city centre to: Railway Triangle; Brockworth; Elmbridge & Kingsway; and Hunt’s Grove.

## 4.9.9 Gloucester South sub-area

The JCS IDP development scenario for the Gloucester South sub-area envisages the development of 1,716 dwellings within the existing urban areas (including 400 committed dwellings).

This potential scale of development also needs to be seen in the context of committed development for 1,750 dwellings at Hunt's Grove, located between Hardwicke and Whaddon.

### 4.9.9.1 Gloucester South infrastructure projects

Transport opportunities and constraints for development are set out below. The commentary includes a series of transport infrastructure projects have been identified for the Gloucester South sub-area which, subject to transport assessment, may assist in facilitating development in this sub-area. These include projects located within the existing urban areas (GSW and GSC).

**Highways** – Highways infrastructure projects that could help facilitate development in this location are:

- ***M5 Junction 11a to Junction 12 Motorway Incident Detection and Automatic Signalling (MIDAS) system*** – Pinch Point funding for this scheme has been secured, which is scheduled for implementation by 2014.
- ***M5 Junction 12 (second phase) improvement*** - Improvement of junction layout and further signalisation, over and above scheme planned in the medium term and now completed (introduction of dog bone layout with some signalisation).
- ***B4008/A38 Cross Keys Roundabout signalisation***
- ***A38 Waterwells roundabout capacity improvements***
- ***Barnabas Roundabout capacity and safety improvements*** – the St Barnabas roundabout is an existing major Pinch Point and accident hotspot (no. 37). Development in the Gloucester South area, and particularly within the Whaddon area, could prompt capacity and safety improvements.
- ***Corncroft Painswick Road roundabout safety improvements*** – located northeast of the Whaddon strategic development area, the Corncroft Painswick Road roundabout is a n accident hotspot and there also speeding issues on Painswick Road.
- ***Grange Road railway bridge improvements*** – the existing railway bridge provides for only a single highway lane, with traffic movements controlled by traffic lights. This arrangement results in congestion and widening to provide two lanes of traffic and good pedestrian and cyclist facilities may be pursued.

**Rail** – Provision of a new railway station south of Gloucester at Hunt's Grove is proposed by the LTP3. The estimated capital cost of this project is £15.74M with delivery scheduled late in the plan period, between 2019 and 2026.

**Bus** – The Gloucester south sub-area is served by a number of strategic bus routes, including the No. 91 and 93 services that connect Gloucester city centre with Stroud and Dursley. All of the services are subsidised or part-subsidised, with development potentially assisting a move towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real

Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

In terms of enhancing the reliability and popularity of travel by bus, Gloucestershire County Council have identified the following major highways and public transport schemes:

- ***Bristol Road bus priority measures***
- ***South Gloucester Park & Ride relocation*** - the County Council have also expressed interest in relocating a south Gloucester Park & Ride site to Hunt's Grove and expanding the size of this facility (based on the CSVTS Preferred Strategy proposal).

***Walking and Cycling*** – Where development in the Gloucester south area comes forward there will be an objective to provide safe, attractive and direct walking and cycling routes between residential areas, local centres and public transport nodes. The following specific walking and cycling projects have also been identified:

- ***Gloucester City Centre Area Action Plan*** – development within and around Gloucester would benefit from and may be expected to contribute towards the delivery of a package of city centre transport improvements (see details above).
- ***Grange Road / Stroud Road pedestrian safety improvements*** – Improvements to pedestrian facilities at this junction, located on a busy route to school.
- ***Gloucester city centre to Hunt's Grove strategic cycle route*** – a CSVTS strategy cycle route proposal to provide a safe and attractive leisure and commuting route to the city centre.

#### 4.9.10 Tewkesbury and Ashchurch sub-area

The IDP development scenario for the Tewkesbury and Ashchurch area incorporates the potential strategic location for development of 2,125 dwellings at the Ashchurch MOD site. Levels of development elsewhere within the sub-area are relatively modest, totalling around 512 units within smaller site allocations (including committed development).

##### 4.9.10.1 Ashchurch MOD

***Highways Access*** – Based on a review of preliminary site options, the HA comment that the proposals may make use of the existing A46(T) access into the barracks (Austin Road) and onto the B4079 north of the A46(T). If this were the case this would give rise to additional turning movements at the Aston Cross traffic signals. The Agency would need to be satisfied that, amongst other things, vehicles turning right into the B4079 to access the development did not block mainline westbound traffic on the A46(T). Proposals may lead to other accesses into the barracks site (either currently used or unused) to be stopped up/removed, which is likely to be looked upon favourably.

Transport opportunities and constraints at this potential strategic location for development are set out below:

##### ***Highways***



In terms of how the strategic development proposal links with planned investment, the following projects identified by the HA and County Council are noteworthy:

- **M5 Junction 9 and A46 Ashchurch improvements** – Pinch Point Programme funding of £1.65M has been secured for this project (see details above), which will help to alleviate existing congestion around the motorway junction. It is possible that further junction improvements would be necessitated by new development.

**Rail** – This strategic location for development benefits from its close proximity to Ashchurch for Tewkesbury railway station, although service frequency is currently considered to be limited. Accessibility to the station poses opportunities and challenges:

- **Ashchurch for Tewkesbury interchange and public realm improvements** – In combination with a smaller potential development allocation, located to the south of the A46 and west of Fitzhamon Park, strategic development at Ashchurch MOD has potential to contribute towards the improvement of facilities and the environment at Ashchurch for Tewkesbury station.
- **Access to Northway** – there is an existing level crossing on Grange Road that could provide a more direct link between new development at Ashchurch MOD and existing residential areas and schools within Northway. Network Rail have a national policy position to remove level crossings due to the safety risk they pose. Major development at Ashchurch MOD could substantially alter the amount of vehicular and/or cycle and pedestrian traffic at this crossing point, and therefore Network Rail will need to undertake a Risk Assessment to inform whether alternative means for crossing the railway should be provided. If it was found that a cycle and pedestrian bridge was required, this would need to be factored into a viability assessment for the site (estimated capital cost for bridge of around £2m).
- **Existing freight line** – the existing freight spur onto the site is categorised by Network Rail as “live” usable infrastructure and may be used to service any proposed employment uses at this location. Network Rail have advised that the sidings are owned by Defences Estates and are due to close in 2014 and that the Freight Manager is not aware of any proposed rail use beyond that time. The sidings to the south of Ashchurch platform 2 (also south of A46) are used for engineering trains and will remain in use.

**Bus** – Existing strategic bus routes have the potential to connect proposed development with Tewkesbury, Cheltenham and Gloucester, and move part-subsidised services towards full commercial status. Improvements to bus frequencies, quality (e.g. improved bus shelters and Real Time Passenger Information) and contributions to bus subsidies may be sought in relation to new development.

No.	Route	Operator	Status
41	Cheltenham – Tewkesbury – Northway	Stagecoach West	Part-subsidised
42	Cheltenham – Walton Cardiff – Tewkesbury – Northway	Stagecoach West	Part-subsidised
71	Tewkesbury - Gloucester	Stagecoach West	Part-subsidised
351	Gloucester – Hartpur - Tewkesbury	Astons' Coaches	Subsidised

***Walking and Cycling*** – initial comments from the County Council highlight that the strategic location is divorced from the centre of Tewkesbury by the M5 and that the multi-modal links to the town are unattractive, despite the significant western bias to movement.

The CSVTS identifies a long distance cycling route linking Ashchurch with Cheltenham via Tewkesbury. Should development be brought forward at the Ashchurch MOD strategic location, it is anticipated that providing a safe and attractive link for the northern part of this route, between Ashchurch, Northway and Tewkesbury, could form a priority. The M5 Junction 9 and A46 highway improvements will deliver some elements of a project, but further work is required to define and cost the full extent of improvements required.



## 4.10 Waste

### Overview

*Taking account of long term projects of waste creation, the adopted Gloucestershire Waste Core Strategy identifies five strategic sites within the county with the potential to accommodate re-modelled, alternative and/or new waste management facilities over the timeframe of the plan. Three of these strategic sites, Wingmoor Farm East (Tewkesbury), The Park (Tewkesbury) and Wingmoor Farm West (Tewkesbury), are located in the JCS area.*

*In seeking to combat the challenges of changing patterns of commercial and household consumption, recycling and waste generation, further local waste infrastructure within the JCS area may also prove necessary. Developers are advised to provide additional space within proposals to facilitate recycling by households and the need for increased capacity at Household Recycling Centres serving the JCS area will be kept under review.*

### Responsibilities for delivery

The Gloucestershire Waste Partnership (GWP) consists of the six district and borough councils within Gloucestershire and the County Council. A Partnership Agreement and Terms of Reference was produced in 2009 to strengthen the two tiers of waste management in the county. Its vision is to ‘develop partnership working and sustainable waste management in Gloucestershire.’ In broad terms, the responsibilities of the two tiers of Councils are:

- **Gloucestershire County Council** – responsibility for preparation of the Minerals and Waste Local Development Framework (LDF) and the management of waste disposal.
- **Cheltenham Borough Council, Gloucester City Council and Tewkesbury Borough Council** – responsibility for managing the collection of waste from households and businesses.

### Plans and strategies

**Minerals and Waste Local Development Framework (LDF)** - At the present time Gloucestershire County Council is preparing a countywide Waste (& Minerals) Development Plan. This includes the Waste Core Strategy that was adopted on 21 November 2012 (covering the period to 2027) and now forms part of the Development Plan.

**Waste Minimisation in Development Projects Supplementary Planning Document (SPD)(September 2006)** – The SPD provides guidance on how waste, generated during the construction and occupation of new developments, can be effectively minimised with smarter use of construction materials and increased recycling. Proposals for major development are expected to be accompanied by a Waste Minimisation Statement. The County Council have highlighted that people need more space within dwellings to enable re-cycling and this should be considered in the design of new development.

## Baseline and Assessment of Infrastructure Needs

The table below displays the current capacity by waste process method in Gloucestershire.

Table 48 - Total waste management capacity Gloucestershire (2011)

Management/Process Method	Operational Capacity in Tonnes
Recycling	110,000t
Of which composting/AD is	79,000t
Residual Waste Treatment	No operational capacity – all residual currently goes to 2 Cory operated landfills
C&D Waste recycling	-
Non-hazardous. Landfill	3,205,000m3 C&D recycling
Inert Landfill	-

This operational capacity is provided through a range of waste facilities in Gloucestershire. There are three non-hazardous landfill sites in Gloucestershire: Hempsted at Gloucester; and Wingmoor Farm (West) and Wingmoor Farm (East) close to Bishop’s Cleeve North West of Cheltenham. A hazardous landfill site is provided at Wingmoor Farm (East). There are also nineteen inert landfill /restoration sites across the County receiving construction and demolition (C&D) waste.

Existing Household Recycling Centre (HRC) waste management sites serving the JCS area are:

- **Hempsted HRC** – located 1 mile west of Gloucester Docks.
- **Wingmoor Farm** – located half a mile west of Bishop’s Cleeve on the road to Stoke Orchard.

### 4.10.1.1 Assessment of infrastructure needs and waste projects

The Waste Core Strategy assumes that Municipal Solid Waste (MSW) in Gloucestershire will increase to some 359,600 tonnes per annum due to a combination of population growth and growth in waste per head. In Gloucestershire, each person generated 414kg of municipal waste in 1995 and 504kg in 2009/10. This increase in waste tonnes is primarily due to, growth in household consumption, changes to waste collection systems and an increase in household numbers. Short-term fluctuations in waste tonnage can result from other factors including the wider economic circumstances and changes to service charges.<sup>32</sup>

Based on projected increases in MSW and other waste streams, the Waste Core Strategy identifies an on-going need to develop new waste facilities in the county. An overarching objective of the Waste Core Strategy is to enable diversion from landfill use, in response to the national policy of tackling climate change through more sustainable waste alternatives.

<sup>32</sup> Gloucestershire County Council Waste Core Strategy Topic Paper 2 – Whether the statistical basis for the CS is robust and justifies the vision and the strategic objectives (January 2012).

In order to meet the projected demand for waste management, the Waste Core Strategy identifies the following locations with the potential to accommodate re-modelled, alternative and / or new waste management facilities over the timeframe of the plan. Three of these strategic sites, Wingmoor Farm East, The Park and Wingmoor Farm West, are located in the JCS area and specifically, Tewkesbury:

**Wingmoor Farm East** - This 2.8 hectare site is located to the west of Bishop's Cleeve, five miles north of Cheltenham on the Stoke Road leading from the A435 to Stoke Orchard. It forms part of the Wingmoor Farm (East) landfill, recycling and quarry complex. The site is not currently in active use and its availability for a strategic waste recovery facility has been confirmed by the site operator Grundon Waste Management.

**The Park** - This 6.8 hectare site, often referred to as 'The Park' is located two miles west of Bishop's Cleeve and five miles north of Cheltenham, off Stoke Road, south of Stoke Orchard. It adjoins Wingmoor Farm West which is also allocated (see below). The site comprises a number of former aeroplane hangars converted to industrial units including waste management processes and other, as yet unimplemented waste management planning permissions. The site is owned by Wellington Park Properties Ltd.

**Wingmoor Farm West (Sites A&B)** - This 4.0 hectare site is located two miles west of Bishops Cleeve and five miles north of Cheltenham, off Stoke Road, south of Stoke Orchard. It adjoins 'The Park' (see above). The site includes an area of concrete hard-standing currently used as a Household Recycling Centre (HRC) and other land within the curtilage of the landfill planning permission. The site is owned by Cory Environmental Ltd.

**Javelin Park (Stroud District Council)** - This 5 hectare site comprises part of the former Moreton Valence Airfield and is located immediately to the south of Junction 12 of the M5 between the M5 and the B4008. The site is currently vacant and owned by Gloucestershire County Council.

**Land at Moreton Valence (Stroud District Council)** - This 7 hectare site is located between the M5 and A38 to the north-east of Moreton Valence. The site is partly used for light industrial and waste management. The operators of the site, Smiths (Gloucester) Ltd. have confirmed that the site is available for strategic waste management use.

During March 2013 Gloucestershire County Council considered a planning application for a £500m Energy from Waste facility at Javelin Park in Stroud District, a proposal submitted by Urbaser Balfour Beatty. The proposed facility would help to divert over 92% of Gloucestershire's residual waste from landfill (waste left following recycling), however the application was refused planning permission and an appeal to the Planning Inspectorate has now been submitted. A further update on this project of county-wide importance will be provided in subsequent versions of the IDP.

With respect to further potential projects within the JCS area, the County Council have advised that Household Recycling Centres (HRCs) are reaching capacity and therefore the need for additional capacity at Hempsted and Wingmoor Farm will need to be kept under review.

## 5 Infrastructure Needs Summary

### 5.1 Introduction

This section provides a summary of the assessment of infrastructure needs and key infrastructure projects under each of the sectors.

Where capital costs have been calculated using standard benchmarks these are provided in a summary table while key projects are listed under each sector.

#### Libraries

JCS Sub-area	New Dwellings	Population	Demand (sqm)	Capital Cost
Gloucester North	8,927	15,690	470.71	£1,788,714
Gloucester South	1,332	2,341	70.24	£266,894
Cheltenham South & West	3,131	5,502	165.07	£627,280
Cheltenham North	7,166	12,595	377.86	£1,435,860
Tewkesbury & Ashchurch	2,637	4,635	139.05	£528,379
Committed	10,007	17,589	527.66	£2,005,115
<b>Total Draft JCS</b>	<b>33,200</b>	<b>58,353</b>	<b>1,750.59</b>	<b>£6,652,242</b>

It is likely that library provision across the JCS will be made in-line with the recommendations of the Council's review of assets with a focus on community run libraries, co-location with other services and on-line or virtual library services.

#### Community Centres

JCS Sub-area	New Dwellings	Population	Demand (sqm)	Capital Cost
Gloucester North	8,927	15,690	2,530.09	£3,795,133
Gloucester South	1,332	2,341	377.52	£566,273
Cheltenham South & West	3,131	5,502	887.27	£1,330,907
Cheltenham North	7,166	12,595	2,030.99	£3,046,479
Tewkesbury & Ashchurch	2,637	4,635	747.38	£1,121,067
Committed	10,007	17,589	2,836.18	£4,254,273
<b>Total Draft JCS</b>	<b>33,200</b>	<b>58,353</b>	<b>9,409.42</b>	<b>£14,114,132</b>

Current projects identified for community facilities across the area include:

- ***Bishop's Cleeve, Homelands new community facility*** – the s106 Planning Obligation for the Homelands development provides for the provision of a new community hall.
- ***Cheltenham – North, East & Central, Cheltenham Town Hall Feasibility Study*** – A Town Hall feasibility study is currently underway and is scheduled to report back to Cheltenham BC Cabinet during the autumn.

- **Gloucester – South, Quedgeley Parish Council** have produced a neighbourhood plan which aims to further the provision of free community facilities. This includes construction of a Community Centre for QPC on the land reserved for such purposes at Kingsway centre, as required by the planning permission approval. The plan aims to secure provision within 12 months.
- **Gloucester – South, Hunt’s Grove Community Centre** - Committed development at Hunt’s Grove provides for a community centre comprising a main hall, children’s room, craft room, meeting room/parish office, informal seating area/display space, meeting room, office and café/kitchen.
- **Tewkesbury & Ashchurch, Wormington Village Hall Project** - Tewkesbury Borough Council has awarded a grant of £57,700 to Wormington Village Society’s village hall project. The construction of a new sustainable village hall is likely to cost in the region of £230,000. Construction is due to start Autumn 2013<sup>33</sup>.

## Youth Support Services

JCS Sub-area	New Dwellings	Service Cost/Annum	Cost for 8 years
Gloucester North	8,927	£187,467	£1,499,736
Gloucester South	1,332	£27,972	£223,776
Cheltenham South & West	3,131	£65,742	£525,939
Cheltenham North	7,166	£150,486	£1,203,888
Tewkesbury & Ashchurch	2,637	£55,377	£443,016
Committed	10,007	£210,147	£1,681,176
Total Draft JCS	33,200	£697,191	£5,577,531

Alongside the need to provide additional youth support services, the IDP recognises other aspects where the future development can contribute to youth development, including:

- Opportunity to provide training, apprenticeships and employment through working with contractors;
- Ensure facilities for young people are brought forward early in the construction programme of any new development;
- Allocate costs for a community development/youth worker officer where developments are of a sufficient strategic nature.

## Education – Early Years

Strategic Allocation / Area	Demand for Places	Capital Cost (rounded to nearest £0.1m)
North West Cheltenham	287	£3,400,000
South Cheltenham	18	£200,000

<sup>33</sup> Source: <http://tewkesbury.gov.uk/index.aspx?articleid=2437>

Strategic Allocation / Area	Demand for Places	Capital Cost (rounded to nearest £0.1m)
Brockworth	86	£1,000,000
Innsworth & Twigworth	72	£800,000
North Churchdown	31	£400,000
South Churchdown	50	£600,000
MOD Ashchurch	123	£1,400,000
Cheltenham District Area	127	£1,500,000
Gloucester District Area	195	£2,300,000
Tewkesbury District Area	50	£600,000
TOTAL	1,039	£12,200,000

When looking at current projects, the IDP makes reference to an on-going review of the 39 Children’s Centres with any newly commissioned services due to be agreed as an outcome of the review.

## Education – Primary Education

Strategic Allocation / Area	Demand for Places	Capital Cost (rounded to nearest £0.1m)
North West Cheltenham	1007	£11,800,000
South Cheltenham	237	£2,800,000
Brockworth	298	£3,500,000
Innsworth & Twigworth	248	£2,900,000
North Churchdown	106	£1,200,000
South Churchdown	172	£2,000,000
MOD Ashchurch	428	£5,000,000
Cheltenham District Area	447	£5,200,000
Gloucester District Area	563	£6,600,000
Tewkesbury District Area	174	£2,000,000
TOTAL	3,680	£43,000,000

On-going projects within the JCS area relate largely to the refurbishment and re-modelling of primary schools which will not lead to significant new capacity. There are a number of primary schools due for completion in the near future, however these are linked to new residential developments and not designed to accommodate future growth.

## Education – Secondary Education

Strategic Allocation / Area	Demand for Places (11-16)	Demand for Places (Sixth Form)	Capital Cost (rounded to nearest £0.1m)
North West Cheltenham	489	69	£7,400,000

Strategic Allocation / Area	Demand for Places (11-16)	Demand for Places (Sixth Form)	Capital Cost (rounded to nearest £0.1m)
South Cheltenham	115	16	£1,700,000
Brockworth	144	20	£2,200,000
Innsworth & Twigworth	120	17	£1,800,000
North Churchdown	51	7	£800,000
South Churchdown	83	12	£1,300,000
MOD Ashchurch	207	29	£3,100,000
Cheltenham District Area	217	31	£3,900,000
Gloucester District Area	241	43	£4,300,000
Tewkesbury District Area	85	12	£1,500,000
<b>TOTAL</b>	<b>1,752</b>	<b>256</b>	<b>£31,300,000</b>

On-going projects within the JCS area relate largely to the refurbishment and re-modelling of secondary schools which will not lead to significant new capacity.

## Further Education

Strategic Allocation / Area	Demand for Places	Capital Cost (rounded to nearest £0.1m)
North West Cheltenham	55	£800,000
South Cheltenham	13	£200,000
Brockworth	16	£200,000
Innsworth & Twigworth	13	£200,000
North Churchdown	6	£100,000
South Churchdown	9	£100,000
MOD Ashchurch	23	£300,000
Cheltenham District Area	24	£400,000
Gloucester District Area	25	£400,000
Tewkesbury District Area	9	£100,000
<b>TOTAL</b>	<b>193</b>	<b>£2,800,000</b>

It is understood that South Gloucestershire and Stroud College are planning a new sports centre and classrooms at its Stroud campus which may bring increased local capacity.

## Emergency Services – Ambulance

No major projects were identified for the Ambulance Service within the JCS area. A number of service requirements were however identified, largely relating to ‘Standby Points’, a small space with a rest area, desk, kitchen and access to a toilet with associated parking. New standby points would be required to cover the following strategic allocations:

- Up Hatherly;
- North Brockworth; and
- Ashchurch MOD.
- Investment was also identified as being required to provide public access defibrillators at North West Cheltenham and Innsworth & Twigworth.

## Emergency Services – Fire and Rescue Services

No further major infrastructure is anticipated as a result of the proposed growth.

## Emergency Services – Police

The Gloucestershire Constabulary concluded that the proposed level of growth within the JCS will place pressure on the Constabulary’s infrastructure. The following investment was identified to support development in the JCS:

### Property Infrastructure

- Centralised Custody Suite at Waterwells, Quedgeley (£11.9m);
- New police station for Cheltenham (£2.7m);
- New police station for Gloucester (£4m);
- Refurbishment of Barton Street police station in Gloucester (unknown cost);
- New Highnam Police Station (approx. £1,4m)

### Non-property Infrastructure

- Requirement for up to 50 new Police Officers and 103 staff posts costing around £1,081,000.
- In accordance with the ACPO formula, funding sought from developers would equate to around £129 per dwelling.

## Energy

- A number of requirements were identified in order to upgrade the electricity transmission network around the strategic development locations. Western Power Distribution have a number of current programmes which would see upgrade works leading to ample capacity to connect strategic developments.
- However, this is dependent on the final end demand from the development sites and the capacity at time of application.

## Healthcare – General Practitioners (GPs)

JCS Sub-area	New Dwellings	Population	Demand	Capital Cost
Gloucester North	8,927	15,690	8.72	£2,615,079
Gloucester South	1,332	2,341	1.30	£390,197
Cheltenham South & West	3,131	5,502	3.06	£917,076
Cheltenham North	7,166	12,595	7.00	£2,099,211



Tewkesbury & Ashchurch	2,637	4,635	2.57	£772,484
Committed	10,007	17,589	9.77	£2,931,454
Total Draft JCS	33,200	58,353	32.42	£9,725,500

One existing project was identified which includes the co-location of three existing GP surgeries to create the Horton Road Primary Care Centre.

### Healthcare – Dentists

JCS Sub-area	New Dwellings	Population	Demand	Capital Cost
Gloucester North	8,927	15,690	7.85	£1,427,833
Gloucester South	1,332	2,341	1.17	£213,047
Cheltenham South & West	3,131	5,502	2.75	£500,724
Cheltenham North	7,166	12,595	6.30	£1,146,169
Tewkesbury & Ashchurch	2,637	4,635	2.32	£421,776
Committed	10,007	17,589	8.79	£1,600,574
Total Draft JCS	33,200	58,353	29.18	£5,310,123

### Healthcare – Secondary

JCS Sub-area	New Dwellings	Population	Demand	Capital Cost
Gloucester North	8,927	15,690	27.93	£2,373,968
Gloucester South	1,332	2,341	4.17	£354,220
Cheltenham South & West	3,131	5,502	9.79	£832,522
Cheltenham North	7,166	12,595	22.42	£1,905,663
Tewkesbury & Ashchurch	2,637	4,635	8.25	£701,261
Committed	10,007	17,589	31.31	£2,661,174
Total Draft JCS	33,200	58,353	103.87	£8,828,809

### Flood Management, Water Supply and Wastewater

The review has highlighted a number of site specific mitigation measures in relation to flood risk (Table 33) which should be considered during site specific flood risk assessments. A number of more strategic drainage infrastructure improvements have also been identified along with approximate timescales and cost.

Specifically in relation to sewerage infrastructure, Table 34 highlights those strategic allocations which are likely to require most investment.

## Information and Communications Technology

Within the JCS area, telecommunication exchanges within the urban areas such as Gloucester City Centre have been upgraded to super-fast broadband and where this has not yet been undertaken, it is scheduled for upgrade in the near future as part of BT's Openreach project.

## Open Space, Sport and Recreation – Swimming Pools

JCS Sub-area	New Dwellings	Population	Demand (pools)	Capital Cost
Gloucester North	8,927	15,690	0.78	£1,331,703
Gloucester South	1,332	2,341	0.12	£198,704
Cheltenham South & West	3,131	5,502	0.27	£467,012
Cheltenham North	7,166	12,595	0.62	£1,069,002
Tewkesbury & Ashchurch	2,637	4,635	0.23	£393,380
Committed	10,007	17,589	0.87	£1,492,814
Total Draft JCS	33,200	58,353	2.89	£8,704,926

## Open Space, Sport and Recreation – Sports Halls

JCS Sub-area	New Dwellings	Population	Demand	Capital Cost
Gloucester North	8,927	15,690	1.09	£1,734,216
Gloucester South	1,332	2,341	0.16	£258,763
Cheltenham South & West	3,131	5,502	0.38	£608,169
Cheltenham North	7,166	12,595	0.87	£1,392,113
Tewkesbury & Ashchurch	2,637	4,635	0.32	£512,281
Committed	10,007	17,589	1.22	£1,944,024
Total Draft JCS	33,200	58,353	4.05	£11,336,028

## Open Space, Sport and Recreation – Playing Pitches

JCS Sub-area	New Dwellings	Population	Demand (ha)	Capital Cost
Gloucester North	8,927	15,690	18.83	£1,835,785
Gloucester South	1,332	2,341	2.81	£273,918
Cheltenham South & West	3,131	5,502	6.60	£643,787
Cheltenham North	7,166	12,595	15.11	£1,473,646
Tewkesbury & Ashchurch	2,637	4,635	5.56	£542,284
Committed	10,007	17,589	21.11	£2,057,881
Total Draft JCS	33,200	58,353	70.02	£6,827,301

## Open Space, Sport and Recreation – Other Outdoor Sports

JCS Sub-area	New Dwellings	Population	Demand (ha)	Capital Cost
Gloucester North	8,927	15,690	21.97	£21,878,794
Gloucester South	1,332	2,341	3.28	£3,264,541
Cheltenham South & West	3,131	5,502	7.70	£7,672,626
Cheltenham North	7,166	12,595	17.63	£17,562,836
Tewkesbury & Ashchurch	2,637	4,635	6.49	£6,462,908
Committed	10,007	17,589	24.62	£24,525,719
Total Draft JCS	33,200	58,353	81.69	£81,367,423

Current projects for playing pitches and outdoor sports include improvements to Blackbridge Athletics track, Gloucester.

## Open Space, Sport and Recreation – Children & Young People

JCS Sub-area	New Dwellings	Population	Demand (ha)	Capital Cost
Gloucester North	8,927	15,690	3.92	£1,941,696
Gloucester South	1,332	2,341	0.59	£289,721
Cheltenham South & West	3,131	5,502	1.38	£680,929
Cheltenham North	7,166	12,595	3.15	£1,558,664
Tewkesbury & Ashchurch	2,637	4,635	1.16	£573,569
Committed	10,007	17,589	4.40	£2,176,605
Total Draft JCS	33,200	58,353	14.59	£7,221,184

## Open Space, Sport and Recreation – Informal Play & Open Space

JCS Sub-area	New Dwellings	Population	Demand (ha)	Capital Cost
Gloucester North	8,927	15,690	8.63	£146,706
Gloucester South	1,332	2,341	1.29	£21,890
Cheltenham South & West	3,131	5,502	3.03	£51,448
Cheltenham North	7,166	12,595	6.93	£117,766
Tewkesbury & Ashchurch	2,637	4,635	2.55	£43,336
Committed	10,007	17,589	9.67	£164,455
Total Draft JCS	33,200	58,353	32.09	£545,601

## Open Space, Sport and Recreation – Natural Greenspace

JCS Sub-area	New Dwellings	Population	Demand (ha)	Capital Cost
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Gloucester North	8,927	15,690	15.69	£3,765,713
Gloucester South	1,332	2,341	2.34	£561,883
Cheltenham South & West	3,131	5,502	5.50	£1,320,590
Cheltenham North	7,166	12,595	12.60	£3,022,863
Tewkesbury & Ashchurch	2,637	4,635	4.63	£1,112,377
Committed	10,007	17,589	17.59	£4,221,294
Total Draft JCS	33,200	58,353	58.35	£14,004,720

## Transport and Public Realm

Transport modelling has been undertaken and is continuing for the JCS area. We are currently awaiting an updated transport modelling assessment.

## Waste

A number of potential new waste management facilities have been identified in order to cope with likely increases in waste streams from population growth. Three of these strategic sites are within the JCS area, including:

- Wingmoor Farm East
- The Park
- Wingmoor Farm West
- Alongside these sites, the County Council have also advised that Household Recycling Centres are reaching capacity and a need for additional capacity at Hempsted and Wingmoor Farm will need to be reviewed.

## 6 Infrastructure Delivery

### 6.1 Context

This study is a key piece of the evidence base driving the delivery and implementation of the JCS. It will inform the main policy addressing the delivery of infrastructure within the Joint Core Strategy Pre-Submission Document (June 2014) which is set out below:

#### **Policy INF7 – Infrastructure Delivery**

Where need is generated as a result of individual site proposals and/or as a consequence of cumulative impact, new development will be served and supported by adequate and appropriate on- and/or off-site infrastructure and services. In identifying infrastructure requirements, development proposals will also demonstrate that full regard has been had, where appropriate, to implementing the requirements of the Joint Core Strategy Infrastructure Delivery Plan.

Where need for additional infrastructure and services and/or impacts on existing infrastructure and services is expected to arise, the local planning authority will seek to secure appropriate and proportionate infrastructure provision in respect of:

- Affordable housing;
- Climate change mitigation / adaptation;
- Community facilities;
- Early Years and Education;
- Health and wellbeing facilities;
- The highway network, traffic management, sustainable transport and disabled people's access;
- Protection of cultural and heritage assets and the potential for their enhancement;
- Protection of environmental assets and the potential for their enhancement ;
- Provision of Green Infrastructure including open space;
- Public realm; and
- Safety and security including emergency 'blue-light' services

This list is neither exhaustive nor are its elements mutually exclusive. Priority for provision will be assessed both on a site by site basis and having regard to

the mitigation of cumulative impact together with implementation of the JCS Infrastructure Delivery Plan. Planning permission will be granted only where sufficient provision has been made for infrastructure and services (together with their continued maintenance) to meet the needs of new development and/or which is required to mitigate the impact of new development upon existing communities. Infrastructure and services must be provided in line with an agreed, phased timescale and in accordance with other requirements of this plan.

**This policy contributes towards achieving Objectives 1, 3, 4, 5, 7, 8 and 9**

This policy contributes towards achieving Objectives 1, 3, 4, 5, 7, 8 and 9.

## 6.2 Implementation

The successful delivery of the above policy is dependent upon a well-managed and regularly updated infrastructure delivery plan which should include:

- Accurate housing and employment growth trajectories;
- A full record of required and prioritised infrastructure;
- A cost plan;
- A funding plan, including all public and private sector funding sources;
- A robust approach to maximising developers contributions; and
- Organisational arrangements amongst various service providers, public sector agencies and the private sector.

This version of the IDP seeks to set a baseline for these elements. Housing and employment trajectories as set out in the Draft JCS and a record of supporting infrastructure are set out earlier in this report. The remainder of the report identifies the approach that has been taken to prioritise the required infrastructure and its' cost, explores the potential funding mechanisms that JCS may consider to meet those costs.

The IDP is an iterative document, which will continue to evolve through regular updating as and when new infrastructure projects are identified and when funding from a variety of sources has been secured for some or all of the projects.

The IDP serves a number of purposes including:

- A clear, public document of what and where new infrastructure is needed for the area, when and how much will it cost, and who is likely to fund it.
- Part of the 'bidding' documentation to a variety of public agencies and Government, seeking their commitment to assist in funding the projects.
- A document which can be used in negotiations with private sector developers, as they would equally be expected to contribute to some of the projects at the same time they are developing their sites; and
- A key piece of 'evidence' to demonstrate that, with the right investment, the sustainable growth of the area as set out in the emerging Core Strategy can be achieved.

As part of this study we have developed an excel based “Project Tracker” which provides the JCS authorities with a management tool to regularly update the IDP by regularly updating the infrastructure requirements, phasing, funding, and costs.

The tracker also allows the identification of the overall funding gap for delivery of infrastructure.

The tracker becomes the property of JCS and can be updated as and when information about the type or timing of infrastructure changes.

## 6.3 Prioritising Infrastructure

The early identification of when infrastructure is required is also fundamental to ensuring growth targets are met. An important part of developing phasing is early

prioritisation of the delivery of the infrastructure that is required. This allows the JCS and its stakeholders to make informed decisions, particularly when there is a funding gap, about what infrastructure is funded and when. This information is also important in developing a greater understanding about the extent of the funding challenge facing the growth area and allows JCS and its stakeholders to focus more of their attention on those projects that are fundamental to delivering growth.

To initiate this aspect of the IDP process we have categorised or prioritised the different elements of infrastructure relative to its importance in delivering growth. The four categories we have identified are regionally critical, critical, essential and desirable. The classification of each piece of infrastructure is provided is set out in the accompanying Project Tracker and summary tables are provided in the following section. The decision on which category projects should sit has been that of the consultant team and is subjective. Changes to the assumed phasing of strategic allocations and further refinements to project details will undoubtedly change the order of prioritisation. The process should be a live and iterative one the ownership of which transfers to those responsible for delivery within the JCS.

The classification of each piece of committed infrastructure is provided in the Project Tracker which accompanies this report:

**Regionally Critical Infrastructure** – Projects that have wider geographic area implications than the JCS which must happen to enable the delivery of growth within the JCS and beyond (i.e. critical to the JCS functioning as a whole with the potential also for the mitigation of cross boundary needs and effects).

**Critical infrastructure** – Projects that we consider must happen to enable the scale and spatial pattern of physical growth proposed in the JCS. These infrastructure items are considered to be ‘showstoppers’ and are most common in relation to transport and utilities infrastructure when, for example sewerage systems are at capacity, therefore preventing the development of homes until substantial upgrades in the sewerage system have been completed. Experience from other growth areas show that such ‘showstoppers’ can often result in development being held up for in excess of five years which can have serious implications for meeting growth targets, particularly if the lion’s share of growth is planned in a handful of strategic allocations. Failure to provide these elements of infrastructure could result in significant delays in the projected growth trajectories across the JCS.

**Essential infrastructure** is infrastructure that is required if growth is to be achieved in a timely and sustainable manner. Although infrastructure in this category is unlikely to prevent physical development in the short term failure to invest in it, as suggested below, could result in delays in development in the medium term. As developments are completed and pressure increases on the various elements of infrastructure, further development could be deemed inappropriate and unsustainable by planning authorities, resulting in the refusal of planning permission for later phases of development.

Finally, infrastructure identified as **desirable infrastructure** is infrastructure that is required for sustainable growth but is unlikely to prevent development in the short to medium term. Although infrastructure identified within this category is the least important in allowing sites to be developed its importance to



sustainability and place making objectives across the JCS should not be underestimated.

It should be stressed that this prioritisation exercise has been made on the information that was available at the time of preparing this report. As part of managing the growth agenda the prioritisation should be monitored and updated when new project information becomes available or as external factors change.

## 6.4 Costs

In addition to phasing, the early identification of the costs of providing the infrastructure is an essential element of preparing and planning for growth, not least as this will form an evidence base when bidding for government funding. It can be difficult to ascertain accurate costs as many of the projects identified have not been subject to feasibility work when the IDP is under preparation so any assessment is clearly a snap shot of estimated cost at a particular time. Costs can change quickly and significantly in response to things such as fluctuations in the cost of raw materials or labour.

In many instances the infrastructure needs identified in this report will require further detailed feasibility studies to be undertaken including a detailed assessment of individual project costs. We have prepared a strategic cost assessment to provide an indication of the total infrastructure costs anticipated to deliver growth where costs are currently known. For example in the case of education the potential solutions for the delivery of the required infrastructure to support JCS growth vary and therefore have different costs implications. Given this we have sought to identify the worst case scenario in cost terms when the overall funding gap is determined.

The cost assessment was undertaken by Arup cost consultants who have used an evidenced benchmarking exercise to determine the current costs associated with the delivery of the required infrastructure where no cost information was forthcoming from infrastructure providers. During the study it became apparent that several of the infrastructure projects identified had already undergone detailed feasibility assessments. Where this information was available, this was cross referenced with our own benchmarking to ensure that there were no significant differences.

The infrastructure costs, by infrastructure type and priority are identified in the Table 50. This table provides an overview of the costs broken down by infrastructure type and priority category. It shows that transport & public realm works have the greatest overall cost and the greatest cost in the regionally critical and critical categories. Utilities follow as the second most critical category.

This categorisation, with reference to the associated Project Tracker allows the JCS authorities to consider the infrastructure needs across the JCS area and begin a process of prioritisation, working alongside key delivery partners and developers. It is particularly important that the JCS authorities identify any 'critical' infrastructure necessary to deliver strategic growth.

The data presents a worst case funding gap within the JCS area of in excess of £700m it must be considered in light of this future prioritisation along with the fact that some of the infrastructure requirements will be delivered at the cost of the developer and/or commercial operator (e.g. utilities infrastructure). There is

also some regionally critical infrastructure where the need case goes beyond the JCS area and therefore the case for funding goes beyond development within the JCS to include other adjacent authorities and national government. Other projects could clearly rely on other private and public funds including bids to central government, National Lottery and other sources.

It is also worth noting that limited information has been received to date on associated funding and therefore the JCS authorities should work closely with service providers and colleagues across various departments in order to ensure an up to date funding picture for projects identified in the Project Tracker.

The JCS authorities should work to prioritise infrastructure development in order to focus efforts to reduce the identified funding gap. An important part of this process will be the forthcoming progression of Community Infrastructure Levy (CIL) which will begin this prioritisation exercise and make clear the potential for developer contributions to infrastructure funding

Table 49 Cost Summary and Prioritisation

	Regionally Critical	Critical	Essential	Desirable	Total Costs	Secured match funding to date	Associated Funding Gap to date
Community & Cultural	£0	£0	£0	£26,400,000	£26,400,000	£657,700	£25,742,300
Education	£0	£0	£89,300,000	£0	£89,300,000	To be confirmed	£89,300,000
Emergency Services	£0	£0	£20,000,000	£1,600,000	£21,600,000	To be confirmed	£21,600,000
Energy (Utilities)	£0	£2,712,000	£0	£0	£2,712,000	To be confirmed	£2,712,000
Flood Water & Waste Water	£0	£8,300,000	£0	£0	£8,300,000	To be confirmed	£8,300,000
Healthcare	£0	£0	£23,800,000	£0	£23,800,000	To be confirmed	£23,800,000
Recreation, Sports & Open Space	£0	£0	£14,546,000	£115,400,000	£129,946,000	To be confirmed	£129,946,000
Transport & Public Realm	£350,160,000	£26,700,000	£108,356,738	£26,350,000	£511,566,738	£71,280,000	£440,286,738
Waste	£0	£0	£0	£0	TBC	TBC	TBC
<b>Total</b>	<b>£350,160,000</b>	<b>£37,712,000</b>	<b>£256,002,738</b>	<b>£169,750,000</b>	<b>£813,624,738</b>	<b>£71,937,700</b>	<b>£741,687,038</b>

Source: Consultation with Infrastructure Providers, Benchmark Standards & Arup Cost Estimates.

Note: Table includes secured match funding only and does not account for any assumed mainstream funding that may come forward in the short to medium term (e.g. education funding).

## 6.5 Prioritisation by growth area

Another approach to prioritisation is to identify the infrastructure requirements and costs associated with each of the strategic growth locations. This will allow the JCS authorities and its stakeholders to identify whether from a cost and delivery perspective, it is sensible to focus on the delivery of the less costly and technically challenging growth locations first. In order to inform this we have separately identified the total infrastructure requirements for the each of the strategic growth locations as part of the needs assessment as far as is possible with the information gathered. For details of how each infrastructure project has been allocated to each growth areas please refer to the summary tables presented for each infrastructure type in Chapter 5

## 7 Funding Arrangements

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### 7.1 Introduction

The identification of existing and potential future funding sources is essential to ensure the timely delivery of infrastructure. Infrastructure providers have complex and varied approaches to the planning for future funding and in the many cases bids need to be made many years in advance.

As the definition of infrastructure needed to support new development has expanded beyond the basics of transport, water and energy utilities into social and community facilities and green infrastructure, so has the range of funding options with which it is beneficial for the JCS to be conversant. One of the most relevant of these is likely to be developer contributions (via S106 and or CIL) but it is important that these are viewed as part of a much wider and integrated process to exploring funding options. The types of funding streams that are available varies between infrastructure sectors and some more innovative funding streams still require primary legislation before they can be exploited.

A key issue with funding is that the requirement for infrastructure funding is generally front loaded. This means the funding is usually required during the early years of growth when the infrastructure is required to be developed in advance or in tandem with development. This is problematic in cash flow terms in that returns on investment are not likely to be realised until much later. In relation to the total infrastructure costs we have made a broad assessment of the level of mainstream public funding, utilities AMP funding, and private sector developer contributions that are either currently committed or are a reasonable future assumption. Table 49 reflects this assessment but does not include assumed mainstream public funding which is currently unknown and/or subject to change. These assessments are based on discussions with the service providers during the study period and from our experience of work in the other growth areas. Further detailed investigation of public funding sources will be required as part of the ongoing infrastructure planning process. Once the JCS has been adopted and infrastructure providers understand what is required and when a clearer funding picture will emerge, the IDP and associated cost tracker can be updated

### 7.2 Public Sector funding

The provision of infrastructure will be dependent on significant levels of mainstream public sector funding sources including funds channelled through the Local Enterprise Partnership (GFirst GIIF and Single Local Growth Fund) and the Homes and Communities Agency, as well as the Local Transport Plan amongst others. Justifying the level of expenditure will require a comprehensive business plan-led solution that links the infrastructure provision to growth trajectories. Establishing a likely baseline for public sector 'income' is vital to understanding cash flows and potential shortfalls or gaps. One of the principle concerns is the relative short timescale of public sector funding programmes.

It is difficult to get public sector organisations to confirm funding for projects over a 16 year growth period. Furthermore, except in exceptional circumstances it is generally accepted that all the capital costs of social and community infrastructure should be met by developers. The current IDP will evolve to

include all housing and employment led growth infrastructure projects as they are identified. The JCS area has already attracted significant funding public sector funding to support growth:

### 7.2.1 Gloucestershire Infrastructure Investment Fund (GIIF)

GFirst LEP has been awarded £8.4m from the Department for Communities and Local Government's Growing Places Fund to set up a revolving infrastructure investment fund for Gloucestershire. This fund is designed to stimulate local economic growth by targeting investment to deliver the infrastructure needed to unlock constrained and stalled development sites, and help to realise potential development value, new jobs, housing and regeneration. The LEP and Gloucestershire County Council are seeking expressions of interest for potential projects. Investment funding take the form of a repayable loan.

### 7.2.2 Transport Funding

The funding required for transport infrastructure makes up the greatest proportion of infrastructure costs for the JCS area. For the purposes of this study we have assumed that some of funding for transportation will be DfT & Highways Agency and through the LTP but other funding sources will include County Council's own revenue resources and Single Local Growth Funding through GFirst and potentially CIL. Clearly, developer contributions will be an important component of the funding mix.

### 7.3 Utilities Funding

The funding for utilities at a strategic level is usually paid for by the respective utilities company through their asset management plans (AMPs). All incumbent utility undertakers are obliged to submit AMPs to their Regulator, which identify the capital investment that the undertaker has committed to, over the next five or ten years. This investment is sourced from the company's revenue and covers expansion or enhancement of the strategic utility network against projected growth in demand. AMPs are reviewed and approved by the regulating authorities that protect the interests of the customers. Typically, utility providers use revenue from customer charges to fund the provision of the following strategic elements:

- Electricity: Grid sub-stations
- Gas: Reinforcement to the high/intermediate mains
- Water: New abstraction points and treatment works
- Waste Water: New or upgrade works to treatment works

Connection of developments to the non-strategic mains is not included in AMP's. All strategic AMP works can only be undertaken by the incumbent and as such, are known as non-contestable works. Prediction of the growth in demand is notoriously difficult as the planning process can only give one or two years notice of significant additions to urban centres. It is therefore important that planned growth is identified as early as possible and utilities providers notified so that it can be taken into account when preparing their AMPs. In some cases utilities may refuse to cover all the costs associated with some strategic infrastructure if they are deemed to be excessive. In these cases developer contributions may be

necessary. Insufficient assessment work has been undertaken by the utility companies at this stage to know whether this is likely to be the case or not for specific sites across the JCS.

## 7.4 Other Social Infrastructure Funding

In some cases the capital costs associated with social infrastructure required to mitigate the impacts of development are borne by the developer who will provide a facility to shell and core standard (the building without its fit out and equipment) or will contribute to a pooling arrangement to provide such a facility. In some cases there may be potential for additional public sector funding, particularly in relation to areas such as education.

In some cases, public sector funding may be available to improve existing facilities and / or redevelop them to national standards.. These programmes may not be able to provide funding to support growth; however it may be possible to achieve cost efficiencies by combining the redevelopment of existing provision with the expansion of a facility to support growth. For example, where an existing school may be eligible for DfE funding and expanded to support the growth of the local population, it may be possible for DfE to support the redevelopment of the school and for developer contributions to cover the additional cost of providing further forms of entry. This is likely to cost less than the total costs of extending a school which is not undergoing redevelopment, however the DfE funding will still be safeguarded for the improvement of existing provision. There may also be funding available from the Clinical Commissioning Group , Council's library or leisure service, and the emergency service providers, where provision of additional facilities to mitigate development coincide with service provider plans to re-provide, extend or enhance existing facilities. This does not reduce the requirement on the developer to mitigate the impact of development, but may indicate different delivery solutions. This should be considered as part of the ongoing development of the infrastructure cost tracker and any future, refreshed IDP.

The funding for social infrastructure is notoriously difficult to accurately identify, particularly over such a long growth period. Each element of social infrastructure relies upon different funding sources which can be complex and change at short notice in response to local and national political priorities. For the purposes of this study we have assumed that there is currently no guaranteed funding available towards the provision of required social infrastructure. Once the Joint Core Strategy has been adopted the infrastructure providers will be able to start to plan more effectively and provide information on what funding is likely to be available and when. It is likely that some additional public funding will become available during the growth period, therefore reducing the funding gap further, but it should be noted that public sector funding is likely to remain squeezed in the short to medium term.

## 7.5 Other Potential Existing Funding Mechanisms

In reality, whilst the funding sources set out above will make a significant contribution towards the funding gap other funding sources and mechanisms will be need to explored and used to provide the cocktail of funding needed to fill the funding gap. Set out below are some of those that should be given consideration.

A new funding landscape is emerging, both here in the UK at national and local level, as well as overseas. There is a move from heavy reliance on central government funding towards more financial autonomy and self-sufficiency. The extent to which local government will grasp new financial freedoms such as Tax Incremental Financing (TIF) and assemble innovative funding packages better utilising council assets and sharing risks with the private sector, still remains to be seen. For the right projects, TIF has the potential to raise financing for local infrastructure to kick-start local economic development. TIF raises money upfront, usually in the form of borrowing, which is repaid from a proportion of the increased business rate revenues generated by the development. This can support the primary local infrastructure necessary to attract the development that will generate additional taxes. It will likely require the local authority's chief financial officer to approve borrowing against future revenue streams, which are inherently uncertain.

Elsewhere, some local authorities are maximising the use of surplus land and buildings, perhaps in conjunction with other public agencies such as the NHS, to increase the provision of care home or respite home places.

The current landscape also remains uncertain with regard to private finance. The government has completed its review of the Private Finance Initiative, the main UK form of public private partnership, and launched PF2. This revised structure includes provision for the public sector to participate in the equity of PF2 projects and is more suitable for institutional senior debt than the previous PFI scheme. Pilot projects for PF2, in the health and education sectors, have been identified.

Revenue support will be essential. PFI was used with a system of PFI credits from central to local government to provide suitable long term funding stream for the contractual obligations. This was a significant part of central government's control over local government financing activity, linked to a detailed approvals process. PF2 provides an updated mechanism but without revenue streams to drive it may not have much impact on local authority investment in infrastructure.

HM Treasury has also launched the UK Guarantees scheme to provide credit support for up to 49% of the debt (which can be higher if required in special cases) for nationally significant infrastructure projects. The £600m Halton Crossing over the Mersey, being procured by Halton borough council, is to benefit from this scheme. Up to £1bn of cover under the scheme has been offered for the Northern Line Extension project in London, to be procured by Transport for London. This helps address the reduced commercial bank capacity for long-term projects and can provide a basis to attract institutional debt providers seeking higher credit quality projects. It is, however, focused mostly on the largest projects and these must be considered "nationally significant" by government to be eligible. Provided there is a suitable underlying revenue stream for the relevant project, the UK Guarantee may well prove a useful instrument to ensure debt capacity is available, and potentially help access lower cost institutional debt finance.

Internationally, the form and scale of borrowing by local and regional governments varies widely between countries. The UK is currently more centralised with only limited capital finance raised by local authorities and no regional layer of government which could undertake borrowings. This is in contrast to more federal states such as the US, Germany and Spain.



In the UK, the Prudential Borrowing regime provides quite a tightly controlled basis for borrowings by UK local authorities. This is complemented by the Public Works Loan Board borrowing window for local authorities, in effect, to access sovereign borrowings by HM Treasury. While a number of local authorities have obtained their own credit ratings and a limited number have made listed bond or private placement issues, this remains a niche activity rather than a major source.

UK government wants more investment to be channelled through the private sector and in particular not to contribute to public sector borrowing totals or the budget deficit. Local authorities need to focus on finding catalytic roles to unblock potential transactions, make best use of surplus land in transactions and make the most of the limited financial contributions they are able to make. The key need is to identify the small- and medium-sized critical infrastructure projects which can advance in a one- to three-year timeframe to support ongoing delivery, while mega projects outside of the needs of the Joint Core Strategy, such as the Severn Barrage, are planned and debated.

## 7.6 Developer Contributions

A source of infrastructure funding over which the Council has a significant degree of local discretion is developer contributions, which are currently collected by the Local Planning Authority (LPA) through Planning Obligations, also known as Section 106 agreements.

The JCS authorities intend to assess the introduction of a Community Infrastructure Levy (CIL), a new tool for collecting financial contributions towards infrastructure that can be utilised alongside Section 106 Agreements. These mechanisms will enable a contribution towards necessary infrastructure to be collected from new development taking place in the JCS area.

### 7.6.1 S106 Planning Obligations

Planning Obligations are enabled by Section 106 (S106) of the Town and Country Planning Act and negotiated based on guidance in paragraphs 204 and 205 of the National Planning Policy Framework (NPPF, March 2012), as reproduced here:

*“204. Planning obligations should only be sought where they meet all of the following tests:*

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

*205. Where obligations are being sought or revised, local planning authorities should take account of changes in market conditions over time and, wherever appropriate, be sufficiently flexible to prevent planned development being stalled.”*

A key benefit of developer contributions secured through S106 Planning Obligations is their flexibility, which allows finance to be directed to meet local priorities across a wide range of infrastructure types, where it can be demonstrated that the infrastructure requirement directly relates to a proposed development.

Financial contributions to infrastructure secured through S106 Planning Obligations from different sites can be pooled in some circumstances, allowing for the creation of standard charges or tariffs. However, CIL Regulation 123 limits the number of planning obligations from separate developments that can be used to provide funding for a particular project or type of infrastructure to a maximum of five.

S106 Planning Obligations can also be used to secure ‘in kind’ provision of infrastructure by a developer, such as the provision of a site and construction of a facility rather than a financial contribution.

## 7.7 Community Infrastructure Levy

The Government has introduced a complementary mechanism for securing finance, the Community Infrastructure Levy (CIL). The CIL is a new levy that Local Authorities can choose to charge on new developments in their area. The money can then be used to support development by funding infrastructure that supports development. S106 Planning Obligations and the CIL can be used in parallel by a Council, but their use should not overlap with respect to specific infrastructure projects or types (i.e. there should be no double-charging). It is intended that CIL will provide the main means for the ‘pooling’ of funds from development to finance infrastructure.

Part 11, Section 205 (1) and (2) of the Planning Act 2008 makes provision for the imposition of CIL in England and Wales:

“The Secretary of State may with the consent of the Treasury make regulations providing for the imposition of a charge to be known as Community Infrastructure Levy (CIL)”.

“In making the regulations the Secretary of State shall aim to ensure that the overall purpose of CIL is to ensure that costs incurred in providing infrastructure to support the development of an area can be funded (wholly or partly) by owners or developers of land”.

The Community Infrastructure Levy Regulations 2010 made the first use of these powers and came into effect in April 2010 and were amended by the Coalition Government in April 2011.

Further amendments set out in the Localism Act 2011 require local authorities to pass a meaningful proportion of CIL receipts to local neighbourhoods, as Neighbourhood Funds. The Government has confirmed that Neighbourhoods that take a proactive approach by drawing up a Neighbourhood Development Plan, and securing the consent of local people in a referendum, will receive 25% of the revenues from the Community Infrastructure Levy arising from development. This finance will be paid directly to the parish and town councils and can be used to mitigate the impact of development. Neighbourhoods without a Neighbourhood Development Plan, but where the levy is still charged, will still receive a capped 15% share of the levy revenue arising from development in their area.

Statutory CIL guidance published in December 2012 seeks to ensure that Councils set rates that are realistic taking into account development viability.

In April 2013 CLG published consultation on additional proposed changes to the CIL Regulations, setting out potential amendments that would address principal

problems and further respond to concerns over CIL rates being set too high, potentially stifling a recovery in the construction industry. During October 2013 the Government published its response to the consultation, proposing the following key changes:

- An extension of the date from 2014 to 2015 for the pooling of S106 so that more time can be taken by Local Authorities to introduce the CIL and get it right.
- Allowing payment of CIL ‘in kind’ with direct provision of infrastructure by a developer, as well as land.
- Exempting residential extensions and self build homes.

## 8 Co-ordination & Management

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### 8.1 Evolution of Existing Governance Structures

The successful delivery of sustainable and timely employment and housing growth across the JCS are will be dependent on the evolution of the existing strong co-ordination, management and governance arrangements to be more delivery focussed. The current governance and support arrangements are based around a voluntary partnership arrangement which has evolved and strengthened over time.

The JCS partnership was formed in March 2008 when Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council, with input from Gloucestershire County Council, decided to produce the Joint Core Strategy. Producing the Joint Core Strategy has presented a number of opportunities which are of benefit when considering infrastructure delivery which transcends administrative boundaries, such as transport, education and healthcare. In particular it means that cross-boundary issues can be addressed and that a consistent approach can be taken towards new development and infrastructure delivery. Our suggestions for the evolution of existing JCS governance structures to acknowledge the move towards implementation are set out in the diagram overleaf.

### 8.2 The JCS Member Steering Group

Currently the Cross Party Member Steering Group provides political guidance to the process. The group acts as a sounding board to guide joint working processes and act as a high level political enabler and sponsor for cross boundary issues. The group is steered by representatives from each Council and is chaired by an independent. Members provide regular updates to each of their individual Councils to ensure that the statutory responsibilities of the local authority are in line with joint working arrangements. No changes are suggested to this arrangement.

### 8.3 The JCS Cross Boundary Programme Board

The cross boundary programme board (CBPB) consists of officers from each Council and chaired by a chief executive.

The current function of this board is high level cross boundary programme management and to sponsor and champion the projects within the JCS programme. The board also guides the joint working process from a strategic perspective and act as internal and external spokespersons for the programme.

To date the board has focussed on providing strategic management of the Joint Core Strategy process and providing input to and monitor programme planning to deliver JCS objectives. As the JCS Plan moves forward through examination towards adoption the focus of the board should begin to consider delivery issues and strategic infrastructure delivery and funding in particular.

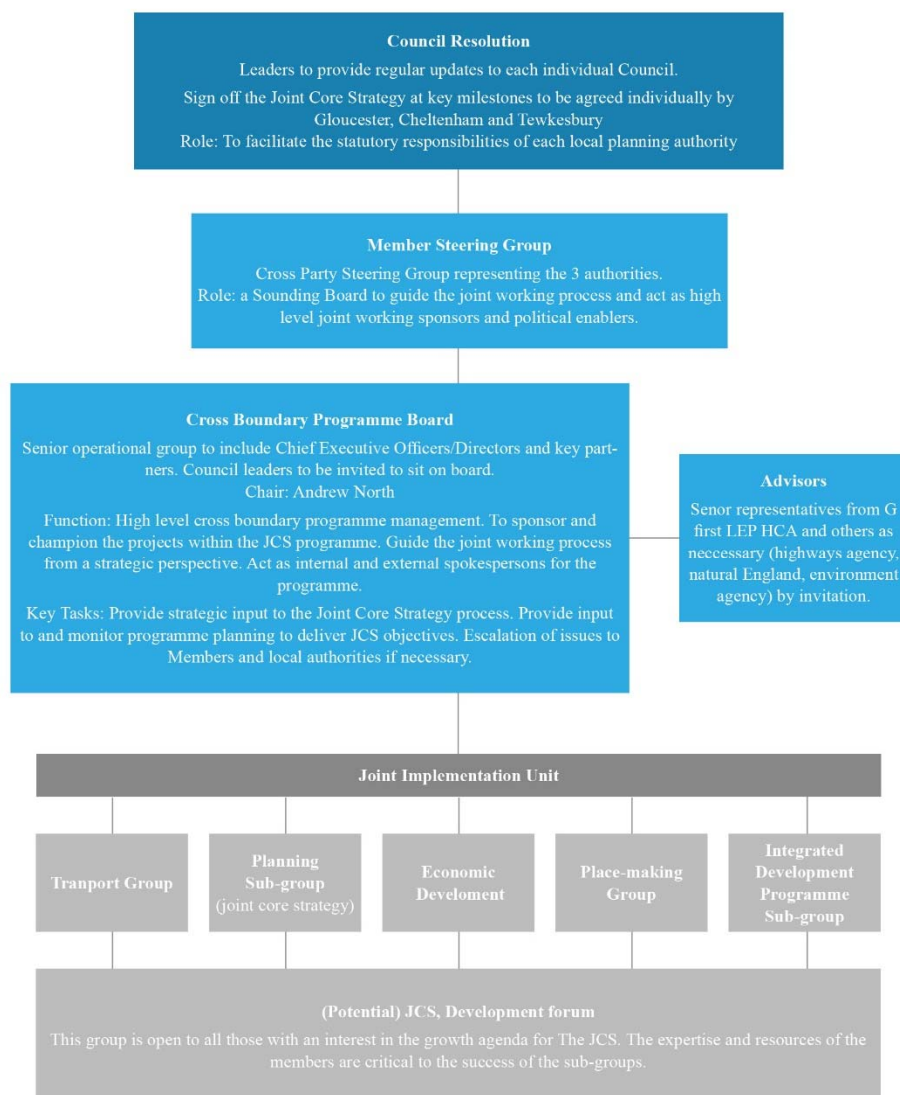


Figure 7 Proposed JCS Infrastructure Delivery Structure

## 8.4 JCS Implementation Unit

We would recommend that the delivery of infrastructure projects within the JCS is coordinated through a dedicated and independent Joint Implementation Unit (JIU) with strong links into all three Local Authorities and the County. Political approvals for JIU activities could continue through existing arrangements (MSG and CBPB). Alternatively MSG could be changed into a member group with authority to deliver the infrastructure required for growth but this would need membership to be widened to include representation from other providers/funders of strategic infrastructure such as for example the Clinical Commissioning Group and utility companies. The JIU would report into this new group for approvals.

The JIU would be a co-located cross-authority team to deliver the Joint Core Strategy. The unit would also be the focal point for the co-ordination of delivery of the major transport infrastructure project required in the JCS Area. The JIU could potentially set up a number of sub groups to focus on for example place

making, planning, economic development and transport. The terms of reference for the JIU need to be defined as would its responsibilities but these could include:

- The commissioning and management of studies supporting the delivery of the growth agenda.
- The establishment of a communications strategy including an update to the JCS website extending its purpose from plan preparation to implementation of the growth programme.
- The formation of a private sector forum involving local agents, developers and house builders in helping to shape the programme.

Further exploration of the most appropriate governance and implementation structures needs to be undertaken by the JCS Authorities.

## **8.5 Engaging with Infrastructure Delivery Providers**

The IDP engagement process has indicated that ongoing arrangements are required to engage and work with the full range of infrastructure delivery providers across the JCS. This will be particularly important in trying to deliver efficiencies through innovative approaches to service delivery such as co-location or shared services. Going forward the JCS should use this study as a starting point for discussion with all four authorities and GFirst to identify priority projects and areas for them to work together and take a lead on specific infrastructure themes within the plan.

## 9 Recommendations & Next Steps

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### 9.1 Infrastructure Planning

Realisation of the Joint Core Strategy will be dependent on the timely and planned delivery of a wide range of infrastructure. This Infrastructure Delivery Plan (IDP), prepared on behalf of the JCS authorities provides an assessment of the transport, utilities, community and green infrastructure and services that will be required to support planned growth and development.

The IDP has been prepared in consultation with a number of organisations responsible for the provision of infrastructure and has been updated to support the submission of the Joint Core Strategy, taking account of further information received through consultation on the Interim Version IDP (October 2013).

The JCS authorities should use the findings of this report as the baseline for further on-going engagement and work with service providers to identify innovative ways to further refine the costs of infrastructure and reduce the overall funding gap through co-location and changes in service provision so that dependence on actual facilities is reduced and expansion or intensification of existing facilities rather than new build

Particular attention should be given to reducing the cost estimates for community & culture, secondary healthcare, education & open space provision in particular as these infrastructure themes offer the greatest potential for cost saving through initiatives such as co-location. The cost estimates have been highly reliant on the application of benchmark service standards to projected population growth rather than identifiable district specific projects from service providers. . Intensive work is required in the short term to refine costs and develop delivery solutions that can drive down the worst cost scenario set out in this report.

The JCS authorities should establish a working arrangement with infrastructure providers to review and update the information contained within this report and the Project Tracker on a regular basis making it able to respond quickly and easily to changes in growth trajectories or local or national funding priorities. As part of managing the growth agenda the recommendations should be monitored and updated when new information becomes available or as external factors change. We would suggest setting up working groups as needed with providers around the key infrastructure themes all co-ordinated under the overall direction of a dedicated JCS Implementation Unit supported by a combined officer resource from all three authorities.

The proposed JCS Implementation Unit should take the lead role and be seen as the organisation that provides accurate and current information about development progress against the housing and employment growth trajectories allowing infrastructure providers to plan for the phased delivery of infrastructure in a timely and responsive manner.

It may also transpire that emerging local planning authority policy decisions have a significant impact on the cost of delivery of infrastructure in certain locations of the JCS e.g. playing pitch provision in Gloucester. In these cases a review of infrastructure related policy areas may be necessary as part of the plan preparation process to make the delivery of the infrastructure possible.



## 9.2 Strategic Infrastructure Projects

Through the development of this IDP, a number of projects of potential strategic importance have been identified for consideration. These include projects effecting the whole JCS area, as well as infrastructure of great importance for facilitating development:

- *Transport* – the transport model compiled for the JCS area has identified a number of strategic projects.
- *Gloucestershire & Hereford Canal Project* – this project would deliver walking and cycling benefits as well as accessible open space.
- *Education* – Proposed development could generate demand for 8,300 primary school places and 5,976 secondary school places.
- *Hospital Capacity* – It is predicted that development could generate demand for 104 hospital bedspaces.
- *Emergency Services* – Gloucestershire Constabulary has highlighted a need for significant investment in a number of police stations across the JCS area as well as a new custody suite at Quedgeley which would serve the whole County.
- *Leisure & Recreation* – Application of Sport England appraisal tools indicates the need for provision of new leisure and recreation facilities in order to support developments. The delivery mechanisms and viability of new facilities should be assessed as part of development proposals.

## 9.3 Place-making Infrastructure

Alongside enabling infrastructure, it is considered of great importance that the JCS authorities seek to ensure that “place-making” infrastructure is also provided to realise the vision for the area as a location that enjoys high quality of life with diverse communities.

Developer contributions or potentially CIL towards community infrastructure may therefore be sought for projects including libraries, community centres, cultural facilities, sports and recreation facilities, open space and public realm. If introduced, the Neighbourhood Fund mechanism introduced by Government would enable local communities to decide for themselves what choices they wish to pursue including for community, recreation and leisure and environmental projects. This would allow local communities to determine their own priorities, taking account of existing levels of provision and priorities.

## 9.4 Nationally Significant Infrastructure Projects

The prospect of Nationally Significant Infrastructure Projects (NSIPs) coming forward in the JCS area has been reviewed as part of this IDP. Though not located within the JCS area, currently two projects registered with the Planning Inspectorate may have implications for the JCS area:

- Seabank 3 Combined Cycle Gas Turbines (CCGT) – SSE plc.
- Oldbury New Nuclear Power Station – Horizon Nuclear Power



- Both projects are currently at the Pre Application stage and therefore limited detail is available and the future timescales unknown at this stage

## 9.5 Funding & Implementation Strategy

Financing the construction, operation and maintenance of infrastructure will depend on a series of funding sources including grants, loans, taxations, levies and rates. The JCS authorities should work with Infrastructure Providers to develop a funding strategy which includes an action plan on how to maximise the broad range of funding opportunities included in this report. This will need to consider the amount and timing of funding that is required taking into account the timescales for delivering the infrastructure. The strategy should have short term objectives which include identifying a range of actions to maximise existing grant fund sources and the potential of the HCA as a loan rather than grant funding agent where there investments is fully recoverable. The strategy should also include medium to long term objectives which allow JCS to be ready to emerging funding sources such as GFirst SEP funding by having the appropriate management and governance arrangements in place.

Developer contributions will form an important component of the overall funding package and the Councils will seek to utilise Section 106 Planning Obligations and to assess the introduction of a Community Infrastructure Levy (CIL), as appropriate, to ensure that development is acceptable in planning terms and that infrastructure is provided to support the development of the area.

## 9.6 Summary

This is a complex area of evidence for plan makers and the JCS is no different to other areas in this respect. The delivery of the infrastructure required to support new development and achieve the vision for the JCS area will rely on a wide range of public, private and third sector organisations working together effectively and efficiently. The JCS authorities have an important leadership role to play in this process as the Joint Core Strategy progresses towards adoption and the supporting IDP is refined as further detailed work is undertaken by service providers when testing the impacts of the proposed spatial scenarios on their service areas..

For these reasons, infrastructure planning and delivery must be viewed as an iterative process with the IDP and associated Project Tracker issued with this report reviewed and updated on a regular basis to reflect the on-going project development, funding situation and the views of key consultees. Key tasks which must be continued by the JCS authorities therefore include:

- Continued liaison with delivery partners, developers and other key stakeholders in order to understand changing priorities, programmes and delivery plans;
- Utilise the findings within the IDP and Tracker and work with service providers to explore and identify innovative solutions to infrastructure needs that potentially reduce costs. This could include, for example, collocated facilities or expansion of existing facilities over new build.
- Further work on associated funding in order to updated funding gap information;

- Regular updates to the IDP and associated Tracker as a ‘live process’ which will lead to improved accuracy and outcomes of the process;
- Meetings and workshops which focus on particular key infrastructure needs and/or strategic sites, particularly where cross-sectoral working is required;
- Monitoring of local plan policy in relation to infrastructure.

Alongside these key roles, the JCS authorities should progress work in relation to the assessment of CIL in order to explore issues and options relating to CIL moving forward. This should include consultation with developers, landowners and the public on the proposed charging schedule.

At present there may seem to be more questions than answers raised by the process and this is perfectly normal given infrastructure planning is an iterative process. Perhaps of greatest importance for the JCS authorities is the need to begin to prioritise infrastructure needs and projects and further understand the potential funding situation in order to continue to develop a funding gap model for the JCS area.

## Appendix A

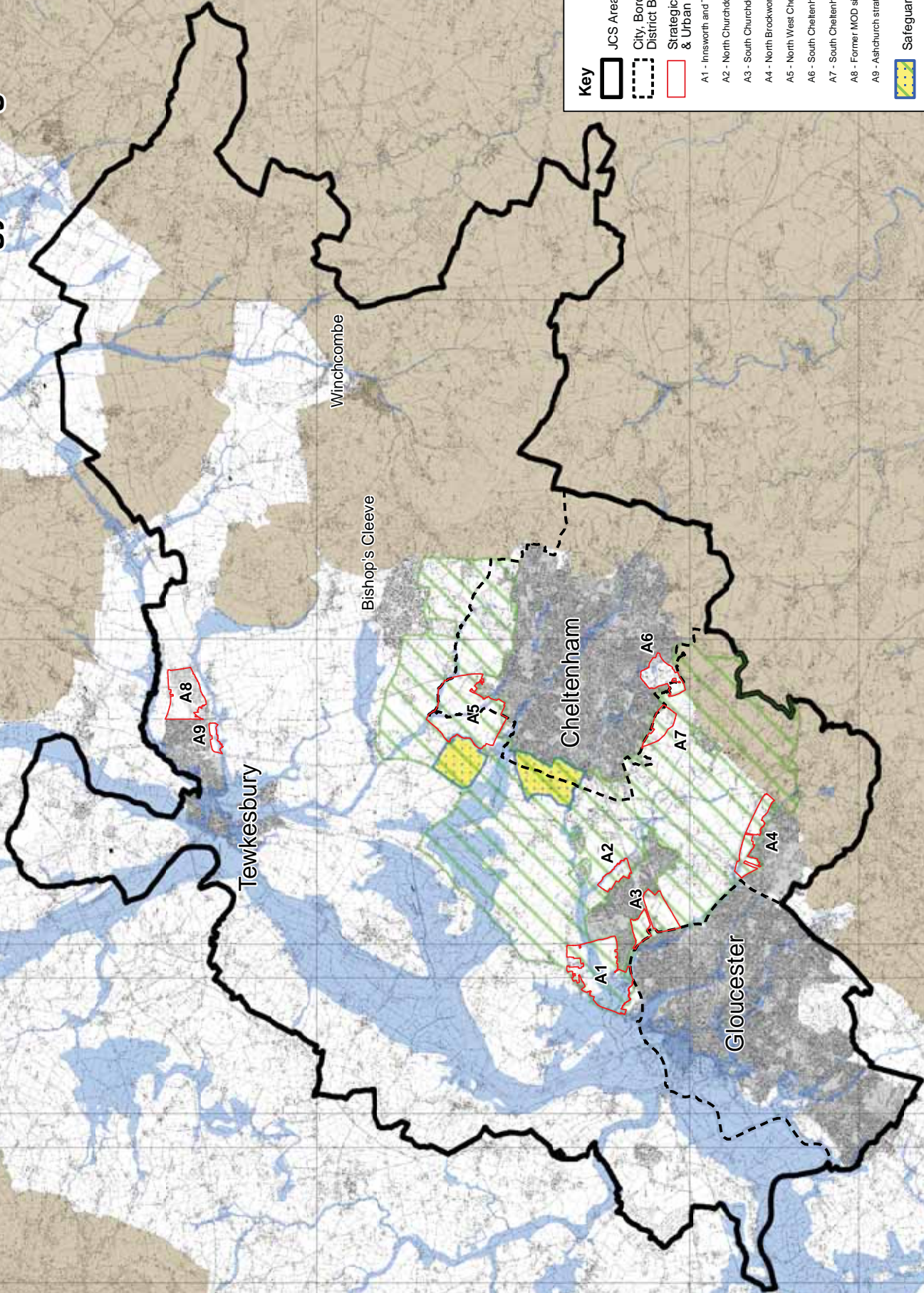
### Infrastructure Delivery Plan Mapping

# A1 JCS Strategic Allocations Map

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# Joint Core Strategy Strategic Allocations



**Key**

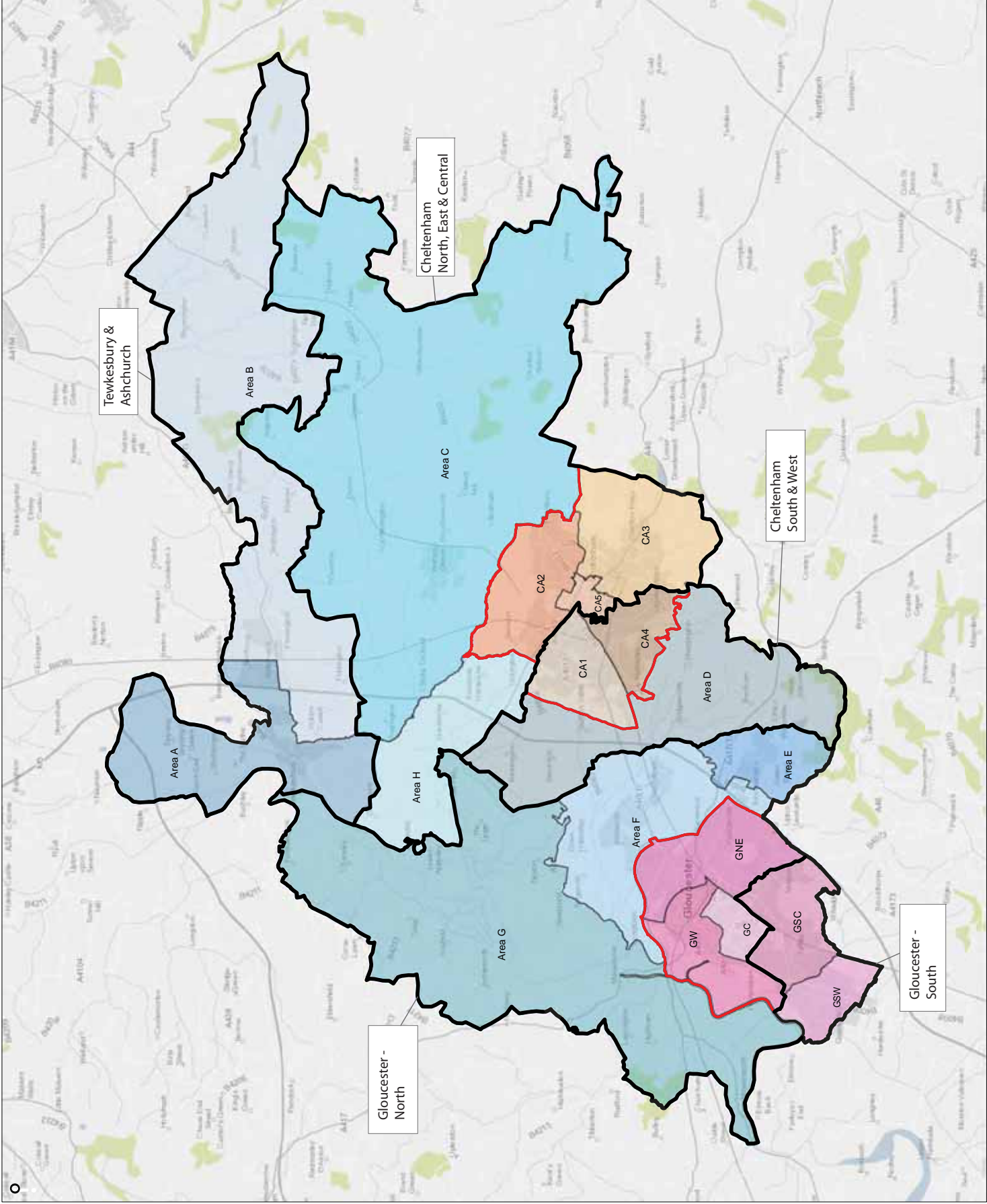
- JCS Area
- City, Borough & District Boundaries
- Strategic Allocations & Urban Extensions
  - A1 - Innsworth and Twigworth
  - A2 - North Churchdown
  - A3 - South Churchdown
  - A4 - North Brockworth
  - A5 - North West Cheltenham
  - A6 - South Cheltenham - Leckhampton
  - A7 - South Cheltenham - Up Hatfield Way
  - A8 - Former MOD site strategic allocation
  - A9 - Ashchurch strategic allocation
- Safeguarded Areas
- AONB
- Green Belt
- Floodzone



## A2 Map of JCS Sub-Areas

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**Legend**

District Boundary

**JCS Sub Areas**

- CA1 Cheltenham A1
- CA2 Cheltenham A2
- CA3 Cheltenham A3
- CA4 Cheltenham A4
- CA5 Cheltenham A5
- GC Gloucester Central
- GNE Gloucester North East
- GSC Gloucester South Central
- GSW Gloucester South West
- GW Gloucester West
- Area A Tewkesbury Area A
- Area B Tewkesbury Area B
- Area C Tewkesbury Area C
- Area D Tewkesbury Area D
- Area E Tewkesbury Area E
- Area F Tewkesbury Area F
- Area G Tewkesbury Area G
- Area H Tewkesbury Area H

**Note:**

Housing numbers for the Strategic Housing Locations are additional to the housing numbers indicated for each sub-area.

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PI	20-02-2013	YO	ND	ND	ND
Issue	Date	By	Chkd	Apprd	



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Client  
**Cheltenham Borough Council, Cotswold District Council, Forest of Dean District Council, Gloucester City Council, Stroud District Council and Tewkesbury Borough Council**

Job Title  
**Gloucestershire Districts Infrastructure Delivery Plans**

**Draft Gloucester, Tewkesbury & Cheltenham Joint Core Strategy Sub Areas (for infrastructure planning purposes only)**

Scale at A3  
**1:125,000**

Job No  
**226824-00**

Drawing Status  
**Draft**

Issue  
**P2**

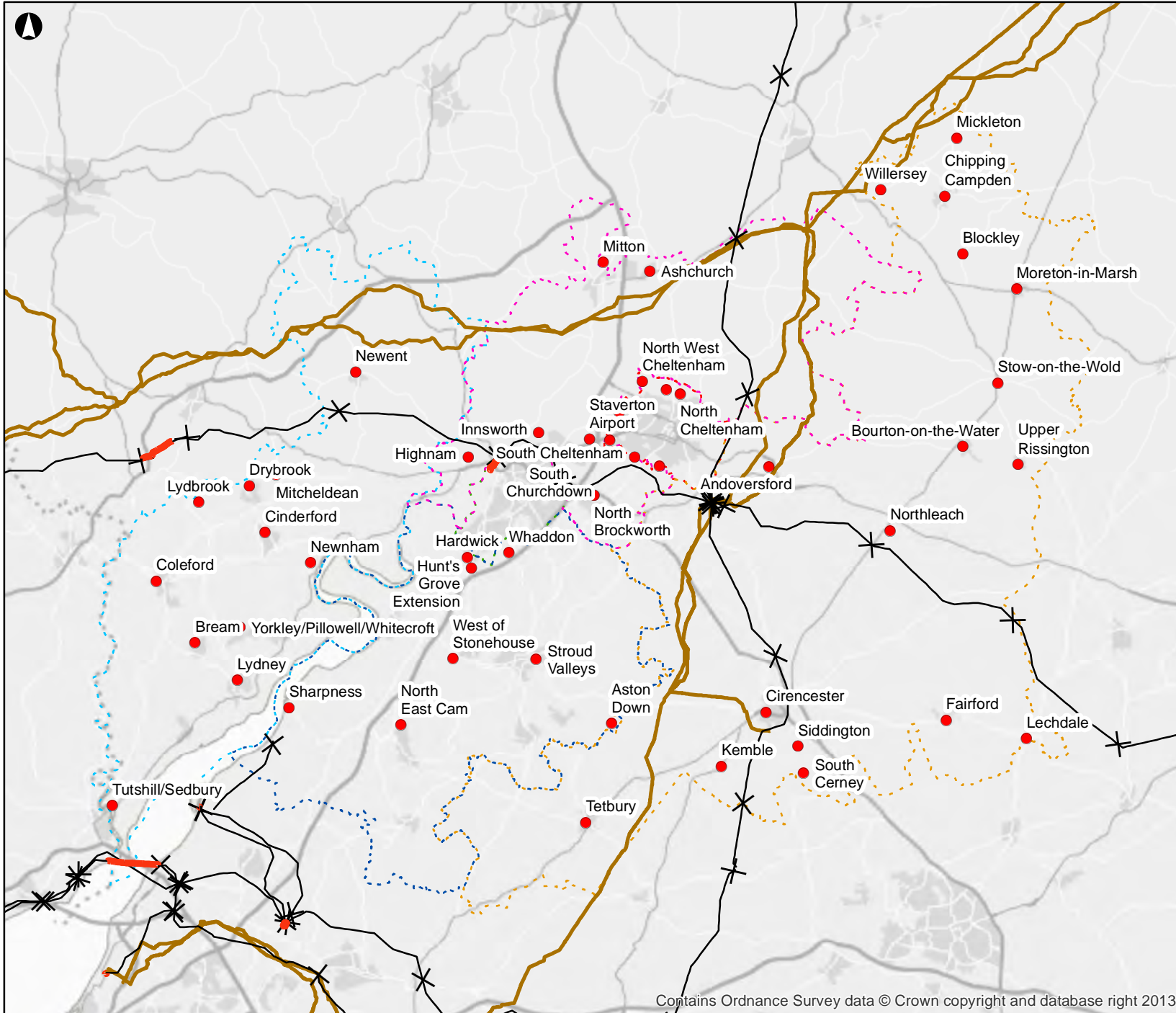
## **Appendix B**

### **National Grid Infrastructure**



## **B1**    **Map of National Grid Infrastructure**

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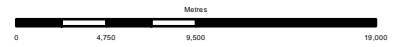
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**Legend**

- Strategic Locations
- Underground Cable
- Overhead Powerline
- Gas Pipeline
- Cheltenham District (B)
- Cotswold District
- Gloucester District (B)
- Forest of Dean District
- Stroud District
- Tewkesbury District (B)

P1	2013-08-08	JS	TD	TD
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Issue	Date	By	Chkd	Appd
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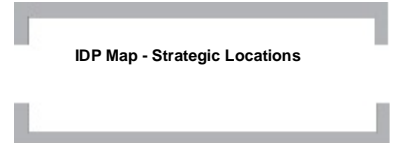


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Client  
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Job Title  
**Gloucestershire Infrastructure**



Scale at A4  
**1:400,000**

Job No <b>226824-00</b>	Drawing Status <b>Preliminary</b>
Drawing No <b>001</b>	Issue <b>P1</b>

## Appendix C

### Flood Risk Management Responsibilities

## C1 Table of flood risk management responsibilities in Gloucestershire

Risk Management Authority	Key summary of role	Primary flood-related duties, powers & responsibilities
Gloucestershire County Council	LLFA, responsible for managing local flood risk	<p>develop, maintain, apply and monitor a Local Strategy;</p> <p>managing local flood risk from ordinary water course, surface runoff and ground water upon becoming aware of a flood, the LLFA must,</p> <p>to the extent it considers necessary or appropriate, investigate which authority has flood risk management responsibilities and whether that authority has or is proposing to exercise those function.</p> <p>maintain a register of structures or features which are considered to significantly affect flood risk;</p> <p>power to do works to manage flood risks from surface runoff and groundwater;</p> <p>power to designate structures and features that affect flooding;</p> <p>responsible for consenting third party works on ordinary watercourses (outside of IDB area) (NB: these responsibilities have been delegated to certain districts for a trial period of 12 months as described in Section 4 of the Local Strategy);</p> <p>power of enforcement where works have been completed without a necessary consent power of enforcement to maintain a proper flow on ordinary watercourses (NB: these responsibilities have been delegated to certain districts for a trial period of 12 months as described in Section 4 of the Local Strategy);</p> <p>approval, adoption and maintenance of sustainable drainage systems (SUDS) (NB: this part of the legislation has yet to come into force);</p> <p>contribute towards achievement of sustainable development;</p> <p>providing information to the Environment Agency as necessary to enable the EA to report to the Minister about flood and coastal erosion risk management</p> <p>Category 1 responder to emergencies and lead on the coordination and preparation of Multi-Agency Flood Plan (MAFP) through Civil Protection Team, and;</p> <p>planning authority for minerals and waste, and GCC infrastructure (e.g. schools, highways).</p>
Cheltenham BC Cotswold DC Forest of Dean DC Gloucester CC Stroud DC	Responsible for undertaking works on ordinary watercourses, spatial planning lead, and part of emergency response	<p>power to do works on ordinary watercourses;</p> <p>power to designate structures and features that affect flooding;</p> <p>investigate flooding incidents on ordinary watercourses, subject to agreement with GCC;</p> <p>contribute towards achievement of sustainable development;</p> <p>duty to co-operate and may share information;</p> <p>as the local planning authority, prepare a Local Plan outlining proposals for growth and determine planning applications;</p>

Risk Management Authority	Key summary of role	Primary flood-related duties, powers & responsibilities
Tewkesbury BC		act as a statutory consultee for planning applications, and; category 1 responder to emergencies and responsible for assisting in preparation of Multi-Agency Flood Plans
Gloucestershire Highways	Responsible for highway drainage	responsible for the provision and maintenance of highway drainage under the Highways Act (1980). This excludes trunk roads that are the responsibility of the Highways Agency (M50, M5, A40 and A417); contribute towards achievement of sustainable development, and; statutory consultee for the SUDS Approval Body where a drainage proposal is likely to affect a road (NB: this part of the legislation has yet to come into force);
Environment Agency	Strategic overview of all sources of flood risk, and operational responsibility for flooding from Main Rivers, the Sea and Reservoirs	responsible for managing flood risk from Main Rivers, the Sea and Reservoirs; develop, maintain, apply and monitor a strategy for flood and coastal erosion risk management in England (a 'national flood and coastal erosion risk management strategy') statutory consultee for the SUDS Approval Body where a drainage system directly or indirectly involves discharge of water into a watercourse. (NB: this part of the legislation has yet to come into force); competent authority to deliver the Water Framework Directive (WFD) in partnership with other organisations; administer various consents, permits and licences associated with flood risk management, abstraction, discharges, and impounding of water, for example; provide advice to local planning authorities in relation to development and flood risk; provide fluvial and coastal flood warnings; support emergency responders when flooding occurs; allocation of flood and coastal erosion risk management capital funding (FDGiA); manage the RFCC process, and; power to designate features/structures
Lower Severn Internal Drainage Board	Responsible for maintaining ordinary watercourses in their area to protect properties from flooding and to drain agricultural land	operate pumping stations to evacuate water to prevent permanent flooding and water logging; maintain open drainage channels via dredging and vegetation control; make byelaws to ensure and protect adequate drainage systems and works require owners and occupiers of properties to remedy defects in systems, for example where flows of water are impeded through defaults of persons; control the erection of structures affecting watercourses and the culverting of watercourses which require their special consents; provide advice to planning authorities regarding new development, by considering the flood risk implications of proposals on site and downstream; provide advice to ensure that any flood protection works are carried out as a necessary part of the infrastructure for developments;

Risk Management Authority	Key summary of role	Primary flood-related duties, powers & responsibilities
		statutory consultee for the SUDS Approval Body where a drainage system will directly or indirectly discharge water into an ordinary watercourse within their geographical boundary, and; power to designate features/structures.
Severn Trent Water Thames Water Welsh Water Wessex Water	Responsible for provision, maintenance and operation of public sewers and works	provide, maintain and operate systems of public sewers and works for the purposes of ‘effectually draining’ their area have a duty to adopt private sewers; maintain a register of properties which have flooded due to hydraulic overload (DG5 Register); duty to co-operate and may share information; statutory consultee for the SUDS Approval Body where a drainage proposal would interact with a public sewer, and; need to have regard to the Local Strategy.

## Appendix D

### Gloucestershire Local Transport Board - Transport Schemes

## D1 Gloucestershire Local Transport Board Priority Schemes

Table based on ‘Prioritised List of Schemes and Outline Programme report (dated 18 June 2013)

Scheme title	Description	Estimated capital cost (and LTB contribution proposed)	Estimated construction & completion date	Impact score (out of 26)	Local Authority
1. A40 Bus Lane, Benhall	The proposed bus lane is approximately 800m in length and begins after the existing “Puffin” crossing at Kingsley Gardens to continue through the Benhall Roundabout (at the junction with Princess Elizabeth Way) and end just before the junction with Whittington Road and GCHQ. The scheme will reduce delays, improve bus journey time predictability and complement eastbound bus priority on the B4063 and A40.	£1,194,337 (£1,124,337 LTB)	Jul 2015 to Dec 2015	23.67	JCS area
2. A40 Over Roundabout and Highnam Lodge Improvements	Over Roundabout is situated to the northwest of Gloucester on the A40 and is a a nodal point on the strategic road network. Highnam Lodge is situated towards the western end of this section of the A40. The scheme comprises: Over Roundabout – partial signalisation and modifications to the junction layout; and removal of hatchings on the nearside lane of the eastbound carriageway and implementation of signals at Highnam Lodge access.	£2,230,039 (£2,230,039 LTB)	Oct 2016 to Mar 2017	23.17	JCS area
3. A40 Bus Corridor	Scheme located on A40/B4063 to the west of Cheltenham town centre at: A40 Arle Court roundabout; A40 / Telstar Road / Whittington Road traffic signal junction; and A40 / A4013 Benhall Roundabout. The scheme is designed to improve journey times and reliability for buses on the A40/B4063 between Gloucester and Cheltenham, particularly between Arle Court and Benhall Roundabouts. There are four bus priority measures that will complement Elmbridge Transport Scheme and existing bus priority measures on the A40.	£2,496,722 (£2,496,722 LTB)	Sep 2017 to Feb 2018	23.00	JCS area
4. Cheltenham Spa Station: A Transformational Ambition	Cheltenham Spa station is a key node in the national intercity railway network, with seven key passenger services either routing through or terminating at the station. The scheme will provide a new high quality train terminus and passenger transport interchange. The scheme consists of two elements: Provision of additional track and platform capacity.	£19,228,940 (£3,300,500 LTB)	Apr 2017 to Mar 2019	22.67	JCS area



Scheme title	Description	Estimated capital cost (and LTB contribution proposed)	Estimated construction & completion date	Impact score (out of 26)	Local Authority
	Step change in customer facilities, such as bus interchange, car parking, bicycle storage and station amenities.				
5. Abbeymead / Metz Way Corridor, Gloucester	Abbeymead Avenue and Metz Way are located to the southeast of Gloucester City Centre, between the Coopers Edge development (southwest of Brockworth and adjacent to the Gloucester Business Park) and Gloucester City Centre. A package of bus priority measures (westbound) are proposed, incorporating off carriageway cycle lane improvements.	£2,117,093 (£2,117,093 LTB)	Dec 2016 to June 2017	22.17	JCS area
6. King's Quarter Bus Station, Gloucester	Provision of a new bus station and associated infrastructure, including highway alterations and improvements to pedestrian, cyclist and public transport infrastructure to facilitate the regeneration of the King's Quarter area of the city centre.	£4,276,738 (all LTB)	Jan 2016 to Dec 2016	21.83	JCS area
7. LED Street Lighting Replacement	Conventional street lighting lanterns will be replaced with Light Emitting Diode (LED) lighting with Central Management System (CMS).	£10,900,000 (£4.9mil LTB)	Apr 2015 to Mar 2018	21.50	JCS area
8. A38 Berkeley Railway Bridges	Replacement of Berkeley Rail New Bridge Strengthening and refurbishment of Berkeley Rail Old Bridge Replacement of approach barriers on both bridges to comply with the standard Requirement for Road Restraint Systems. Berkeley Rail New bridge will be a low maintenance bridge with a design life of 120 years.	£2,170,000 (£2,010,000 LTB)	Nov 2015 to Mar 2016	21.17	Stroud District
9. Lydney Transport Strategy	Highway and public realm improvements in the town centre, comprising: Newerne Link, including mini-roundabouts with Forest Road and Albert Road. Forest Road junction improvement and pedestrian crossing. Bream Road junction improvement – new traffic signals. Albert Street junction improvement – new traffic signals. Cycle route from the town centre to the major existing employment areas and Lydney railway station. Lydney rail station car park improvement.	£4,900,000 (£4.9mil LTB)	Feb 2018 to Feb 2019	21.00	Forest of Dean

Scheme title	Description	Estimated capital cost (and LTB contribution proposed)	Estimated construction & completion date	Impact score (out of 26)	Local Authority
10. Thames and Severn Way	Construction of the Thames and Severn Way, running alongside or near the restored Canal from Saul Junction to Chalford some 18.25km away. Once complete, the project will allow pedestrians and cyclists alike to safe routes of access and egress to amenities, places of work and leisure from the public highway, footway and footpath network, via a green canal corridor.	£1,185,700 (£650,000 LTB)	Apr 2015 to Mar 2017	20.83	Stroud District
11. Cinderford Northern Quarter Link Road	The scheme will provide a new tree-lined point of entry into the town from the north into Cinderford. The proposal is to develop new highway infrastructure of approximately 1.5km single carriageway, limited to 30mph, with a lower limit 20mph limit through the Central Zone.	£8,600,000 (£3,800,000 LTB)	Feb 2014 to Aug 2015	20.67	Forest of Dean
12. A419 Corridor	This scheme comprises a package of junction improvements and carriageway widening along the A419. The improvements will increase capacity, optimise the efficiency of the corridor and reduce delays. The overall scheme also provides adequate provision for pedestrians and cyclists. The schemes are located at the following junctions with the A419 (from west to east): Chipmans Platt Roundabout (junction with Spring Hill / Grove Lane) Oldends Lane roundabout (junction with Oldends Lane / industrial and business park access roads). Downton Road signals (junction with Downton Road). Horsetrough Roundabout (junction with B4008 Ebley Road / Bath Road)	£4,368,607 (£4,368,607 LTB)	Nov 2017 to Nov 2018	20.67	Stroud District
13. Ocean Railway Bridge	The proposed restoration of the canal between Saul and Stonehouse would re-excavate part of the route where possible and create a reach of entirely new canal channel along a new alignment through farmland, allowing it to pass under the M5 alongside the River Frome and the A38 before connecting to the existing canal at Saul Junction. LTB funding is being applied as a contribution to the delivery of the scheme as a whole and for the implementation of a replacement railway crossing at Ocean in particular.	£18,965,000 – whole canal restoration (LTB £1,500,000 – bridge replacement)	Nov 2015 to Mar 2016	19.33	Stroud District
14. Stonehouse (Bristol Road) Railway Station	Re-open the railway station at Stonehouse (Bristol Road) on the Gloucester to Bristol route; allowing for the local stopping train on the route.	£3,035,000 (LTB £1,785,000)	Mar 2016 to June 2017	14.50	Stroud District