

# Chiltern and South Bucks Settlement Infrastructure Capacity Study

*Report of settlement findings – baseline assessment*



## Contents

1. Executive Summary.....	3
2. Opportunity to comment on this report.....	6
3. Introduction .....	6
4. The National and Local Planning Context .....	7
5. Study Methodology.....	9
Fig 1 Infrastructure Capacity Study progress.....	9
6. Initial Findings .....	11
Assumptions for the headline tables .....	11
Fig 2 Key for Headline Tables .....	11
Fig 3 Headline findings for Chiltern District Settlements - Level of infrastructure constraint by category .....	12
Fig 4 Headline findings for South Bucks District Settlements - Level of infrastructure constraint by category .....	14
General comments – discussion of emerging themes.....	15
Potential location - specific implications .....	18
7. Conclusions and Recommendations.....	21
Continued work on the study .....	21
Explore options for the Community Infrastructure Levy and other Infrastructure Provision .....	22
Viability evidence.....	23
Water cycle information .....	23
Transport modelling.....	24
Provision for older people .....	24
References .....	25
Glossary.....	27
Appendix 1 Study methodology Questionnaire.....	28
Appendix 2 List of organisations consulted about the study methodology .....	28
Appendix 3 Summary of comments on the study methodology .....	28
Appendix 4 Settlement Findings Tables – Chiltern District Settlements .....	28
Appendix 5 Settlement Findings Tables – South Bucks District Settlements .....	28

## 1. Executive Summary

1. The aim of the study is to assess the scope of different settlements for accommodating the potential for new growth associated with the new Local Plan, including the capacity of existing infrastructure, whether there were particular trigger points where infrastructure capacity would be reached and whether infrastructure improvements could enhance capacity. It is important to look at potential critical infrastructure issues at the early stages of plan preparation and evidence gathering because this could have a fundamental impact on whether the policies and proposals in the new Local Plan are realistic, deliverable and can be implemented so that new development is accompanied by supporting infrastructure, implicit within the need for new development to be sustainable.
2. This report provides a snapshot of the characteristics of the settlements in Chiltern and South Bucks District in terms of their infrastructure capacity and how this would relate to the potential for accommodating new growth associated with the new joint Local Plan. The Study involved consultation with key infrastructure providers and Duty to Co-operate organisations on the study methodology and baseline positioning.
3. The Infrastructure Capacity Study was commenced in advance of the publication of information on potential housing and economic development needs for the Districts in order to make an early start on discussions with key infrastructure providers about the implications of potential growth.
4. The focus of the Study was on existing settlements in Chiltern and South Bucks Districts at this stage because this was likely to link more closely to the principle of assessing sustainable locations for consideration in the Local Plan. There were 18 settlements in total and this included all built – up areas which are excluded from the Green Belt.
5. This Study has focused on six categories of infrastructure which have a critical influence on whether new development can be accommodated. These include education, health, transport, utilities, flood defences and social care.
6. The work on the Study is iterative because it will need to be refined in light of the Issues and Options consultation, housing and economic development needs assessments and their Local Plan implications as well as testing the capacity of specific locations. Updates may be required as infrastructure characteristics are dynamic, and can be affected by many factors, including changes in funding, scope of service, regulations, physical limitations, economic conditions and viability, so the work will need to be updated in conjunction with the later stages of Local Plan preparation.
7. The study findings are based on comments from key infrastructure providers. To assist them in making comments, a separate document setting out the methodology for the study with a questionnaire was sent to contacts (see Appendix 1).

8. The main findings are first presented in summary form showing the infrastructure status of the different settlements in the two districts (Figs 3 and 4). The background for this is the responses from infrastructure providers. Further findings which are included as Appendices 4 and 5. All settlements have pressure on critical elements of their infrastructure and no one location / settlement stands out clearly above others in terms of whether it is more suitable for new growth. Also there is no one settlement which is clearly worse in these terms.
9. There are many types of existing infrastructure which are under pressure and, as a result, the scope for accommodating future potential growth in population or housing seems very limited at this stage unless there are significant improvements / increased capacity for provision. For example roads, railways, GPs, water infrastructure and education are particular areas where capacity is either under pressure already. A critical issue is the impact of new care homes / nursing homes on GP capacity. The capacity of many of the primary school planning areas and secondary school catchments is limited in terms of numbers and is related to a short-term horizon, much less than the long time period of the new Local Plan. In addition the Environment Agency has concerns about water abstraction levels and future demands on drinking water and railway operators refer to pressures in a number of locations. The Chesham Waste Water Treatment Works and the Gerrards Cross Waste Water Treatment Works require site-wide upgrades to enhance their process capabilities. Section 6 and Appendix 3 of the report shows the work of key stakeholders in relation to water infrastructure - Thames Water, the Environment Agency and Affinity Water. Water – related infrastructure is the subject of an ongoing linked study as referred to in the Study recommendations in section 7.
10. It cannot simply be assumed that additional capacity will automatically be created in response to the growth associated with the local plan, each provider has its own mechanisms for monitoring what pressures might occur in future and ways to address this which are governed by that provider's regulatory or other requirements and the finance available to augment capacity. More engagement is needed to ensure that the new Local Plan proceeds in conjunction with these processes as far as possible. The common theme is however that to deliver increased capacity in parallel with new growth which would be associated with the new Local Plan will be challenging. In this way the Infrastructure Capacity Study has raised the profile of the issue with key providers at an early stage of the Local Plan process.
11. There are a number of infrastructure issues raised by stakeholders which have site specific or policy content implications and these are highlighted for further work.
12. There are a number of recommendations in section 7 including the need for on-going work with infrastructure providers and expanding the scope of the study / other work to capture information on other types of infrastructure to feed into the Infrastructure Delivery Schedule. Further engagement with the health sector is particularly emphasised, as health – related provision is critically important for the future well-being of the Districts' residents.

The potential need for Community Infrastructure Levy and other measures to deliver the infrastructure associated with new development emerges as an important issue to be investigated further as more site-specific information on planned development becomes available.

## 2. Opportunity to comment on this report

Comments on this report are welcomed to help inform subsequent updates. Please send your comments by

Email to: [planningpolicy@chiltern.gov.uk](mailto:planningpolicy@chiltern.gov.uk)

Or by post to:

**Helen Harding  
Planning Policy Team  
Chiltern District Council  
King George V House  
King George V Road  
Amersham HP6 5AW**

## 3. Introduction

13. This Study forms part of the evidence base for the new Local Plan for Chiltern and South Bucks District Councils and it will assist the Councils in their Duty to Co-operate discussions with other organisations. The Study has been informed by consultation with key stakeholders with responsibility for infrastructure and service provision and with adjoining councils for any cross border infrastructure issues.
14. One of the main purposes of the Study was to identify settlement infrastructure capacity and trigger points for specific settlements linked to different preliminary growth scenarios (not just limited to housing). This was to provide a clearer understanding of infrastructure capacity, deficits and requirements to meet different preliminary growth options to inform the Local Plan's spatial development strategy, Infrastructure Delivery Plan and future decisions on Community Infrastructure Levy.
15. The Study focusses on existing settlements in Chiltern and South Bucks District as they are likely to be better served by existing infrastructure. The settlements included in the Study are as follows:

Amersham (includes Amersham on the Hill and Amersham Old Town)
Beaconsfield
Burnham
Chalfont St Giles
Chalfont St Peter
Chesham
Chesham Bois
Denham Green
Gerrards Cross
Great Missenden
Holmer Green

Iver Heath
Iver Village
Little Chalfont
Penn including Knotty Green
Prestwood and Heath End
Seer Green
Stoke Poges <sup>1</sup>

16. If development options are to be taken forward outside of the Local Plan area (e.g. Wycombe, Slough, Maidenhead) then additional infrastructure capacity work in conjunction with the relevant local planning authorities will be required.

17. This Study has focused on the types of infrastructure which have a critical influence on whether new development can be accommodated. These are

- Education - primary and secondary schools (not including private schools or settlements which only have first / infant schools for children aged 4-7, e.g. Coleshill)
- Health – GPs, community health care and hospitals (not including private hospitals)
- Transport – capacity of motorways within / near to each District, capacity of main roads and passenger transport
- Utilities – water, sewerage, electricity, gas, household waste and recycling, telecommunications (including broadband).
- Flood alleviation / mitigation measures, (such as flood alleviation in Chesham and its culvert).
- Social care (provision by or commissioned by public authorities)

18. This is an iterative study and the intention is to continue to progress with the work in order to inform further stages of the Local Plan and Duty to Co-operate discussions.

## 4. The National and Local Planning Context

19. This Study will contribute to meeting the requirements in the National Planning Policy Framework (NPPF) in relation to infrastructure and importantly to the delivery of sustainable development, the golden thread running through the NPPF. The delivery of economic development, including infrastructure is one of the core planning principles in the NPPF. The need for significant development to be in locations which are or can be made sustainable is another core planning principle of direct relevance to this Study. With regards to Local Plans, paragraph 157 of the NPPF advises that local planning authorities (LPA) should plan positively for the development and infrastructure required in the area.

---

<sup>1</sup> As almost all of the neighbouring settlement, Farnham Common, falls within the 500m safeguarding zone of the Burnham Beeches Special Area of Conservation, any consequential findings of the Infrastructure Capacity Study which relate to this settlement will need to consider alongside other evidence, in particular the Sustainability Appraisal.

20. The National Planning Policy Guidance (NPPG) encourages LPAs to have early contact with infrastructure and service providers, as well as the Local Enterprise Partnership so that the plan making process is well informed about infrastructure needs and pressures as well as other organisations plans and strategies (NPPG Paragraph: 018 Reference ID: 12-018-20140306).
21. The Government has numerous initiatives and proposals which aims to boost the economy and facilitate increased housing delivery with infrastructure in its widest sense being a very important part of the overall framework, e.g. the HM Treasury Fixing the Foundations and the Cutting Red Tape Reviews (2015). New initiatives often relate to major schemes and there is a clear focus on delivering more new housing and so the implications will need to be closely monitored so as to ensure that the new Local Plan and its evidence studies are in accordance with, and secure any locally – specific opportunities arising from, emerging Government initiatives, whether they relate to major schemes or smaller scale projects.
22. The Bucks and Thames Valley LEP Strategic Economic Plan ( <http://www.buckstvalep.co.uk/strategic-economic-plan>) includes priority projects with the objective of increasing prosperity and jobs in Buckinghamshire. There is a focus on transport connectivity, business growth and linking business and education. The five broad project areas in the plan relate to the funding of infrastructure, skills, affordable housing / housing, new business start-ups and increasing attractiveness to global firms. The plan refers to many projects and most are related to AVDC and WDC's area. However Project 3 is concerned with the A355 relief road, Project 5 aims to provide sustainable transport links to Crossrail stations in Taplow and Iver and Project 6 relates to improvements to the two campuses of Amersham and Wycombe College (there are campuses in Amersham and in WDC (Flackwell Heath). In addition the generic projects across Bucks could also be applicable to Chiltern and South Bucks Districts.
23. The Draft Bucks Infrastructure Investment Plan is being produced by Bucks Advantage and the LEP and further information from this Plan will be considered and taken into account as appropriate.
24. At the local level, both Chiltern and South Bucks District Councils have policies concerning new infrastructure provision in their adopted Core Strategies. These are the Core Strategy for Chiltern District ( Adopted 2011) – Policy CS31 on page 75 (<http://www.chiltern.gov.uk/CHttpHandler.ashx?id=1199&p=0>) and the Core Strategy Development Plan Document South Bucks District Council ( Adopted 2011) – Core Policy 6 on page 35 (<http://www.southbucks.gov.uk/CHttpHandler.ashx?id=4196&p=0>)



## 5. Study Methodology

25. The Study methodology and request for information on infrastructure capacity, catchments, relevant plans and strategies, and views on potential implications of growth has been the subject of consultation with key infrastructure providers and relevant organisations under the Duty to Co-operate.

26. The Study aims to establish information from key infrastructure providers and can be summarised in relation to these **main questions**;

- Is the existing settlement infrastructure sufficient or is there an infrastructure deficit?
- Is there scope for additional growth without impacting on infrastructure capacity?
- If so, how much growth could be accommodated (and over what timescale)?
- At what levels of growth would new or improved infrastructure be required and what would this comprise?
- If new infrastructure is needed, particularly to cater for growth, how can it be delivered?

27. The growth scenarios referred to in the Study methodology and questionnaire should not be taken as any indication of planned growth. **Growth levels will need to follow objectively assessed needs, other technical work and consultation and as such infrastructure capacity/needs is only one influencing factor.**

28. The questionnaire which was used to inform the Study methodology is included as Appendix 1. Approximately 50 organisations were consulted about the study methodology (see Appendix 2). Those who responded and a summary of their comments is included as Appendix 3.

### Fig 1 Infrastructure Capacity Study progress

March-April 2015	Draft study methodology and commence consultation with key infrastructure providers
From May 2015 and ongoing	Analysis of responses, meetings, correspondence with responders, chasing up of responses
From July 2015	Preparation of settlement-related findings and accompanying reports. Initial work on specific infrastructure studies linked to the responses (transport modelling, drinking water and waste water)
From October 2015	Testing of findings with providers and other consultees as part of the work towards the joint Local Plan consultation  Continued progress with linked infrastructure studies  Implementation of study recommendations
Jan-Mar 2016	Joint Local Plan Initial Consultation ( Regulation 18) and combined

	Issues and Options consultation
Jan – June 2016	On-going discussions with infrastructure providers and service operators including growth options scenarios testing
April and May 2016	Transport modelling (strategic and localised stage)
July 2016	Final Hertfordshire Water Project due (Chiltern catchment)
Oct-Nov 2016 Local Plan Draft / Preferred Options Plan stage  (need for CIL to be reviewed between October 2016 and August 2017)	Publish revised version of the study / Draft Infrastructure Delivery Plan
Mar-Apr 2017 Local Plan Pre-submission stage	Publish revised version of the study / Draft Infrastructure Delivery Plan

## 6. Initial Findings

29. The findings are presented in tabular form to assist comparison of the current circumstances of different settlements.
30. Fig 2 overleaf provides an overview at a high level across all the settlements using this typology. Behind the high level overview lays a more detailed analysis in relation to each settlement. This is included as Settlement Findings Tables in Appendices 4 to 5.
31. These tables include a summary of comments from infrastructure providers for each type of infrastructure and information on whether improvements / other measures are planned to address potential infrastructure issues. The comments and information about planned improvements / other measures are then analysed in terms of their status. Most infrastructure providers also gave details of their own plans, programmes and strategies where available and relevant to their response and these are referred to in the references for this Study.
32. Most of the types of infrastructure do not have a specific capacity timescale which relates to particular settlements. This information is not always known by providers at that level. Therefore it has not been possible to provide specific trigger points / capacity timescales for each settlement as a whole at this stage of the study. Despite this it is evident that infrastructure pressures certainly exist at the broader District level.

### Assumptions for the headline tables

33. The role of some infrastructure providers is more reactive and so they have not been able to comment at this stage of the study on whether or not a location / settlement is preferable in terms of whether their service could address increases in population / households. Therefore their responses to the study are in more generic terms, flagging up potential issues rather than specific infrastructure pressure points / time scales. Similarly infrastructure providers do not always deliver or plan their provision at the scale of a settlement, so catchment areas vary. For example hospitals serve more than one town and railway stations attract commuters from a wide area.

### Fig 2 Key for Headline Tables

	Insufficient information is currently available on the constraint either at the District or the settlement level.
	Capacity dependent on planned measures or improvements / planned improvements only cover part of the plan period.
	No known capacity issue in relation to the constraint.
(!)	Railway / underground station not in settlement itself but station nearby serves settlement

**Fig 3 Headline findings for Chiltern District Settlements - Level of infrastructure constraint by category**

	Level of constraint by settlement										
Infrastructure types according to constraint	Amersham	Chalfont St Giles	Chalfont St Peter	Chesham	Chesham Bois	Great Missenden	Holmer Green	Little Chalfont	Penn and Knotty Green	Prestwood and Heath End	Seer Green
Education - Primary											
Education – Secondary											
Health – acute (hospital broader catchment)											
Health – primary (GP)											
Transport – main roads											
Transport – Motorways											
Transport – Rail		(!)	(!)		(!)		(!)		(!)	(!)	
Utilities – drinking water											
Utilities – waste water											
Utilities – electricity and gas											
Household Waste											

collection and recycling											
Telecommunications											
Flood alleviation / mitigation (river/culvert in certain settlements)											
Social care											

**Fig 4 Headline findings for South Bucks District Settlements - Level of infrastructure constraint by category**

Infrastructure types according to constraint	Level of constraint by settlement					
	Beaconsfield	Burnham	Denham Green	Gerrards Cross	Iver Village and Iver Heath	Stoke Poges / Farnham Common
Education - Primary	Red	Red	Red	Red	Red	Red
Education – Secondary	Red	Red	Red	Red	Red	Red
Health – acute (hospital broader catchment)	Red	Red	Red	Red	Red	Red
Health – primary (GP)	Red	Red	Red	Red	Red	Red
Transport – main roads	Red	Red	Red	Red	Red	Red
Transport – Motorways	Red	Red	Red	Red	Red	Red
Transport – Rail	Yellow	Red	Yellow	Yellow	Red	(!)
Utilities – drinking water	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Utilities – waste water	Red	Red	Red	Red	Red	Red
Utilities – electricity and gas	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Household Waste collection and recycling	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Telecommunications – mobile phones	Green	Green	Green	Green	Green	Green
Flood alleviation / mitigation (river / culvert in certain settlements)	Green	Green	Red	Green	Red	Green
Social care	Red	Red	Red	Red	Red	Red

## General comments – discussion of emerging themes

34. The findings do not indicate any preferred location(s) / settlement (s) within Chiltern or South Bucks which perform significantly better than others for new housing and employment growth from the perspective of key infrastructure providers. Neither does one settlement perform significantly worse.
35. The overall impression is that all of the settlements have considerable existing infrastructure pressures. There are a number of constraints in every settlement. For example the Chiltern Clinical Commissioning Group refers to pressure on GPs across the catchment and highlight a key concern in relation to accommodation for the elderly (Use class C2). As a result it is suggested that the issue of affordable care beds and mechanisms to deliver them be explored further as part of Local Plan evidence gathering. The Environment Agency has concerns about water abstraction levels and future demands on drinking water while railway operators refer to pressures in a number of locations. Capacity of Waste Water Infrastructure is likely to be a fundamental issue and the Chesham Waste Water Treatment Works and the Gerrards Cross Waste Water Treatment Works require site wide upgrades to enhance their process capabilities. These are programmed to take place from 2015 – 2020 (Thames Water Asset Management Plan 6). The potential implications of additional growth will need to be considered further as engagement continues and through the next Thames Water Asset Management Plan. Thames Water is aiming to work together with the Environment Agency on longer term solutions, incorporating necessary actions into consenting regimes and planning for new drainage infrastructure. Affinity Water, as a provider of drinking water to most of the two Districts, is also undertaking various projects, involving other partners to ensure that its operations safeguard the environment, particularly in areas with environmentally - sensitive characteristics. Water – related infrastructure is the subject of an ongoing linked study as set out in the Study recommendations (section 7).
36. In relation to the local road network the latest Bucks County Local Transport Plan 3 shows that most main routes across the districts are already congestion ‘hot spots’ at peak times. The inference from this being that whatever the growth level within both Chiltern and South Bucks, there is likely to be a need for infrastructure investment and/or in terms of roads possibly acceptance of increased levels of congestion. The Local Transport Plan is currently under review<sup>2</sup> and further work on the Infrastructure Capacity Study will need to take this update into account.
37. Bucks CC Transport Strategy has provided information on Chiltern and South Bucks Strategic Transport Issues to assist as background information for the Infrastructure Capacity Study. The following paragraphs summarise this information and apply it’s findings where possible to the purpose of the Infrastructure Capacity Study.

---

<sup>2</sup> see <http://www.transportforbucks.net/Strategy/Local-Transport-Plan/LTP4.aspx>

38. Journey delays are worse in the morning peak period according to Traffic Master data and the routes in Chiltern with the most severely affected roads being parts of the A355 between Amersham and Beaconsfield, the A413 between Chalfont St Giles and Chalfont St Peter and the A404 between Amersham and Hazlemere, as well as small sections of roads in the urban centres of the District.
39. In South Bucks the most severely affected roads at these times are parts of the A355 south of Beaconsfield, the M25 and link roads to it, parts of the A4 and the A412, as well as small sections of roads in the urban centres of the District.
40. The capacity of the existing network shown by the BCC Transport Model provides additional information on existing pinch points in the highway network. These are shown in fig 5 as follows.

**Fig 5 Existing pinch points in the highway network**

AREA	POOR PERFORMANCE AREAS (AM / PM PEAKS)
Chiltern	A355 Gore Hill, Amersham (AM / PM)
	A413 Great Missenden (AM)
	A413 Chalfont Common (AM / PM)
	A416 Chesham Town Centre (AM / PM)
South Bucks	A412 North Orbital Road (Denham) (AM / PM)
	M25 (Highways England managed)

41. These existing pinch points would relate to flows from within and outside the Districts estimated by the BCC Transport Model, not just to flows within each District. Therefore it is not possible at this stage to isolate the role of each settlement within the Districts in terms of its contribution to each pinchpoint as opposed to flows from other areas.
42. The mapping which accompanies the pinchpoint data shows that most of settlements in Chiltern District have sections of roads either within them, or close by, which are congested (except for the smaller settlements of Seer Green, Denham Green and Stoke Poges).
43. Therefore in comparative terms there is no clear distinction between the settlements in terms of the nature of existing congestion on the local road network which could be taken forward at this stage as a basis for distinguishing the settlements in terms of their overall suitability for accommodating future development. This is also because the settlements are relatively close to each other their likely inter-connectedness would make such a distinction difficult. For the purposes of the Infrastructure Capacity Study it must be noted that the key test is the ability of a settlement to accommodate future growth and so the data on existing congestion does not provide a definitive indicator as to whether a settlement could accommodate a certain level of growth without improvements in existing transport infrastructure.
44. The capacity of many of the primary school planning areas and secondary school catchments is limited in terms of numbers and is related to a short-term horizon, much less than the long time period of the new Local Plan. The Buckinghamshire County Council School Places Planning



comments on the Study Methodology are that if increased housing levels are proposed in Chiltern and South Bucks then it is likely that additional school places will need to be provided. In addition, in terms of making new provision, the comments add that Bucks CC has very limited capital funding available to provide additional school places and there is no guarantee that this funding will be available in future years. And that Bucks CC cannot identify with any certainty alternative sources of funding to contribute towards education requirements and so is therefore reliant on developers contributing towards the impact of their schemes. Further engagement with Bucks CC School Places Planning is essential as the Study is developed further.

45. As a result of the work to date, the scope for accommodating future potential growth in population or housing in these settlements seems very limited unless further growth can be accompanied by increases in infrastructure capacity funded either through developer contributions and / or infrastructure provider investment. Investment could also affect development phasing. It cannot simply be assumed that additional capacity will automatically be created in response to the growth associated with the local plan, each provider has its own mechanisms for monitoring what pressures might occur in future and ways to address this which are governed by that provider's regulatory or other requirements and the finance available to augment capacity. More engagement is needed. The common theme is however that to deliver increased capacity in parallel with new growth will be challenging. In this way the Infrastructure Capacity Study has raised the profile of the issue at an early stage of the Local Plan process and this should help to bring the future investments and strategies of infrastructure providers more in line with what development could be expected as a result of the new Local Plan. In turn as the Local Plan progresses through more locational – specific stages, further work on infrastructure capacity should yield information more closely related to particular settlements.
46. The selected settlements were supported by respondents, as was the type of infrastructure tested at this stage. Therefore on this basis, all settlements should be carried forward for further testing in relation to their capacity as more information on planned development to be included in the new Local Plan becomes available. Critical evidence for the new Local Plan which has particularly strong links to infrastructure capacity are the Housing and Economic Development Needs Assessment (HEDNA), the Housing and Economic Land Availability Assessment (HELAA) and the Green Belt Assessment.
47. One theme from the responses is that the delivery of some new infrastructure is more difficult (but not impossible) if delivery is likely to come forward on a number of smaller and scattered sites, rather than from larger sites (e.g. Thames Water, BCC Education).
48. It is noted that the type of new accommodation / housing has an important impact on service providers – e.g. Residential Institutions such as nursing and care homes (Class C2 of the Use Classes Order) having a greater potential impact on health infrastructure facilities and smaller units in flatted schemes creating more challenges for household waste and recycling collections and bin storage.
49. The work so far has found that there are two generalised indicators which can help to inform potential trigger points for the need for new infrastructure. The first is the very broad indicator

of one GP per 1,500 people. The second is related to primary and secondary school provision. Bucks CC Education pupil yield estimates give a broad indication that approximately 700 homes would generate an additional form of entry of primary aged pupils while 1200 homes would generate an additional secondary school form of entry. If these indicators are used they can be used to give a very preliminary indication as to some of the potential impacts of new development upon a particular locality. This can be developed further as the study proceeds, particularly as more information on the amount of new development which particular settlements might accommodate becomes available.

## Potential location - specific implications

### Amersham

50. Car parking space at Amersham Hospital has been referred to and this could be explored further, e.g. what is the extent of the problem? Is the need for staff or patients? Is this a long term issue?
51. There is a potential need for an increase in additional vehicles, staff and parking space at the London Road Depot Amersham (Chiltern District Council part of the site) but this would depend on the level of planned development. Therefore the full potential implications are not known as the level of planned development which will need to be accommodated is not yet known and there may be a range of options to investigate as more information becomes available.

### River Chess catchment - Chesham

52. A potential flood alleviation land requirement has been referred to by the Environment Agency and this could relate to sites in the Chesham Surface Water Management Plan and other land in Chesham. The Chesham Culvert is a critically important part of the drainage infrastructure for that town.

### Misbourne Catchment - Amersham, Chalfont St Giles, Chalfont St Peter and Denham

53. The potential need for land along the River Misbourne in Amersham, Chalfont St Giles and Chalfont St Peter to accommodate future flood alleviation schemes has been raised by the Environment Agency but at this stage locations and full scheme options are not known. In addition there are plans for river channel enhancements on the River Misbourne as part of the Restoring Sustainable Abstractions Programme which will affect the Denham area and further work on the Infrastructure Capacity Study will need to take account of potential locational requirements as more information becomes available.

### Colne Catchment

54. The Colnbrook Flood Alleviation Scheme (FAS) is designed to protect Colnbrook village from flooding. Although this settlement is not within South Bucks, the issue is relevant to the Infrastructure Capacity Study because the River Colne flows within South Bucks. As part of the project, flood risk in the Lower Colne catchment will be reviewed with some possible impacts on

South Bucks as some land may be required for the scheme, but no further information is known at this time.

### **Rail and underground lines and stations**

55. In Chiltern District there are Metropolitan Line stations at Amersham, Chesham and Little Chalfont and Chiltern Railways services call at Amersham, Great Missenden and Seer Green.
56. In South Bucks the Chiltern line uses the stations at Beaconsfield, Gerrards Cross, Denham Golf Club and Denham. Also South Bucks is served by the Iver, Burnham and Taplow Stations (Paddington Railway Line).
57. The importance of providing sufficient vehicle and cycle parking at rail stations was referred to by Chiltern Railways and they also raised the issue that facility improvements may be needed at stations once there is more information about the level of growth.
58. Beaconsfield station is already undergoing a major redevelopment to include better station facilities and platform lengthening, whilst Denham Golf Club Station is having platform resurfacing and repairs to the waiting shelters. Beaconsfield and Gerrards Cross stations in particular were referred to by Chiltern Railways as being two of the busiest stations in the area with their car parks frequently at full capacity, so there are aspirations to increase the capacities of these two in the future.
59. Transport for London (TfL) provided two responses from the Planning and Consents teams. TfL Planning provided information on the capacity on lines linking to Metropolitan Lines in Chiltern District. For South Bucks TfL Planning predicts significant train crowding into London Paddington in the AM peak in 2031 and therefore has committed funding and interventions in place for this. These comments in relation to crowding on the Paddington line has led to a red status for the Burnham and Iver settlements in the headline table (fig 4). Taplow is not referred to in the same way because it is not one of the settlements listed in the study methodology, but implications will be tested as part of subsequent study stages.
60. The TfL Consents Team referred to potential opportunity sites at Chesham and Little Chalfont Stations which had already been submitted as part of the Call for Sites for the HELAA. Consideration of opportunities at these locations will need to acknowledge the potential increased demands upon them arising from new housing and other growth associated with the Local Plan.
61. In South Bucks District from 2019 Crossrail will serve Iver, Burnham and Taplow railway stations, which will increase the usage of the stations by customers. Crossrail plan to upgrade these stations as part of their wider improvement works. South Bucks DC are in discussion with Crossrail in relation to the need for enhanced facilities at Iver and Taplow Stations because there is currently no car park at Iver and as the station facilities are out of date and discussions also relate to the useage of the car park at Taplow.

62. The Iver Topic Paper which will be published alongside the new Local Plan provides additional information on the infrastructure pressures within the Iver area, especially those associated with HGV traffic and major transport projects.

**Chesham and Chalfont St Peter (Waste Water Infrastructure)**

63. Specific waste water infrastructure issues are referred to in Chesham and Chalfont St Peter. Further work is needed to explore the scope of these settlements to accommodate growth/level of infrastructure investment needed – see the work on the water cycle information referred to in section 7.

## 7. Conclusions and Recommendations

64. The findings of this Study described above will be incorporated into the preparation of new Local Plan so that its spatial strategy can be informed by the settlement infrastructure constraints and opportunities and so that any emerging policies and allocations can be informed by the specific infrastructure issues which have been raised.
65. There are several elements to this Study which will need to be the subject of further work. In brief, these are:
- The need for continued progress in investigating infrastructure constraints and opportunities either within the remit of an update to this Study or as an associated linked study area for a particular type of infrastructure. To date the need for linked studies relates to transport modelling and water infrastructure. In addition the CCG's suggestion that the issue of affordable care beds mechanisms be explored further highlights an important local infrastructure issue and needs to be followed up as evidence work progresses.
  - Engagement with infrastructure providers will need to continue as the Local Plan progresses, enabling the more detailed testing of the potential infrastructure impacts of emerging Local Plan policies and site allocations
  - An investigation of the potential for CIL to address infrastructure capacity issues, including commissioning work on viability which would support the new Local Plan and establish whether there was a case for CIL in the Districts.

### Continued work on the study

66. This report marks the current progress with the Infrastructure Capacity Study informing the regulation 18 / Issues and Options consultation. The work on the Study will continue, including contact with key infrastructure providers as part of the Local Plan issues and options process and beyond in order to take the work further, informing the Infrastructure Delivery Schedule and the emerging Local plan's development strategy and potentially its site allocations and policies.
67. The Study has raised the profile and importance of infrastructure in the context of Chiltern and South Bucks Districts. It is important to maintain this momentum with providers as it will raise awareness of the importance of engaging in the Local Plan process and it should help inform the plans and strategies of other providers.
68. This report will be shared with all organisations which engaged with the Councils on the Study Methodology, in order to provide them with the opportunity to comment on the initial findings tables. It is also part of the wider public consultation and comments are welcomed from other stakeholders.

69. As the Study will form part of the evidence base for the consultation on the new Local Plan, this will enable other infrastructure providers to comment on the findings. This would provide information about infrastructure which, although may not be as critical in determining whether new development could be accommodated, would be very useful for the Infrastructure Delivery Schedule. An example of this could be feedback from the emergency services organisations, bus service operators and providers of crematoria.
70. One area of infrastructure where it is especially important to provide further information in addition to that already secured will be the health sector. Continued efforts are being made to secure the views and involvement of these key organisations in further work on the Study and in the emerging Local Plan.

## **Explore options for the Community Infrastructure Levy and other Infrastructure Provision**

71. Delivery of new infrastructure associated with new development is of critical importance and this has been an issue raised by providers and is a significant concern of local residents. CIL is referred to by a number of stakeholders (and is supported by BCC Education). A key reason for this is that the changes to the scope of planning obligations limits potential for the creation of new infrastructure for Local Planning Authorities which do not collect CIL. Under regulation 123 of the CIL Regulations 2010<sup>3</sup> there are very strict limits on the pooling of planning obligations. Central government is also reviewing CIL<sup>4</sup> and the Councils will need to take account of the findings of this work when available.
72. This issue is also reflected in the Aquaprint report<sup>5</sup> which is concerned with surface water flood risk in Chesham and ways to address this through the planning process. It highlights the potential of CIL in helping to provide better flood management infrastructure and includes case studies where this has been implemented.
73. There is a wide scope for the types of infrastructure which CIL can be spent on. According to the NPPG this includes transport, flood defences, schools, hospitals, and other health and social care facilities<sup>6</sup>. This definition would also cover facilities such as play areas, parks and green spaces, cultural and sports facilities, academies and free schools, district heating schemes and police stations and other community safety facilities. However CIL may not be able to fund all development needs and is not the only source of potential funding. As the Local Plan proceeds further and as more information on the composition and distribution of planned development

---

<sup>3</sup> NPPG advice on planning obligations paragraphs 94 and 99

<sup>4</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/478123/151118\\_CIL\\_questionnaire\\_template\\_final.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478123/151118_CIL_questionnaire_template_final.pdf)

<sup>5</sup> <http://www.chiltern.gov.uk/CHttpHandler.ashx?id=7514&p=0>

<sup>6</sup> for further details, see [Section 216\(2\) of the Planning Act 2008](#), and [Regulation 59](#), as amended by the [2012](#) and [2013](#) Regulations.

becomes available the approach to infrastructure provision can be refined. One possibility which could be explored is that large allocated sites might be excluded from CIL but in order for them to be developed they would need to be required to deliver their own infrastructure through planning obligations.

74. A decision on CIL will also need to be informed by viability evidence – this will need to demonstrate that new development will be capable of bearing the CIL cost and that there is a gap in funding for infrastructure which CIL could help address.
75. As part of this other sources of infrastructure funding will also need to be investigated. In brief this could include sources from Central Government, the Bucks and Thames Valley Local Enterprise Partnership, section 106 agreements, the business sector, Local Authorities (South Bucks, Chiltern and Bucks County Council) and infrastructure providers own capital programmes.
76. Infrastructure providers will also need to be consulted about other potential sources of funding which they might be aware of.
77. The Councils will review the need for CIL. The findings of the Infrastructure Capacity Study will be an important source of information for this. However it is very important not to raise expectations about what CIL could deliver in terms of existing infrastructure deficiencies, its scope is set by what level of levy development across the District can reasonably bear and is linked to new development needs. This will be affected by the level of development being planned for. Development will need to be able to proceed whilst incurring the levy. These issues will need to be explored in much more detail to inform the Councils' decision on CIL.
78. In the interim period the Councils should adopt a positive approach wherever appropriate and possible in relation to opportunities to improve existing infrastructure and to secure infrastructure which may be needed in association with new development and this can be linked with further work on this Study.

## Viability evidence

79. Further information on the viability of delivering new infrastructure in connection with new development is needed. This should link with work on viability to support emerging Local Plan policies and site allocations.

## Water cycle information

80. The Infrastructure Capacity Study has identified the importance of waste and drinking water infrastructure capacity and the Environment Agency has underlined the need for water cycle information to support and provide evidence for testing the implications of potential growth.
81. In terms of **waste water infrastructure** the relevant catchment for Chiltern is the Maple Lodge Waste Water treatment works catchment which covers much of Hertfordshire. South Bucks waste water connects into multiple catchments and therefore is more complicated; it connects

to treatment works in Gerrards Cross, Iver North (both located wholly within South Bucks), Little Marlow (located in Wycombe), Slough (located in Slough) and Mogden (located in London Borough of Hounslow, which is not an adjacent authority to South Bucks).

### **Chiltern**

82. Chiltern District Council has joined the Hertfordshire Water Project in order to deliver this important part of the infrastructure evidence for the Local Plan. The Phase 1 Hertfordshire Water Project will assist in the planning of new water-related infrastructure associated with developments in emerging local plans from a wide area. The other partners in the project are the Environment Agency, Thames Water, Affinity Water, Anglian Water and nine Hertfordshire District / Borough Councils , Hertfordshire County Council and the Hertfordshire LEP.

83. Although this is a separate project its findings will be an important source of information for further work on the Infrastructure Capacity Study for the new Local Plan.

### **South Bucks**

84. South Bucks Council recognises the need for a Water Cycle Study for its district as a result of a consultation response received from the Environment Agency. As a result the Council have had meetings with the Environment Agency, Thames Water and Affinity Water, and are looking into options as to how best to meet this request.

## **Transport modelling**

85. Engagement with Buckinghamshire County Council as Highways Authority and with Highways England in relation to the Study methodology has paved the way for associated work in relation to the transport infrastructure capacity of the Districts, including testing the potential impacts on nearby Motorway junctions and the local highway network. This work is at an early stage and further information will be published once available.

## **Provision for older people**

86. To follow up on the concerns raised by the CCG further work will need to be carried out as to whether the Local Plan can help to facilitate the provision of affordable beds in new care and nursing homes which may come forward in the Districts.



## References

List of infrastructure providers' plans and policies referred to in the responses to the Methodology consultation and other references

- Affinity Water (2014) Water Resources Management Plan
- Buckinghamshire County Council Market Position Statement  
<http://www.buckscc.gov.uk/media/1896988/market-position-statement-2014-15.pdf>
- Buckinghamshire County Council Local Transport Plan 3 2011-2016  
<http://www.transportforbucks.net/Strategy/LTP3.aspx>  
Buckinghamshire County Council (2015) Chiltern and South Bucks Strategic Transport Issues (Internal Working Officer Copy)
- Hertfordshire County Council (HCC) Third Local Transport Plan (LTP3)
- Hertfordshire County Council (HCC) 'Transport Vision' 2014
- Hertfordshire County Council (HCC) Local level Urban Transport Plans (UTPs)
- HM Treasury (2015) Fixing the Foundations
- Mobile Operators Association Roll out plans –  
<http://www.chiltern.gov.uk/article/2293/Mobile-Phone-Masts>
- Rights of Way Improvement Plan 2008-2018 (to be replaced by March 2018)  
<http://www.buckscc.gov.uk/environment/rights-of-way/future-of-rights-of-way/rights-of-way-improvement-plan/>
- Green Infrastructure  
[http://www.buckscc.gov.uk/media/1521901/5326-Bucks-GI-Delivery-Plan-FINAL-ISSUE\\_2013\\_08\\_07\\_low\\_res.pdf](http://www.buckscc.gov.uk/media/1521901/5326-Bucks-GI-Delivery-Plan-FINAL-ISSUE_2013_08_07_low_res.pdf)
- Adults and Family Wellbeing  
<http://www.buckscc.gov.uk/media/1896988/market-position-statement-2014-15.pdf>
- Sustainable Travel Strategy, Sustainable Modes of Travel (to be amalgamated into a single travel policy – will require review in line with LTP4 in 2016)  
[http://www.buckscc.gov.uk/media/137679/Sustainable\\_Modes\\_of\\_Travel\\_Strategy.pdf](http://www.buckscc.gov.uk/media/137679/Sustainable_Modes_of_Travel_Strategy.pdf)
- Buckinghamshire Business First and their associated Connecting Counties programme [www.connectedcounties.org/](http://www.connectedcounties.org/)
- Buckinghamshire Energy Strategy (draft at June 2015)  
<http://www.buckscc.gov.uk/media/3059018/Buckinghamshire-Energy-Strategy-draft.pdf>
- Restoring Sustainable Abstractions (RSA) Programme  
<https://www.gov.uk/government/collections/water-abstraction-licensing-strategies-cams-process>
- Maidenhead, Windsor and Eton Flood Alleviation Scheme (MWEFAS)  
<https://www.gov.uk/government/publications/jubilee-river-flood-alleviation-scheme>)

- Colne Catchment Abstraction Licensing Strategy (published March 2013, reviewed annually)  
<https://www.gov.uk/government/publications/colne-catchment-abstraction-licensing-strategy>
- Thames Catchment Abstraction Management Strategy (updated June 2014; reviewed annually)  
<https://www.gov.uk/government/publications/thames-catchment-abstraction-licensing-strategy>
- Bucks County Council's Minerals and Waste Core Strategy 2012:  
<http://www.buckscc.gov.uk/environment/planning/minerals-and-waste-planning-policy/minerals-and-waste-core-strategy-2012/>
- Programme of flood and coastal erosion risk management schemes (2015-2021)  
<https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes>
- Jubilee River 25 Year Landscape Management Plan 2008-2033: This is not available online. Please contact the Environment Agency for a copy.
- Chiltern & South Bucks' Strategic Flood Risk Assessments (updated in 2013 and published in 2008 respectively).
- Chesham's Surface Water Management Plan (published in 2011).
- Bucks County Council's Local Flood Risk Management Strategy (adopted in 2013):  
<http://www.buckscc.gov.uk/environment/flooding/strategic-flood-management/flood-management-strategy/>
- Thames Catchment Flood Management Plan (CFMP) (published in 2009):  
<https://www.gov.uk/government/publications/thames-catchment-flood-management-plan>
- Thames Flood Risk Management Plan (FRMP) (scoping report & draft consultation published in 2014; final report to be published in December 2015):  
<https://www.gov.uk/government/publications/thames-river-basin-district-flood-risk-management-plan-frmp-scoping-report>
- Thames River Basin Management Plan (Water Framework Directive) (published in 2009, updated plan to be published in December 2015):  
<https://www.gov.uk/government/publications/thames-river-basin-management-plan>  
<http://environment.data.gov.uk/catchment-planning/>

## Glossary

**BCC** – Buckinghamshire County Council

**CIL** – Community Infrastructure Levy

**EA** – Environment Agency

**FAS** – Flood Alleviation Scheme

**HEDNA** – Housing and Economic Development Needs Assessment

**HELAA** – Housing and Economic Land Availability Assessment

**LEP** – Local Enterprise Partnership

**LTP** – Local Transport Plan

**MOA** – Mobile operators association

**SSE** – Scottish and Southern Electricity

**TfL** – Transport for London

**Appendix 1 Study methodology Questionnaire**

**Appendix 2 List of organisations consulted about the study methodology**

**Appendix 3 Summary of comments on the study methodology**

**Appendix 4 Settlement Findings Tables – Chiltern District Settlements**

**Appendix 5 Settlement Findings Tables – South Bucks District Settlements**