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Uttlesford Local Plan Infrastructure Delivery Plan (IDP)

Troy Planning + Design
For Uttlesford District Council

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Uttlesford Local Plan Infrastructure Delivery Plan

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1. Introduction

1.1 Infrastructure covered in this report

1.1.1 This Infrastructure Delivery Plan (IDP) has been undertaken by Troy Planning + Design to inform Uttlesford District Council's ('the Council') emerging Local Plan.

1.1.2 The term 'infrastructure' covers a wide range of services and facilities provided by public and private organisations. The definition of infrastructure is outlined in section 216(2) of the Planning Act 2008 (as amended). The Uttlesford IDP covers a mix of physical, social and green infrastructure, including:

Physical infrastructure:

- Transport
- Utilities
- Water
- Waste

Social infrastructure:

- Schools and other educational facilities
- Health and social wellbeing
- Emergency services
- Social and community (including libraries, allotments and community halls)

Green infrastructure:

- 'Designed landscapes' (including Country Parks)
- Natural / semi-natural green space

1.1.3 The main body of this report is ordered such that it follows the headings outlined above.

1.2 Purpose of the report

1.2.1 This IDP seeks to address what infrastructure is required as a result of new growth in the district, where, how and when.

1.2.2 Discussions, meetings and workshops have taken place with a variety of infrastructure providers both within the District Council and external organisations to develop an understanding of what infrastructure is needed. This process has enabled these infrastructure providers to think more strategically in terms of future provision and the challenges brought about by significant growth in the long term. In so far as the information has been made available, this IDP brings all these agencies' plans together in one document. This should encourage inter-relationships between parties and provides an opportunity to share information and align / coordinate infrastructure investment plans and programmes as well as potentially co-locate infrastructure. Organisations contacted as part of this IDP include:

- Abellio (Train Operating Company)
- Affinity Water
- Anglian Water

- Arriva Buses
 - BT Openreach
 - East of England Ambulance Service
 - Environment Agency (EA)
 - Essex and Kent Police
 - Essex County Council (ECC) (covering all strategic functions, e.g.: schools, transport, waste etc)
 - Essex County Fire & Rescue Service
 - Essex Superfast Broadband
 - Essex Wildlife Trust
 - Fibre Wifi
 - Greater Cambridge Greater Peterborough Local Economic Partnership (GCGP)
 - Hertfordshire and West Essex Clinical Commissioning Group (CCG) / National Health Service (NHS)
 - Highways England
 - MAG Airports: Stansted Airport
 - National Grid
 - Natural England
 - Network Rail
 - Sport England
 - Sustrans
 - Thames Water
 - UK Power Networks
- 1.2.3 This document has been written during a time of significant change, with the Government reforming many of the public services that are responsible for providing and planning infrastructure. This is likely to have an impact on provision, delivery and funding, and how the relevant organisations are able to respond in relation to future growth.
- 1.2.4 In addition, it is often difficult to be certain about infrastructure requirements so far into the future, as the detail of many development schemes is not currently known. Therefore, this IDP is intended to be a document which is regularly updated given the uncertainty and fluid nature of planning for infrastructure.

1.3 **Status and purpose of IDP**

1.3.1 The IDP is a supporting document for the emerging Local Plan. The IDP covers the plan period up until 2033 although its content will be monitored and periodically reviewed. The document will also form an important part of the evidence base for any CIL Charging Schedule that the Council may publish.

1.3.2 The document includes details of the infrastructure identified by the Council and other service providers as being needed to support the delivery of the emerging Local Plan. It explains the approach the Council has taken to identifying this infrastructure, how it will be delivered, and an assessment of the potential risks associated with doing so. It is important to note that this IDP has considered a range of growth options across the district and thus presents a fairly strategic picture of requirements. As growth options are refined, so the IDP should be updated with more detail in time, including further discussions with infrastructure providers.

1.4 **Approach**

1.4.1 There are certain important principles regarding the approach and issues that the IDP has to recognise.

- The IDP does not seek to make up for historic deficits in infrastructure. However, there are instances where supporting growth might most effectively be achieved through the upgrading of existing facilities. This could include, for example, extending existing schools or enhancing current public transport services.
- Not all housing and employment growth planned for individual sites will attract specific additional infrastructure requirements that can be addressed through the development of that site alone. In most cases, the infrastructure needs that have been identified reflect the cumulative impact of growth in a wider area, e.g. based upon growth in and around existing settlements or proposed new garden communities.
- The assessment of infrastructure needs has been based upon the trajectory for development in the existing settlements and at the proposed new garden communities (see text and associated tables in Section 2.2).
- The IDP, for most infrastructure items, presents the 'worst case scenario' in terms of needs. In the case of social, community, leisure and green infrastructure needs, this is because the methodology for establishing the scale of need is based on calculations per head of the population. In reality, much of the infrastructure that is provided in most locations will be provided either in the form of improvements to existing facilities or as co-located facilities. In particular, co-location is likely to become a growing trend which recognises the limited amount of funding available and, in more urban locations, a lack of land to provide all the requirements individually.
- Co-location is likely to take many forms. Schools are increasingly looking to raise revenue by hiring out sports pitches and other facilities outside of school hours. Equally, the shift in primary healthcare provision to larger health hubs means larger buildings that could share facilities with other health providers – opticians, dentists, physiotherapists, etc – but also

equally with a range of other uses, both commercial and community, e.g. retail, community centres, libraries, etc. Indeed, the limited resources available for provision of, for example, library and community services has spawned many excellent examples of alternative types of provision with different management structures to those traditionally used.

- Whilst it is important to recognise such changing ways of providing services, it is extremely difficult for an IDP to be definitive about what these could be. There are too many options open as to how this is provided and this could therefore have a significant impact on needs and costs. However, such provision, particularly on larger strategic sites such as the proposed 'garden communities' where new health hubs and schools are to be provided, should be recognised as the way such infrastructure needs will be provided over the plan period.

1.5 **Categorising infrastructure**

1.5.1 The infrastructure detailed within the IDP has been categorised as either:

- **Critical:** Delivery of the identified infrastructure is critical and without which development cannot commence (e.g.: some transport and utility infrastructure).
- **Necessary:** The identified infrastructure is necessary to support new development, but the precise timing and phasing is less critical and development may be able to commence ahead of its provision (e.g.: schools and health care).
- **Important:** Delivery of the identified infrastructure is important in order to help build sustainable communities, but timing and phasing is not critical over the plan period (e.g.: libraries, green infrastructure and youth provision).

2. Relevant planning policy and context for growth

2.1 National Policy

National Planning Policy Framework

2.1.1 The context for this Infrastructure Delivery Plan (IDP) is provided by the National Planning Policy Framework (NPPF). Paragraph 156 states:

"Local planning authorities should set out the strategic priorities for the area in the Local Plan. This should include strategic policies to deliver:

- *the provision of infrastructure for transport, telecommunications, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat);*
- *the provision of health, security, community and cultural infrastructure and other local facilities."*

2.1.2 Paragraph 162 goes on to state that:

"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 within their areas."*

2.1.3 It is important to note that the IDP addresses 'strategic' infrastructure priorities as distinct from very localised infrastructure needs arising from individual planning applications. As such, the approach of the IDP is to assess the needs arising from larger identified sites which individually, or in combination, will contribute towards addressing the strategic objectives of the emerging Local Plan. It is acknowledged that there will also be growth arising from small, non-strategic sites which could be significant in certain locations. Such growth could therefore represent a burden on existing infrastructure networks. However, even in such locations it is unlikely that such growth will result in the need for additional strategic infrastructure, e.g. schools, medical facilities, utilities infrastructure. As such, it has not been addressed directly in the IDP although infrastructure providers have, in engaging with the IDP process, identified general burdens on existing infrastructure from growth which have been reflected in the study.

2.2 Local plan context and strategy for growth

2.2.1 Uttlesford District Council is currently preparing a new Local Plan for the period 2011-2033. The scale of growth to be accommodated in the district is outlined in the following sections. These figures are working assumptions and subject to change as work on the Local Plan progresses.

Housing:

2.2.2 The Objectively Assessed Need (OAN) for Uttlesford for the Local Plan period is 640 dwellings per year, equating to 14,100 dwellings between 2011 and 2033. Of these, approximately 2,500 have already been delivered. Of the remainder, it is envisaged that approximately 7,500 new homes will come forward through existing commitments and likely allocations in and around the existing settlements. These will be delivered across the main towns within the district, though an element of this will also be accommodated in the smaller villages in the district (around 520 homes, most likely in the 'Type A' villages¹). In addition, it is anticipated that around 850 of the 7,500 new homes will come forward as windfall sites.

2.2.3 The broad quantum of housing growth considered in this IDP, aggregated by main town and settlement, is presented in Table 1 below. This table also presents an alternative scenario, reflecting a reduced growth figure in Saffron Walden and potential redistribution of this housing to other locations around the District.

2.2.4 The spatial distribution of this level of growth and development is illustrated in Figure 1. This aggregates up housing numbers on committed sites and possible allocations for the main towns within the district. It also gives an indication of the likely population that might be generated by this scale of development, based on a household size of 2.45 people reflecting the projected mid-point household size over the plan period².

2.2.5 The balance of the Councils housing requirement (circa 4,300 new homes) will be delivered through a series of new garden communities. At the time of writing seven garden community locations were being considered. All seven are thus reviewed in this IDP. Given lead-in times and annualised delivery rates it is likely that two or three of the garden communities will need to come forward within the plan period to contribute towards meeting the housing targets.

¹ Type 'A' villages are listed in the emerging Local Plan as including: Ashdon, Birchanger, Chrishall, Clavering, Debden, Farnham, Felsted, Flich Green, Great Easton, Great Sampford, Hatfield Broad Oak, Henham, Leaden Roding, Little Hallingbury, Manuden, Quendon and Rickling, Radwinter, Stebbing, Wimbish,

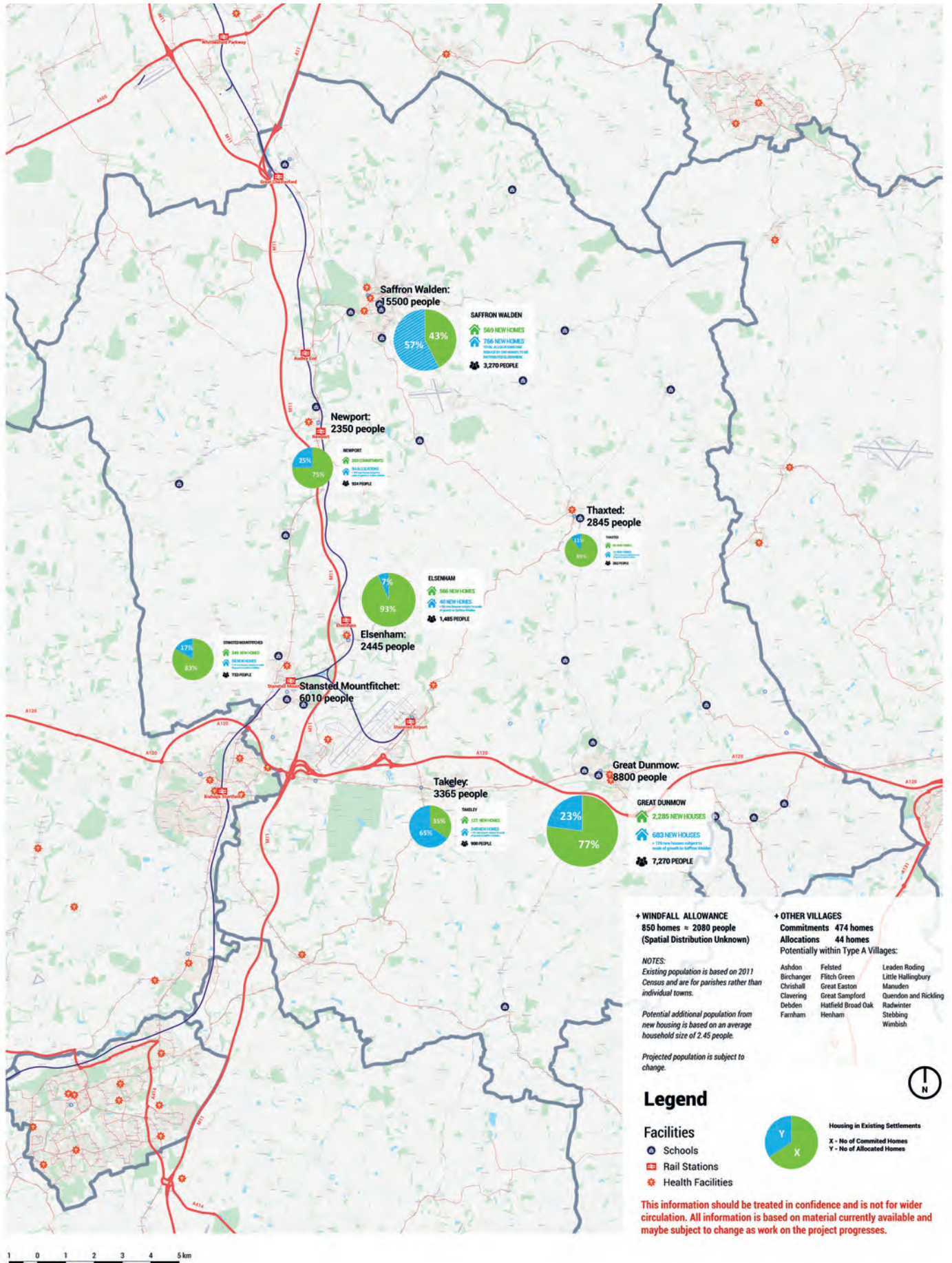
² Based on DCLG Live tables on household projections

Table 1: Scale and distribution of new housing to be delivered in existing towns and settlements over the plan period

Settlement	Commitments	Allocations	Total housing units in Plan period*	Alternative distribution if Saffron Walden figure adjusted	Alternative total housing units in Plan period*
Saffron Walden	569	766	1,335	256	825
Newport	283	94	377	194	477
Elsenham	566	40	606	90	656
Stansted Mountfitchet	249	50	299	120	369
Thaxted	95	12	107	32	127
Takeley	127	240	367	290	417
Great Dunmow	2,285	683	2,968	803	3,088
Great Chesterford	-	-	-	100	100
Other smaller villages	474	44	518	No change	
Windfall allowance	-	850	850	No change	
Total	4,648	2,779	7,427	No change	No change

* 'Total' units for the purposes of this table excludes those units already delivered in the Plan Period (between 2011 – 2016)

Figure 1: Scale and spatial distribution of proposed growth in the existing towns and settlements in the plan period



2.2.6 Housing growth associated with the 'garden settlement' options is illustrated in Figure 2. This shows the overall proposed scale of growth in each option and the likely number of new homes that will come forward within the plan period, based on development commencing around 2020/21 and build out rates in the region of 150-250 units per year. This is reflective of information provided by site promoters through SHLAA submissions and ongoing discussions with the Council to help inform the Local Plan. Due to the long-term nature of the delivery of the garden communities, the housing growth of these options beyond the plan period, i.e. post-2033, has been reflected where this has been possible. The quantum of residential development in the new garden communities being considered in this IDP is set out in Table 2.

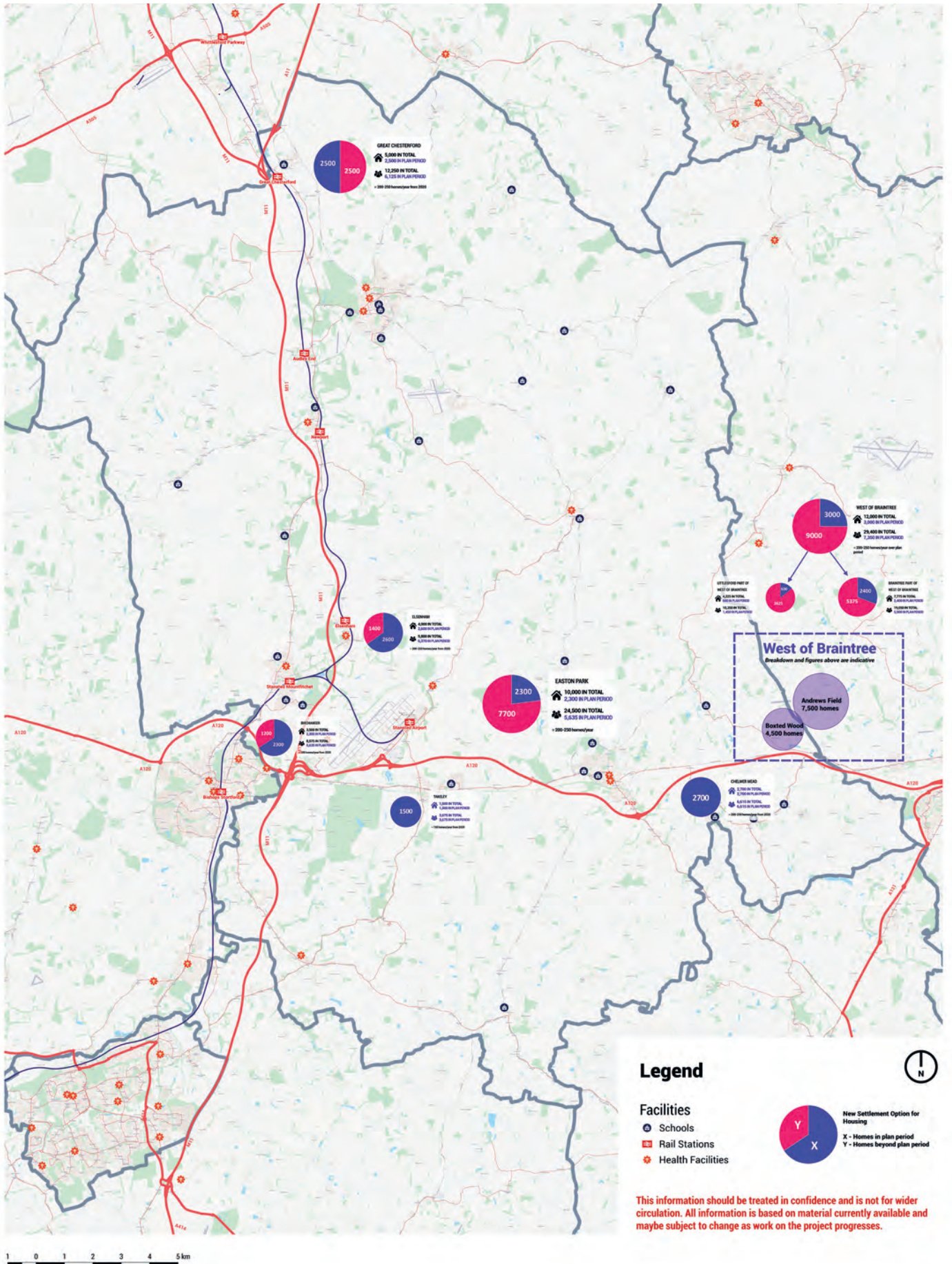
2.2.7 Further information on the nature of the garden communities and what is being proposed in each follows below (see section 2.4).

Table 2: Potential scale of housing growth in the proposed garden communities

Garden Community	Units in Plan period (to 2033)	Units after 2033	Total units
Great Chesterford	2,500	2,500	5,000
Elsenham	2,600	1,400	4,000
Birchanger	2,300	3,500	5,800
Easton Park	2,300	7,700	10,000
Takeley	1,500	-	1,500
Chelmer Mead	2,700	-	2,700
West of Braintree	3,000	9,000	12,000

Note: West of Braintree comprises two sites: (1) Boxted Wood, and (2) Andrewsfield

Figure 2: Location and scale of growth in proposed garden settlements



This information should be treated in confidence and is not for wider circulation. All information is based on material currently available and maybe subject to change as work on the project progresses.

Employment:

- 2.2.8 The Council's Employment Land review (ELR) was first published in 2011 and then updated in July 2016 (covering the period 2016 – 2031). This suggests that:
- There will be a net additional requirement for 16,600 sqm of B1³ floorspace to 2031.
 - There will be a net additional requirement for approximately eighteen hectares of land for B1c, B2 and B8 uses in the period 2016 – 2031.
- 2.2.9 The ELR suggests that proximity to Stansted Airport, the M11 and A120 are drivers of demand for the location of new employment. It is noted that existing settlements (and the proposed new garden communities) might be appropriate for provision of office space, and that B1c/B2/B8 provision could involve improving existing sites and facilities, particularly where they are vacant or underutilised. Furthermore, it suggests that airport related uses should continue to be supported.
- 2.2.10 For the purposes of this IDP the potential for accommodating new employment land across the district is split between (a) expansion and enhancement of existing employment areas and new land close to these, and (b) land within the proposed garden communities. The potential amount of land available in both these areas is illustrated in Figure 3 and Figure 4 (and summarised in Table 3 and Table 4). This shows that more land for employment uses exists than is needed. The Local Plan is considering this further. Within the IDP providers have been asked to comment on the implications for infrastructure of broad locations for employment.

Stansted Airport:

- 2.2.11 In addition to housing and employment growth in the district consideration must also be given to the growth of Stansted Airport. In 2014 the airport was handling 20 million passengers per annum (MPPA) and 230,000 tonnes of freight. At the time of writing it has planning permission to expand to 35 MPPA in 2025 and to process 243,500 tonnes of freight per annum. A Section 106 package for this level of growth has been agreed. It is understood that further growth ambitions exist and that a planning application will be made in the near future that would see Stansted Airport expand such that it can handle 45 MPPA by 2030 and 400,000 tonnes of freight. No further growth is anticipated beyond this period.

³ Within the ELR, B1 uses are taken to include offices (B1a) and R&D (B1b). Industrial uses comprise light industrial (B1c), manufacturing (B2) and warehousing (B8).

Table 3: Potential area of land available for employment uses through expansion of existing employment areas and growth of new employment areas close to these

Location	Area (hectares) for mix of B1/B2/B8 uses
Chesterford Research Park	6
Saffron Walden	16.1
Birchanger	12
Stansted Airport	85.21
Stansted Distribution Centre	72.32
Great Dunmow	4

Note: The quantum of land does not indicate that all of this will come forward and be used for employment purposes, rather it is to show broad locations where future employment uses might be accommodated

Table 4: Potential scale of employment provision within the proposed garden communities

Garden Community	Area (hectares) for mix of B1/B2/B8 uses	Floorspace (sqm) for mix of B1/B2/B8 uses
Great Chesterford *	Tbc	Tbc
Elsenham **	-	78,000
Takeley	0.5	3,000
Easton Park	19	75,000
Chelmer Mead	7.8	19,500
West of Braintree **	-	70-75,000

Notes:

* Proposed scale of employment provision at Great Chesterford is to be confirmed and subject to the scale of employment provision in neighbouring authorities given proximity to the Wellcome Genome Campus and Granta Park (both outside Uttlesford district) etc

** Information on hectares of land and the breakdown of uses in this has not been provided. Floorspace figures are instead shown

Figure 3: Scale and location of land potentially available for employment uses through expansion of existing employment areas and growth of new employment areas close to these

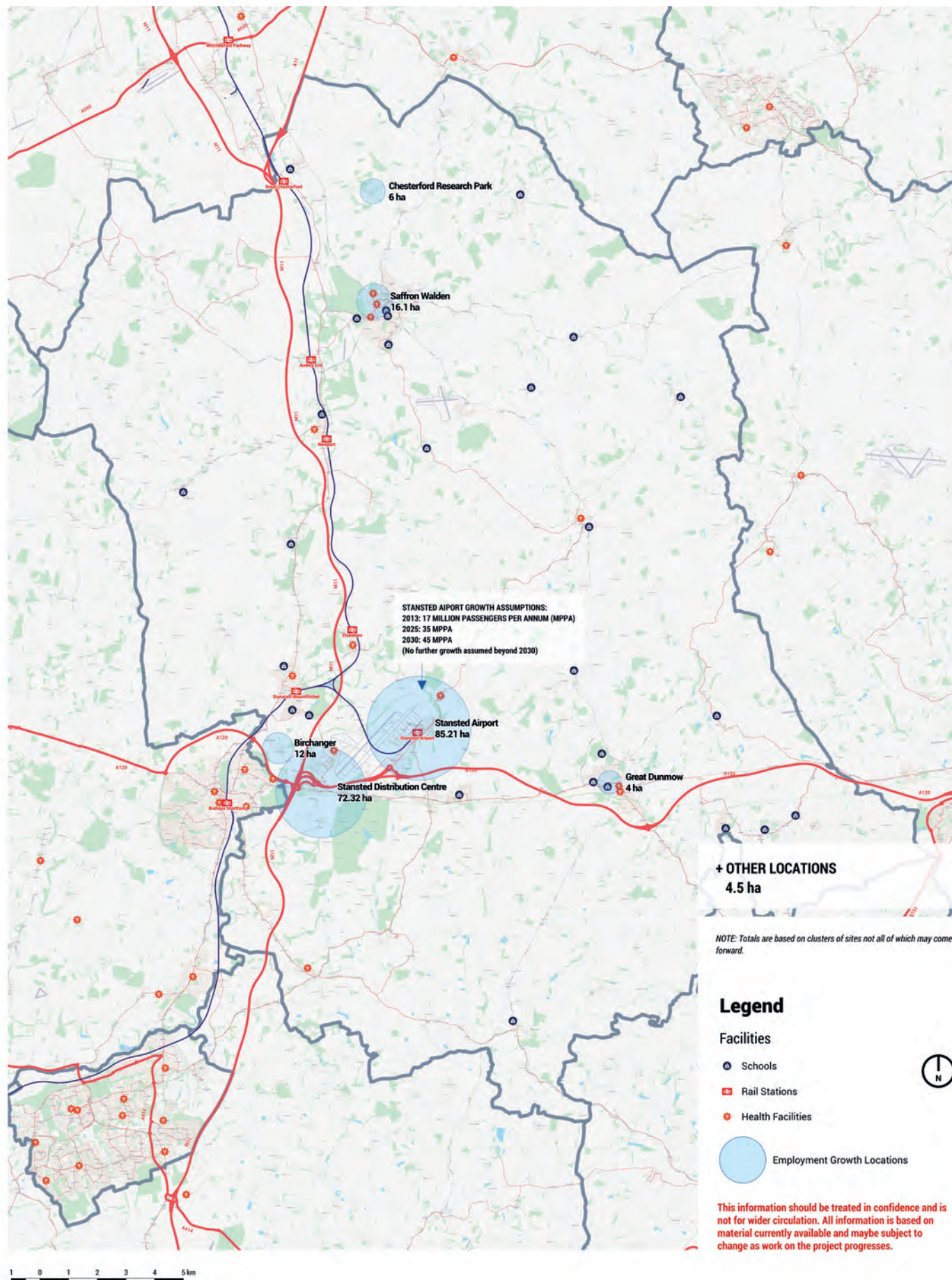
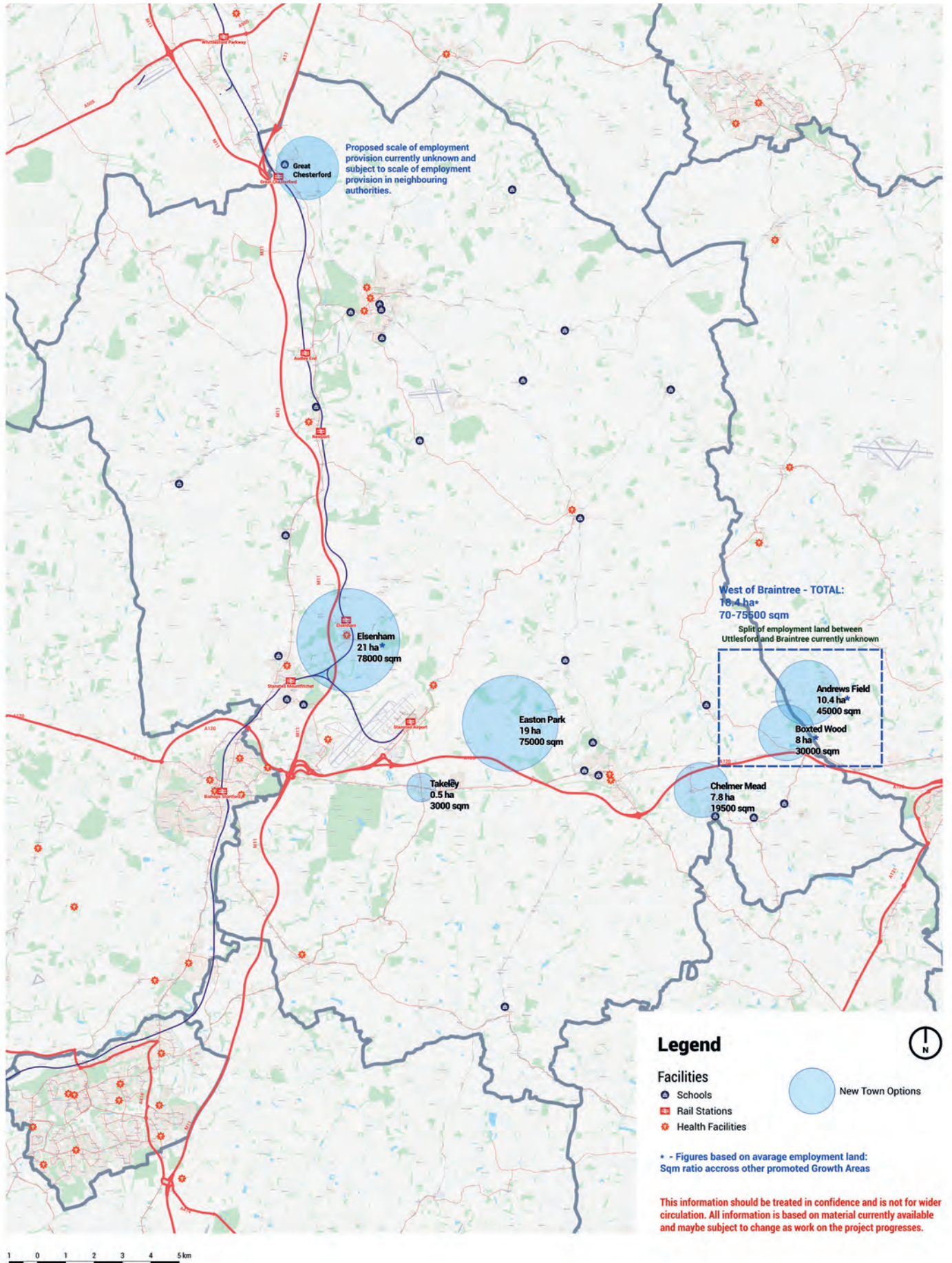


Figure 4: Potential scale of employment provision within the proposed garden settlements



2.3 **Wider growth context**

- 2.3.1 When considering the requirement for infrastructure it is important to acknowledge the relationship with growth in the wider area. There is pressure on land across the East of England for new housing and economic development, with major new housing development proposed along the A120 corridor to the east in Braintree and Colchester, and to the west in Bishops Stortford. Along the M11, Cambridge, to the north, is experiencing major growth.
- 2.3.2 To the south, Harlow continues to expand and, beyond this, there are major projects coming forward in the London part of the Lee Valley – at Meridian Water in Enfield for example. Elsewhere in Essex, places such as Chelmsford are also planning for new growth.
- 2.3.3 Equally, new opportunities for employment growth are coming forward. A series of employment growth corridors have been identified, running through Essex and across County boundaries, including: (a) the M11 corridor from London to Cambridge and Peterborough; (b) the A12 and Greater Easter Mainline, from London, through Chelmsford to Colchester; (c) the A120 Haven Gateway Corridor, from Bishops Stortford, through Stansted, Braintree and Colchester towards Harwich; and (d) the A13 and A127 Corridors, encompassing Thurrock, Basildon and Southend. Greater London and the City remain key economic drivers and location of jobs.
- 2.3.4 The strongest employment growth in the County is anticipated to take place in the major towns: at Chelmsford, Basildon, Colchester and Thurrock. Although slower growth is anticipated in Uttlesford, Stansted Airport is an important hub, with transportation and storage identified as the 'economic specialism' in the District. Access to employment, both within the district and out to neighbouring towns and cities, as an important consideration.
- 2.3.5 This scale and distribution of growth is illustrated in Figure 5 and Figure 6. The combined level of growth in this wider area and the implication for infrastructure delivery is a consideration for service providers and was discussed where relevant during production of the IDP.

Figure 5: Major housing growth locations in surrounding areas

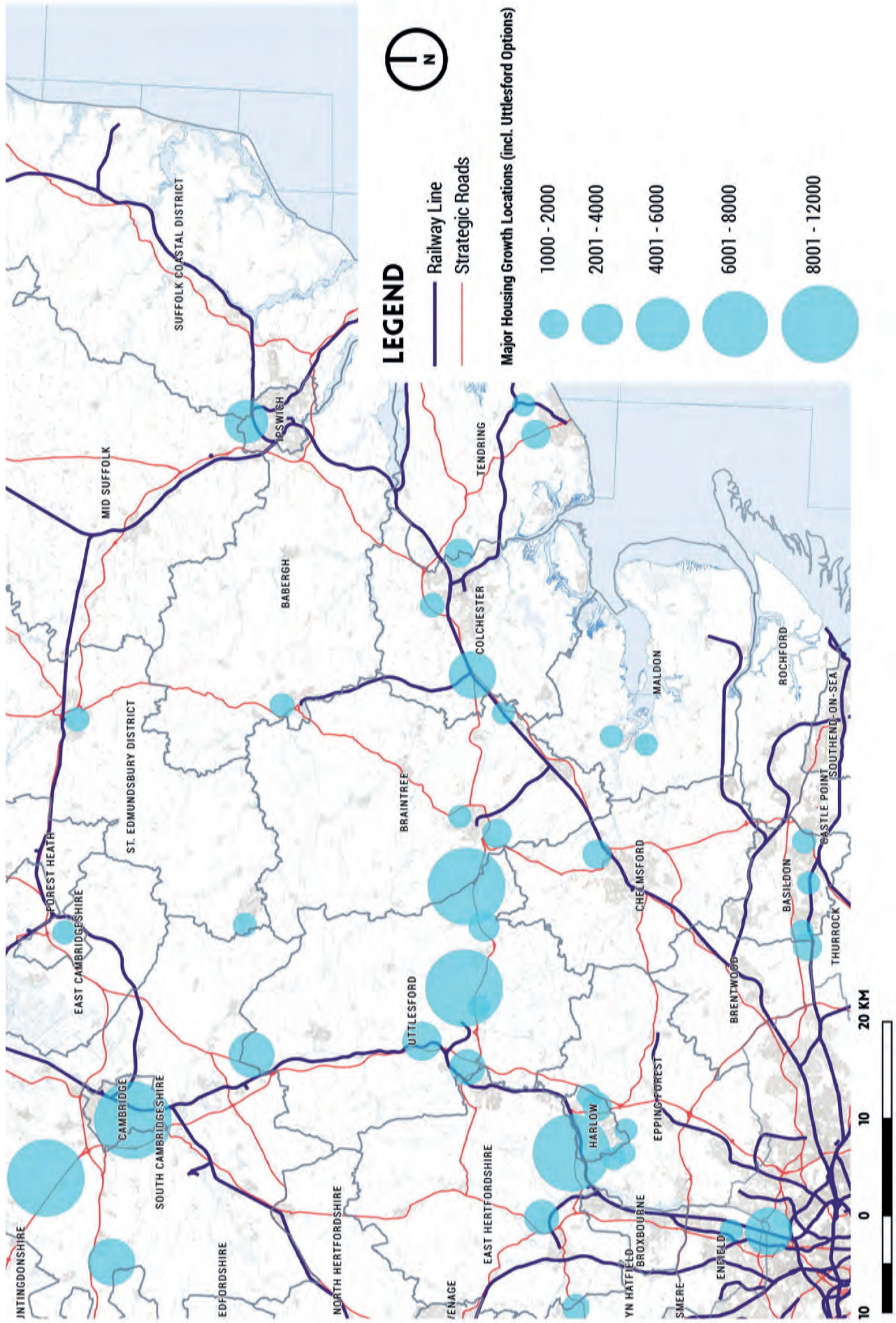
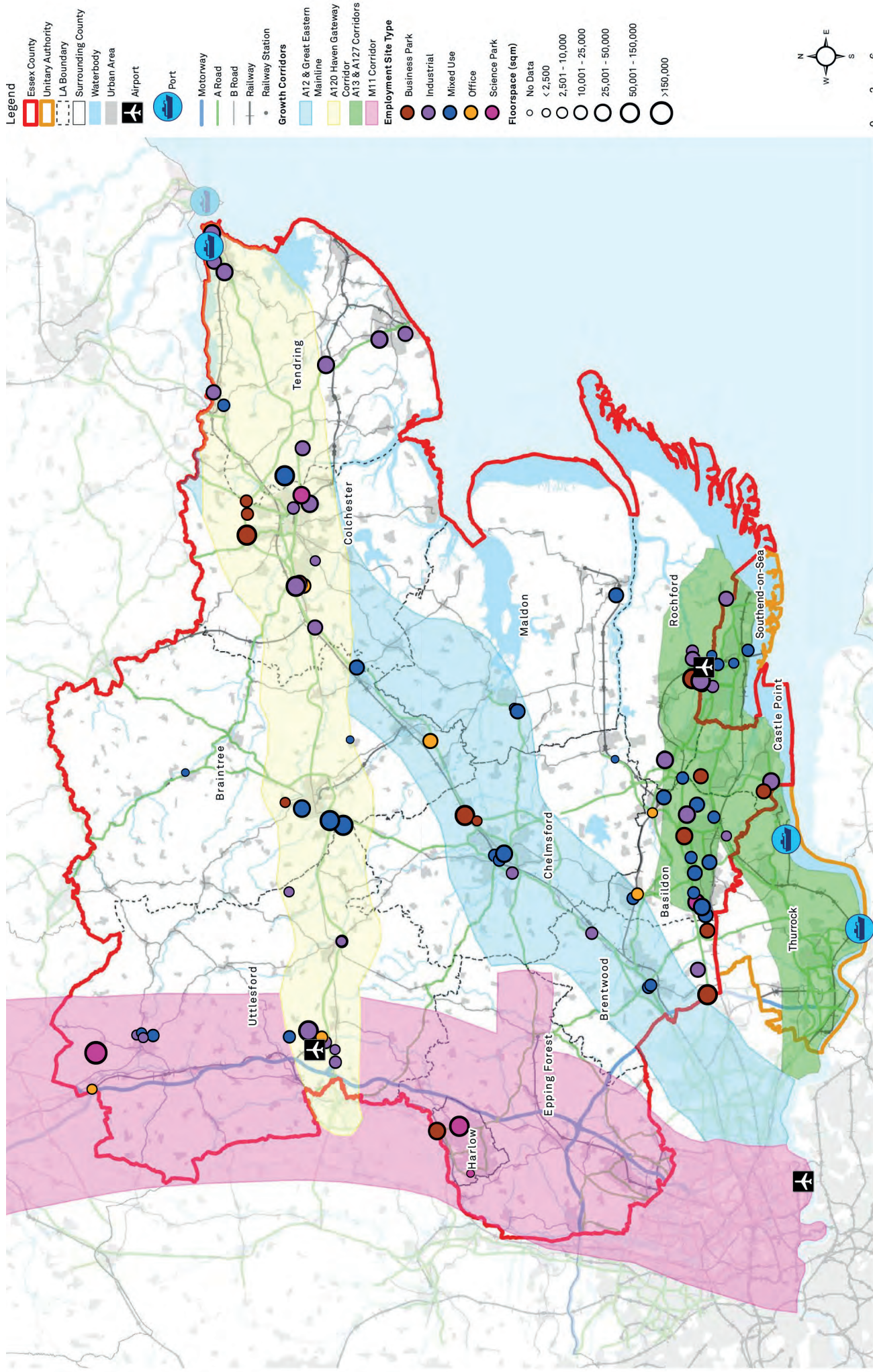


Figure 6: Major employment areas and corridors in surrounding areas



2.4 Garden communities

Principles:

2.4.1 During the Council's 'Call for Sites' made as part of the Housing and Economic Land Availability Assessment (2015) reference was made to submissions for development exceeding 500 units being able to demonstrate how they meet 'Garden Development' principles. These are⁴:

- Land value capture for the benefit of the community.
- Strong vision, leadership and community engagement.
- Long-term stewardship.
- Mixed-tenure homes and housing types that are genuinely affordable for everyone.
- A wide range of local jobs within easy commuting distance from homes.
- Beautifully and imaginatively designed homes with gardens, combining the best of town and country to create healthy, vibrant communities.
- Development that enhances the natural environment, providing net biodiversity gains and using zero-carbon and energy-positive technology to ensure climate resilience.
- Strong cultural, recreational and shopping facilities in walkable, vibrant, sociable neighbourhoods.
- Integrated and accessible transport systems, with walking, cycling and public transport designed to be the most attractive forms of local transport.

2.4.2 The DCLG Garden Settlements prospectus⁵ notes that garden villages are those in the region of 1,500 – 10,000 new homes and that they should be new, discrete settlements, rather than extensions to existing towns or villages. Garden towns and cities are those that provide at least 10,000 new homes. These can be on a new site away from existing settlements, or 'take the form of transformational development, both in nature or in scale to an existing settlement'⁶. In both instances the provision and delivery of infrastructure is crucial to meeting the principles of new 'Garden Developments'.

Garden Communities in Uttlesford:

2.4.3 Seven new garden communities are being promoted in Uttlesford. These are introduced below, with the infrastructure package included as part of the submissions summarised in Table 5.

2.4.4 **Birchanger:** Located to the north east of Bishops Stortford, and thus on the edge of the Uttlesford district boundary, this is a site being promoted for 5,800 new homes. Based on a delivery rate of approximately 200 homes per year from 2020, this could potentially see 2,300 new homes delivered in the plan period.

2.4.5 **Chelmer Mead:** Located close to Little Dunmow, this is a site being promoted for 2,700 new homes, all of which are assumed could come forward in the plan period based on development commencing in 2020 and delivering around 200 – 250 units

⁴ Source: www.tcpa.org.uk/garden-city-principles (accessed March 2017)

⁵ DCLG, March 2016, Locally-Led Garden Villages, Towns and Cities

⁶ Para 53, *ibid.*

- per year. The site submission also suggests that it could deliver 19,500 sqm of employment floorspace and a small local centre.
- 2.4.6 **Easton Park:** Located to the north of the A120 between Stansted Airport and Great Dunmow, this is a site being promoted for 10,000 new homes. Based on commencement in 2020/21 and delivery rates averaging 200 – 250 units per year, this could potentially deliver 2,300 new homes in the plan period. The site submission also suggests that it could deliver 75,000 sqm of employment floorspace across nineteen hectares of land. It would also include one main centre and four smaller local centres.
- 2.4.7 **Elsenham:** Located to the north of Stansted Airport and around the existing settlement of Elsenham, this is a site being promoted for 4,000 new homes. Based on commencement in 2020 and delivery rates averaging 200 – 250 units per year, this could potentially deliver 2,600 new homes in the plan period. The site submission also suggests that it would include 21 hectares of land for employment purposes as well as a mix of retail and community uses in a main centre.
- 2.4.8 **Great Chesterford:** Located in the very north of the district, this is a site being promoted for 5,000 new homes. Based on commencement in 2020 and delivery rates averaging 200 – 250 units per year, this could potentially deliver 2,500 new homes in the plan period.
- 2.4.9 **Takeley:** Located around the northern edge of the existing settlement of Takeley to the south of the A120, this is a site being promoted for 1,500 new homes. Based on commencement in 2020 and delivery rates averaging around 150 units per year it is assumed that the entire site could be built out in the plan period. The site submission also suggests that it could deliver 3,000 sqm employment floorspace on half a hectare of land, as well as a new neighbourhood centre.
- 2.4.10 **West of Braintree:** Located on the eastern edge of the district boundary this comprises two large sites being promoted separately, though they effectively comprise one new settlement. The Sites are Boxted Wood, which is primarily in Uttlesford though parts straddle the boundary with Braintree, and Andrewsfield, which is primarily in Braintree though parts of which straddle the boundary with Uttlesford. Together, the sites are being promoted for a total of 12,000 new homes, of which 3,000 could potentially be delivered in the plan period based on delivery rates of 200- 250 units per annum and development commencing in 2020. In addition, the submissions suggest that, in combination, the sites could deliver around 70-75,000 sqm employment land. Furthermore, the submission for Andrewsfield suggests that it could accommodate two new district centres and four smaller local centres.

Table 5: Infrastructure package included within garden community site submissions

Site	Physical infrastructure	Social infrastructure	Green infrastructure
Birchanger	<ul style="list-style-type: none"> • Bus priority/ service improvements • Junction 8 M11 capacity improvements 	<ul style="list-style-type: none"> • Tbc 	<ul style="list-style-type: none"> • Tbc
Chelmer Mead	<ul style="list-style-type: none"> • 6 x new points of access • Junction 1 B1008 Improvements • Junction 4 – B1256 Improvements • Bus Service provision/ improvements • Pedestrian and cycle paths • Sustainable urban Drainage System • Utility connections for electricity, gas and water, using existing network. 	<ul style="list-style-type: none"> • 1 x primary school (2.2ha) • 500 – 1,250 sqm health centre 	<ul style="list-style-type: none"> • 16.1 ha of Public open space
Easton Park	<ul style="list-style-type: none"> • Fastrack / Fastbus scheme, to be converted into an extension of the railway to Stansted Airport in the longer term 	<ul style="list-style-type: none"> • 1 x secondary school • 4 x primary schools • Library • Health centre • Community 'hub centre' 	<ul style="list-style-type: none"> • 165 hectares open space • Country park with woodlands and wetlands • Sports pitches with changing facilities

Site	Physical infrastructure	Social infrastructure	Green infrastructure
Elsenham	<ul style="list-style-type: none"> • Rail interchange • Waste water treatment • Sustainable urban Drainage System • Vehicular rail crossing to replace level crossing • Southern link road • Pedestrian and cycle rail crossing 	<ul style="list-style-type: none"> • 1 x secondary school • 2 x primary schools • 640 sqm health centre • 2,000 sqm community space 	<ul style="list-style-type: none"> • Public open space • Allotments
Great Chesterford	<ul style="list-style-type: none"> • Utility upgrades and connections to provide gas, electricity, telephone, broadband, water and waste water treatment • Sustainable urban Drainage System 	<ul style="list-style-type: none"> • 1x pre-school • Primary schools – 3 form entry school • Secondary school – 1 x 8 form entry school and 2 form sixth-form • 950sqm health care • 850sqm dentist • Library 400sqm • Community halls/ venues 1000sqm 	<ul style="list-style-type: none"> • Public open space
Takeley	<ul style="list-style-type: none"> • Cycle links • Utility capacity upgrades • Junction and capacity improvements to existing highway network 	<ul style="list-style-type: none"> • 1 x primary school 1.5ha site 	<ul style="list-style-type: none"> • 67.5 ha open space, including 35 ha Country Park • 5x Pocket parks • Allotments/ community orchards

Site	Physical infrastructure	Social infrastructure	Green infrastructure
West of Braintree: Boxted Wood	<ul style="list-style-type: none"> • Upgrades to utilities • Bus service/ improvements • Improved pedestrian and cycling links • Sustainable Urban Drainage System 	<ul style="list-style-type: none"> • 1 x secondary school • 3 x primary schools 	<ul style="list-style-type: none"> • Public open space
West of Braintree: Andrewsfield	<ul style="list-style-type: none"> • Bus Service • Pedestrian and cycle paths • Sustainable Urban Drainage System 	<ul style="list-style-type: none"> • 20.36 ha for education comprising 1 x secondary school • 5 x primary schools • 1.15ha in total for education • Community use 1.15ha 	<ul style="list-style-type: none"> • 538.93ha public open space including: Country Park • 6x neighbourhood play areas • 2x village greens and informal open spaces • Formal sports area • 6x allotments/ community orchards

Note to table: The information summarised in the table is based upon the SHLAA submissions made to the District and supplemented, where appropriate, on more up-to-date information provided to the District Council by the site promoters.

3. Physical Infrastructure

3.1 Transport: Highways

District-wide - M11 / A120:

3.1.1 The M11 and A120 comprise the main north-south and east-west highway corridors in the district. The M11 links the district with London (to the south) and Cambridge (to the north). The A120 links to Braintree (to the east) and onto Colchester via the A12. To the west, the A120 links with Bishops Stortford and then into London via the A10.

3.1.2 The M11 and A120 intersect at 'Junction 8', between Stansted Airport and Bishops Stortford. To the north of the district, Junction 9 of the M11 links with the A11 at Great Chesterford. To the south, new Junction 7a of the M11 will provide a new access into the growth area to the north of Harlow. Work on this is expected to start in 2019.

Wider context:

3.1.3 The West Essex/East Hertfordshire Housing Market Area, which comprises Uttlesford, Harlow, East Herts and Epping Forest district councils, has identified substantial new growth in the M11 corridor. Expansion in Cambridgeshire is also expected, which will increase traffic demand on the M11. Considerable growth in Braintree and Colchester will intensify congestion on the A120, principally on the single carriageway section between Braintree and the A12 junction and at the A120/B1018 Galleys Corner roundabout.

3.1.4 Key issues with regard to the highway network are highlighted below:

Junction 8:

3.1.5 Junction 8 of the M11 serves as the main point of access to the strategic road network for the town of Bishop's Stortford and its surrounding area, as well as London Stansted Airport. It also provides access to the A120, an east-west route connecting Standon at the most westerly point with Harwich on the east coast; and the B1256, which provides an alternative access to the strategic road network for Uttlesford District.

3.1.6 The Junction is already operating at capacity. The Highway Agency has previously identified this as a 'problem junction' with a 'severe' level of congestion⁷. Capacity will be exceeded even without development within Uttlesford.

3.1.7 Although new Junction 7a may free up some capacity it is considered that a 'major fix' to the junction is required.

⁷ See Atkins for the Highways Agency, February 2012, Highways Agency Area 6 Congestion Reduction Plan 2011/2012

- 3.1.8 Growth is planned both in and around Bishop's Stortford (within East Hertfordshire District) and within Uttlesford District, in addition to potential expansion of London Stansted Airport, all of which is likely to increase traffic demands at Junction 8.
- 3.1.9 Short and medium term proposals to improve this junction have been identified in the East Hertfordshire Local Plan and the GCGP LEP identifies it as a priority in the Growth Deal⁸. The level of Government funding requested by GCGP was for a sum of £5million against a total project investment of £6.03 million. This, it notes, is to help upgrade the junction *'to provide capacity for growth until a major improvement can come forward to deal with projected long term growth'*⁹.
- 3.1.10 In the longer-term significant improvements will be needed at Junction 8 to support expansion of London Stansted Airport and anticipated growth. However, there is currently no major scheme proposed and limited funding available for more than 'interim' solutions at the moment. The Department for Transport's Road Investment Strategy (RIS 1) currently runs until 2020¹⁰. Work to inform RIS 2, for the period post-2020, is currently underway¹¹. It is thought that improvements to Junction 8 will feature in this (or the later RIS 3).
- 3.1.11 Until such time as the issues at Junction 8 are overcome this is considered to be a major risk to the scale of growth being considered in the Local Plan, particularly from those sites being promoted in close proximity to the junction (e.g.: Elsenham and Takeley – see below for further discussion).
- 3.1.12 Alongside this, it is likely that capacity improvements will also be needed at junctions along the A120. Further modelling of traffic impacts is required to investigate this further.
- Junction 9:*
- 3.1.13 Junction 9 is not an all movement junction: there are no connections which allow for southbound movements on the M11 to join the A11. Equally, this reverse movement cannot be made. The result is that vehicles who might take this route instead divert onto the A505. As a result, the A505 suffers from heavy congestion.
- 3.1.14 There are currently no strategic plans to upgrade Junction 9, although, in principle, creating an all movement junction would appear feasible. It is however more likely that capacity on the A505 would be increased through the dualling of the road.
- 3.1.15 Improvements to the A505 are likely to be required with or without additional development in the north of the district (e.g.: at Great Chesterford).

⁸ This appears in Growth Deal Round Two, funding for which was announced in 2015.

⁹ Page 11, GCGP, 2014, Growth Deal Round Two

¹⁰ RIS 1 is the initial step in a long-term programme to improve England's motorways and major roads and covers investment during the period 2015 to 2020. RIS 1 was announced by the government in December 2014. It outlined a multi-year investment plan including over 100 major schemes funded by £15.2 billion of public money

¹¹ DfT, 2016, Road Investment Strategy post 2020: planning ahead

Current plans and initiatives:

- 3.1.16 The identified short to medium term proposals at Junction 8 include widening of the A120 link from Bishop's Stortford, a dedicated free flow left turn from the M11 southbound exit slip to the A120 eastbound, and widening on the M11 northbound exit slip. Interim solutions are partly funded and the ability exists to implement these on a staged approach. Works are being promoted by Essex County Council and although timescales for the delivery of these proposals are still to be confirmed they are expected in 2018.
- 3.1.17 The creation of a new M11 junction – Junction 7a at Harlow - has been agreed by the DfT. This will allow for growth in Harlow as well as providing short term congestion relief to M11 Junction 7. Works are expected to start by the end of 2019-20.
- 3.1.18 The creation of new west facing slip roads linking the A120 and Millennium Way, Braintree is anticipated to begin construction in 2019-20. This scheme will relieve existing congestion at the A120/B1018 Galleys Corner roundabout and provide some capacity to allow development to get underway ahead of more substantial upgrades to the A120. Funding for this scheme is still to be confirmed.
- 3.1.19 Feasibility to examine options to widen the A120 from Braintree to the A12 is currently being undertaken.

Funding and delivery:

- 3.1.20 The Government's Road Investment Strategy (see previous references) is the main source of funding for Highways England. The next round of Route Strategies are now being developed, which will be a key building block in the Government's next Road Investment Strategy, beyond 2020.
- 3.1.21 Route Strategies bring together information from motorists, local communities, construction partners, environmental groups and across the business sector to help better understand the performance of the strategic road network, to shape investment priorities, to improve the service for road users and to support a growing economy. The evidence collected and the indicative solutions identified - along with the outcomes of the strategic studies - will be the foundation of Highways England's first 'Strategic Road Network Initial Report' to be submitted to Government in Summer 2017

Place-specific:

- 3.1.22 Highways and access issues associated with growth locations and proposals around the district are discussed below:

Great Chesterford:

- 3.1.23 It is not thought there are any major access constraints associated with new development at Great Chesterford. Furthermore, it is considered that the scale of growth envisaged would not have a major impact on the A505 (see above) and that improvements to this are required with or without the proposed development. However, a package of sustainable transport measures will need to be planned for,

including connectivity with the Cambridge Park & Ride (on the A1307). Other sustainable transport measures are discussed in later sections of this report.

Saffron Walden:

- 3.1.24 Long-standing requirements for junction improvements, as well as the proposed Eastern Relief Road, are considered difficult to deliver given existing commitments, the location and scale of growth.
- 3.1.25 The transport assessment work undertaken by Essex Highways in 2013 for growth over the period 2012 to 2031 found that, of eleven main junctions assessed in the town, seven would exceed capacity and two approaching capacity.
- 3.1.26 The scale of growth from new allocations being considered for Saffron Walden includes an upper and lower figure. Highway colleagues have advised that the lower figure would be preferred.

Birchanger:

- 3.1.27 The location of this garden settlement is in close proximity to Bishops Stortford, where substantial growth has already taken place and where further significant growth is planned through the East Herts Local Plan (Submission version). The cumulative transport growth impacts would generate adverse impacts on the A120 and M11, particularly at Junction 8. Any development here would be dependent upon a package of sustainable transport measures and promotion of these.

Stansted Airport:

- 3.1.28 Stansted Airport is the largest employer in the East of England region. The vast proportion of employees (around 70%) travel to work by car. Equally, a high proportion of passengers travel by car. It is understood that better timetabling of public transport services (rail and bus) might help deliver a mode shift away from the car.
- 3.1.29 However, with the scale of growth already approved vehicular access will remain important for employees, passengers and other movements, including those associated with freight.
- 3.1.30 The interim improvements to Junction 8 of the M11 will cater for the existing scale of growth permitted at the Airport up to 35 MPPA. The need for additional Junction improvements to cater for further growth up to 45 MPPA would need testing. However, travel movements associated with the airport do not necessarily coincide with traditional peak hour movements, and this would need reflecting in further studies.

Easton Park:

- 3.1.31 It is considered that access into Easton Park from the A120 (via the B1256) is achievable, and that existing junctions have sufficient capacity to cater for this. However, based on the scale of proposed development, a minimum of two main access points will be sought. At present, only one main access is proposed. Other solutions, including direct bus links to Stansted should be considered and are potentially feasible, subject to further discussion with the Airport. ECC also advise

that a proposed garden settlement at this location might increase the level of traffic on the B1008 towards Chelmsford (and further away, the A131) which will require assessment.

Elsenham:

- 3.1.32 Given the location of the proposed garden settlement it is considered that strategic access arrangements to Elsenham are difficult to achieve. There are no obvious identifiable linkages to the strategic road network: a new junction on the M11 is not an option and thus a new local road network would need to be created, most likely connecting to the A120 around Stansted Airport and then to the M11 via junction 8. This would exacerbate capacity issues at junction 8 until such time that major improvements can be delivered. Furthermore, movements on the local road network would likely impact upon the existing settlement at Elsenham and at Stansted Mountfitchet – where ECC advise that impacts would be difficult to avoid or mitigate.

Takeley:

- 3.1.33 Additional proposed growth at Takeley would exacerbate issues with Junction 8 of the M11, with added pressure placed on the ability to leave the M11 to join the more local route network. A separate access, combined with that connecting the existing settlement to Stansted Airport could feasibly present a solution that reduces egress issues from the M11. Solutions might include:

- provision of a new link road to the A120 and closing of the existing B1256 access west towards Junction 8 of the M11; or
- making the B1256 access onto the M11 bus only to encourage a modal shift towards sustainable transport use.

- 3.1.34 However, the amount of committed development at Takeley is already considered to be problematic for the highway network, and given that interim solutions to Junction 8 are not sufficient to deliver high levels of growth (as outlined above) it is considered that access to and from Takeley is a risk to development. Further transport modelling is required for Takeley so that evidential impacts and mitigation measures can be readily identified.

Great Dunmow:

- 3.1.35 It is advised, by ECC, that road accesses and junctions onto the A120 (at Dunmow West and Dunmow South) are reasonably adequate and able to accommodate the scale of growth being considered in the emerging Local Plan. However, the adequacy of town centre routes and movement into and around the town will need assessing further and potentially need improving.

Chelmer Mead:

- 3.1.36 Given the location of the proposed new garden settlement access to the strategic road network would be difficult to achieve, with no direct links to the A120 possible. It is considered that growth here would exacerbate problems on the more local network linking to Chelmsford.

West of Braintree:

- 3.1.37 Current assessments for this proposed growth area show proposed access arrangements onto the B1256 from that part of the site within Braintree in the early development phases. Access onto the A120 would then be made at Great Dunmow, negatively impacting on that junction and the local road network. Further assessment of these proposals, including more direct connections with the A120, are required. A combined access strategy, that looks at this growth location in the whole, should be developed.

Summary of issues and opportunities:

- 3.1.38 It is understood that, without improvement at Junction 8 of the M11, the strategic road network would be unable to cope with the anticipated growth in Uttlesford and surrounding districts. Improvements to Junction 8 are the most significant infrastructure intervention (in terms of highways). Interventions are currently being approached on the basis of:
- Plans for shorter term improvements that would reduce existing problems for a number of years (for which some funding is now in place).
 - Thinking and plans for a far more substantial and more costly package of solutions designed to achieve greater improvements and address the longer term intervention needs. The scale of this means that external funding would be required to be sought through the RIS process.
- 3.1.39 It is anticipated that many of the growth options within Uttlesford would add to the need for this intervention, since they would serve to exacerbate existing identified pressures and problems at this junction.
- 3.1.40 Delivery of improvements to M11 J8 would be a particular issue for Takeley given current access arrangements to and from the strategic highway network. Achieving access to the strategic network would also be problematic for proposals at Elsenham and Chelmer Mead.

Future funding and delivery:

- 3.1.41 The ECC Developers' Guide to Infrastructure Contributions (Revised 2016) notes that large scale strategic projects identified through the Local Plan process are likely to be funded through a Community Infrastructure Levy, where one is in place. When considering the impact of individual developments, ECC will require developers to complete or procure any necessary works to mitigate the impact of their development. Where more than one development in an area (but no more than five) generates the need for a specific Highways project which does not directly form part of one of the developments, it may be appropriate for ECC to secure financial contributions through a Section 106 agreement and procure the necessary works. This approach will, however, only be taken in exceptional circumstances.
- 3.1.42 The purpose of any Highway works will be set out in a Section 106 agreement between ECC and the developer along with a broad description of the measures and location. A Section 278 or similar agreement may then be required prior to the works commencing to agree the precise design of the measures.

- 3.1.43 Table 6 has been provided by ECC and provides a breakdown of transport infrastructure requirements, costs and responsibilities on for the proposed new garden communities (except Birchanger).

Table 6: Highways requirements based upon scale of growth within the proposed garden communities

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
Great Chesterford			
A505 Newmarket Road / A1301 (capacity) roundabout junction improvements. May necessitate further land take in S. Cambs.	3-5 years		£1m
Establish the A11 as the preferred route for northbound travel, to be accessed from the existing junctions at Stump Cross and at Granta Park	Tbc		
Provide road connectivity from the site to surrounding highway network, including the A1307, B184 and A1301 roads	1-3 years		Development costs
Chelmer Mead			
B1256 Station Road roundabout (capacity)	Up to occupation of 400 dwellings	Developer	£1m
B1256 Braintree Road mitigations: signalised junction	Up to occupation of 400 dwellings	Developer	
Essex Regiment Way: contributions for capacity and sustainable transport mitigation	Contribution receipt from first occupation	Contribution from Developer. Delivery by ECC	£1.5m (Includes Park & Ride contributions for Chelmer Valley)
Felsted: contributions for traffic management and safety	Contribution receipt from first occupation	Contribution from Developer – Delivery by ECC	£150,000
Local level highway infrastructure enhancements	Contribution decided following further site information	Contribution from Developer – Delivery by ECC	
M11 J8 capacity improvement	Contribution decided following further site information	Contribution from Developer – Delivery by HE / ECC	Substantial funding required
A120 Braintree junctions	Contribution decided following further site information	Contribution from Developer – Delivery by HE / ECC	Anything less than £250,000 would be non-compliant to ECC requirements due to CIL regulations

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
Elsenham			
Grove Hill capacity: relocation of on-street parking and signal upgrade (this requires additional land outside site)	Contribution receipt from first occupation	Delivery by developer	£500,000
Monitoring of vehicle routing over time to capture impacts of rat-running traffic on unsuitable roads	Build out of site plus 5-10 years following completion of final dwelling	Delivery by developer / ECC Travel planning team	£500,000 bond to ensure delivery of mitigation should impacts be greater than predicted.
Additional infrastructure to minimize vehicle impact in Stansted Mountfitchet (extent to be determined by detailed modelling): could require new link to B1383	Post 800 dwellings	Delivery by developer	£10m
M11 J8 capacity improvements	Contribution decided following further site information	Contribution from developer. Delivery by HE / ECC	Substantial funding required
Local level highway infrastructure enhancements	Contribution decided following further site information	Contribution from developer. Delivery by ECC	£500,000
Accessibility and interchange improvement at rail station, and internal highway links, associated with level crossing	On closure of the existing level crossing	Delivery by developer	£7m
Easton Park			
Improvement to A120 junction (Will require HE approval)	Before occupation of first dwellings	Developer funded and delivered	£2m
M11 J8 capacity improvement	Contribution decided following further site information	Contribution from developer – Delivery by HE / ECC	Substantial funding required
Local level highway infrastructure enhancements	Contribution decided following further site information	Contribution from developer – Delivery by ECC	
Essex Regiment Way: contributions for capacity and sustainable transport mitigation	Contribution receipt from first occupation	Contribution from developer – Delivery by ECC	£1.5m (Includes Park and Ride at Chelmer Valley)

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
West of Braintree			
<i>Boxted Wood*</i>			
Reconfiguration and improvement to existing junctions on the A120 to allow access all directions	Up to occupation of 1,000 dwellings	Developer – ECC and HE	£25m
B1256 Braintree Road mitigations necessary (likely signalized junction)	Up to occupation of 400 dwellings	Developer	£1m
Essex Regiment Way contributions for capacity and sustainable transport mitigation	Contribution receipt from first occupation	Contribution from developer – Delivery by ECC	£1.5m (Includes Park and Ride for Chelmer Valley)
Braintree / Rayne: contributions for traffic management and safety	Contribution receipt from first occupation	Contribution from Developer – Delivery by ECC	£150,000
Local level highway infrastructure requirements	Contribution decided following further site information	Contribution from Developer – Delivery by ECC	
Traffic management for the local rural road network to discourage inappropriate use	Contribution receipt from first occupation	Contribution from Developer – Delivery by ECC	£500,000
M11 J8 capacity improvement	Contribution decided following further site information	Contribution from developer – Delivery by HE / ECC	Substantial funding required (see note)
<i>Andrewsfield*</i>			
Reconfiguration and improvement to existing junctions on the A120 to allow access all directions	Up to occupation of 1,000 dwellings	Developer – ECC and HE	£25m
B1256 Braintree Road mitigations necessary (likely signalized junction)	Up to occupation of 400 dwellings	Developer	£1m
Essex Regiment Way contributions for capacity and sustainable transport mitigation	Contribution receipt from first occupation	Contribution from developer – Delivery by ECC	£1.5m (Includes Park and Ride for Chelmer Valley)
Braintree / Rayne: contributions for traffic management and safety	Contribution receipt from first occupation	Contribution from Developer – Delivery by ECC	£150,000
Local level highway infrastructure requirements	Contribution decided following further site information	Contribution from Developer – Delivery by ECC	
Traffic management for the local rural road network to discourage inappropriate use	Contribution receipt from first occupation	Contribution from Developer – Delivery by ECC	£500,000
M11 J8 capacity improvement	Contribution decided following further site information	Contribution from developer – Delivery by HE / ECC	Substantial funding required (see note)

Source: Essex County Council

Note: All figures are indicative and subject to change

* Single scheme costs have been provided for Boxted Wood and Andrewsfield, assuming they come forward independently of each other

3.2 Transport: Rail

Existing network and service provision:

3.2.1 There are six railway stations in the District. North to south these are: Great Chesterford, Audley End, Newport, Elsenham, Stansted Airport and Stansted Mountfitchet. Rail infrastructure is the responsibility of Network Rail, with services and stations the responsibility of the Train Operating Company (TOC). The TOC for this area is Abellio, whom run the Greater Anglia Franchise from London Liverpool Street to Essex, East Hertfordshire and East Anglia. Three separate routes serve the District. These are:

- **Stansted Express:** which runs between London Liverpool Street and Stansted Airport, stopping at key interchange stations along the way, including Tottenham Hale, Harlow Town, Bishops Stortford and Stansted Mountfitchet.
- **West Anglia:** which runs between London Liverpool Street and Kings Lynn via Cambridge and Ely. All stations within the District, with the exception of Stansted Airport, are served by this route.
- **Regional:** which runs between Stansted Airport north to Cambridge, Ely and other towns and cities in Cambridgeshire, Norfolk and Suffolk. Within the District, Audley End is also served by this route.

Plans and proposals:

3.2.2 The Anglia Route Study¹² looks ahead to 2043 and outlines choices for ongoing investment and infrastructure improvements across the rail network. This reflects assumptions in regard to growth and demand for rail services, and what might be needed to cater for this. It is anticipated that demand for rail services will increase by 18% between 2013 and 2023, and by 39% between 2013 and 2043¹³.

3.2.3 Options identified to cater for this level of demand include both infrastructure improvements (e.g.: additional track and platforms) and non-infrastructure solutions (e.g.: longer trains and revised timetabling). 'Conditional outputs' are identified that need to be met and include:

- Providing sufficient capacity for passengers travelling into Central London and other employment areas during peak hours.
- Providing journey time improvements for services between Stansted Airport, London Liverpool Street and Cambridge.
- Providing sufficient capacity for passengers travelling to Stansted Airport at all times of the day.
- Improving cross London connectivity.

3.2.4 Options for delivering these conditional outputs are outlined in the study: not all of which are committed or funded. Rather they present choices for the Government

¹² Network Rail, March 2016, Long Term Planning Process – Anglia Route Study

¹³ The study notes (in section 4.4.3) that there will be a need to provide further capacity for approximately 1,000 passengers by 2023 and 2,100 by 2043 in the peak hour on the Cambridge and Stansted Airport services into London Liverpool Street. On suburban services, further capacity for 1,700 passengers by 2023 and an additional 4,200 passengers by 2043 will be required.

and third party funders. Options that will impact on Uttlesford (including those that involve projects beyond the District boundary) are outlined below:

- **Crossrail 2:** This will provide direct access to Central and South West London from the West Anglia stations. The proposed four-tracking of the railway between Broxbourne and Tottenham Hale will allow for fast services to be split from slower services and freight trains, improving journey times and releasing capacity to enable additional services to be run. It is anticipated that Crossrail 2 will be delivered in the early 2030s. Four-tracking could be provided ahead of Crossrail 2, providing additional capacity in the medium term.
- **Stansted Airport:** Based upon the growth of the airport it is expected that further investment will be required to this branch. This could involve doubling the existing branch and associated tunnel. There is no funding in place for this but will be important for longer-term growth.
- **Ely area upgrades:** The rail network in the Ely area currently presents a constraint to passenger and freight services, as well as associated journey times. Enhancements here will increase capacity and thus present benefits for the Anglia region as a whole, helping to unblock West Anglia and cross-country regional services.
- **East-west Rail:** Provision of a new longer-term route linking Oxford, Bedford, Cambridge and East Anglia will improve connectivity between these areas.
- **Level crossings:** Network Rail consulted on changes to level crossings in 2016 and is proposing to close or remodel nine crossings in the district¹⁴, with the intention of improving safety and service reliability. This will require the diversion of routes across the railway to other existing underpasses or bridges.

3.2.5 Delivery of the conditional outputs will, in the long-term, provide additional seating capacity on services within the Uttlesford area, as indicated in Figure 7.

3.2.6 Delivery of increased capacity on rail services is the responsibility of the TOC. The Greater Anglia Franchise was awarded in October 2016 and runs for a period of nine years, with the option for an additional one year extension. Planned service improvements thus relate to this period.

3.2.7 New trains will be rolled out across the network from 2019. Stations in Uttlesford will be served by new Bombardier Aventra trains. During peak-times all trains will comprise ten carriages, equivalent to 1,146 seats plus wheelchair spaces. Five carriage trains will operate off peak: each has capacity for 544 sitting passengers plus wheelchair spaces. Together, this represents an increase in seating capacity of between 22-45% in comparison to existing rolling stock.

¹⁴ Network rail refers to the nine crossings as being within the 'Newport area'. They are: Fullers End, Elsenham Emergency Hut, Ugley Lane, Henham, Elephant, Dixies, Windmills, Wallaces, and Littlebury Gate House.

Figure 7: Future seating capacity on rail services within the Uttlesford area

Figure 4.6 Average load factor of all West Anglia Main Line outer services into London Liverpool Street between 08:00 and 08:59 in 2013, 2019, 2023 and 2043



Funding and delivery:

- 3.2.8 Network Rail is moving towards a more devolved approach to funding, meaning that opportunities for funding from third parties (eg.: through Local Economic Partnerships) can be provided as well as that from more traditional sources, such as through Government (Department for Transport).
- 3.2.9 The TOC is currently committed to a series of station improvements across the network over the next nine years, including provision of information screens and new vending machines. Additional station investments will require third party funding.
- 3.2.10 In addition, other mechanisms, including CIL / s106 and any other Council funding will be sought to contribute towards infrastructure improvements.

Risks:

- 3.2.11 Options outlined in the Anglia Route Study are broadly reflective of the level of growth within Local Plans. However, this may need to be reconsidered once clarification on the preferred strategy for new development in Uttlesford is identified.
- 3.2.12 Equally, and although the TOC is increasing service capacity, there is a risk that this might not be sufficient to cope with the proposed scale of growth being considered. This depends, to some extent, on the preferred growth options that will be taken forward. Should this be the case then additional funding may need to be secured to deliver upgrades to infrastructure capacity.
- 3.2.13 Further understanding of future travel patterns from the proposed scale of growth is required to better understand the impact on rail services and whether (and where) additional investment may be required. This also extends to road based travel and the impact on level crossings.

3.3 **Transport: Sustainable travel – Bus, walking and cycling**

Bus

Current provision:

- 3.3.1 In Essex around 85 per cent of the bus network is provided commercially. Commercial operators set their own bus routes, maintain their own buses and run their services as their commercial interests dictate. Around fifteen per cent of the bus network is supported by Essex County Council¹⁵.
- 3.3.2 There are a wide range of bus operators within Uttlesford, offering a relatively dense network of routes (Figure 8). However, the speed, frequency and cost of these routes varies.
- 3.3.3 Arriva operates bus services focussed around the south of the district and Stansted Airport. Their services include:
- The 508/509/510, running between Stansted Airport, Bishop's Stortford and Great Dunmow. This runs every ten minutes, 24 hours a day, seven days a week.
 - The 133 runs between Stansted Airport and Braintree via Great Dunmow. It runs on an hourly basis for most of the day, seven days a week. It requires some support from Stansted Airport to provide the Sunday service.

Plans and priorities:

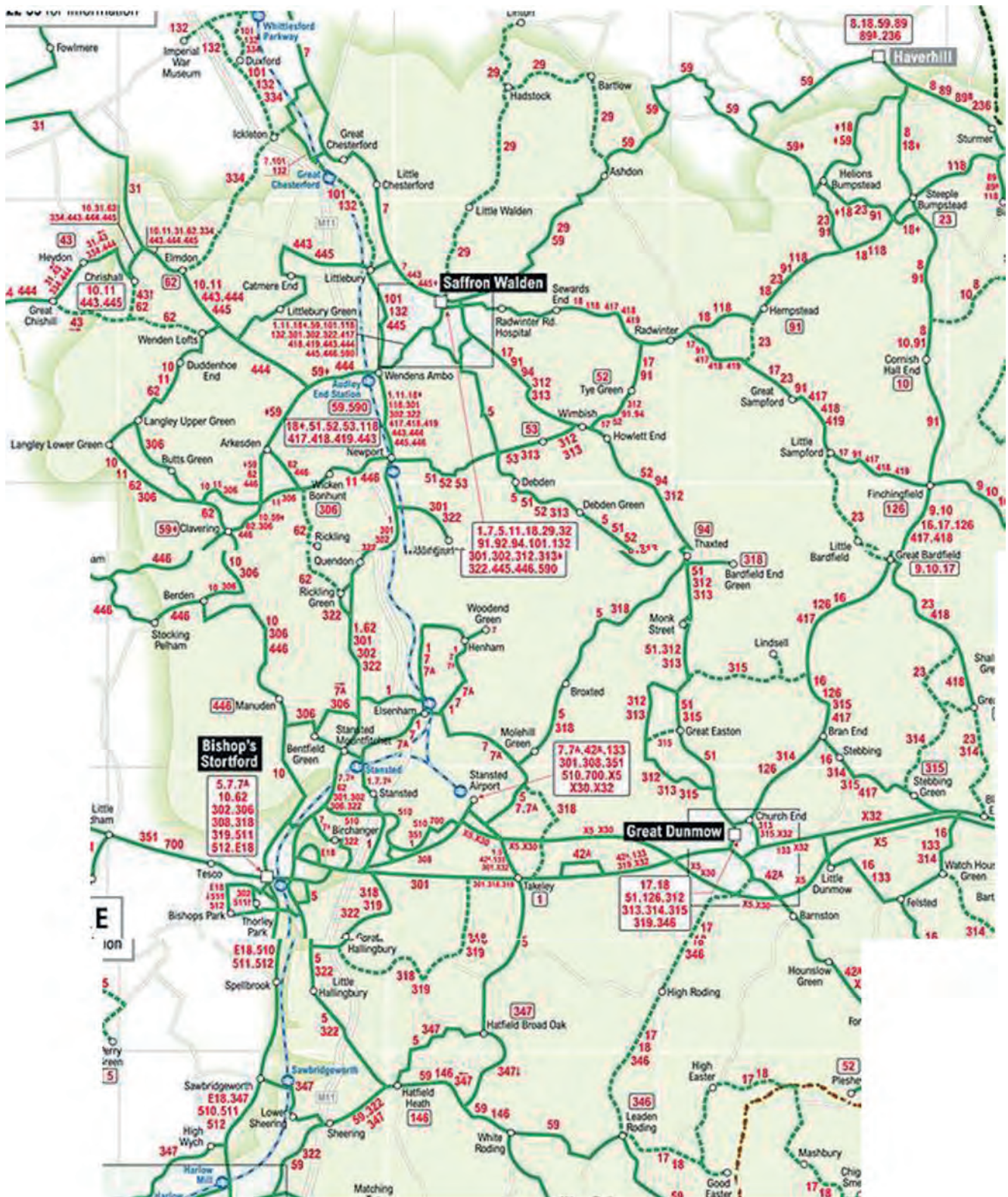
- 3.3.4 Essex County Council prioritises local bus services according to the 'Getting Around in Essex Strategy'. As part of this, the Bus and Passenger Transport Strategy, published in 2015, outlined a range of proposals intended to make bus travel better and easier. Subsequent to this, the Essex Local Bus Service Priority Policy 2015 to 2020 has been published. The purpose of this is¹⁶:
- First, to enable the Council to prioritise where its limited financial resources should be allocated as part of the area review process.
 - Second, once the revised supported bus network is put in place, it allows the Council to respond to changes to the commercial bus network over which it has no control and assess the need for additional contracted services that result from them (or indeed to cease providing a contracted service where a comparable commercial service is started).
- 3.3.5 The County Council has developed a series of tables setting out Service Intervention Points (SIPs) that indicate the level of bus service available to residents in an area beneath which it will consider the need to provide additional transport services. However, the County is unable to provide for every potential transport need that might occur and thus needs to prioritise its support for services. The County will focus expenditure on those services that most effectively meet residents needs.
- 3.3.6 If insufficient funding is available in the local bus budget to provide a new service, even if it has a high priority, then the County Council will look at the following options:

¹⁵ Source: Essex County Council, 2015, Getting Around in Essex: Bus and Passenger Transport Strategy

¹⁶ Source: Essex County Council, 2016, Local Bus Service Priority Policy 2015 to 2020

- Not to provide the service at this time, but place it upon a reserve list, with priority for provision, should additional funding be made available at a future date.
 - Allocate additional funding to provide the service identified from within other Essex County Council resources.
 - Provide the service and fund it by withdrawing services with the overall lowest priority (lowest priority category and highest cost per a passenger journey within that category) sufficient to provide the necessary funding.
- 3.3.7 It should be noted that the presence of Stansted Airport within the district means that bus routes serving the airport need to operate for a longer length of time than would normally be the case for other bus routes. This adds additional costs to the operating of these services.
- 3.3.8 Arriva are focused on improving existing services and developing them further. Recent investment has led to improved frequencies and quality of vehicles operating on the 508/509/510 routes.
- New routes and services:
- 3.3.9 It is advised by Essex County Council that the strongly rural nature of the district raises challenges for implementing sustainable travel initiatives.
- 3.3.10 In terms of standards for providing new services, a rough benchmark is that 1,000 homes will support one bus, although this is dependent upon the route and duration of operation over the day. Hourly services are unlikely to be viable but, if tied into existing routes, can increase their chance of being commercially viable.
- 3.3.11 Small scale developments are unlikely to contribute to improved services, but the combination of proposed and potential growth along the A120 between Stansted and Braintree is likely to support improved services. However, the implementation of new or improved services will need to be phased so that they are commercially viable to operate. Thought will need to be given to bus routing during the design stage of any proposed new development so that it doesn't impede existing services, but so that it also integrates provision for new routes.
- 3.3.12 Bus only segregated routes are considered to deliver the greatest journey benefits, allowing for quicker and more reliable journey times, increasing their attractiveness to passengers but also making services more efficient to operate. Alternatively, new bus lanes and priority measures should be provided. Walking distances to bus stops should also be sufficiently attractive and accessible to all.
- 3.3.13 Stansted airport represents the key sustainable travel hub for the district and there are opportunities arising from the district's two main travel corridors (with bus / coach services linking east-west to numerous towns) and the rail corridor linking north-south to London and Cambridge, with other destinations in-between (such as Harlow).

Figure 8: Bus routes in Uttlesford



Source: Essex County Council

3.3.14 Ensuring bus services connect and tie in with railway stations and services (such as Audley End station for Saffron Walden) represents a potential beneficial improvement. The provision of real-time passenger information for bus services serving the district would also be beneficial.

Funding and delivery:

3.3.15 Developers will be required, through a Section 106 agreement, to negotiate directly with bus companies and deliver an appropriate package of services.

3.3.16 So as to encourage modal shift, bus services should be provided at the time dwellings are first occupied. It is thereby likely that in most cases the developer will be expected to subsidise a service until it becomes commercially viable. The agreement may, however, set time, occupation or cash limits to this contribution.

Walking and Cycling:

Current provision:

3.3.17 There are two national cycle routes which run through Uttlesford. These are:

- National Route 11, running north south through the district and connecting Harlow to Cambridge via Stansted Mountfitchet and Thaxted, with a link to Saffron Walden.
- National Route 16, running east to west through the district and connecting Stansted and Braintree. Much of this runs along the route of the former railway line between Braintree and Bishops Stortford: the Flitch Way.

3.3.18 Additionally, National Cycle Route 1 skirts along the southern edge of the district boundary, connecting Harlow, Chelmsford and Colchester.

3.3.19 Essex County Council recognises the importance of cycling, both to individuals and to the county as a whole, and is committed to facilitating its growth. The purpose of the Essex Cycling Strategy¹⁷ is to set out the key elements of a long-term plan that will lead to a significant and sustained increase in cycling in Essex, establishing it in the public's mind as a 'normal' mode of travel, especially for short a-to-b trips, and as a major participation activity and sport for all ages.

3.3.20 The strategy was produced in conjunction with Essex County Council, the twelve Essex Districts and Boroughs, the two Unitary Authorities (Southend-on-Sea and Thurrock) and other key stakeholders. It has taken account of current UK policy, data on cycling levels within Essex and best practice from around the world.

3.3.21 The County has identified nine areas of strategic action to deliver growth in cycling. These areas are underpinned by the aim to make cycling safer for all through, amongst other things, audit, design, promotion and training.

3.3.22 The nine strategic actions are: Transformational funding, 'Best Practice' Design, a 'Cycle Essex' Brand, High Profile Events, Increased Support for Local Initiatives, Coherent cycle networks, Continental standard cycling facilities and 'Quietways', Training and Access.

¹⁷ Essex Highways, November 2016, Essex Cycling Strategy

- 3.3.23 A number of proposed cycle schemes have been identified in the Uttlesford Cycling Strategy 2014¹⁸ and these remain a high priority for Uttlesford, in particular the linking of the Flich Way at Great Dunmow and links from Stansted Airport to Bishops Stortford.

Place specific issues:

Great Chesterford:

- 3.3.24 There is an existing cycle route south to Saffron Walden (along the B184 Walden Road). A contribution towards the upgrade of this and promotion of it to provide an enhanced walking and cycle route would be sought by ECC. This is anticipated to cost in the region of £3m. Equally, Essex Highways has also investigated the feasibility of providing an off-road cycle route between Great Chesterford and Saffron Walden, which would also provide improved access to Cambridgeshire and Audley End House. It is estimated that such a scheme would cost in the region of £1.2m, though could be broken down into smaller sections for delivery¹⁹.
- 3.3.25 New walking and cycling routes linking the proposed settlement with the railway station and existing village, as well as to the wider network of routes in and around Cambridge and proposed commercial developments (e.g.: Science Parks) should be provided. Links to the railway station are particularly important in order to promote sustainable travel.
- 3.3.26 Links to the Park & Ride serving Cambridge (on the A1307) should also be considered and form part of the package of sustainable transport measures. Possible rerouting of existing bus routes, or promotion of existing services, might be required to serve new residents. Any new or enhanced bus service provision must be self-sustaining.

Saffron Walden:

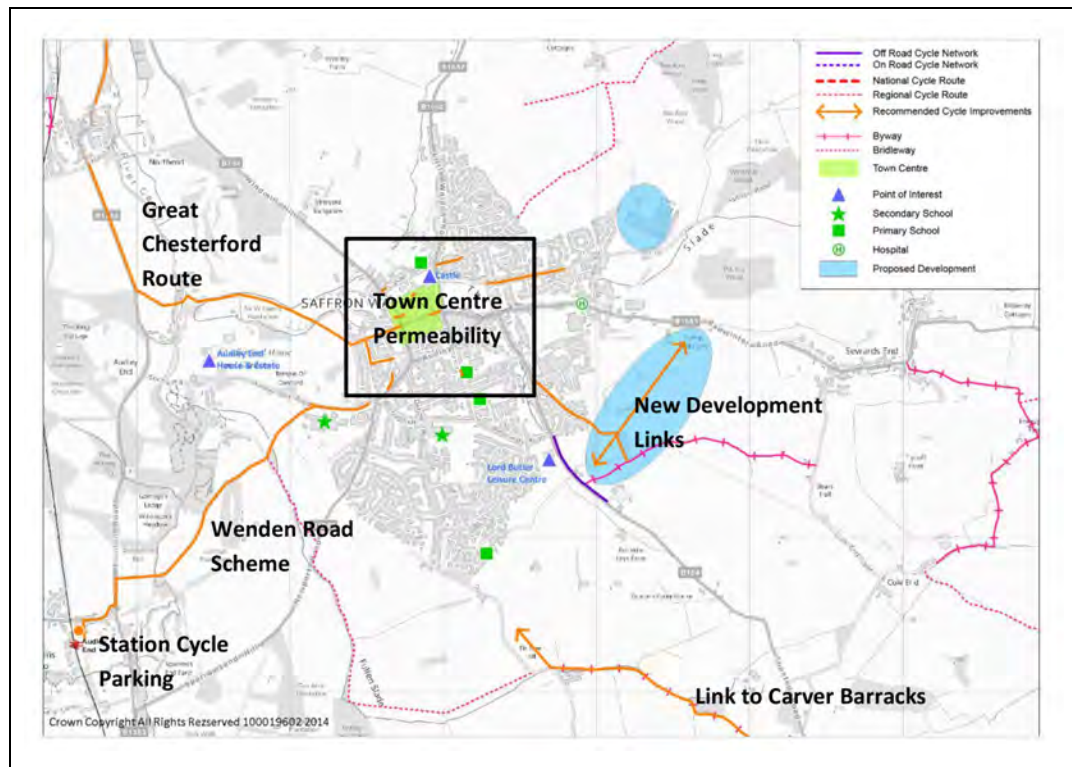
- 3.3.27 There is currently a lack of cycling infrastructure within Saffron Walden, despite it's designation as an Air Quality Management Area. There are existing opportunities to improve cycling conditions, including for example provision of contraflow cycling on the one-way streets in the town centre²⁰. Improvements to current cycling conditions along the B184 (as noted in the section above) are considered important and should be promoted and upgraded as part of new growth and development. Provision of an improved cycle connection to Audley End station is also seen as important. Financial contributions towards improved cycle infrastructure will be sought from new housing developments in Saffron Walden. Figure 9 shows potential cycle schemes in and around Saffron Walden identified in the Uttlesford Cycling Strategy.

¹⁸ Essex Highways, October 2014, Uttlesford Cycling Strategy

¹⁹ see p.19 Essex Highways, October 2014, Uttlesford Cycling Strategy

²⁰ see p.15, *ibid.*

Figure 9: Potential cycle schemes in Saffron Walden

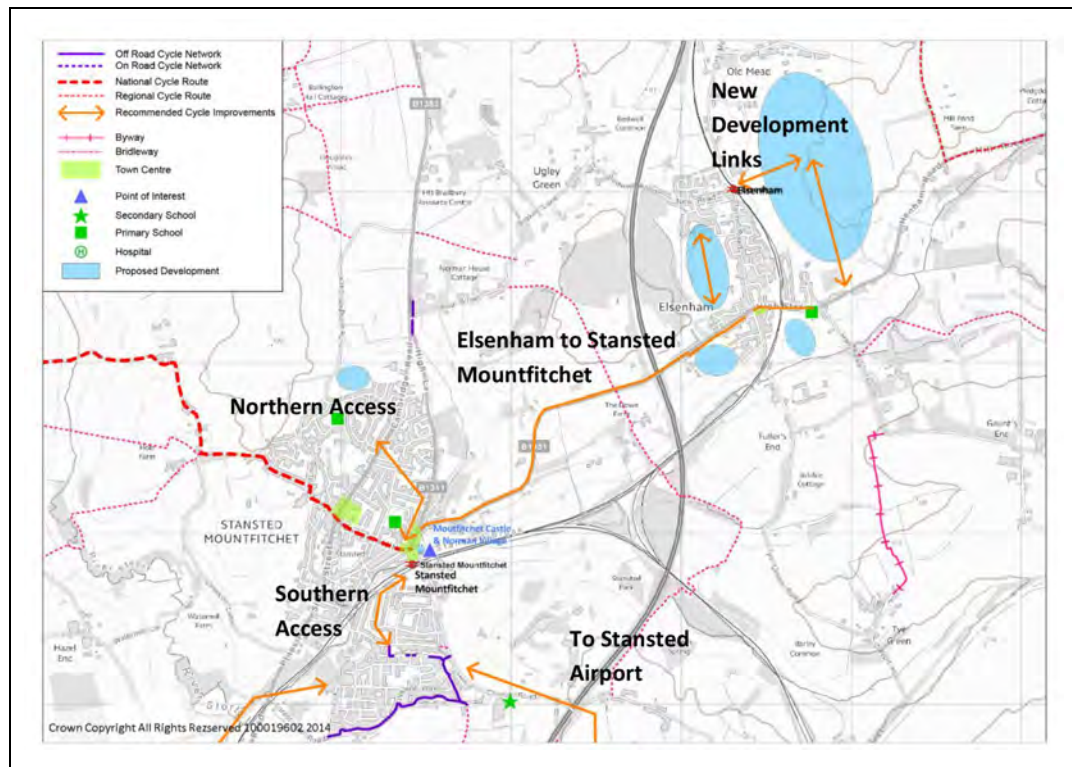


Source: Essex Highways

Stansted Mountfitchet and Elsenham:

- 3.3.28 As with Great Chesterford, a package of walking, cycling and bus interventions should be provided. However, given the local road network and difficulties connecting with the wider network, bus access might prove difficult to achieve. This also has a bearing on connection with rail services as current services from Elsenham are infrequent (though may be improved in the long-term through implementation of schemes outlined in the rail section above) but better and more frequent services are available at Stansted Mountfitchet. Links to this station would need exploring: in particular, there are no current safe cycle links between Elsenham and Stansted Mountfitchet. New development should provide for cycle infrastructure and contribute towards network enhancements to key destinations, including town centres, railway stations, schools and leisure centres. Figure 10 shows potential cycle schemes in and around Stansted Mountfitchet and Elsenham identified in the Uttlesford Cycling Strategy.

Figure 10: Potential cycle schemes in Stansted Mountfitchet and Elsenham



Source: Essex Highways

Stansted Airport:

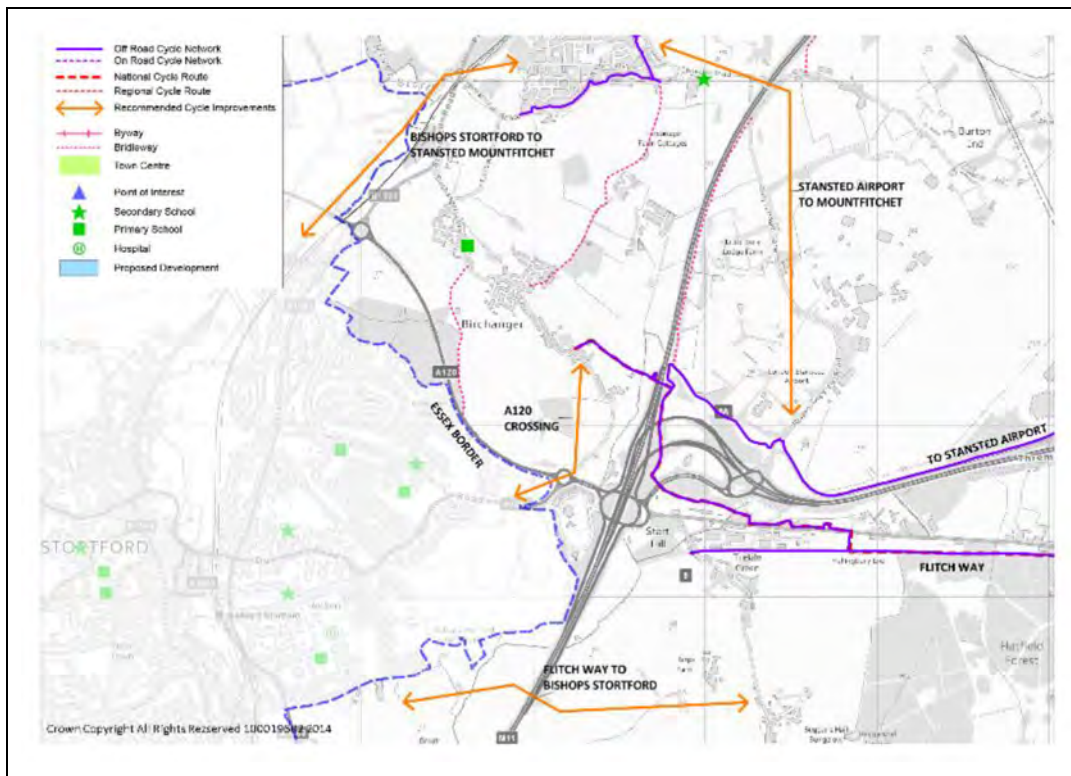
- 3.3.29 Existing cycle links to and from Stansted Airport are illustrated in Figure 11. Stansted is a key transport hub but the proportion of cycling journeys to the airport (excluding passengers) is low. The aim is to increase cycling as a percentage of the mode share, particularly amongst employees.
- 3.3.30 The Airports Sustainable Development Plan (2014) outlines improvements that should be made to the walking and cycling infrastructure to the airport. These include improved links to Bishops Stortford, Birchanger, Stansted Mountfitchet and Elsenham. Although outside of the district, connections with Bishops Stortford are important. These are however difficult given the need to cross the A120 and M11, which forms a barrier to movement. Figure 12 shows potential access improvements that could be made between Bishops Stortford and Stansted Airport.

Figure 11: Existing cycle links to and from Stansted Airport



Source: Essex Highways

Figure 12: Potential cycle access improvements between Stansted Airport and Bishop's Stortford



Source: Essex Highways

Birchanger / Takeley:

- 3.3.31 Given location and road access constraints both proposed garden communities would need to bring forward a package of sustainable transport measures, including new walking, cycling access and bus service provision to Stansted Airport, and into the adjacent towns.

Easton Park:

- 3.3.32 As with Birchanger and Takeley, walking, cycling and bus links to Stansted Airport would need to be provided as part of the package of transport measures. The site promoter has suggested provision of a 'Fastbus' connection with Stansted Airport. However, delivery of this would be subject to discussions with Stansted Airport and how this ties in with their plans for future growth. New and improved walking and cycling routes to local settlements, centres and facilities will also need providing, particularly towards Great Dunmow. The site promoter has indicated that they are in ownership of all land between the proposed Easton Park development area and Great Dunmow which could allow for delivery of a walking, cycling and public transport link. However, there is a covenant associated with land alongside Woodside Way which restricts any further connections to the west (i.e.: in the direction of Easton Park). Delivering a link between the two would thus require this issue to be overcome.

Great Dunmow:

- 3.3.33 New growth and development in and around Great Dunmow provides an opportunity to improve the Flitch Way, complete 'gaps' in the cycle network and enhance access to the town centre. Providing links to Stansted Airport, by cycle, is also considered important. As noted with Easton Park above, this would require providing a link across and from Woodside Way and thus negotiation of the covenants that currently exist here. Figure 13 shows potential cycle schemes in and around Great Dunmow identified in the Uttlesford Cycling Strategy.

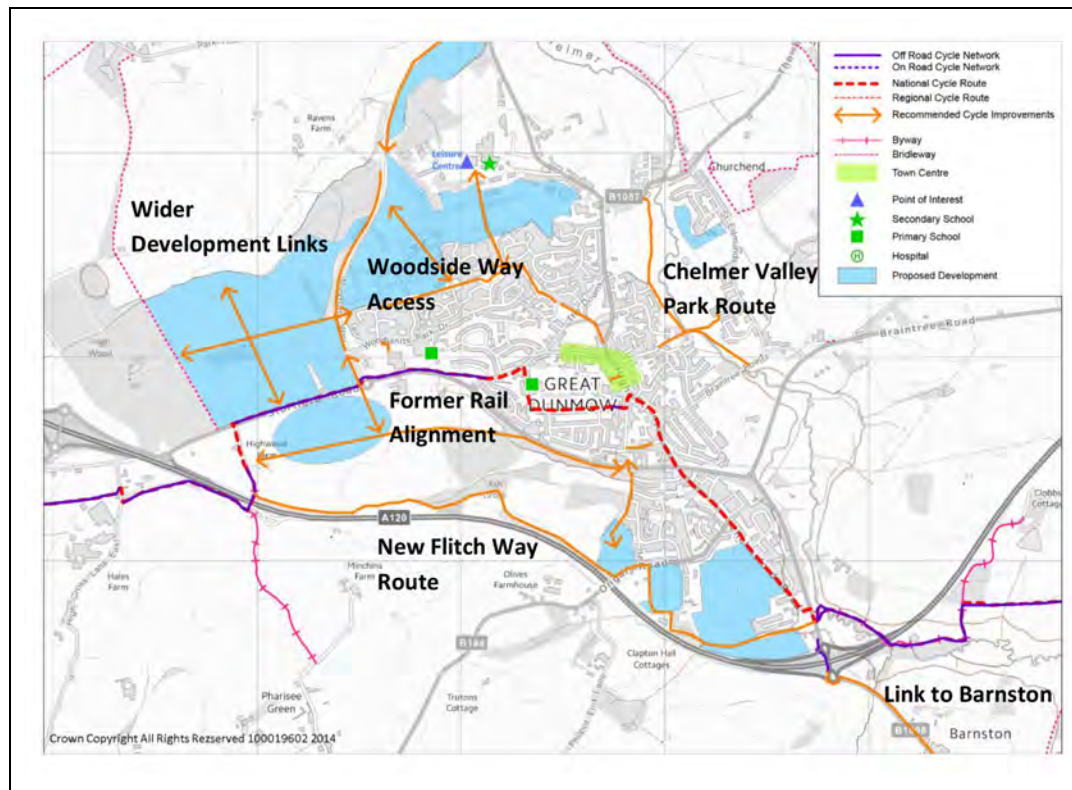
Chelmer Mead:

- 3.3.34 A package of sustainable travel measures would be sought as part of the proposed garden settlement at Chelmer Mead, including improvements to the Flitch Way as the key east-west walking and cycling corridor connecting with Great Dunmow and Braintree.

West of Braintree:

- 3.3.35 There is great potential within the West of Braintree proposed garden settlement to maximise the use of and create enhancements to the Flitch Way as a quality walking and cycling corridor for all.
- 3.3.36 New bus services should also be provided, linking the site east-west as well as south to Chelmsford (and the proposed new railway station at Beaulieu Park). Although bus priority measures can be introduced within the proposed settlement, improvements would also be required on the surrounding network to make bus provision viable and attractive to users.

Figure 13: Potential cycle schemes in Great Dunmow



Source: Essex Highways

Summary:

- 3.3.37 Table 7 has been provided by ECC and provides a breakdown of sustainable transport infrastructure requirements, costs and responsibilities on for the proposed new garden communities (except Birchanger).
- 3.3.38 It should be noted that all figures are indicative and subject to change, and the passenger transport contribution is a guide only. In reality the support needed is based on the number of places served, existing services, journey time, frequency, buildout rate of development, passenger take up of service, fare base. The viability of the service is also dependent on these factors.

Table 7: Sustainable transport requirements based upon scale of growth within the proposed garden communities

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
Great Chesterford			
Increased frequency on Citi7 services south of Sawston, to be routes through the core of the site to the railway station	1-3 years	TBC	£450,000 per annum
Extend Park and Ride services towards walking / cycling distance of Great Chesterford			
Improve B184 Walden Road and B1383 Newmarket Road to include an off-road bi-directional cycleway	1-3 years		£2.75m
Introduction of high quality cycle links between the site and Wellcome Genome Campus, Chesterford Research Campus making use of existing rights of way and local access roads. Introduce cycling links along the A1307 to Grant Park and wider cycling infrastructure along the Cambridge to Haverhill corridor.	1-3 years		£750,000

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
Chelmer Mead			
Passenger Transport infrastructure and subsidized bus service to and from local transportation interchanges, key community and economic centres	First occupation to occupation of final dwelling plus 5 years	Delivery of developer	£1.2m*
Flitch Way – contribution for improvements between the site, Great Dunmow and Braintree	Contribution receipt from first occupation	Contribution from developer – Delivery by ECC	£150,000
Sustainable travel promotion and package	From first occupation to build out of the site plus five years following completion of the final dwelling	Delivery by developer – ECC Travel Planning Team	£220,000 bond
Elsenham			
Sustainable travel promotion and package	From first occupation to build out of the site plus five years following completion of the final dwelling	Delivery by developer – ECC Travel Planning Team	£500,000 bond
Passenger Transport infrastructure and subsidized bus services to and from local transportation interchanges, key community and economic centres	First occupation to occupation of final dwelling plus 5 years	Delivery by developer	£2.4m*
Sustainable travel promotion and package	From first occupation to build out of the site plus five years following completion of the final dwelling	Delivery by developer – ECC Travel Planning Team	£500,000 bond

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
Easton Park			
Passenger Transport infrastructure and subsidized bus services to and from local transportation interchanges, key community and economic centres	First occupation to occupation of final dwelling plus 5 years	Delivery by developer	£3.4m*
Guided busway connection to Stansted Airport	Upper range of build-out	Delivery by developer	£10m
Direct pedestrian and cycle linkage to town centre	Provision of mitigation measures at early occupation but dependent on phasing and precise location of built	Developer	£1m
Sustainable travel promotion and package	From first occupation to build out of the site plus five years following completion of the final dwelling	Delivery by developer – ECC Travel Planning Team	£1.25m bond

Infrastructure Item	Timescale for delivery	Responsible Authority	Cost
West of Braintree			
Boxted Wood*			
Passenger Transport infrastructure and subsidized bus services to and from local transportation interchanges, key community and economic centres	First occupation to occupation of final dwelling plus 5 years	Delivery by developer	£3.2m*
Flitch Way – contribution for improvements between the site, Great Dunmow and Braintree	Contribution receipt from first occupation	Contribution from developer – Delivery by ECC	£100,000
Sustainable travel promotion and package	From first occupation to build out of the site plus five years following completion of the final dwelling	Delivery by developer – ECC Travel Planning Team	£562,000 bond
Andrewsfield*			
Passenger Transport infrastructure and subsidized bus services to and from local transportation interchanges, key community and economic centres	First occupation to occupation of final dwelling plus 5 years	Delivery by developer	£3.3m*
Flitch Way – contribution for improvements between the site, Great Dunmow and Braintree	Contribution receipt from first occupation	Contribution from developer – Delivery by ECC	£100,000
Sustainable travel promotion and package	From first occupation to build out of the site plus five years following completion of the final dwelling	Delivery by developer – ECC Travel Planning Team	£940,000 bond

Source: Essex County Council

Note: All figures are indicative and subject to change

The passenger transport contribution is a guide only. In reality the support needed is based on the number of places served, existing services, journey time, frequency, buildout rate of development, passenger take up of service, fare base. The viability of the service is also dependent on these factors.

* Single scheme costs have been provided for Boxted Wood and Andrewsfield, assuming they come forward independently of each other. Should they come forward as one new garden community then revised figures will need to be made, particularly in relation to the number and frequency of bus services, and phasing of development. Sustainable travel costs for the two sites can be added together as they are based on housing numbers.

3.4 **Water (Foul and Drinking)**

Service providers:

- 3.4.1 The provision of waste water services and drinking water in Uttlesford District is split between Anglian Water Services (AWS) and Thames Water (TW). Geographically, AWS covers the northeast part of the district, TW the southwest. The waste water operational areas covered by AWS and TW are shown on Figure 14. Within the AWS area of Uttlesford, Affinity Water is responsible for provision of drinking water.
- 3.4.2 In addition, although the Environment Agency (EA) does not have responsibility to provide treatment facilities or other associated infrastructure in respect of foul water, it does have responsibility for setting limits, monitoring and regulating discharges to watercourses from water recycling centres (WRCs).
- 3.4.3 The EA also issues permits that enable water companies to discharge into watercourses. These permits state the volume of treated water that may be discharged per annum, together with limits for certain substances, such as phosphates. These permits and limits are intended to ensure the continued health of the water body.

Current plans and programmes:

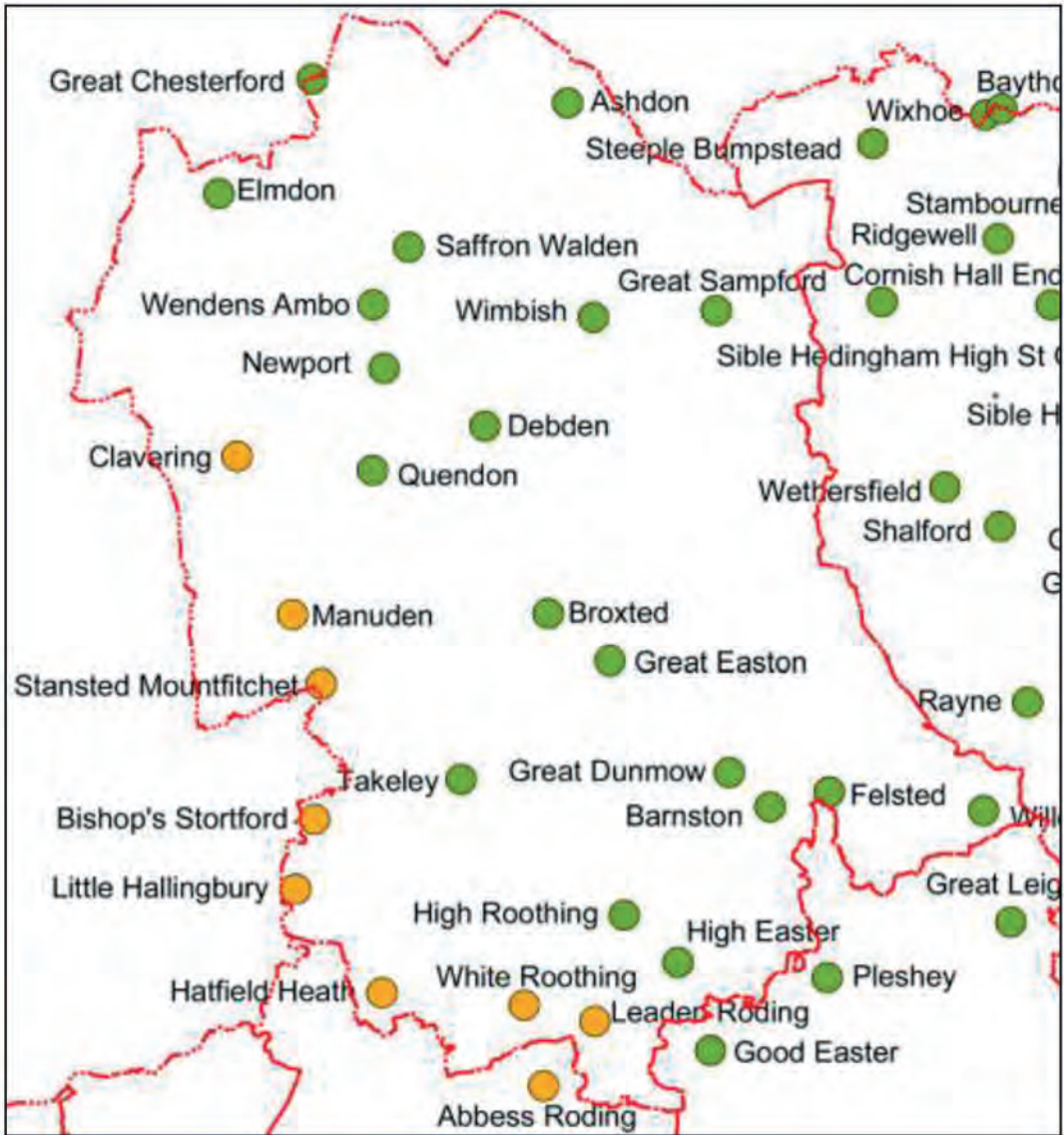
- 3.4.4 Sewage treatment upgrades are made in five-year regulated Asset Management Periods (AMP's). Sewer network upgrades are undertaken on a rolling five-year programme and therefore flexible in terms of delivery. The current asset management plan period is known as AMP6 and relates to the period 2015 to 2020.

Anglian Water:

- 3.4.5 AWS has prepared a Business Plan for the current AMP²¹. This identifies the need for further investment in infrastructure based upon the best available information including population and household projections. AWS is in the early stages of preparing a business plan for the next five years, which will be informed by the scale, location and timing of local plans in their area of responsibility.
- 3.4.6 AWS is also currently considering a 25-year growth forecast for their area of responsibility and is developing long-term integrated strategies to manage growth for highest risk catchments. These will be published and consulted upon in the new Water Recycling Long Term Plan as part of the next business plan.

²¹ see: <http://www.anglianwater.co.uk/about-us/our-plan-2015-to-2020.aspx>

Figure 14: Waste water recycling centres serving Uttlesford



Key

- Works operated by Anglian Water
- Works operated by Thames Water

Contains Ordnance Survey data
 © Crown Copyright and database right 2010

NB Takeley WwTW is operated by Thames Water and not Anglian Water

Source: Uttlesford DC

Thames Water:

3.4.8 Information has been provided by TW in regard to the following WRCs:

- Takeley: Based on TWs latest model prediction and data, the existing works has sufficient headroom to deal with the current level of growth forecast within AMP6 (2015-2020) and AMP7 (2020-2025). A quality project is due to complete in early AMP7. However, upgrades are likely to be required within AMP7 to cope with the impacts of additional growth being considered in the new Local Plan.
- Stansted Mountfitchet: TW has expressed concern about the potential impact of the level of growth in the catchment area on the sewerage treatment work at Stansted Mountfitchet (which includes development at Elsenham). Although considered to have sufficient headroom at the moment, it is expected that upgrades will be required during early-mid AMP7.
- Bishops Stortford: Based on current data, the existing works has sufficient headroom to deal with the level of growth forecast within AMP6 and AMP7.

Affinity Water:

3.4.9 The Affinity Water business plan for 2015-2020²² states that, in agreement with the EA, water abstraction will be reduced by 5% by 2020, that leakages will be cut, and, given an assumed population growth of 6% over their operating region, that customers will be encouraged to use water more efficiently. A water efficiency programme and targeted universal metering programme will be rolled out. Between 2015 and 2020 investment in infrastructure will be increased to more than £500m (again, across the entire operational area) to be able to provide high quality water to customers.

Future needs:

3.4.10 There are no specific standards for providing new or improved assets based upon population size or growth. Rather, capacity is dependent upon a combination of factors, including the location and scale of growth proposed in a particular catchment area, local catchment conditions and the hydraulic capacity of the existing network. Some catchments serve more than one local authority which means that the impact of growth from all local authority areas served needs to be considered. For this reason, capacity is assessed at a catchment level and any necessary solution will be designed and built based on that approach.

3.4.11 The Council's Water Cycle Study²³ considers the impact of the scale and distribution of growth being considered in the emerging Local Plan on wastewater and foul sewerage network capacity. Recommendations with regard to growth at the existing towns and settlements are presented in Table 8.

²² Affinity Water, December 2013, Our Business Plan for 2015-2020

²³ Arcadis Design and Consultancy for Uttlesford District Council January 2017, Water Cycle Study. Outline Update. It should be noted that the Water Cycle Study is based on delivery of 568 dwellings per annum over the Plan period as opposed to 640 per year considered through this IDP. This adds emphasis to the findings of the Water Cycle Study and the need to provide for additional water-related infrastructure.

Table 8: Summary of implications for wastewater and foul sewerage capacity based on growth within existing towns and settlements

Catchment area	Settlements served	Wastewater treatment	Foul Sewerage Network
Saffron Walden	Saffron Walden	There is capacity available to serve the development trajectory	Minimum upgrades required to accommodate development trajectory
Great Dunmow	Great Dunmow	There is capacity available to serve the development trajectory, following the ongoing upgrades and the flow transfer to Felsted	Minimum upgrades required to accommodate development trajectory
Bishop's Stortford	Takeley	There is capacity available to serve the development trajectory	Minimum upgrades required to accommodate development trajectory
Great Easton	Thaxted	Upgrades are required to the treatment process to be able to serve the development trajectory	Minimum upgrades required to accommodate development trajectory
Newport	Newport	Major upgrades are required to serve the development trajectory	Minimum upgrades required to accommodate development trajectory
Stansted Mountfitchet	Elsenham and Stansted Mountfitchet	There is capacity available to serve the development trajectory	Minimum upgrades required to accommodate development trajectory

Source: Uttlesford District Water Cycle Study

3.4.12 The Water Cycle Strategy then looks at the impact of the proposed garden communities over and above growth in the existing towns. The impact on the following WRCs are noted²⁴:

- *Existing flow consents are not exceeded at Bishop's Stortford, however there are process constraints at Bishop's Stortford water recycling centre. Thames Water has confirmed that upgrades will be expected along with concerns regarding the level of growth at Little Easton (Easton Park / Chelmer Mead) and should be engaged by the site promoter as early as possible.*
- *Existing flow consents are exceeded due to the new settlements but wastewater capacity could be provided subject to major upgrades to both the treatment processes and associated sewerage networks at the following water recycling centres:*
 - *Great Chesterford (serves Great Chesterford New Settlement)*
 - *Stansted Mountfitchet (serves Elsenham New Settlement)*
- *The extent of the required enhancement at Great Chesterford WRC may justify other strategies such as a new WRC or conveyance to Saffron Walden WRC catchment if viable. Consultation indicates that both Thames Water and Anglian Water have concerns regarding the level of growth and it is recommended they are engaged by the site promoters as early as possible.*
- *If the New Settlement site is located at Stebbing (west of Braintree) initial calculations show that the existing flow consent will be significantly exceeded at Felsted water recycling centre. It is not likely that upgrades can be undertaken to provide wastewater capacity and a new water recycling centre would likely be required. It is recommended that Anglian Water is engaged by the site promoters as early as possible.*

3.4.13 The Water Study advises that²⁵:

"Substantial new water supply infrastructure will be required for the New Settlement sites (i.e. in addition to water efficiency). It is recommended that site specific assessments are undertaken as part of the development planning process to cover the detailed requirements of these sites."

3.4.14 AWS has prepared a 'RAG' (Red, Amber Green) assessment, considering the scale of growth proposed on an individual site basis. The different categories in this relate to:

- Red: Major constraints to provision of infrastructure and / or treatment to serve proposed growth.
- Amber: Infrastructure and / or treatment upgrades required to serve proposed growth or diversion of assets may be required.
- Green: Capacity available to serve the proposed growth.

3.4.15 AWS has advised that significant constraints have been identified relating to WRC capacity to serve additional development. However, assuming that development were to come forward as proposed (i.e.: as per the timeframes outlined in earlier sections of this IDP), this would be addressed by AWS as part of their business

²⁴ See p.61, Water Cycle Study

²⁵ p.59, *ibid.*

planning process, including agreement with the environmental regulator (the EA) if required. Based on the information available²⁶ AWS has noted the following:

- Based on current commitments and allocations in the existing settlements coming forward, there are constraints relating to wastewater capacity at WRCs in Great Easton, Great Dunmow and Newport. All will require enhancements to treatment capacity. At Saffron Walden, capacity exists for the lower level of growth that might come forward through commitments and allocations. However, should the higher level of growth be the preferred option, then enhancements to treatment capacity may be required. Similarly, and dependent upon the preferred new garden communities that may come forward, there are constraints to wastewater capacity at WRCs in Bocking (West of Braintree garden community), Great Chesterford (Great Chesterford garden community), Great Easton (Easton Park garden community) and Felsted (Chelmer Mead garden community).
- Foul infrastructure requirements will be dependent on the location, size and phasing of development. All sites will require a local connection to the existing sewerage network, which may include network upgrades. Based on commitments and allocations in the existing settlements, growth at Saffron Walden and Great Dunmow will require substantial off-site sewerage reinforcement. Upgrades are to be expected elsewhere, as the AWS sewers are not designed to have capacity for all future growth. Substantial off-site reinforcements will be required for all of the proposed new garden communities.
- AWS's preference is that surface water should be discharged into Sustainable Urban Drainage Systems (SuDs) consistent with national planning guidance. Where it is proposed to discharge surface water into the public sewerage system then AWS would expect developers to provide evidence to demonstrate that no alternatives exist.

3.4.16 TW has advised that upgrades and new infrastructure would be required within their operational area to cater for the additional demand arising from the proposed scale and distribution of growth. In addition, significant drainage infrastructure would be required to ensure sufficient capacity is brought forward ahead of development.

3.4.17 The proposed garden community at Birchanger falls within the TW operational area, as does part of the proposed Elsenham garden community, and much of the proposed garden community at Easton Park.

3.4.18 TW has advised that Birchanger would be served by the WRC at Bishops Stortford. This is a large facility and, although it has capacity in the foreseeable future to accommodate growth, may need expanding in the longer-term considering the cumulative impact of growth, including that at Stansted Airport and in neighbouring boroughs.

²⁶ To help inform this IDP AWS has made an assessment of the available capacity at the relevant WRC to accommodate the scale of development proposed by existing settlement / new garden community options. Where housing and or employment figures were not available for individual settlements they were unable to comment on the available capacity at the WRCs. It is important to note that this assessment does not take account of the cumulative impact on the WRCs of each settlement and the proposed new garden communities for inclusion in the Local Plan.

- 3.4.19 Proposed future growth at Elsenham straddles the operational boundaries of the two water companies. Most of the proposed garden community falls within the AWS area and would most likely be serviced by AWS. However, most of the commitments and allocations around the existing settlement fall within the TW operational area. TW has advised that existing infrastructure needs upgrading though could potentially take place on an incremental basis subject to further detail on the scale and timing of development. Should a lower growth figure be pursued at Saffron Walden and the redistribution of this result in a higher housing figure for Elsenham and Stansted Mountfitchet this would increase the pressure on the network.
- 3.4.20 TW has advised that the scale of development proposed at the Easton Park garden community would require a new WRC to be built. There is capacity in the current network to accommodate the first year or two of new development without a new WRC in place, but it will be needed quite quickly after this.
- 3.4.21 A new WRC will take seven to eight years to build out (including time for detailed design and EA consents etc). However, TW will only commit to planning for and building a new WRC once there is a high degree of certainty that a development scheme will come forward – meaning adoption of the Local Plan and the developer having a planning permission in place (and which TW has been fully consulted upon and engaged in the application process). Time also needs to be allowed for the TW planning application and consultation process. It is unlikely that a new WRC would be operational until close to the end of the plan period.
- 3.4.22 Furthermore, the proposed Easton Park garden community straddles the AWS and TW operational areas. A service agreement will need to be entered into between the two companies to deliver the new WRC. However, the costs of connections to this, management and maintenance of these and any future upgrades would be split, depending upon which operational area any further need is in. As an alternative to the water companies building and operating the new WRC, an inset agreement could be set up and agreed with OFWAT, whereby a private company is responsible for the building of the new WRC and associated infrastructure, as well as the long-term management and upkeep of this. Such agreements are rare and complex, and subject to strict controls.
- 3.4.23 An alternative to building a new WRC would be to expand and upgrade the existing facility at Takeley. This is a small facility and experiences capacity constraints at present. However, the timeframe for expanding this facility would be just as long as providing a new purpose built facility at Easton Park.
- 3.4.24 In addition to the advice received from the water companies outlined above, the EA has also made estimates of remaining capacity at the WRCs serving the district. These estimates are based upon comparing average household consumption against current discharge rates and overall permitted volumes. These estimates are unavailable for publication. However, based upon these estimates it is considered that:

- There is capacity for significant growth at Great Dunmow and Saffron Walden, though this is unlikely to be sufficient to cater for all potential growth in these areas in the Plan period (up to 2033).
 - WRCs at Great Leighs and High Easter have capacity to accommodate some growth in these areas.
 - The remaining permitted capacity at Great Sampford WRC, Great Easton, and Quendon & Debden is unlikely to be able to accommodate any sizeable development without changes to their respective permits.
 - There is no further permitted capacity to accommodate growth at the High Roding, Great Leighs and Newport & Widdington WRCs.
- 3.4.25 The EA advise that, in some cases, it is possible for permits to be altered to allow for increased discharge flows where it can be demonstrated that the WRC can be altered to treat the discharge satisfactorily. The technical challenges this presents can be addressed more easily if treated effluent is discharged to a large volume of water so that it dilutes quickly.
- 3.4.26 However, where WRCs are located near the headwaters of a river it is often the case that there isn't a sufficient flow of water to ensure adequate dilution if the volume of discharge is increased. In these cases, and even with use of the most up-to-date available technology, it might still not be possible to reduce concentration levels low enough to allow an increased discharge to be permitted. The WRCs at Great Easton, Great Dunmow and High Roding all discharge close to the headwaters of a river. This challenge will need to be addressed should the preferred growth options mean increased use of these WRCs.
- 3.4.27 For all sites, the surface water network capacity is a constraint to provision. Urban run-off needs to be controlled on site to ensure no increase in run-off to the local river system. The use of sustainable drainage systems (SuDS) to provide water quality, amenity and ecological benefits in addition to the flood risk management benefits, will be expected. This will also ensure that:
- new development does not cause a deterioration in Water Framework Directive (WFD) status to any waterbody;
 - a package of mitigation works to enhance the WFD status of relevant waterbodies are undertaken; and
 - development does not prevent the future achievement of Good Ecological Status/Potential in any waterbody.
- 3.4.28 Only as a last resort, if a SuDS solution is not possible, should surface water be planned to enter the used water network.
- 3.4.29 All sites will therefore need to address surface water matters appropriately but this will need to be done on a site-by-site basis.
- 3.4.30 Affinity Water has published a 25-year Strategic Direction Statement²⁷. In this, Affinity Water state that (see page 8):
- 'We expect the population we supply with water to grow by at least 15 per cent by 2040. We will invest in our network and assets to support this growth and protect*

²⁷ Affinity Water, Spring 2013, Investing to your community: Our Strategic Direction Statement

our service for future generations. We will prioritise the health and well-being of our communities in everything we do'.

Costs, funding and delivery (Foul water):

- 3.4.31 Costs for provision of additional water infrastructure will need to be determined when schemes are progressed and assessed in more detail.
- 3.4.32 In general, upgrades to WRCs, where required to provide for additional growth, are wholly funded by the water company (AWS and TW) through their AMPS. Foul network improvements are generally funded or part funded through developer contributions via the relevant sections of the Water Industry Act 1991. The cost and extent of the required network improvements are investigated and determined when the water company is approached by a developer and an appraisal carried out.
- 3.4.33 In order for the water companies to fund specific upgrades arising from the scale of growth it will be necessary to put forward growth schemes for inclusion within future AMPs and for these to be approved, planned and funded, as well as signed off by the regulator, OFWAT. The other alternative is that developers forward fund this work; however, given the potential costs involved, this is unlikely for all but the largest schemes.
- 3.4.34 For the Garden Communities, the need to upgrade water infrastructure and to provide strategic sewer solutions means that it will be difficult for any significant growth to come forward before 2020 without a commitment to deliver the necessary upgrades in the next AMP period (2021-2025). This is therefore a critical item. The alternative is that it will be developer funded but this is substantially less likely given the costs involved and the uncertainty over the likelihood of recouping this funding.

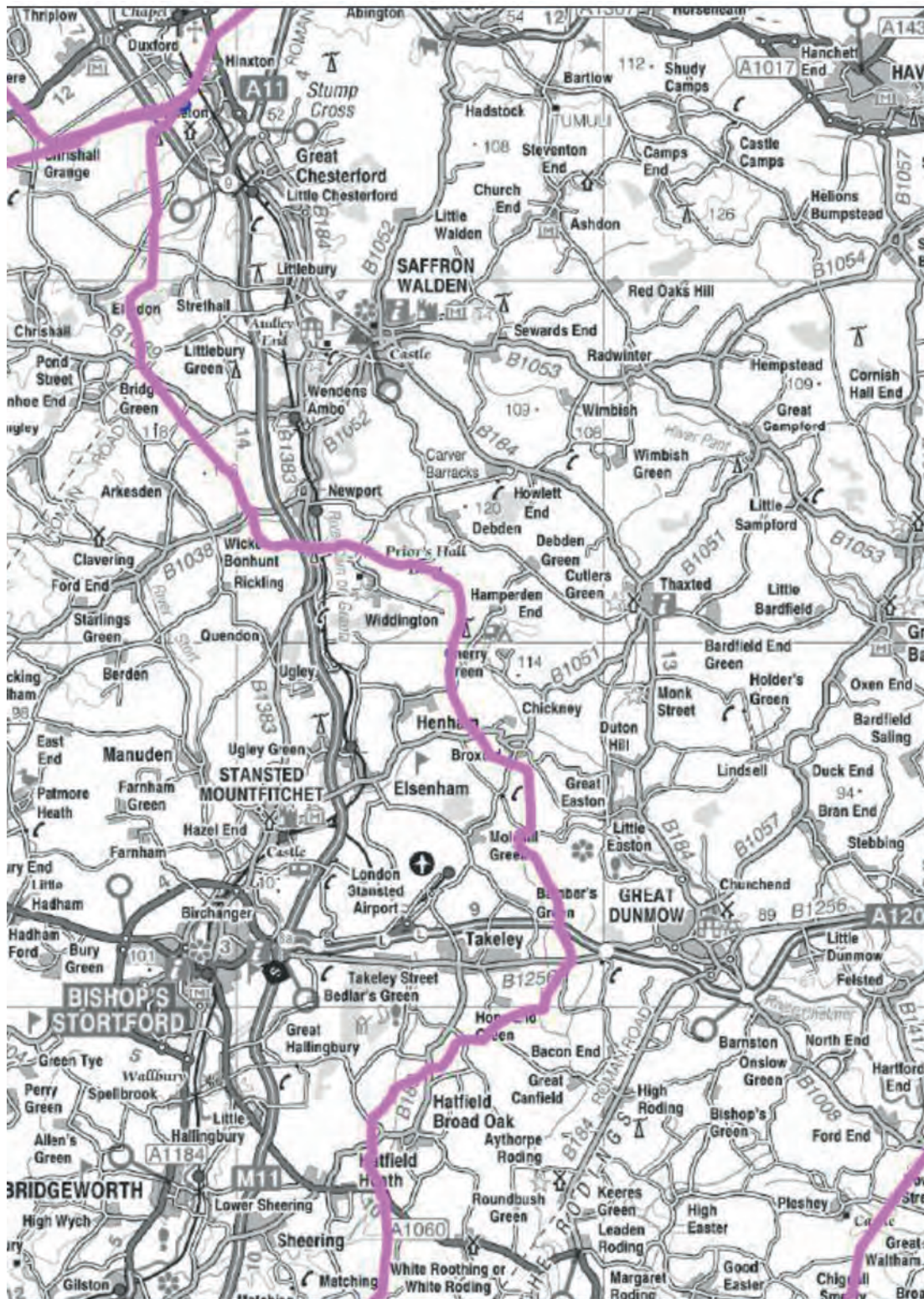
Costs, funding and delivery (Drinking water):

- 3.4.35 Water companies are able to fund infrastructure needs associated with growth from new development through a combination of general investment funding from customer bills and through charges to developers. Sites where additional lengths of water main are required would be expected to be funded by the developer as a site-specific cost.
- 3.4.36 Any new development would be funded by the developer in accordance with the requirements of the Water Industry Act. In reality, the actual payments made by the developer for any on-site water main would be significantly less than the cost of the asset. Any new service connection would be charged in accordance with standard rates and standard infrastructure charges would also apply.
- 3.4.37 Site specific connections and the necessary supporting infrastructure must be provided as part of the construction phase. This will be the responsibility of the developer to provide in conjunction with the water company.

3.5 **Gas**

- 3.5.1 In the UK, gas leaves the transmission system and enters the distribution networks at high pressure. It is then transported through a number of reducing pressure tiers until it is finally delivered to consumers. There are eight regional distribution networks, four of which are owned by National Grid. The gas distributor for Uttlesford is National Grid Gas Distribution Limited. The gas pipeline route through Uttlesford is illustrated in Figure 15.
- 3.5.2 It is understood that capacity is available for the proposed levels of growth across much of the district without the need for reinforcement to the current network. However, growth at Elsenham and Newport may require some reinforcement.
- 3.5.3 National Grid provides connections on a first-come, first-served basis. As such, there is no guarantee that this capacity will still be available at the time an official connections request is sent in.
- 3.5.4 Gas supplies are funded by developers and National Grid. When a request for a supply is received, developers are quoted a Connection Charge. If the connection requires reinforcement of the network then a Reinforcement Charge may also be applied. The apportioning of reinforcement costs is split between the developer and National Grid, depending on the results of a costing exercise internally. These are site-specific costs so there would be no call on external funding sources.

Figure 15: Route of gas pipeline, Uttlesford



Source: Uttlesford DC

3.6 Electricity

Current provision:

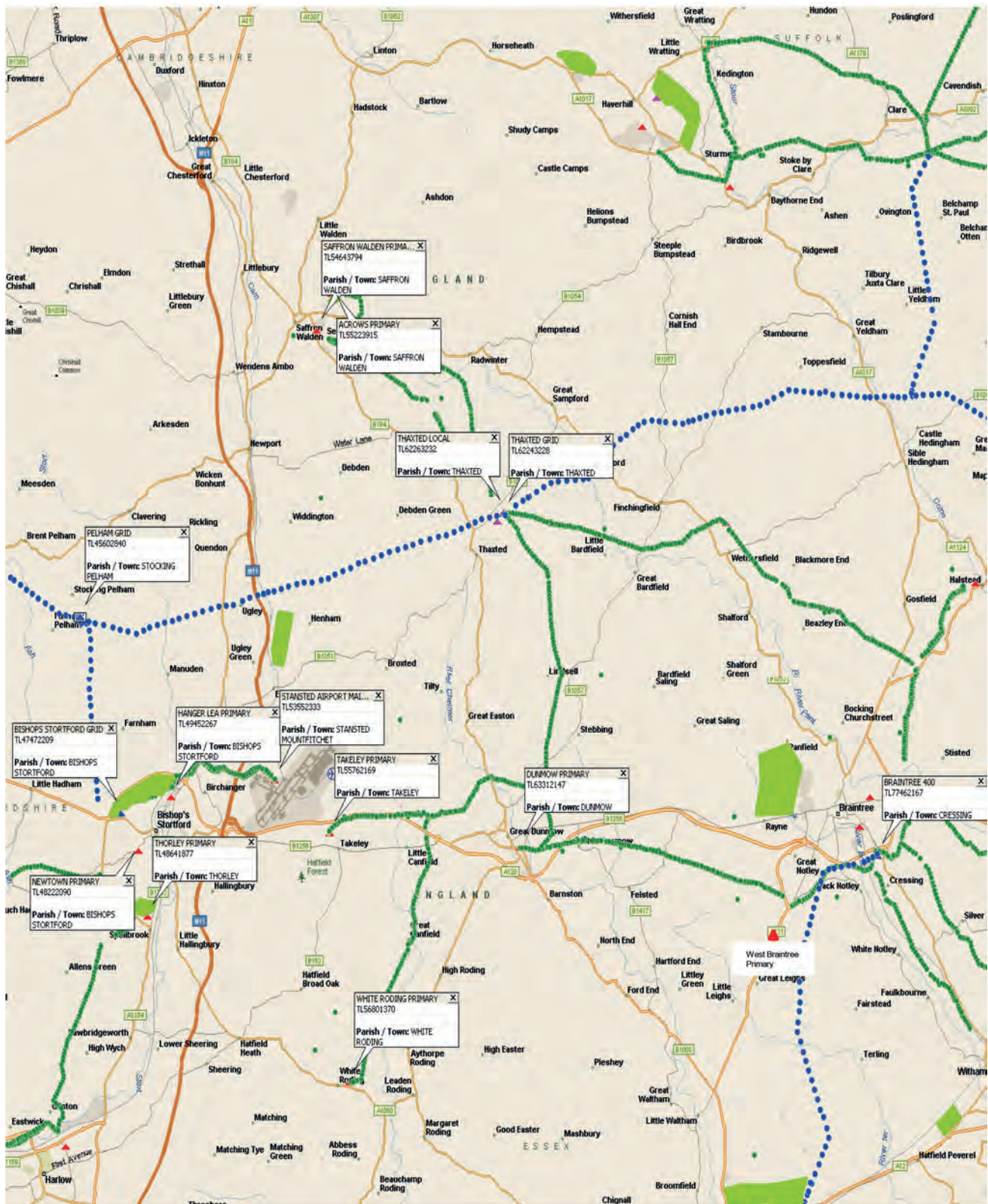
- 3.6.1 National Grid operates the national electricity transmission system across Great Britain and owns and maintains the network in England and Wales, providing electricity supplies from generating stations to local distribution companies.
- 3.6.2 Electricity is generated from power stations and transmitted through a national network of electricity lines operating at 275kV and 400kV before connecting to local networks owned by distribution companies. UK Power Networks (UKPN) is the appointed distribution company for Uttlesford district.
- 3.6.3 Electricity in Uttlesford is supplied from the National Grid transmission system to UK Power Networks at 132kV. Their Grid and Primary sub-stations supply the towns and villages at 33kV and within the catchments via smaller sub-stations and a network of underground cables at 11kV.
- 3.6.4 The area is served by three 132/33kV (Grid) substations, at Bishops Stortford, Braintree and Thaxted (see Figure 16). Each Grid substation supplies several 33/11kV substations that finally provide the 11kV distribution network to meet the local requirements. There are ten such substations in the area. Furthermore, there is one 400/132kV National Grid substation at Pelham.
- 3.6.5 The current capacity and existing demand on each substation is presented in Table 9. Demand does fluctuate across the year, reflecting the effects of the weather and organic growth and decline based on customers connected to the network. The information presented in Table 9 reflects capacity and demand as of Winter 2016/17.

Current plans and projects:

- 3.6.6 The current OfGEM²⁸ regulatory period ends in 2023. Major projects planned within this period include the rebuilding of the 33kV circuits between Great Dunmow and Braintree, and replacement of the 33/11kV transformer at White Roding.
- 3.6.7 In recent years several projects have been undertaken for reinforcement purposes and asset replacement, yielding additional network capacity. This includes new (and larger) 132/33kV assets at Thaxted, new (and larger) 33/11kV transformers at Saffron Walden, Takeley and at Newtown (in Bishops Stortford). Most 33kV circuits across the area have also been rebuilt to an increased specification.

²⁸ The government regulator for gas and electricity markets in Great Britain.

Figure 16: Existing electricity substations serving Uttlesford



Source: UK Power Networks

Table 9: Current capacity and demand of electricity substations

Substation	Operating Voltage	Winter Capacity 2016/17 (Mega Volt Amps)	Winter Demand 2016/17 (Mega Volt Amps)
Pelham – National Grid	400/132kV	280	210
Bishops Stortford Grid	132/33kV	114	89
Braintree Grid	132/33kV	114	97
Thaxted Grid	132/33kV	114	66
Acrows Primary	33/11kV	10	6
Dunmow Primary	33/11kV	24	13.5
Hanger Lea Primary	33/11kV	23	13.5
Saffron Walden Primary	33/11kV	23	20
Stansted Airport Main Primary	33/11kV	4	2.5
Takeley Primary	33/11kV	8	6.5
Thaxted Local Primary	33/11kV	8	5
Thorley Primary	33/11kV	23	14.5
West Braintree Primary	33/11kV	24	14.5
White Roding Primary	33/11kV	9	6

Source: UK Power Networks

Future infrastructure needs:

- 3.6.8 The average housing demand per property is assumed to be in the region of 2kVA – 2.75kVA per dwelling. A Primary substation (33/11kV) can typically cater for 8,000 – 12,000 customers and a Grid substation (132/33kV) can typically cater for four times this amount (around 30,000 – 70,000 customers each). Furthermore, it is assumed that (a) new housing stock will have gas-fired central heating and (b) the potential take-up of new electric vehicles over the Plan period will not impact on peak time use on the network (Between 4:30pm and 7:30pm of a winters day).
- 3.6.9 Following this, it is considered that most of the growth being considered in the emerging Local Plan can be accommodated into existing infrastructure, though there are areas where new or reinforced infrastructure would potentially be required. These are:
- The new garden communities proposed in **Elsenham** and at **Great Chesterford** may need new network or primary substations to meet the upper levels of growth envisaged. Some demand can be catered for in the early stages of development, allowing initial dwellings to be serviced.
 - The proposed garden communities at **Easton Park** and **West of Braintree** are both likely to require new primary substations in the long term, though, as above, some demand can be catered for in the early stages of development, allowing initial dwellings to be serviced.
 - Localised network reinforcement may be required around **Takeley** and at **Birchanger** should these garden communities be progressed.
- 3.6.10 It is important to note that the 132/33kV substations at Bishops Stortford and Braintree are shared assets with the neighbouring districts and thus development of infrastructure in adjoining areas will need to be co-ordinated to optimise network investment.
- 3.6.11 For the employment development, without an idea of loadings or demand required (based on the types of users by use class), it is not possible to assess the capacity constraints (and demands) on the network.

Costs and funding:

- 3.6.12 The allocation of costs for future reinforcement is a complicated mechanism as UKPN is not permitted by its licence conditions to invest ahead of need or for speculative developments. When reinforcement is required the cost for reinforcement and possibly connections is passed to the developer making the request for the new demand. They may receive some funding from the regulatory income UKPN has from OfGEM where existing assets are reinforced/replaced.
- 3.6.13 Estimation of works more than a few years ahead are also likely to be inaccurate and unreliable as the network evolves and changes as a matter of course. Costs and estimates for connections and reinforcement would need to go through UKPN's commercial department having received an application first.
- 3.6.14 In 2015, the cost of providing for these needs has been estimated at approximately £1,000 per dwelling, plus the cost of the 11kV network extension or diversion. The cost of providing an on-site substation to serve the larger sites (as outlined above) would also be extra, with the total cost estimated in 2015 to be in the region of £50,000, depending on the load requested by the developer. Such costs would be covered solely by the developer.
- 3.6.15 Where a new primary substation is required for a garden settlement the cost of this may be in the order of £3-£4m depending on size, capacity and civil works etc. The 33kV circuits to the substation can vary greatly depending on the type of route that new cables are laid in. A highway based route for example is more costly than laying cables in verge or unmade ground (such as farm land). A budget cost figure for two 33kV cables along a common route may be between £300k - £600k per kilometre.
- 3.6.16 Depending on the organisation involved and nature of the inquiry the charges can differ greatly from the costs.
- 3.6.17 It should also be noted that schemes coming forward after 2020 may have different charging strategies and policies as directed by OfGEM.

Delivery and timing

- 3.6.18 There are not considered to be any major risks to the various growth options being considered, though some will, as outlined above, require further investment in infrastructure to be able to fully realise the scale of development envisaged.
- 3.6.19 Site specific connections and the necessary supporting infrastructure must be provided as part of the early construction phases. This will be the responsibility of the developer to provide in conjunction with UKPN.

3.7 **Waste**

- 3.7.1 Management of municipal waste is a UK-wide challenge as both European and national legislation and policy seeks to deal with waste more sustainably and to reduce the amounts of waste being deposited into landfill. Waste is also increasingly seen as a resource that through recycling and treatment processes can be utilised.
- 3.7.2 Essex County Council is the Waste Disposal Authority (WDA) covering Uttlesford district and provides waste disposal infrastructure to ensure waste generated by households, and other wastes collected by Councils in Essex, is effectively managed.
- 3.7.3 The delivery of local plans which increase residential development, through both infilling and major developments, will impact on waste management systems on a number of levels as the resultant population growth will lead to an increase in waste arisings which require handling and disposal.

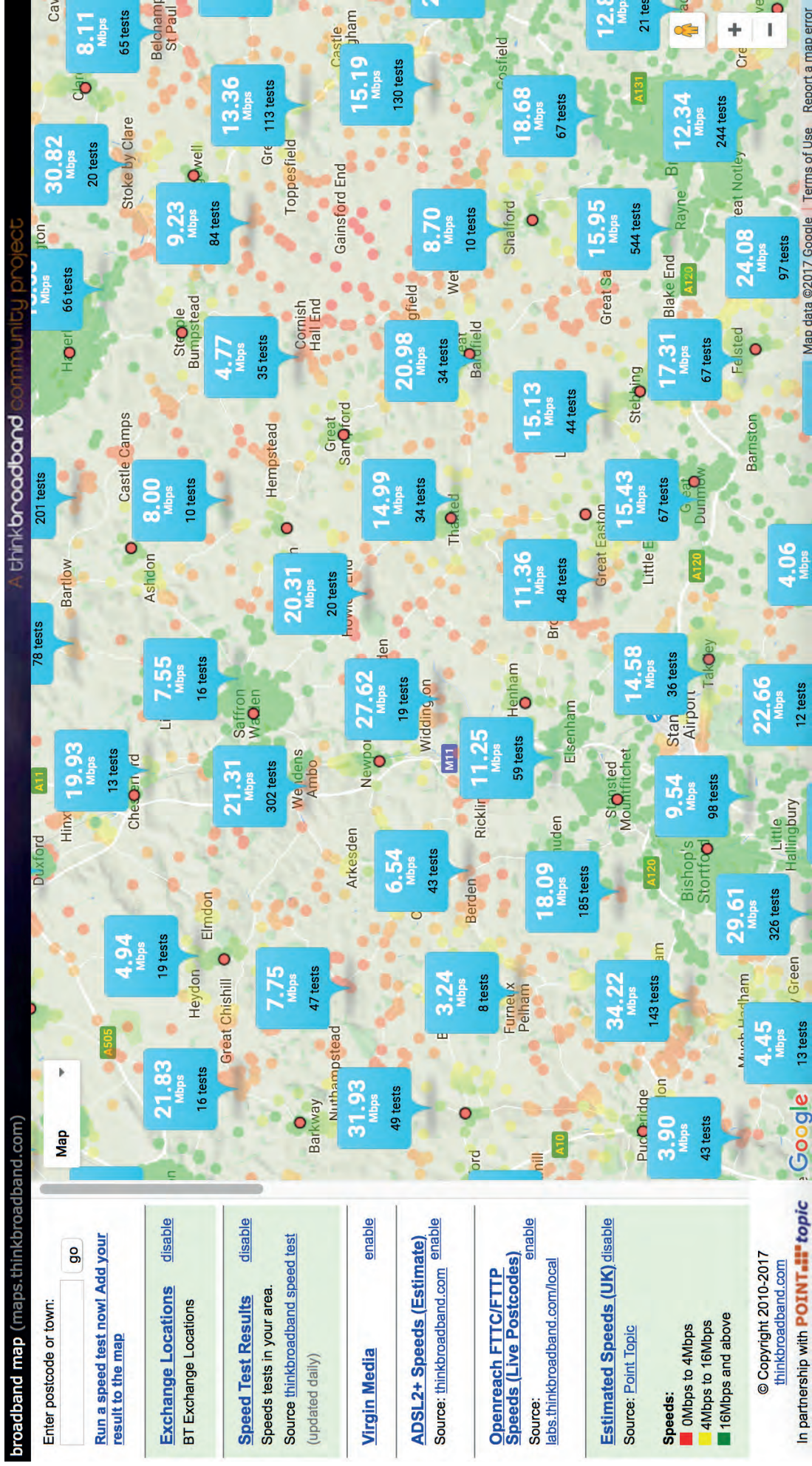
Needs

- 3.7.4 The major waste treatment infrastructure currently in place for managing Local Authority Collected Municipal Waste has been equipped to accommodate the anticipated waste growth levels resulting from the proposed Local Plan growth. However, it is likely that pressure will be placed on the ancillary smaller scale infrastructure, such as waste transfer stations, waste operational depots and the public-facing Recycling Centres for Household Waste (RCHW). These facilities, which provide local communities access to waste disposal options for household generated bulky waste are, by their very nature, required to be close to population centres and are therefore particularly vulnerable to medium and large scale developments.
- 3.7.5 A review of existing and potential facilities will be taking place during the first five-year Local Plan period to determine requirements in the ten to fifteen-year period. This is likely to result in a need to extend or expand this infrastructure offer to meet local needs. However, at this stage it is not possible to determine what these needs are.

3.8 **Wi-Fi / Broadband**

- 3.8.1 The Superfast Essex Programme aims to extend the fibre broadband network as far as possible in Essex. The objectives of the programme are to ensure that at least 2Mb/s download speed is available across Essex and to achieve 'superfast' speeds of 24 Mb/s or more where possible. The Programme aims to extend superfast broadband coverage to 97 percent of the County by 2020. Current broadband speeds within Uttlesford are shown in Figure 17. These vary across the district.
- 3.8.2 Alongside this programme Superfast Essex has, with funding support from the Government, County Council and Gigaclear, commenced a pilot 'Rural Challenge Project' in Epping Forest District. The aim of this is to provide fibre-to-the-premise technology, enabling homes and business to access broadband speeds of between 50Mbps and 1,000Mbps. This is a £7.5m project. Subject to further funding sources being identified consideration will be given to rolling this programme out across other rural areas in the County.
- 3.8.3 The Government has committed to giving all premises in the UK access to a minimum of 2Mbps download speeds, whether they are a resident or business. As part of this commitment, Superfast Essex, in conjunction with Broadband Delivery UK (BDUK), is offering eligible premises access to a basic satellite or wireless broadband service at a capped cost for the first year.
- 3.8.4 In March 2011 the Council awarded the Radio Broadband company, Buzcom, a grant to bring radio broadband to the residents of Uttlesford. FibreWiFi provides urban and rural areas with high speed broadband at Super Fast (25Mb) and Ultra Fast (50Mb) connection speeds. The service enables customers to upload as fast as they download. FibreWiFi is delivered by radio so there is no need for telephone lines. This means that the service is accessible in areas that standard broadband providers do not reach.

Figure 17: Average broadband speeds across Uttlesford



4. Social Infrastructure

4.1 Education

- 4.1.1 Education services in Uttlesford are largely delivered by Essex County Council (ECC). This section seeks to simplify what is a very complicated subject, based on information provided by ECC.
- 4.1.2 The section is broken down to present requirements based on (a) growth in and around the existing towns and settlements, and (b) that in the proposed garden communities. In both cases this is a high-level assessment of need and would be subject to further assessment once the preferred scale and distribution of growth is established. The following education services are included within this assessment:
- Early Years and Childcare (EY&C).
 - Primary education.
 - Secondary education.
- 4.1.3 Current legislation dictates that whilst the local authority can build schools there has to be a full published offer for either an Academy or Free School to run them.
- 4.1.4 Free Schools and Academy Schools are outside local authority control but it is still necessary to consider them in pupil place planning. Of relevance to infrastructure planning is that, if there is insufficient capacity in existing schools, the local authority is not able to expand Free Schools or Academies to take additional children without the prior approval of these schools. It is then the responsibility of these schools to apply to the local authority to fund the school expansion with the use of developer contributions (if the need for additional places was created by new development).
- 4.1.5 As part of the provision of new schools and associated sports and leisure facilities (indoor and outdoor), it is expected that such spaces will increasingly need to be available for use by the community outside of school hours. However, this will need to be considered on a case-by-case basis for both new and existing school facilities and therefore the IDP does not assume that this will happen in all cases. The assessment of leisure and recreation needs in later sections therefore reflects the overall need and cost which may ultimately be reduced if facilities can be shared.
- 4.1.6 For the purposes of this IDP, all dwellings, irrespective of size or type (e.g. retirement homes), are assumed to be 'qualifying houses' and thus generate a need for education. It is possible that the numbers of pupils generated by individual developments may be lower than indicated.
- 4.1.7 It should also be noted that individual growth locations and options have been considered in isolation and that the various potential combinations of settlement growth and new garden communities that eventually come forward through the Local Plan will offer up different solutions. Therefore, the information in this IDP represents an initial assessment. As further clarity on the preferred direction of

growth and detail behind this emerges then the information in this section can be updated accordingly.

Cost and delivery assumptions

Early years and childcare

- 4.1.8 The Essex County Council Developers' Guide to Infrastructure Contributions Revised Edition (2016) sets out the school place assumptions behind new development proposals.²⁹ It would be misleading to separate out this cost. ECC currently seeks contributions of approximately £13,500 per place to provide additional or expanded early-years nursery facilities.
- 4.1.9 Where expansion of existing provision is required, but not possible within the current limits of the particular site in question, alternative solutions for provision will need to be found. These should be considered on a case-by-case basis. Whilst a significant proportion of provision is made by the private sector and it is assumed that this will continue, it is necessary for the purposes of planning to work on a cautionary basis that the private sector it is not in a position to expand.
- 4.1.10 In the garden communities, new provision will likely be a mixture of provision as part of new primary schools and stand-alone facilities.

Primary Schools

- 4.1.11 The following principles are used by ECC to determine the overall needs and costs:
- New primary schools are assumed to be two forms of entry (2fe on 2.1 hectares of land) with a 56-place nursery unless otherwise stated. The cost of such provision is approximately £7.3m.
 - Expansions are costed at £12,218 per primary school place. All costs are given at April 2016 prices and all contributions must be index linked to this date.
 - Land and site preparation costs are excluded. As per the 2016 ECC Developers' Guide to Infrastructure Contributions, it is expected that the developer will provide free, fit-for-purpose sites that are fully serviced and remediated.
 - Contributions from development should be secured through s106 agreements unless otherwise stated.
 - Where the need for new schools are identified against a site, other sites that benefit may be required to contribute towards land costs.
 - Where school facilities are to be used outside school hours by local communities, e.g. sports facilities, the education authority is not expected to bear any of these costs.
 - The Local Plan should specifically allocate education land as Class D1 use to avoid projects becoming unviable over the lifetime of the development due to changing residential land values.

²⁹ The Essex County Council Developers' Guide to Infrastructure Contributions Revised Edition, p.27 (2016)

Secondary schools

4.1.12 The principles for secondary education are the same as those for primary education. The only amendments and additions are:

- Expansions are costed at £18,561 per secondary school place.
- Sufficient land has been allowed at proposed secondary schools for sixth forms but build costs for post-16 provision are excluded.
- Where new secondary schools are to be provided the preference is for larger schools rather than several smaller schools. National standards for school site size should apply.

Growth at existing towns and settlements

4.1.13 Two scenarios are considered for education provision at the existing towns and settlements, reflecting the different scale of growth that might come forward at Saffron Walden and where this might be redistributed in a lower growth scenario. A range of need is presented in Table 10 (Early Years), Table 11 (Primary schools), and Table 12 (Secondary schools). Commentary is provided alongside these. This information has been provided by ECC.

Growth at the proposed garden communities

4.1.14 Table 13 has been provided by ECC and provides a breakdown of education requirements and costs for delivery for the proposed new garden communities (except Birchanger). These are based on the entire scale of growth proposed within each of the garden communities rather than being split by plan period and post plan period. Trigger points have been outlined by ECC outlining when facilities should be provided at each of the proposed settlements.

Table 10: Early years requirement arising from growth in the existing towns and settlements

Settlement	Total new dwelling range in Plan period	Early years places required	Notes
Saffron Walden	1,335 - 825	120 - 74	There are numerous providers across Saffron Walden but all have limited numbers of vacancies and all would require capital funding to expand. Alternatively as new schools are developed so early years could be included in the planning of provision to meet the needs of the growing development in line with school planning and organisation.
Newport	377 - 477	25 - 42	Provider within Newport is currently expanding the building to meet the current new developments that have taken place in Newport and will shortly have increased capacity. Another new provision would bring competition and more choices for families, without making the existing provision unsustainable.
Elsenham	606 - 656	54 - 59	There is currently no early years provision within Elsenham although there is a need. Development would require either two smaller nurseries or pre-schools, or one larger nursery with additional needs that could go to Stansted area or childminder provision. Any new nursery would benefit from being attached to any development of the primary school.
Stansted Mountfitchet	299 - 369	26 - 33	New nursery/pre-school provision would be required to support this development. One new nursery, with support for childminders would support the upper end of development. Current pre-school provision is adjacent to Magna Carter school. Other schools in the village might welcome a nursery on their school site.
Thaxted	107 - 127	9 - 11	There are two large nursery providers in Thaxted with some vacancies but not enough to manage this expansion. They could be supported to expand provision to meet new need. There is not enough development for new additional provision.

Takeley	367 - 417	33 - 37	There are numerous vacancies within this ward. According to current data there is enough capacity to support this growth with no additional childcare places required. Further survey and analysis to check on the accuracy of data supplied by providers required.
Great Dunmow	2,968 – 3,088	267 - 277	Great Dunmow South and Great Dunmow North wards have numerous providers but all with no or limited numbers of vacancies. Land would be required to develop large nursery provision in conjunction with any new school developments.
Great Chesterford	0 - 100	0 - 9	The local pre-school would be unable to meet the upper level of demand, however plans are currently being discussed for a larger nursery in the village. If this happens the new nursery would welcome the increased development and would be able to meet the demand.
Other smaller villages	518	46	Unable to comment as situation in local village pre-schools and nurseries can fluctuate from term to term. Most would find it difficult to support large growths without capital money to increase capacity and this would also rely on land ability and the terms and conditions of their leasing arrangements. Each village proposal would need reviewing independently and in conjunction with other local villages. We would want to prevent families from having to drive young children around for longer periods at both ends of the day. New provision works best for families when planned with school growth.
Windfall allowance	850	76	Comments as above for smaller villages

Source: Essex County Council

Table 11: Primary school requirement arising from growth in the existing towns and settlements

Settlement	Total new dwelling range in Plan period	Primary school places required	Notes
Saffron Walden	1,335 - 825	401 – 248	A new 2.1 hectare site would be required
Newport	377 - 477	113 – 143	Additional land and expansion of Newport Primary would be required.
Elsenham	606 - 656	182 – 197	Additional land and expansion of Elsenham Primary school, would be required.
Stansted Mountfitchet	299 - 369	90 – 111	No action necessary.
Thaxted	107 - 127	32 – 38	There is no scope to expand Thaxted Primary school, which will already be under pressure from commitments
Takeley	367 - 417	110 – 125	Cost issues associated with expanding existing schools. If this is the preferred location of one of the new garden communities this could help provide new school spaces.
Great Dunmow	2,968 – 3,088	890 – 926	A 2.1 hectare site would be required, and one 2.5 hectare site required for the upper end of development.
Great Chesterford	0 - 100	0 – 30	There are insufficient surplus spaces and no option for expansion at Great Chesterford CE Primary School. If this is the preferred location for one of the new garden communities this could help provide new school spaces.
Other smaller villages	518	155	Provision subject to further understanding of where growth will take place.
Windfall allowance	850	255	As above

Source: Essex County Council

Table 12: Secondary school requirement arising from growth in the existing towns and settlements

Settlement	Total new dwelling range in Plan period	Secondary school places required	Notes
Saffron Walden	1,335 - 825	267 – 165	1fe – 2fe expansion of Saffron Walden County High would be required, although 2fe expansion could be problematic considering current size.
Newport	377 - 477	75 – 95	Minor expansion of Joyce Frankland school may be required
Elsenham	606 - 656	121 – 131	Expansion (up to 1fe) of Foresthall school may be required
Stansted Mountfitchet	299 - 369	60 – 74	As above
Thaxted	107 - 127	21 – 25	There is no school within walking distance requiring provision elsewhere, combined with sustainable travel options
Takeley	367 - 417	73 – 83	As above
Great Dunmow	2,968 – 3,088	594 – 618	4fe expansion to Helena Romanes school required, although this may be problematic given current site constraints. School relocation has not yet proven to be viable. Should one of the garden communities come forward nearby this could help provide an alternative solution.
Great Chesterford	0 - 100	0 – 20	There is no school within walking distance requiring provision elsewhere, combined with sustainable travel options
Other smaller villages	518	104	Likely to require school transport and additional capacity requirements elsewhere. Provision subject to further understanding of where growth will take place.
Windfall allowance	850	170	As above

Source: Essex County Council

Table 13: Education requirements arising from proposed garden communities

Infrastructure Item	Timescale for delivery	Cost
Great Chesterford		
Primary and early years: Preference for 4 x 2fe primary schools, with commensurate early years and childcare facilities. 2fe sites to be 2.1ha. EY&C would also need four standalone facilities	1st primary school needs to be delivered by 300 occupations, transfer of site at least one year prior. Second to be delivered at 1700 occupation and third to be delivered at 3100 occupations.	£29.2m at 2016 costs + EYC Sites circa 0.1ha sites / £1.2m each Land to be provided at nil cost.
Secondary: Preference for a 7FE school with sixth form	Secondary school needs to be delivered by 1500 occupations. Site to be available two years prior.	£30M at 2016 cost Land to be provided at nil cost 9ha. site
Chelmer Mead		
Early Years: Facilities to provide parental choice and serve employment areas. Approx 0.26 hectares split over two sites.	First facility potentially to be provided in conjunction with employment site	£1.2m index linked to April 2015 costs per facility
Primary and Early Years: Preference for 2.5hecatre site for 2-2.5FE primary school with commensurate early years / childcare facilities	To be delivered by 300 th occupation, transfer of site at least one year prior	£8.5m index linked to April 2015 costs. Land to be provided at nil cost
Secondary: The pupil numbers generated are too large to be accommodating in existing schools but too small to sustain a new school. Expansion is required.	Funding to be provided prior to 1 st occupation	Cost of school expansions estimated at £18,500 per place (0.2 places per house) plus cost of transportation to nearest available secondary school. Index linked to April 2015 costs.

Infrastructure item	Timescale for delivery	Cost
Elsenham		
Early years: Facilities to provide parental choice and serve employment areas. Approx 0.5hectares split over four sites.	One provision to be provided in early phases of employment centre	£1.2m index linked to April 2015 costs.
Primary and Early Years: Preference for 3 x 2FE primary schools with commensurate early years / childcare facilities. Each site to be 2.1 hectares.	1 st primary school needs to be delivered by 300 occupations, transfer of site at least one year prior. Second to be delivered at 1,700 occupation and then third to be delivered at 3,100 occupation.	£7.29m index linked to April 2015 costs. Land to be provided at nil cost
Secondary. Preference for a 9 hectare site. Consideration would need to be given to the possible relocation and expansion of Forest Hall Academy onto the development site to reduce the level of school transport required in the area	Secondary school needs to be delivered by 800 occupations	£15m index linked to April 2015. Land to be provided at nil cost.
Easton Park		
Early years: Facilities to provide parental choice and serve employment areas. Approximately 1ha split over a number of sites.	One provision to be provided in early phases of employment centre.	£1.2M index linked to April 2015 costs per facility.
Primary: Preference for 7x 2fe primary schools with commensurate early years and childcare facilities. Each site 2.1ha	1 st primary school needs to be delivered by 300 occupations, transfer of site at least one year prior. Second to be delivered at 1700 occupation and then every 1400 houses thereafter.	£51M index linked to April 2015 costs. Land to be provided at nil cost.
Secondary: Preference for 13.6ha site	Secondary school needs to be delivered in phases. Site to be available prior to commencement of phase 2.	£41.5M index linked to April 2015 Land to be provided at nil cost

Infrastructure item	Timescale for delivery	Cost
West of Braintree		
Early years: Facilities to provide parental choice and serve employment areas. Approximately 1ha split over a number of sites.	One provision to be provided in early phases of employment centre.	£1.2M index linked to April 2015 costs per facility.
Primary and Early Years: Preference for 7x 2fe and 1x 3fe primary school, with commensurate early years and childcare facilities. Each 2fe school site to be 2.1ha, the 3fe site to be 2.9ha.	1st primary school needs to be delivered by 300 occupations, transfer of site at least one year prior. Second to be delivered at 1750 occupation and then every 1400 houses thereafter.	£7.29M index linked to April 2015 cost per 2fe facility. £8.5M index linked to April 2015 cost per 3fe facility Land to be provided at nil cost
Secondary: Preference for 1 large secondary school (16.1ha) or 2 smaller secondary schools (8.1ha each) depending on the nature of development.	A secondary school needs to be delivered by 1500 occupations. Site to be available two years prior.	£60M index linked to April 2015 Land to be provided at nil cost

Source: Essex County Council

Note: All figures are indicative and subject to change

Funding of education provision

- 4.1.15 Funding will predominantly come from developer contributions. Where specific school/EY&C sites are identified and appropriate levels of contribution can be secured from no more than five sites, then S106 contributions can be pooled. Outside of this, other contributions will come from CIL.
- 4.1.16 Some limited funding will also come from Central Government Basic Need funding. Although this funding is only expected to address the needs of the population being schooled at the time, i.e. not the needs arising from future growth, in many cases where existing schools are expanded it will be difficult to distinguish between the two in terms of additional provision.

Timing and delivery of education provision

- 4.1.17 All items are seen as critical to the sustainability of the developments proposed.
- 4.1.18 Land should be transferred to ECC prior to first occupation, with other sites in the area only being commenced on delivery of the new facilities. There may be some flexibility to bring forward modest development earlier depending on build and birth rate fluctuations. Smaller projects will be timed once precise unit mix and development phasing is known.
- 4.1.19 ECC will take the lead but delivery of schools may be in partnership with an Academy and EY&C with a private provider. Where new sites for education facilities are required, ECC requires that the necessary land is provided for free and is fit for purpose, i.e. is fully serviced and remediated. This requirement is identified in the ECC Developers' Guide.
- 4.1.20 ECC has indicated that its requirements would need to be kept under review if these developments did not come forward in the first ten years of the plan period. This is particularly relevant for the major strategic sites where longer timescales are expected to be the case.

4.2 Health and Social Wellbeing

4.2.1 For the purposes of the IDP, health and social wellbeing consists of the following:

- General Practitioner (GP) services.
- Hospitals.
- Social care.
- Public health.

4.2.2 This analysis does not take into account specific wider primary care service needs such as dentists, pharmacies, opticians, community health (health visiting, school nursing, midwifery, district nursing, etc). All of these services will be impacted by demand from growth and therefore any changes in provision, e.g. a move to provision of fewer, larger primary care hubs, could mean that such services are provided in a similar way. However, with many of these services provided privately, this will be addressed by the providers themselves.

4.2.3 The Health and Social Care Act 2012 has radically changed the way that primary care services are planned and organised. This has facilitated a move to clinical commissioning, a renewed focus on public health and allowing healthcare market competition for patients. This is primarily provided by the Clinical Commissioning Groups (CCGs), who are responsible for planning and buying ('commissioning') local health services.

4.2.4 Separately, Sustainability and Transformation Plans (STPs), are being prepared for wider areas that incorporate some or all of the CCG areas. Uttlesford falls within the Hertfordshire and West Essex area. A 'New Vision for a Healthier Future' was published in December 2016. Critically, this notes that:

"In Hertfordshire and west Essex, we spend about £3.1 billion a year on health and social care. Faced with increasing demands for services, we expect to have a funding gap of more than £550 million a year by 2021 unless we take action now to improve our own personal health and the way that health and care services work together."³⁰

4.2.5 Of relevance to Uttlesford, the vision notes that, for the west Essex part of the STP:

"Health and social care services in Essex are working together with residents with a view to creating a new, single health and care organisation to deliver better, more joined-up and affordable care. Called 'My Health, My Future, My Say', the Essex proposals include the area of west Essex which falls into our Sustainability and Transformation Plan area. For younger adults, the emphasis of 'My Health, My Future, My Say' is on maintaining health and wellbeing. An older or frail person would have a single care plan involving a range of professionals and services dedicated to keeping that person living independently for as long as possible."³¹

4.2.6 Public health services are provided by Essex County Council in partnership with the respective local authorities. These services are focused on prevention and early

³⁰ See: <http://www.enhertsccg.nhs.uk/news/201612/new-vision-'-healthier-future'-hertfordshire-and-west-essex> accessed April 2017

³¹ Page 10, NHS, ECC and HCC, A Healthier Future: Improving health and care in Hertfordshire and west Essex, 2016-2021

intervention, specifically developing measures that help to reduce illness and to tackle the causes of poor health at source. This includes initiatives to increase activity and healthy living, such as cycling and walking, as well as provision of green space within developments. The strategic overview of the STPs includes consideration of these issues.

Primary Care Services

- 4.2.7 The Primary Care Strategies of the CCGs focus on the following key areas:
- General Practice to be provided at scale aligned to defined neighbourhoods of a minimum of 50,000 practice list size.
 - The creation of a neighbourhood multi-disciplinary primary care workforce embedded in the Care Closer to Home model of care. This will provide General Practice that is fully integrated care with the local authority and voluntary sector delivering services in a co-located primary care hubs.
 - Improved use of technology in General Practice.
 - Improved quality of care and safety of General Practice.
 - Increased patient access – seven day services and reduce demand in the wider healthcare system through improved prevention and self-care.
 - Fit for purpose estate for the delivery of modern General Practice.
 - Supporting the development of a resilient General Practice workforce.
- 4.2.8 A particular focus of the STPs is bringing simple diagnostics and care more into communities. This doesn't necessarily mean needing more properties but trying to find space in existing surgeries for activity that would traditionally be found in an acute care setting.
- 4.2.9 The CCGs are also looking at more prevention-based and integrated service provision with social care. Ideally they would like citizens advice, mental health, yoga, pilates, a cyber café, etc, as part of the hub provision.
- 4.2.10 This growing focus on bringing care provision into a single point within the community means in practice the creation of primary care hubs. It is envisaged that GPs will share buildings with a wide range of health providers, including dentists, pharmacies, optometrists, opticians, etc. There may be some smaller 'spoke' facilities which provide particular specialisms not otherwise provided at the main hub. Often the need for a spoke facility will be because of geography, e.g. an area of population is not large enough to merit its own hub but is physically separated from the main hub by a river, making journey times unacceptably long for patients.
- 4.2.11 New facilities don't have to be stand-alone buildings. Any way of keeping revenue down is desirable. So, for example, a hub may have residential development above it, retail provided on site or community uses as part of the same site. It could also be co-located with extra care provision. Essex County Council would deliver the building as extra care provider and then the healthcare providers could take another part of the site or building.

4.2.12 There are also CCG priorities related to services being:

- Paper-free at the point of care.
- Provided digitally.
- Improving population health and wellbeing through the use of information, insight and innovation.
- Modern infrastructure, systems and services.

4.2.13 This in turn will lead to the 'Digital Patient' programme which will provide alternative methods for patients and the wider community to receive and contribute to care using technologies that most appropriately meet their needs. Practically this could mean the use of video-conferencing services, e.g. Skype, to reducing the need for face-to-face appointments and care.

Hospitals

4.2.14 The Cambridge University Hospitals NHS Foundation Trust manages the Saffron Walden Community Hospital. There are also a number of hospitals located in neighbouring districts which serve Uttlesford (see Table 14).

Table 14: Hospitals serving Uttlesford

Hospital	Location
Saffron Walden Community Hospital, Radwinter Road, Saffron Walden, CB11 3HY	Radwinter Road, Saffron Walden, CB11 3HY
Herts and Essex Community Hospital	Haymeads Lane, Bishop's Stortford, Hertfordshire, CM23 5JH.
Braintree Community Hospital	Chadwick Drive, Braintree, Essex, CM7 2AL.
St Michael's Hospital	Rayne Road, Braintree, Essex, CM7 2QU
William Julien Courtauld Hospital	London Road, Braintree, Essex, CM7 2LJ
Halstead Hospital	778 Hedingham Road, Halstead, Essex, CO9 2DL
Fulbourn Hospital	Fulbourn, Cambridge, CB21 5EF

Source: NHS ³²

4.2.15 The STPs envisage that, over the next five years, hospital services will be reconfigured and transformed, with new models of care meaning more care will be provided as close to people's homes as possible.

4.2.16 In line with Primary Care Strategies and shifting care closer to home where possible, it is envisaged that the impact on the acute sector will culminate in the greater complexity and health needs of patients presenting in the acute sector. Hospitals

³² <http://www.nhs.uk/Services/Trusts/HospitalsAndClinics/DefaultView.aspx?id=104299> Accessed April 2017.

will need to be redesigned to treat the patients of the future, with specific redesign based upon:

- Greater community based care for less acute patients.
- Ageing population.
- Hospital facilities which maximise the potential to treat the most-needy in the most efficient manner possible, centralising services and maximising economies of scale.
- Greater treat and discharge models of care, linking to increased community and social care provision.
- Move to designated day-case and ambulatory models of care and settings.
- Increased health needs/acuity of those patients presenting in the acute sector.
- Provision of the transfer of patients to less acute settings as soon as clinically appropriate, providing patients with care closer to home as soon as possible.
- The centralisation of support functions and services, such as Pharmacy, enabling the greater provision of community healthcare whilst maintaining the most acute patient care within the acute setting.
- Repatriation of tertiary services where practically possible.

4.2.17 At this current time it is not possible to accurately determine the nature of any infrastructure requirements related to hospital based care.

Social care

4.2.18 Social care for both adults and children is provided by Essex County Council (ECC). This covers a range of functions and services and is provided by a range of different providers. There is money in the ECC Capital Budget for vulnerable people, independent living and Essex Cares Limited, a separate company that provides services to allow people to live independently in their homes. This includes supporting adults with learning, physical, sensory or mental health needs.

4.2.19 Essex County Council can make specific provision of built infrastructure for care services, e.g. extra care.

Future Needs:

4.2.20 There is no official standard for when the need for new GP provision will be triggered. However the CCG advise that, as a rule of thumb, one FTE GP per 2,500 patients can be used as a guide.

4.2.21 The CCG has recently opened a new facility in Stansted Mountfitchet. This has some room for growth but capacity might need considering again subject to the proposed scale of growth at Elsenham. Equally, growth at Takeley may impact on the Hatfield Heath surgeries. It is likely that an integrated 'hub' type facility would be needed close to Great Dunmow. It is noted that the proposed garden communities suggest inclusion of health facilities as part of their package of infrastructure (see estimated need in Table 15).

Table 15: Potential GP need arising from scale of growth in proposed garden communities

Garden Community	Total Dwellings	Total Population	GP Surgery Need
Great Chesterford	5,000	12,250	5
Elsenham	4,000	9,800	4
Birchanger	5,800	14,210	6
Easton Park	10,000	24,500	10
Takeley	1,500	3,675	1
Chelmer Mead	2,700	6,615	3
West of Braintree	12,000	29,400	12

Note: Population based on average household size of 2.45. Need based on one GP per 2,500 population

Costs

- 4.2.22 It is not possible to accurately determine the build cost or size of new health hubs at this stage. This will depend a large number of complex and inter-related factors that can only be resolved at a more advanced stage in the planning of such provision on a particular development site. Certainly it will not be the case that each health hub would be a fixed size or would have a fixed list of services.
- 4.2.23 With the changing nature of health provision, it is not possible to establish other health infrastructure costs either because the type of change required to accommodate growth, particularly over the medium- to long-term, is not possible to accurately determine. This is discussed in more detail below under 'Timing and nature of future provision'.

Funding

- 4.2.24 Funding for expansion of existing GP surgeries would firstly come through the Improvement Grant. This is funding that practices can apply for through NHS England for capital improvements to their practices. The contribution would be 66% of what is requested and the practices are then required to bridge the financial gap. This could in some cases be difficult for practices to achieve.
- 4.2.25 Any gaps in funding would therefore need to be bridged through developer contributions.
- 4.2.26 For the provision of new Health Hubs, there are various funding options which are likely to be required to replace Government capital funding after April 2017. One option is third party investment funding which is a partnership between the public and private sector. In such circumstances, a specialist developer will fund the capital cost of construction of the new premises and the GPs that occupy those

premises enter into a lease with the developer. The GPs are able to receive reimbursement of the rent from NHS England.

- 4.2.27 Where such centres are designed as larger multi-use hubs, the developer will separately then rent out the other space which is not used by the GP services.
- 4.2.28 There may be other models available to bring forward such developments, usually involving some variation on the public-private sector partnership. For this type of development and also for expansion of existing surgeries, any gaps in funding will need to be bridged through developer contributions.
- 4.2.29 Land may or may not be provided free for the development of a healthcare facility. However, this would only be desirable for larger 'hub'-type developments that would house a range of medical services. Smaller developments which may only accommodate a practice of two or three GPs would make this inefficient in most, if not all, situations.

Timing and nature of future provision:

- 4.2.30 The provision of appropriate primary healthcare facilities to support growth is a critical item. The necessary provision should be delivered as new growth comes forward to ensure that healthcare impacts are appropriately mitigated.
- 4.2.31 If any on-site provision is required as part of any larger site, whether an extension to an existing settlement or a new 'garden settlement', then this would need to be provided in a timely manner once a patient-orientated critical mass has been achieved.
- 4.2.32 However, it is not possible to determine the exact quantum of space or the cost of providing it. The reason for this is that the provision of healthcare services and delivery models are changing so significantly and will continue to change for the foreseeable future, possibly in many different ways and certainly in ways that are difficult to anticipate at this point in time.
- 4.2.33 The reasons for this are multiple and complex. Firstly, every location will have slightly different needs to accommodate and therefore the most suitable version of a health hub will vary, even within a CCG area or a district.
- 4.2.34 Secondly, changing service delivery models are likely to bring totally different ways of providing services into the mainstream. One of the most significant examples, raised earlier, is digital provision, where people see their GP via video-conference. If this were to become a significant part of service provision then it would arguably be a better use of available funding to improve broadband provision to all homes than providing a new built medical facility. Whilst there will be a continuing need for clinical buildings, if digital provision grows then there may also need to be provision made for digital service bases as well. This may also be supported by mobile services, where CCGs provide mobile units that can visit a series of facilities in an area and provide specific clinical support as needed. It may then be desirable to have this funded by development as well.

- 4.2.35 Over the plan period, health providers will need investment but more than likely it will be in very different forms of delivery and asset than the buildings that have traditionally been developed. It will be important that this is reviewed regularly as part of the IDP update process. Moreover, promoters of development must liaise with health commissioners at the earliest possible stage in order to understand what type of provision will fit most appropriately with local needs.

4.3 **Emergency services**

Police

- 4.3.1 Essex Police is responsible for delivering services to address community safety, tackle the fear of crime and seek to achieve a reduction in crime in Essex through a number of methodologies including the detection of offenders. The primary roles of the police service are: protection of life and property; prevention and detection of crime; and, maintenance of 'The Queens Peace' ('The Peace').
- 4.3.2 The delivery of growth and planned new development in the borough would impose additional pressure on the Essex Police existing infrastructure bases, which are critical to the delivery of effective policing and securing safe and sustainable communities.
- 4.3.3 It is most likely that refurbishment of the existing police estate, from which police staff can operate, would be required. The specific nature of any requirements will need to be assessed on a case-by-case basis.
- 4.3.4 It is understood that there is no existing funding source for the Police service to support the required growth in infrastructure from central or local taxation. The Police service does not receive sufficient central capital funding for new growth-related development. The funding allocated to the Police and Crime Commission via Home Office grants, Council Tax precept and other specific limited grants is generally insufficient to fund requests for capital expenditure whilst there is a time lag associated with the Police receiving operational funding.
- 4.3.5 Some funding will therefore have to come from capital reserves, with the remainder coming from developer contributions.

Fire Service

- 4.3.6 No advice has been provided as to whether additional facilities are required as a result of growth. However, the Essex Fire Authority has published an Integrated Risk Management Plan for the period 2016-2020³³. In regard to fire stations this notes (at page 12):

"Essex Fire Authority has reviewed the disposition of the fire stations across the County and almost all are in the right place and are required to assist the Service in meeting the Authority's response standards."

"The Authority has fire stations which are located in towns and villages across the County and together they provide an emergency response to any incident. Some of these fire stations have one fire engine, others have two or more. Because of where the Authority's fire stations are situated they provide support and assistance to each other when required. This also allows the Service to manage larger scale incidents by facilitating the provision of the right number of fire engines immediately along with the right number of firefighters to tackle the incident safely."

³³ Essex County Fire and Rescue Service, Integrated Risk Management Plan 2016-2020: Leading the way to a safer Essex

4.3.7 Alongside this, the Fire and Rescue Service has published its Strategy for the period 2016 to 2020³⁴. This notes (on page 3) that:

"One of the biggest reasons we face change is the significant cut in funding from central government to finance the service. So from 2016 to 2020 we will simply have to manage with less money."

Ambulance

4.3.8 The East of England Ambulance Service NHS Trust operates ambulance services in Uttlesford.

4.3.9 At the time of writing, the Service is investing in aligning the current estate with a more efficient hub and spoke type model which aims to deliver an efficiency in estate footprint and improved operational performance. It is considered that this investment will help the Service respond to the pressures of increasing demand³⁵.

³⁴ Essex Fire and Rescue Service, Essex Fire Authority Strategy 2016 to 2020, Leading the way to a safer Essex

³⁵ East of England Ambulance Service NHS Trust, Operational Plan 2016/17

4.4 Libraries

- 4.4.1 Library services are provided by Essex County Council.
- 4.4.2 Libraries and their provision is changing significantly. Partly this is due to reducing budgets but also due to the growth of information technology and the population's needs of a core community information service.
- 4.4.3 A 2013 report by the Arts Council and Local Government Association³⁶ set out the changing ways in which local residents use library facilities. The report drew upon best practice experience to outline ways in which communities are supporting and managing local library services. Library facilities in the district are also used for community-run events and activities, and are increasingly becoming spaces where the public can come together.
- 4.4.4 There are four public libraries in Uttlesford, Great Dunmow, Saffron Walden, Stansted and Thaxted. Great Dunmow, Saffron Walden and Thaxted libraries provide a full-time service. Stansted library currently is providing a temporary service, while work is undertaken to create a new community hub. There is a mobile library which visits a range of settlements across the district fortnightly. There is also a home library service for people who can't get to the library owing to age, disability or caring responsibilities.
- 4.4.5 There are no distance standards relating to libraries. For this reason, it has to be assumed that there is no existing deficit in library provision.
- 4.4.6 In terms of future provision, opportunities for the co-location of services and maximising the use of existing buildings will be encouraged, to respond to the increasingly integrated models of service provision and provision for multi-purpose facilities. There is increasing emphasis on the integration of other forms of community infrastructure, such as libraries and community spaces. For the purposes of this IDP when assessing future need mobile libraries have not been considered as they offer little flexibility for co-location and are less appropriate for meeting the long term needs of new and existing communities.
- 4.4.7 New provision is therefore likely to be in the form of a co-located community hub/library. This will be dependent on the level of population growth and the demographic of that population, along with the service requirements of future library provision. It is therefore likely that new provision could be made at some of the larger growth locations, particularly if there is a need for other community facilities, e.g. health centres, community halls etc. However, at this stage it is not possible to identify specific needs or costs of provision.
- 4.4.8 Funding will need to come from developer contributions and will be appropriately designed to serve new developments and communities through the masterplanning process.

³⁶ Locality (2013) Community Libraries: Learning from experience; guiding principles for local authorities, for Arts Council England and the Local Government Association

4.5 Allotments

Existing provision

- 4.5.1 Allotment provision is not commonly undertaken by one specific body. Many allotments were provided several decades ago when funding and provision regimes were very different. Today it is more reasonable to expect developers to provide allotments as part of large developments. The maintenance and upkeep of allotments is commonly undertaken by parish councils.
- 4.5.2 There are currently 24 allotments in Uttlesford. These were assessed in the Uttlesford Open Space, Sport Facility and Playing Pitch Strategy (2012). Most were assessed as being in 'good' condition (see Table 16).

Table 16: Location and condition of allotments in Uttlesford

Allotment	Condition
Brick Kiln Lane, Stebbing	Excellent
Chickney Road, Henham	Excellent
The Street, High Roding	Good to Excellent
Stortford Road, Clavering	Good to Excellent
Mallows Green Road	Good
Roger's End, Ashdon	Good
Little Walden Road, Saffron Walden	Good
Mill Road, Felsted	Good
Jubilee Allotments, Great Dunmow	Good
Mill Road, Debden	Good
Allotments off Broad Street, Hatfield Broad Oak	Good
Frambury Lane, Newport	Good
Crocus Fields, Saffron Walden	Good
Rickling Green Road, Quendon and Rickling	Moderate to Good
Pennington Lane, Stansted	Moderate
Land rear of Magdalen Green, Thaxted	Unknown
Land off The Street, Manuden	Poor

Land off Radwinter Road, Saffron Walden	Unknown
Off Bardfield Road, Thaxted	Unknown
Site off Peaslands Road, Saffron Walden	Unknown
Windmill Hill, Saffron Walden	Unknown
Birchanger Lane, Birchanger	Unknown
Church Lane, Elsenham	Unknown
Off The Street, High Easter	Unknown
Off Hamel Way, Widdington	Unknown

Source: Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, (2012)

- 4.5.3 A large proportion of households in the district are within 4km of an allotment, the recommended standard according to UDC's analysis in 2012³⁷. However, some neighbourhoods have been identified as being deficient of allotments. These are as follows: Chrishall, Elmdon and Wenden Lofts, Great Chesterford, Hempstead, Priors Green Little Canfield, Little Hallingbury, Radwinter, The Stampfords, Takeley and small parts of Hadstock³⁸.

Needs and costs

- 4.5.4 The Uttlesford Open Space, Sport Facility and Playing Pitch Strategy (2012) recommends provision of 0.25 hectares of allotment space per 1,000 people.³⁹
- 4.5.5 Based on the cost of provision elsewhere, it is estimated that the cost of allotment provision is in the region of £25,000 for a 20-plot allotment. Such an allotment would require approximately 0.25 hectares, meaning that the overall cost of provision would be £100,000 per hectare.

³⁷ Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, p.70, (2012).

³⁸ Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, p.70, (2012).

³⁹ Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, p.68 & 186, (2012).

4.5.6 Table 17 summarises the needs and costs for allotment space arising from commitments and allocations in the plan period up until 2033. This shows that there is a need for four hectares of allotment space at a cost of up to £330,000.

Table 17: Allotment needs arising from growth in the existing towns and settlements

Settlement	Scenario A			Scenario B		
	Dwellings	Allotment need (hectares)	Cost	Dwellings	Allotment Need (hectares)	Cost
Saffron Walden	1,335	1	£100,000	825	0.4	£40,000
Newport	377	0	0	477	0	0
Elsenham	606	0	0	656	0.4	£40,000
Stansted Mountfitchet	299	0.2	0	369	0.2	0
Thaxted	107	0.1	0	127	0	0
Takeley	367	0.2	0	417	0.2	0
Great Dunmow	2,968	1.8	£180,000	3,088	2	£200,000
Great Chesterford	0	0	0	100	0	0
Other smaller villages	518	0	0	518	0	0
Windfall allowances	850	0.5	£50,000	850	0.5	£50,000
Total	7,427	3.8	£330,000	7,427	3.8	£330,000

- 4.5.7 The total allotment requirement arising from the proposed garden communities is shown in Table 18. This includes estimated costs for each settlement.

Table 18: Allotment needs arising from the proposed garden communities

Garden Community	Dwellings	Population	Allotment need (Hectares)	Cost (£)
Great Chesterford	5,000	12,250	3	300,000
Elsenham	4,000	9,800	2.45	245,000
Birchanger	5,800	14,210	3.5	350,000
Easton Park	10,000	24,500	6	600,000
Takeley	1,500	3,675	0.9	90,000
Chelmer Mead	2,700	6,615	1.65	165,000
West of Braintree	12,000	29,400	7	700,000

Funding

- 4.5.8 Outside of local authority budgets, there is no known source of funding available for allotments. Allotment provision is not commonly undertaken by one specific body. Many allotments were provided several decades ago when funding and provision regimes were very different. Today it is more reasonable to expect developers to provide allotments as part of large developments. The maintenance and upkeep of allotments is commonly undertaken by parish councils. It is assumed that these would be funded solely through developer contributions.

Delivery and timing

- 4.5.9 Provision of allotment facilities would be delivered on-site as part of developments coming forward. It will be for the masterplanning process to establish when and where allotments are delivered, so this should be agreed between Uttlesford District Council and the developer.
- 4.5.10 Increasingly, alternative models of growing provision are being adopted in developments. In particular, the use of community growing spaces is becoming increasingly popular, whereby growing space is made directly outside residential properties and is shared by the community. This means that less space is required because it can be provided more flexibly and allows communities to grow exactly what they need. Such alternative models are much cheaper and may be preferable particularly in built-up areas.

4.6 Community Centres

Existing provision

- 4.6.1 Community centres are flexible spaces for public use. There are 54 community centres in Uttlesford. These are not considered to be operating at over capacity.⁴⁰

Needs and costs

- 4.6.2 The standard of 1 community hall per 1,500 people is set out for Uttlesford in the Sports Development Strategy, p.139, (2016).
- 4.6.3 It is noted that provision of community centres could be made in a number of ways, mixing large and small centres as appropriate. It is too simplistic to say that this is exactly what is required in terms of the number of facilities. It may be preferable to provide community facilities as part of one large, multi-use facility. Community centres are often used for sporting activities. New community centres will need to be considered in context of whether there is an existing commitment to provide sporting facilities (either as a stand-alone facility or through use, for example, of secondary school facilities).
- 4.6.4 It is assumed that the cost of providing a flexible community space is in the region of £1-2m per facility (based on information provided by ECC), though smaller facilities may cost less. For the assumptions outlined below a mid-point cost figure of £1.5m has been used. This will need to be refined as more information on the nature and scale of proposed growth and spatial distribution of this is better understood.
- 4.6.5 Table 19 summarises the needs and costs arising from growth at commitments and allocations in the existing settlements. Table 20 outlines the requirement arising from the proposed garden communities, as well as estimated costs.
- 4.6.6 Separate youth facilities (including shelters and skate facilities etc) are also likely to be required, particularly within the proposed garden communities. ECC has commented that these cost in the region of £0.2m per facility (index linked to April 2015 costs). Sites for youth facilities and community centres should be provided in compliance with the ECC developer's guide.

⁴⁰ Uttlesford Sports Development Strategy, p.140, (2016).

Table 19: Requirement for new community centres arising from growth at the existing towns and settlements in Uttlesford

Settlement	Scenario A			Scenario B		
	Dwellings	Requirement	Cost	Dwellings	Requirement	Cost
Saffron Walden	1,335	1.9	£2,850,000	825	1.2	£1,800,000
Newport	377	0.7	£1,050,000	477	0.7	£1,050,000
Elsenham	606	0.9	£1,350,000	656	0.9	£1,350,000
Stansted Mountfitchet	299	0.5	£750,000	369	0.5	£750,000
Thaxted	107	0	0	127	0.1	0
Takeley	367	0.6	£900,000	417	1	£1,500,000
Great Dunmow	2,968	4.6	£6,900,000	3,088	5	£7,500,000
Great Chesterford	0	0	0	100	0	0
Other smaller villages	518	0.7	£1,050,000	518	0.7	£1,050,000
Windfall allowances	850	1.2	£1,800,000	850	1.2	£1,800,000
Total	7,427	8	£16,650,000	7,427	8	£16,800,000

Table 20: Requirement for new community centres arising from proposed scale of growth at garden Communities

Garden Community	Dwellings	Population	Community Centres	Cost (£)
Great Chesterford	5,000	12,250	8	12,000,000
Elsenham	4,000	9,800	6.5	9,750,000
Birchanger	5,800	14,210	9.4	14,100,000
Easton Park	10,000	24,500	16.3	24,450,000
Takeley	1,500	3,675	2.45	3,675,000
Chelmer Mead	2,700	6,615	4.4	6,600,000
West of Braintree	12,000	29,400	19.6	29,400,000

Funding

- 4.6.7 New community centres are either provided from local authority capital expenditure budgets or through developer contributions. In certain circumstances, funding can be sought from Sport England if the facility is to provide a significant level of sports facilities. Contributions from development are expected at this time to be secured through a CIL charge.
- 4.6.8 Commonly as part of major developments such land is provided as free land in lieu of other charges, so a developer may offer either the land and a capital contribution towards the construction of a community building, or the identification of a site and construction of the building with subsequent transfer to the local planning authority or, if there is one, a parish council. All sites should be provided in compliance with ECC developer's guide.

Timing of provision

- 4.6.9 There is no particular need for community centres to be provided at a certain time although they should be provided by the time that a reasonable proportion of the population of a new strategic development has been established.

4.7 Leisure and Recreation

- 4.7.1 Leisure and recreation infrastructure helps to create, sustain and enliven communities. Leisure and recreation infrastructure ranges from purpose built leisure facilities, indoor and outdoor sport facilities and play space. Together these places support the activities which are required to help build community, foster a sense of place, meet the cultural and recreational needs of communities and promote community wellbeing.
- 4.7.2 The population of the local authority area is expected to increase. This can be attributed both to planned housing growth and an ageing population. The leisure and recreation needs of Uttlesford will therefore have to continue to accommodate for current day needs whilst also supporting and encouraging activity amongst a higher proportion of older persons.
- 4.7.3 Provision has historically been provided within the larger settlements where demand is highest. Development must ensure that, where appropriate it meets the needs of the immediate proposal and address any existing under provision. Where existing under provision has been identified, the strategy for additional planned leisure and recreation services can be planned carefully to maximise on the positive benefit of such new facilities on both the current and future needs of the population. New facilities should seek to offer flexible uses and combine facilities/ services which may have historically been provided on separate basis.
- 4.7.4 In particular, the opening up of school facilities to the wider public outside of school opening hours can provide specialist facilities in new developments with reduced costs. Essex County Council has advised that most academies would, in principle, be amenable to renting their pitches to local sports clubs or rooms for community interest activities, e.g. adult education, where possible as an income generator. In practice this is easier to achieve with new schools as this can be stipulated when looking for an academy sponsor and included in the lease, or if an additional facility is required this can be designed in if other funding sources are available for it.
- 4.7.5 However, this will need to be considered on a case-by-case basis for both new and existing school facilities and therefore the IDP does not assume that this will happen in all cases. The assessment of leisure and recreation needs therefore reflects the overall need and cost which may ultimately be reduced if facilities can be shared.

Children's Play Facilities and Youth Facilities:

4.7.6 Children's play space is defined in four main categories:

- Local Areas for Play (LAPs) are sites designed specifically for younger children (up to the age of about 6) with a minimum size of approximately 100m².
- Local Equipped Areas of Play (LEAPs) are play areas which are designed for slightly older children between 4 and 8 years old with a minimum size of approximately 400m².
- Neighbourhood Areas of Play (NEAPs) These are sites which are designed to serve older children other than the two types above, these sites have a minimum size of approximately 1000m².
- Multi-Use Game Areas (MUGAs) Areas which provide opportunities for a range of games to be played. Usually consists of hard surfacing, goal posts, basketball hoops, seating and fencing. These sites serve the needs of older children.

Existing capacity

4.7.7 The Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, (2012) identifies that there are 71 play spaces in Uttlesford (Table 21). Of these the condition of 28 were unknown. The condition of 43 was determined and this is set out below. Of the sites assessed 59% were in public ownership. The condition of sites was generally 'moderate' or 'good'. Of these spaces below there are five skate parks in Uttlesford. This forms part of the Districts provision of Multi-Use Game Areas (MUGAs) serving the recreational needs of for older children/teenagers. These were rated as being in 'moderate' condition. The one exception was the Land off Rectory Road, Farnham which rated 'poor'. This was attributed to the sites appearance and lack of disabled access.

Table 21: Location and condition of play spaces in Uttlesford

LEAP/NEAP/MUGA	Location	Condition
Great East Play Area	Great Easton	Excellent
Vernon's Close	Henham	Excellent
Mnet Park	Saffron Walden	Excellent
Mill Road	Denham	Excellent
Church Field and All Saints	Ashdon	Excellent
Anglo American Playing Fields	Saffron Walden	Good
The Causeway	Great Dunmow	Excellent
Bentfield Green	Stanstead	Good
Broadfield	High Roding	Good
Land Fronting Lower Meadow Field	Great Dunmow	Good
Manor Road	Little Easton	Good
Oakroyd Avenue	Great Dunmow	Good
Burns Playing Field	Great Easton	Good
Medlars Mead	Hatfield Broad Oak	Good
The Street	Manuden	Good
Bentfield Green	Stanstead	Good
Long Horse Close	Saffron Walden	Good
The Causeway Skatepark	Great Dunmow	Good
Pulford Playing Field	Great Dunmow	Good
Jolly Boys Lane North	Felsted	Good
Clarendon Road, Priors Green	Little Canfield	Good
St Nicholas Field	Berden	Good
Jigneys Meadow	Great Dunmow	Good
Talberds Ley	Great Dunmow	Good
Watts Close	Banston	Moderate to Good
Rectory Lane	Ashdon	Moderate to Good

Play Area off The Shaw	Hatfield	Moderate
Saffron Trals	Saffron Walden	Moderate
Stokes Road	Little Canfield	Moderate
Baynard Avenue	Flitch Green	Moderate
Evelyn Road	Felsted	Moderate
Burnsite Road	Felsted	Moderate
Barnston Village Happ	Barnston	Moderate
Children's Play Area	Arkesden	Moderate
Harvest Fields	Takeley	Moderate
Station Road	Newport	Moderate
Mountfitchet Road	Stanstead	Moderate
Meadow Ford	Newport	Moderate
Land behind cricket ground	Takeley	Moderate
Honey Road	Little Canfield	Moderate
Warwick Road	Little Canfield	Moderate
Off Rectory Road	Farnham	Poor
Equipped play area, basketball court and open grass off Petlands, Saffron Walden	Saffron Walden	Moderate

Source: Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, (2012)

Needs and costs

- 4.7.8 The Uttlesford Open Space, Sport Facility and Playing Pitch Strategy (2012) provides a standard of 0.2ha per 1000 population⁴¹. The Fields in Trust (FIT) is the operating name of the National Playing Fields Association. For the provision of MUGAs the (FIT) standard is 0.30 hectares per 1,000 population⁴².
- 4.7.9 The Essex County Council Developers' Guide to Infrastructure Contributions Revised Edition (2016) sets out the estimated cost for a MUGA is £40,000⁴³. Based on developments elsewhere the typical cost of a LEAP is £40,000, a NEAP is £80,000. It will be important for the Borough Council to be confident that the additional burden of maintaining these sites can be absorbed by its future revenue budgets.
- 4.7.10 Table 22 shows the requirement for play and youth facilities arising from commitments and allocations in the plan period (under Scenario A). This shows a need for 4 LEAPS, 1 NEAP, and 3 MUGA's at a cost of £3,600,000. Under Scenario B (redistribution of housing away from Saffron Walden: Table 23) there is a need for 4 LEAPS, 1 NEAP and 2 MUGAs at the cost of £3,200,000. There is a reduced need for MUGAs as there is less of a critical mass at Saffron Walden in this growth option.
- 4.7.11 The need for play space as a result, of growth at the garden communities is set out in Table 24.

⁴¹ Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, p.62, (2012).

⁴² Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard, (2015)

⁴³ The Essex County Council Developer' Guide to Infrastructure Contributions p.38, (2016)

Table 22: Requirement for play space arising from growth in existing towns and settlements (high growth option in Saffron Walden)

Settlement	Dwellings	Play space need (ha)	LEAP	NEAP	Youth space need (ha)	MUGA	Cost
Saffron Walden	1,335	0.65	1	0	1	1	£80,000
Newport	377	0.18	0	0	0.3	0	0
Elsenham	606	0.3	0	0	0.4	0	0
Stansted Mountfitchet	299	0.14	0	0	0.2	0	0
Thaxted	107	0.5	1	0	0.7	0	£40,000
Takeley	367	0.17	0	0	0.26	0	0
Great Dunmow	2,968	1.45	1	1	2.2	2	£200,000
Great Chesterford	0	0	0	0	0	0	0
Other smaller villages	518	0.25	0	0	0.4	0	0
Windfall allowance	850	0.41	1	0	0.6	0	£40,000
Total	7,427	4	4	1	5	3	£360,000

Table 23: Requirement for play space arising from growth in existing towns and settlements (lower growth option in Saffron Walden)

Settlement	Dwellings	Play space need (ha)	LEAP	NEAP	Youth space need (ha)	MUGA	Cost
Saffron Walden	825	0.4	1	0	0.5	0	£40,000
Newport	477	0.2	0	0	0.3	0	0
Elsenham	656	0.3	0	0	0.4	0	0
Stansted Mountfitchet	369	0.2	0	0	0.2	0	0
Thaxted	127	0	1	0	0	0	£40,000
Takeley	417	0.2	0	0	0.2	0	0
Great Dunmow	3,088	1.3	1	1	2	2	£200,000
Great Chesterford	100	0	0	0	0.07	0	0
Other smaller villages	518	0.2	0	0	0.4	0	0
Windfall allowance	850	0.3	1	0	0.6	0	£40,000
Total	7,427	3	4	1	5	2	£320,000

Table 24: Requirement for play space arising from growth in proposed garden communities

Garden Community	Dwellings	Play space need (ha)	LEAP	NEAP	Youth space need (ha)	MUGA	Cost (£)
Great Chesterford	5,000	2.45	2	2	3.6	5	440,000
Elsenham	4,000	1.96	2	1	2.9	4	320,000
Birchanger	5,800	2.8	3	1	4	6	440,000
Easton Park	10,000	5	5	3	7	10	840,000
Takeley	1,500	0.7	1	1	1	1.4	166,000
Chelmer Mead	2,700	1	2	0	1.9	2.7	188,000
West of Braintree	12,000	5.8	6	4	8	11	900,000

Funding

- 4.7.12 Outside of local authority budgets, there is no known source of funding available for the provision of additional play space as would be required by the development options. It is assumed that these would be funded solely through developer contributions.

Delivery and timing

- 4.7.13 Provision of children's play facilities would mostly be on-site as part of developments coming forward. It will be for the masterplanning process to establish when and where they are delivered, so this should be agreed between Uttlesford District Council and the developer. Ultimately it will be the developer that delivers such facilities. The potential on larger sites to co-locate community, sports and play facilities will help to maximise efficiency.
- 4.7.14 Provision of facilities in other locations could be the responsibility of either the Borough Council or the parish/town council in question.

4.8 **Indoor sports halls**

Existing provision

- 4.8.1 Sports halls can accommodate a diverse range of sports and recreational activities offering space for team sports, gymnastics, martial arts, group exercise classes, conditioning and training. The flexibility of sports halls can also offer space for non-sporting activities for wider community use when designed and managed well.
- 4.8.2 The provision of indoor sports halls is high within the local authority area but the size, function and use of these spaces varies greatly. Provision is offered directly by the local authority and through facilities which cater for education with community access. Fee paying commercial facilities are also available across the area. For the purposes of this assessment, and based on the significant call on developer contributions meaning that provision should be made as efficiently as possible, it is assumed that new sports halls required will also provide for wider, non-sporting community activities in the same building.
- 4.8.3 Population growth through the number of strategic-scale growth locations proposed will generate additional demand, where new facilities or the expansion of existing facilities will need to accommodate to ensure that demand is met. Providing greater access to existing schools and new schools should be considered to aid with the cost-effective delivery of new sports halls and improving accessibility.
- 4.8.4 There are six sports halls in Uttlesford (Table 25). These are all rated as being in good condition⁴⁴.
- 4.8.5 Based upon Sport England's definition of 'Comfortable Capacity', whereby a sports hall is deemed to be effectively full when usage reaches 80% of theoretical full capacity, four of the sports halls are operating at well above this level and two are below the level but with restricted opportunities to expand. With 76% of the overall capacity in the district used, there is therefore no effective spare capacity in sports halls in Uttlesford.⁴⁵

⁴⁴ Uttlesford District Council, Sports Facilities Development Strategy, January, 2016 p.80

⁴⁵ Uttlesford District Council, Sports Facilities Development Strategy, January, (2016) p.80

Table 25: Location, condition and use of indoor sports halls in Uttlesford

Facility Type	Location	Maintenance	Disabled access	Use Capacity
County High Sports Centre	Audley End Road, Saffron Walden CB11 4UH	5	5	40%
Friends School	Mount Pleasant Road, Saffron Walden CB11	5	5	100%
Lord Butler Leisure Centre	Peaslands Road, Saffron Walden CB11 3EG	5	5	100%
Great Dunmow Leisure Centre	Parsonage Downs, Dunmow CM6 2AT	5	5	100%
Mountfitchet Romeera Leisure Centre	Forest Hall Road, Stansted CM24 8TZ	5	5	
Joyce Frankland Academy, Newport	Cambridge Road, Newport CB11 3TR	5	4	46%

Key: (1) very poor (2) poor (3) average (4) good (5) very good

Source: Uttlesford District Council, Sports Facilities Development Strategy, January, 2016 p.80

Needs and costs

- 4.8.6 The standards for sports halls provision in Uttlesford is 1 sports hall per 11, 349 people. This is set out in the Uttlesford Sports Development Strategy, p. 139. 2016. This is based on the Sport England Facilities Planning Model⁴⁶.
- 4.8.7 There is no need arising from commitments and allocations for new sports halls within the plan period. However, there is a requirement for indoor sports hall provision arising from the proposed garden communities (depending on which settlements come forward). This is set out in Table 26.

⁴⁶ <https://www.sportengland.org/facilities-planning/planning-for-sport/planning-tools-and-guidance/facilities-planning-model/>

- 4.8.8 There may be other needs for health and fitness stations (mainly in the form of gymnasia) and other types of specialist provision, e.g. squash, indoor bowls, indoor tennis etc. However, these are specialist requirements that are often provided by the private sector and they are not included as part of this assessment.

Table 26: Requirement for indoor sports halls arising from growth at the proposed garden communities

Garden Community	Dwellings	Population	Indoor Sports Hall Need	Cost (£)
Great Chesterford	5,000	12,250	1.07	670,000
Elsenham	4,000	9,800	0.86	670,000
Birchanger	5,800	14,210	1.25	804,000
Easton Park	10,000	24,500	2.1	1,407,000
Takeley	1,500	3,675	0	0
Chelmer Mead	2,700	6,615	0.5	335,000
West of Braintree	12,000	29,400	2.5	1,675,000

Funding

- 4.8.9 Outside of local authority budgets, there is no known source of funding available for the provision of additional facilities as would be required by the development options. It is assumed that these would be funded solely through developer contributions.
- 4.8.10 It should also be noted that some of these needs may be addressed through private facilities which would not be funded by the developer.

Delivery and timing

- 4.8.11 Provision of indoor sports facilities would mostly be through improvements to existing facilities. Therefore, this would be the responsibility of Uttlesford District Council. Private facilities coming forward will clearly be the responsibility of the developer in question.

4.9 Indoor swimming pools

Existing provision

- 4.9.1 Uttlesford's Sports Facilities Development Strategy, January 2016, notes that there are four community accessible swimming pools of 20m or larger in Uttlesford, supplemented by one learner pool. This equates to one main pool per 19,861 people. The location and use capacity of these are listed in Table 27.

Table 27: The location and capacity of swimming pools in Uttlesford

Facility	Location	Maintenance / Cleanliness	Disabled access	Use capacity
Felsted School	Felsted	4	4	45%
Friends School	Saffron Walden	5	2	36%
Pace Health Club	Stansted	unknown	unknown	unknown
Livingwell Health Club	Stansted	unknown	unknown	unknown
Hatfield Health Primary School	Hatfield	unknown	unknown	unknown
Great Dunmow Leisure Centre	Great Dunmow	4	4	49%
Lord Butler Leisure Centre	Saffron Walden	5	5	58%

Key: (1) very poor (2) poor (3) average (4) good (5) very good

Source: Uttlesford District Council, Sports Facilities Development Strategy, January, 2016

- 4.9.2 Of the existing provision of swimming pools 75% of swimming pools are on school sites and only accessible to the community on a dual use basis. Not all facilities are available un-restrictively. Therefore, even though there may appear to be good numbers of some types of facility, usage capacity is frequently quite limited. Levels of provision vary between sub-areas, with no provision at all in the Stansted sub-area. The quality of provision is generally good, although the changing facilities and disabled access at the Friend's School pool are rated as 'poor'⁴⁷. There is a current deficit equivalent to two lanes of a 25m pool based upon Sport England's definition of 'Comfortable Capacity', whereby a swimming pool is deemed to be effectively full when usage reaches 70%, theoretical full capacity.

⁴⁷ Uttlesford's Sports Facilities Development Strategy, January, (2016), p.12

Needs and costs

- 4.9.3 Uttlesford's Sports Facilities Development Strategy, January, (2016), p.12 sets out the standard of 1 swimming pool per 17,654 people. Sport England's Facilities Planning Model⁴⁸ calculates a deficiency equivalent to a further 0.5 of a pool.
- 4.9.4 The commitments, allocations and garden communities within the plan period do not generate the need for an additional swimming pool. The growth post the plan period does not generate an additional need for a swimming pool.

⁴⁸ <https://www.sportengland.org/facilities-planning/planning-for-sport/planning-tools-and-guidance/facilities-planning-model/>

4.10 Outdoor grass pitches

Existing provision

- 4.10.1 General participation in sport for at least 30 minutes is higher in Uttlesford at 39%, compared to East of England 35% and National 34% levels. Pitches for football and rugby are required for both adults and children. Junior football pitches are generally half the size of adult pitches, although in the case of mini-football, they are smaller than this. This assessment provides an overall assessment of the needs arising from growth for adult pitches, assuming that all needs are for adult provision; clearly this will not be the case and there will be a need for a mix of adult, junior and mini provision. The detailed breakdown of these needs is most appropriately considered at the masterplanning or pre-application stage.
- 4.10.2 There is a total of 168 grass playing pitches in Uttlesford District. These facilities support a wide number of sports including: football; baseball; softball; cricket; hockey; lacrosse; hurling; cycling polo; and rugby⁴⁹. The current areas of over supply are calculated per sport. These are set out in Table 28.

Table 28: Location and condition of pitches which are over-capacity in Uttlesford

Facility type	Pitches identified at over-capacity	Condition
Adult football pitches	4 sites at full capacity	8 sites in need of upgrade
Cricket pitches	7 beyond capacity	15 in need of an upgrade
Rugby	2 pitches are being used beyond their capacity	n/a
Youth football pitches	6 sites are being used beyond their capacity	4 sites in need of an upgrade

Source: Uttlesford Sports Development Strategy, p.131, 2016

⁴⁹ <https://www.activeplacespower.com/reports/standard-facility>. Accessed on 31/03/17.

4.10.3 There are ten artificial pitches in Uttlesford, four are private and six are for public use. The majority of these are located in Saffron Walden. One of these is '3G' pitch (Table 29). Sport England's Facilities Planning Model⁵⁰ sets out the standards for turf pitch provision. The model is based on a comparison of local demand with supply, taking account issues such as capacity and access. Based on this model there is a current deficit to 0.61 artificial turf pitches in the district⁵¹. The condition of the current artificial turf pitches is 'standard' to 'good' according to the Uttlesford Sports Development Strategy.

Table 29: Location and quality of artificial turf pitches in Uttlesford

Facility	Type	Condition
Carver Barracks	Sand Filled	Good
County High Sports Centre	Sand Filled	Good
Dame Bradbury School	Sand Filled	Unknown
Felsted School	Sand Filled	Standard
Great Dunmow Leisure Centre	Sand Filled	Unknown
Joyce Frankland Academy	Sand Filled	Standard
Manuden Village Hall and Sports Trust	Sand Filled	Good
Rodings Primary School	3G Rubber Crumb Pile	Unknown

Source: Active Places Power database/Condition Assessment in Uttlesford Sports Facilities Development Strategy, 2016

⁵⁰ <https://www.sportengland.org/facilities-planning/planning-for-sport/planning-tools-and-guidance/facilities-planning-model/>

⁵¹ Uttlesford's Sports Facilities Development Strategy, p. 37, (2016)

Needs and costs

- 4.10.4 Based on guidance provided by FIT⁵², a standard of 1.2 hectares per 1,000 population is applied to all grass pitch provision in Uttlesford. The need for additional artificial turf pitches is not assessed. Whilst some artificial pitches can substitute in for some grass pitch provision (for 5-a-side, junior football, etc), artificial pitches are mainly an additional requirement. Artificial pitches are increasingly being provided as part of larger MUGA provision, which caters for a range of sports – football, tennis, basketball, netball.
- 4.10.5 Where an area creates a need for at least four pitches, it is assumed that changing facilities are also required.
- 4.10.6 Guidance on costs from Sport England⁵³, shows that the cost of providing grass pitches is as follows:
- Adult football pitches £80,000
 - Junior football pitches £70,000
 - Mini football pitches £20,000
 - Adult rugby pitches £105,000
- 4.10.7 The overall cost of provision is likely to be higher, depending on the mix of football and rugby pitches.
- 4.10.8 Table 30 shows that there is a need for approximately 26 adult pitches under Scenario A costing £2,080,000 in the plan period arising from planning commitments and allocations within existing towns and settlements. Under Scenario B (with a redistribution of housing away from Saffron Walden) there is a need for approximately 24 adult pitches costing £1,920,000 in the plan period. The level of need is lower than scenario A as there are lower concentrations of people within settlements under this growth option.
- 4.10.9 The requirement for outdoor sports pitches generated by the garden settlement proposals is shown in Table 31. This includes an estimate of costs.

⁵² Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard, (2015)

⁵³ <https://www.sportengland.org/media/10289/facility-costs-2q16.pdf>

Table 30: Outdoor sports pitch requirement in Uttlesford arising from growth in existing towns and settlements

Settlement	Scenario A				Scenario B			
	Dwellings	Grass sports pitches need (ha)	Grass sports pitches need	Cost	Dwellings	Grass sports pitches needs (ha)	Grass sports pitches	Cost
Saffron Walden	1,335	3.5	4	£320,000	825	2.16	3	£240,000
Newport	377	1	1	£80,000	477	1.2	1	£80,000
Elsenham	606	2	3	£240,000	656	1.7	2	£160,000
Stansted Mountfitchet	299	0.8	1	£80,000	369	0.9	1	£80,000
Thaxted	107	0.2	0	£0	127	0.3	0	£0
Takeley	367	0.9	1	£80,000	417	1	1	£80,000
Great Dunmow	2,968	7.9	11	£880,000	3,088	8	11	£880,000
Great Chesterford	0	0	0	£0	100	0.2	0	£0
Other smaller villages	518	1.3	2	£160,000	518	1.3	2	£160,000
Windfall allowances	850	2.2	3	£240,000	850	2.3	3	£240,000
Total	7,427	19	26	£2,080,000	7,427	19.06	24	£1,920,000

Table 31: Grass pitch requirements arising from growth at the proposed garden communities

Garden Community	Total Dwellings	Total Population	Grass pitch need (ha)	Grass pitches	Cost
Great Chesterford	5,000	12,250	14.7	10	£800,000
Elsenham	4,000	9,800	12	8	£640,000
Birchanger	5,800	14,210	17	11	£880,000
Easton Park	10,000	24,500	29	20	£1,600,000
Takeley	1,500	3,675	4	3	£240,000
Chelmer Mead	2,700	6,615	8	6	£480,000
West of Braintree	12,000	29,400	35	24	£1,920,000

Funding

- 4.10.10 Outside of local authority budgets, there is no known source of funding available for the provision of additional pitches as would be required by the development options. It is assumed that these would be funded solely through developer contributions.

Delivery and timing

- 4.10.11 Provision of football pitches would mostly be on-site as part of developments coming forward.
- 4.10.12 It will be for the masterplanning process to establish when and where they are delivered. This should be agreed between Uttlesford District Council and the developer. Ultimately it will be the developer that delivers such facilities. The potential on larger sites to co-locate community and sports facilities will help to maximise efficiency.
- 4.10.13 Provision of facilities in other locations could be the responsibility of either the District Council or the parish/town council in question.
- 4.10.14 There may be needs for other types of reasonably specialist provision, e.g. tennis, bowls, golf etc. However, these are specialist requirements that are often provided by the private sector and are not included as part of this assessment. It should also be noted that many of the requirements for additional tennis and hockey will be addressed through the provision of multi-use games areas (MUGAs). These are considered in the earlier section on youth facilities.

5. Green Infrastructure

5.1 Introduction

5.1.1 Green infrastructure refers to a '*strategically planned and delivered network...of high quality green spaces and other environmental features*' (Natural England). There are a range of different types of space that could be considered to be green infrastructure. However, for the purposes of this study which looks at infrastructure needs, this is confined to the requirement for green spaces to support new populations resulting from the needs set out in local guidance. In particular this focuses on the natural areas used for informal and semi-formal recreational social value. This mainly consists of:

- Natural and semi-natural green space
- Parks, gardens and amenity space

General standards of provision

5.1.2 Based on standards promoted by Natural England and the Essex Wildlife Trust, people should have access to:

- 2ha+ of accessible natural greenspace (ANG) within 300m of home - this has been termed the neighbourhood level
- 20ha+ of ANG within 1.2km of home - the borough level
- 60ha+ of ANG within 3.2km of home - the sub-regional level
- 500ha+ of ANG within 10km of home - the regional level

5.1.3 An assessment of the provision of ANG against these standards (referred to as 'ANGSt') in Uttlesford was undertaken by Natural England in 2009. This showed that more than half of all households in the district met none of the ANGSt requirements. Furthermore, only around one percent of the entire area covered by the district is classified as accessible natural green space⁵⁴.

⁵⁴ The Analysis of Accessible Natural Greenspace Provision for Essex, including Southend-on-Sea and Thurrock Unitary Authorities by the Essex Wildlife trust and Natural England, (2009)

5.2 Country Parks

Current provision

5.2.1 Country parks are areas for people to visit and enjoy the natural environment. Natural England register country parks in England which meet the criteria listed below:

- at least 10 hectares in size
- defined by a clear boundary – marked on a map, whether it's open or fenced in
- accessible – less than 10 miles from a residential area
- free to enter
- inclusive and accessible – show how you've met equality and disability needs and provided for varied groups
- predominantly natural or semi-natural landscape, e.g. woodland, grassland, wetland, heathland or parkland, with no more than 5% of the area built upon (excluding car parks)
- signposted and easy to navigate – visitors should be shown where they can go and what they can do and directed along footpaths, bridleways and cycle routes
- visibly staffed, eg litter collection and maintenance
- available for public or educational events
- near public toilets – either on-site or a 2-minute walk away
- informed by the local community – the public should have some influence over the management and development of your site⁵⁵.

5.2.2 Country parks are also encouraged to contain the following; a visitor centre; play facilities; catering; bike and horse trails; art and sculpture; permanent staff presence; information for visitors; activities e.g. water sports and adventure sports; a green transport policy, e.g. buses and cycle routes to facilities; planned for the management of biodiversity, geodiversity and preservation of historical environment; opportunities for practical community involvement; and a programme of events and guided walks.

5.2.3 There are eight country parks in Essex County. There is no country park provision within Uttlesford district. The most accessible country parks in relation to Uttlesford are Flich Way and Great Notley country parks which, are located south east of Uttlesford in close proximity to West of Braintree.

5.2.4 Great Notley Country Park is currently at capacity in the school holiday periods. The all-weather car parking, catering offer and toilet provision would need to be extended if its usage were to increase⁵⁶. An extension to the park may also be required (potentially into Uttlesford).

⁵⁵ <https://www.gov.uk/guidance/get-accreditation-for-your-country-park>. Accessed 2017

⁵⁶ ECC Correspondance, April 2017.

5.2.5 The Flitch Way Country Park is currently operating at capacity. Current levels of usage are presently impacting on the existing surfaces of its primary access routes.

Need and cost

5.2.6 There are no set national standards for the provision of country parks. However, country parks are classified within the natural and semi-natural green space category and there are standards in respect to access to such spaces. As noted above, the Analysis of Accessible Natural Greenspace Provision for Essex shows that Uttlesford's population fell well below the ANG standard in regard to access to natural green spaces.

5.2.7 Joint working arrangements to increase the capacity of and connectivity to the existing country parks of Great Notley and the Flitch Way will assist in addressing the identified natural and semi-natural green spaces need.

5.2.8 Given the scale of the future natural and semi-natural green space requirements both within and post the plan period, the creation of a new country park may be a cost-efficient measure to provide future supply. This could also help relieve pressure on the Hatfield Forest, the sensitive nature of which is at risk of damage by current visitor numbers.

Funding

5.2.9 Country parks can generate an income as visitor attractions. As such, they can be in many cases self-sustaining. They are a resource efficient option when planning how semi-natural and natural space need can be met. This approach is actively supported by Natural England and the Wildlife Trust.

Delivery and timing

- 5.2.10 The provision of natural and semi-natural green space will be delivered as part of the planned phased development of all sites. A comprehensive masterplanning process will look at both the most cost efficient and effective measures to meet identified need.

Case study:

Developing Great Notley Informal Green Space into a Country Park

Great Notley Informal Green was first created as an informal green space for Braintree residents, linked to the development of Great Notley Garden Village. It served to address local natural green space need. It was funded through a Section 106 agreement.

The park was over 100 acres, the minimum size for a country park and ECC in partnership with Braintree District Council (BDC) redeveloped it to bring it up to a country park standard.

ECC designed visitor attractions in the park to generate revenue and to appeal to as wide a cross-section of the community as possible. Areas of ecological and biodiversity value were also retained within the plan for the park. Open water was incorporated into the design of the park due to both its biodiversity and recreational value.

Key visitor attractions that were created include: the development of a water play area; a large lake for fishing; a play trail; a 1.8km cycling & horse riding route; all weather car parking; and upgraded visitor centre facilities.

Open water was built into the design of the park due to both its biodiversity and recreational value. The visitor centre was designed to be a practical centre serving visitor needs. Its design was kept proportionate to avoid a large capital cost.

The Project Outcomes:

ECC has reported that the upgrade to Great Notley Informal Green Space to create a Country Park was successful in two ways. Firstly, the redevelopment increased peoples access and enjoyment of the outdoors. Visitor numbers increased from 30,000 to 150,000.

Secondly, the park became financially sustainable as a result of the upgrade. The visitor attractions generate an income which can cover management and maintenance costs.

Source: Essex County Council

5.3 Amenity green space and natural and semi-natural green space

Existing provision

- 5.3.1 Altogether 87 amenity greenspaces have been identified within Uttlesford District⁵⁷. These all ranked as being in 'good' to 'moderate' condition with the exception of, Lukins Mead/Nursery Rise amenity space in Great Dunmow. Improvements to the appearance of this space were identified as needed.
- 5.3.2 Most of the settlements within the Uttlesford district are within 400m of their nearest amenity greenspace. Some deficiencies in accessibility are located in Barnston, Chrishall, Debden, Elmdon and Wenden Lofts, Great Chesterford, Hatfield Broad Oak, High Easter, Littlebury, Little Chesterord, Little Easton, Manuden, Newport, Radwinter, Stebbing, Wicken Bonhnt and Widdington.
- 5.3.3 There are 79 natural and semi-natural green spaces in Uttlesford. The character of the natural and semi-natural urban greenspaces varies and includes woodlands, grasslands, meadows, scrub, ponds, streams and river's. The following areas are identified as being deficient in access to semi-natural green spaces: Arkesden, Barnston, Chrishall, Debden, Elmdon and Wenden Lofts, Elsenham, Felsted, Fritch Green, Great Easton and Tilty, Hempstead, Henham, High Easter, High Roding, Leaden Roding, Littlebury, Little Easton, Newport, Quendon and Rickling, Radwinter, The Stapfords, Swards End, Stanstead, White Roding, Wicken Bonhunt and Wittington.
- 5.3.4 There are three parks and gardens in Uttlesford (Table 32), these are all located in Saffron Walden.

Table 32: Quality of parks and gardens in Uttlesford

Park and garden	Quality rating
Bridge End Gardens	Excellent
Jubilee Gardens	Good
The Common	Good

Source: Open Space, Sports Facility, Playing Pitch Strategy, p. 36 2016.

⁵⁷ Uttlesford Open Space, Sport Facility and Playing Pitch Strategy, p41, (2012)

Needs and costs

- 5.3.5 The Uttlesford Open Space, Sport Facility and Playing Pitch Strategy (2012) establishes the following standards for provision of green space:
- Natural and semi-natural green spaces – 7 hectare per 1,000 population
 - Amenity green spaces – 1 hectare per 1,000 population
- 5.3.6 There is no proposed standard for Parks and Gardens in Uttlesford due to the very small number of sites within this typology in Uttlesford District⁵⁸.
- 5.3.7 Analysis of Accessible Natural Greenspace Provision for Essex, including Southend-on-Sea and Thurrock Unitary Authorities, Natural England (2009) sets out that there was 994 ha of accessible Green Space in the District.
- 5.3.8 Table 33 sets out that there is a need for 112 hectares of natural and semi-natural green spaces and 15 hectares of amenity green spaces required to address the needs arising from commitments and allocations within the plan period. Table 34 shows the requirements arising from the proposed garden communities.
- 5.3.9 Not all developments will necessarily be expected to provide green space at these standards, particularly higher density development within urban areas.
- 5.3.10 In addition, ECC reports that that it will be more cost-efficient to provide local parks for more than local need, i.e. providing a wider visitor experience which can help to create a revenue stream that will otherwise address what are relatively high costs of provision. For country parks, the scale of provision is key; such provision should be at least 40 hectares in order to make it a 'destination'.
- 5.3.11 It is not possible to assign costs for the provision of green infrastructure and open space. This will depend on a number of factors, not least the availability of greenfield land to make such provision.

⁵⁸ Open Space, Sports Facility, Playing Pitch Strategy, p. 38, (2016).

Table 33: Green space requirements from growth at existing towns and settlements

Settlement	Scenario A			Scenario B		
	Dwellings	Natural and semi-natural green spaces (hectares)	Amenity green spaces (hectares)	Dwellings	Natural and semi-natural green spaces (hectares)	Amenity green space (hectares)
Saffron Walden	1,335	21	3	825	13	1.8
Newport	377	7	1	477	7	1
Elsenham	606	7	1	656	9.8	1
Stansted Mountfitchet	299	4.2	0.6	369	5.6	0.8
Thaxted	107	1.4	0.2	127	1.4	0
Takeley	367	4.2	0.8	417	6.3	0.9
Great Dunmow	2,968	46	6.6	3,088	48	6.9
Great Chesterford	0	0	0	100	1.4	0
Other smaller villages	518	7	1	518	7	1
Windfall allowances	850	14	1.9	850	13	1.9
Total	7,427	112	15	7,427	112	15

Table 34: Green space requirements from garden community proposals

Garden Community	Total Dwellings	Total Population	Natural and Semi-Natural Amenity Space (hectares)	Amenity Green Space (hectares)
Great Chesterford	5,000	12,250	84	12.2
Elsenham	4,000	9,800	67	9.3
Birchanger	5,800	14,210	99	14.6
Easton Park	10,000	24,500	170	24.4
Takeley	1,500	3,675	25	3.6
Chelmer Mead	2,700	6,615	46	6.6
West of Braintree	12,000	29,400	205	29.3

Funding

- 5.3.12 It is expected that developers will make land available for green infrastructure provision as part of comprehensive masterplanning and the application/Section 106 process. ECC reports that ongoing revenue funding is the greatest challenge for maintaining green infrastructure. Larger scale provision, particularly country parks, is preferred because of the greater ability to create multiple revenue streams through, for example, car parking, visitor attractions, cafes and restaurants and corporate activities. Great Notley Country Park, for example, provides all of these facilities and attracts 150,000 visitors per year.

Delivery and timing

- 5.3.13 Provision will be delivered as part of the planned phased development of all sites. A comprehensive masterplanning process will help to ensure that new development provides necessary green infrastructure and public open space.

6. Summary of Key Findings

- 6.1.1 This IDP takes a purposely strategic view of the infrastructure needs and requirements arising from the likely scale and distribution of future growth in the district. This is because there are: (a) different growth options associated with the existing towns and settlements, reflecting alternatives at Saffron Walden for example; and (b) a number of proposed new garden communities, not all of which will be selected as part of the preferred growth strategy in the Local Plan.
- 6.1.2 The IDP is thus very much a 'living document'. As more detail emerges as to the preferred scale and direction of growth, and the nature of the garden communities, then it will be possible to revisit and update the IDP. Until that time the key infrastructure items are identified, as far as has been possible, in this report.
- 6.1.3 The IDP has been informed through workshops and discussions with infrastructure providers and the promoters of the garden communities, as well as desktop research.
- 6.1.4 The headline findings of the IDP are summarised below. As per the structure of the report these are ordered along the lines of physical, social and green infrastructure. The requirements have also been categorised, highlighting those pieces of infrastructure considered critical, necessary or important. Furthermore, and where flagged up by providers during the study, potential risks to delivery are identified.

Physical Infrastructure

- 6.1.5 There are some key challenges and risks to growth associated with the need for physical infrastructure in the district. These are summarised below:

M11 Junction 8

- 6.1.6 Junction 8 of the M11 is already under pressure. It has been identified as a problem junction with a severe level of congestion. Whilst interim solutions have been funded a solution will be required for it to be able to accommodate traffic associated with additional growth over the plan period (and beyond). A scheme is likely to appear in the next Road Investments Strategy.
- 6.1.7 An improved Junction 8 is considered a critical piece of infrastructure and until it is in place, represents a risk to growth.

Access to areas of growth from the strategic highway network

- 6.1.8 Access to areas of new growth and development from the strategic road network are considered critical pieces of infrastructure. In particular:
- Upper levels of growth would place pressure on the road network in Saffron Walden, exceeding capacity at a number of junctions during the plan period.
 - Improvements to the road network in Great Dunmow, primarily in and around the town centre, may be needed in the plan period.

- Growth at Great Chesterford will likely exacerbate pressure on the A505 (in South Cambs). Improvements to the A505 are however required with or without Great Chesterford coming forward as a new garden community and so is not seen as a constraint to development.
- Birchanger, which is located in close proximity to M11 junction 8, would generate adverse impacts on the M11 and A120.
- The current permitted scale of growth at Stansted Airport can be accommodated within the interim solutions to M11 Junction 8. However, additional junction improvements would be required for any further growth (over and above 35MPPA).
- Although access from the A120 into the proposed garden settlement at Easton Park is considered achievable, the current scheme being promoted only shows a single point of access to serve a new settlement of 10,000 new homes. As a minimum, two access points will be required, which will help ensure network resilience. Unless an additional access point onto the strategic highway network can be identified and delivered, access to Easton Park is a risk to scheme delivery.
- Access to the proposed garden settlement at Elsenham is considered difficult to achieve given the complexities associated with access to the M11 (a new junction might be needed but would be difficult to deliver) and the A120 (which would be convoluted given the need to route around Stansted Airport). It thus presents a major risk to development in this location.
- Further growth at Takeley, as proposed through the new garden settlement, would be difficult to achieve given additional pressures that would be placed on M11 Junction 8. This is a risk to development at this location.
- Access to the strategic road network from the proposed Chelmer Mead garden settlement is considered difficult to achieve, with no direct links to the A120 possible. This is a risk to development in this location.
- Access to the A120 from the proposed West of Braintree new garden community is considered feasible, though does require the two separate proposals (Boxted Wood and Andrewsfield) to be considered together and impacts on the A120 at Great Dunmow to be further assessed.

Sustainable access

- 6.1.9 Alongside the access arrangements outlined above, all major growth locations would be required to deliver a package of sustainable travel measures, including bus, walking and cycling routes. These are all considered necessary items of infrastructure. It is important that any passenger transport services provided or amended are deliverable and viable in the long-term.

Rail

- 6.1.10 Improvement to rail services are considered necessary. Although there are a series of projects being explored at the moment which could increase capacity and frequency, further consideration of the preferred scale and distribution of growth in

the district may need to be factored into further improvements, including station access improvements. This however is not considered a risk to growth.

Water infrastructure

- 6.1.11 Provision of water infrastructure is critical and could be a risk to the spatial distribution of growth in the local plan period. Although it is considered that growth in the existing towns and settlements can be accommodated, upgrades will be required to the foul sewerage network. Growth at the proposed new garden communities will place additional burdens on foul water capacity over and above this.
- 6.1.12 Major upgrades and new water supply infrastructure will be required for the new garden communities. In particular, a new water recycling centre will be required to serve the proposed garden community at Easton Park. However, the lead-in periods for this mean that such a facility would unlikely to be operational until the end of the plan period.
- 6.1.13 The detail of what is required across the district will need feeding into future asset management periods for Anglian and Thames Water. Without a commitment to delivery in the next AMP period growth in the garden communities will be delayed to later in the plan period.
- 6.1.14 The delivery of technical and feasible solutions also needs considering alongside environmental concerns. The EA has advised that the level of discharges into water courses is currently at its limit and that additional permits for increased discharges may not be granted. Therefore, growth without appropriate water infrastructure, particularly at the garden communities, is a major risk to delivery.

Electricity network

- 6.1.15 It is considered that in the short term sufficient capacity exists within the electricity network to accommodate growth. However, to support the upper end of development in the proposed garden communities, new network and or primary substations would be required at Elsenham, Great Chesterford, Easton Park and West of Braintree. Localised reinforcements would also be required at Takeley and Birchanger. This infrastructure is considered necessary but is not thought to be a risk to development.

Gas, waste and broadband

- 6.1.16 Provision of gas, waste and broadband services are all considered necessary but do not pose risks to the scale and distribution of growth in the local plan period.

Social infrastructure

6.1.17 Social infrastructure in this IDP includes education (comprising early years and childcare, primary and secondary schools), healthcare, emergency services, libraries, community centres, allotments and open space / play and leisure provision.

Education

6.1.18 Education is considered to be necessary infrastructure. Where new development is to take place in existing towns and settlements existing facilities may need expanding. Equally, and where new development is of a certain size, then new facilities may be required: the scale of growth in Saffron Walden and Great Dunmow will likely require new primary school provision. Where new primary schools are provided, it may also be possible to incorporate new early years spaces with these.

6.1.19 There are though challenges in Thaxted and Takeley where scope to expand existing schools is limited. Alternative arrangements in these locations would need to be considered. These settlements also pose challenges for secondary school needs generated from development: pupils would need to travel away from the towns for schooling. Elsewhere, extensions of existing secondary schools will be required. This could be challenging in Saffron Walden and Great Dunmow though where existing school sites are constrained. No options for expansion or relocation have yet been identified, or, where they have, proven viable.

6.1.20 Education provision within the proposed garden communities could help provide for needs. School place provision in these has been determined in line with guidance established by Essex County Council: the package of infrastructure outlined by site promoters for the garden communities is broadly in accordance with this guidance. Provision in each of the garden communities would be linked to particular trigger points and require financial contributions and provision of land.

Health care

6.1.21 Health care provision is currently undergoing change and the CCG for the area is preparing a Sustainability Transformation Plan (STP), part of which includes a new digital programme and facilities combined with other services. It is thought that a new hub facility would most likely be needed in Great Dunmow and that the proposed garden communities should include health centres. The exact size and type of provision will though be determined following more detailed understanding of the scale and type of growth to come forward in different locations across the district.

Other social infrastructure items

6.1.22 Beyond these items there are no major risks to growth associated with the provision of social infrastructure. Contributions will be required to new community centres and youth facilities, which could comprise co-located buildings with libraries and health provision. Allotments, open space, play and leisure facilities should be masterplanned into new development areas in line with general standards for

provision. However, and subject to future models, some of this could be provided alongside or within new school sites.

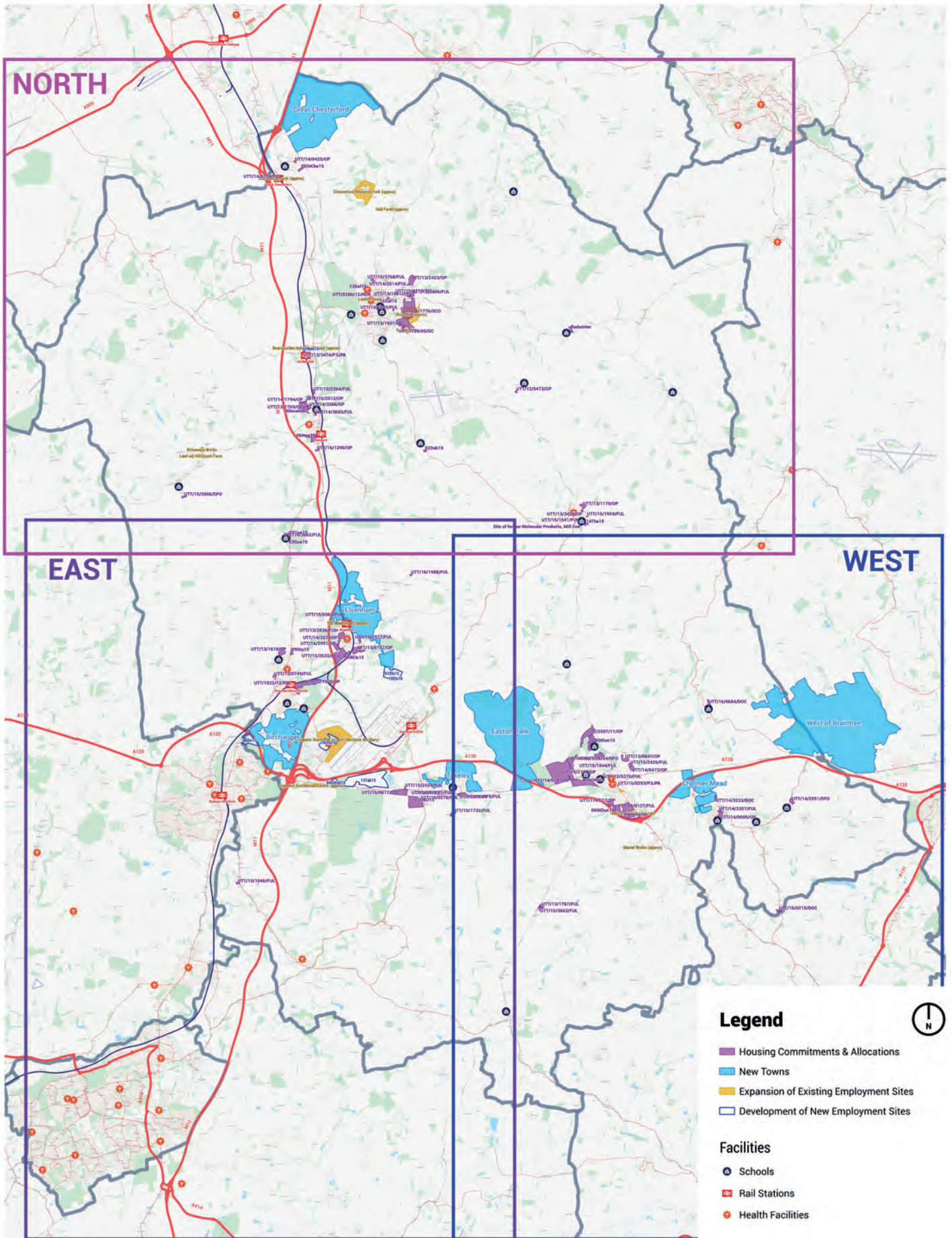
Green infrastructure

- 6.1.23 Existing research demonstrates that a high proportion of households in the district have limited access to natural greenspace. Furthermore, there is an identified need for a new Country Park in the district, which would both increase provision and access, but also relieve pressure on the Hartfield Forest.
- 6.1.24 The proposed new garden communities, by their very nature, include good levels of greenspace provision and some of these also allow for provision of a new Country Park.
- 6.1.25 A key outstanding question is how the Country Park(s) would be managed and maintained: that is whether they would be retained within the control of the landowners or whether they would be transferred to the County / District to run. The Great Notley Country Park in Braintree is a good example of a successful facility run by the County and which could be a model to be considered in Uttlesford.
- 6.1.26 The Flitch Way, which follows the route of the former railway between Braintree and Stansted, forms an important part of the network of green infrastructure in the district. It provides for cycling and walking connections. Access to this and improvements to the quality of the route would be sought, particularly from those areas of proposed growth close to the Flitch Way, including garden communities at Easton Park and West of Braintree.
- 6.1.27 The green infrastructure items outlined above are considered necessary infrastructure. Their form and nature of delivery will be further considered through the preferred options process and the next level of detail that will emerge as the preferred new garden communities are identified. There are no major risks to growth in relation to Green Infrastructure. However, the quality and effective coordination of its planning and delivery will be a key determinate in realizing quality place-making in the local plan period.

7. Appendix A – Site mapping

Included within this appendix are plans showing the location of proposed housing and employment sites across the district, including the garden communities.

Uttlesford - Growth Options



Legend

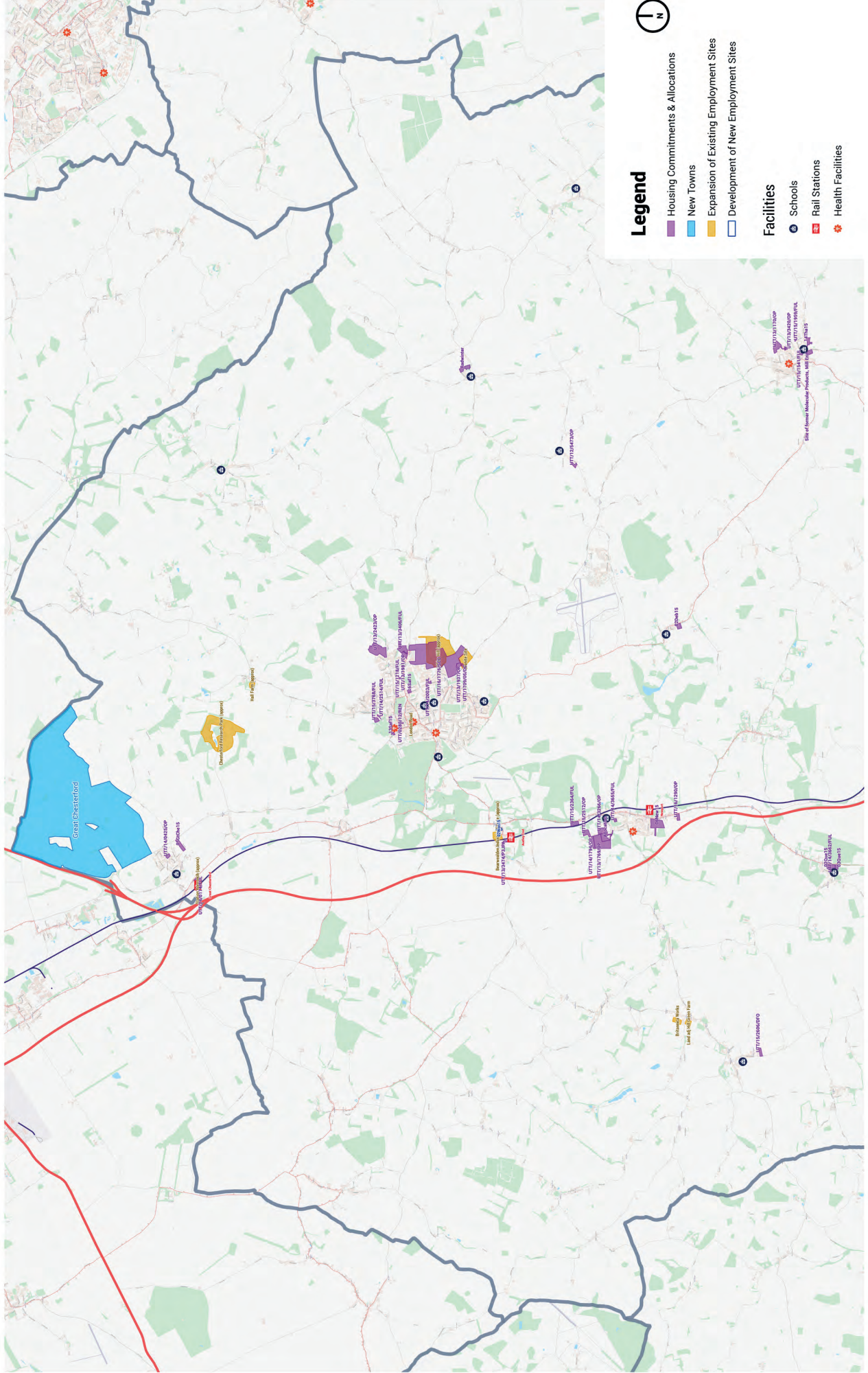
- Housing Commitments & Allocations
- New Towns
- Expansion of Existing Employment Sites
- Development of New Employment Sites

Facilities

- Schools
- Rail Stations
- Health Facilities



UTTLESFORD NORTH - Growth Locations



Legend

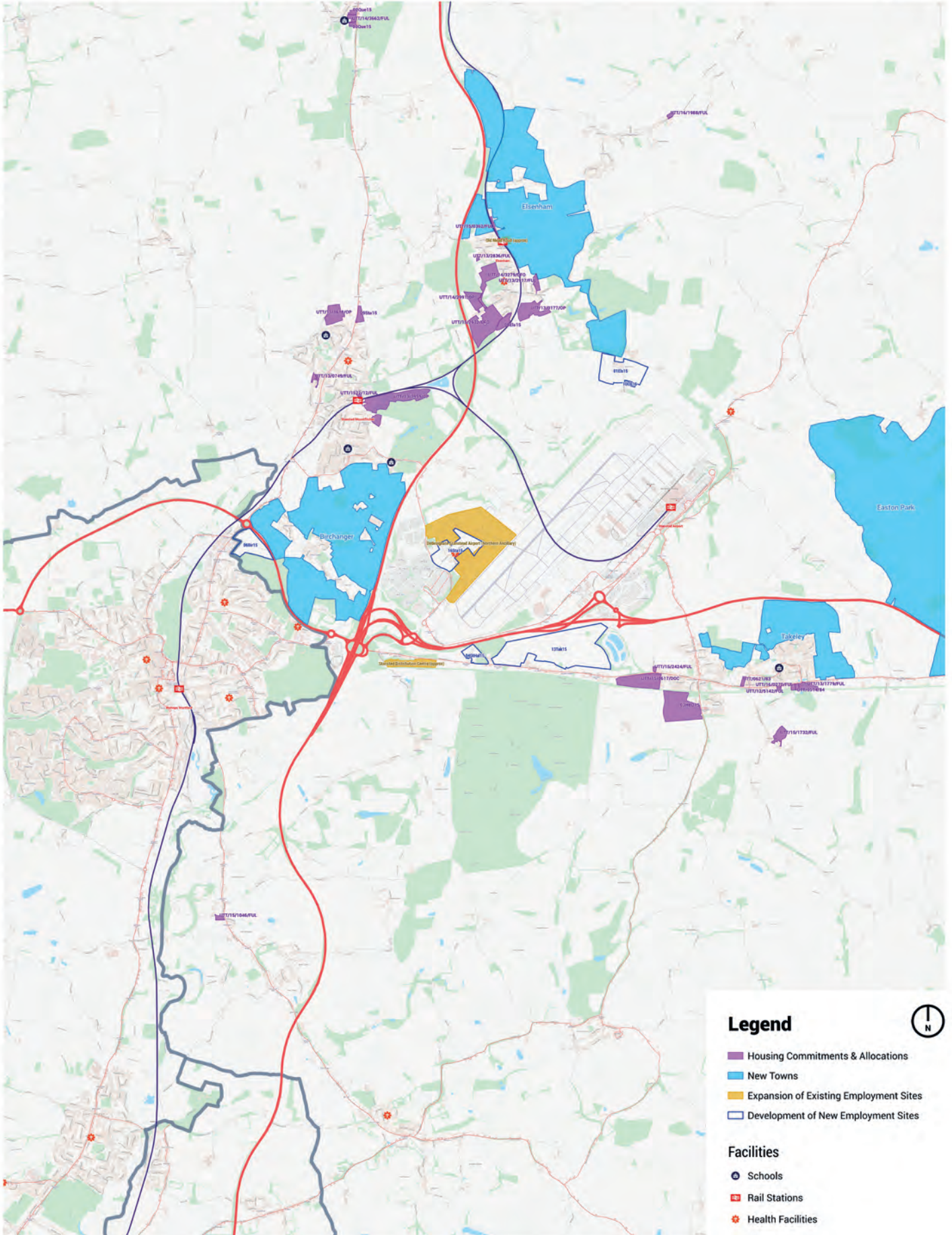
- Housing Commitments & Allocations
- New Towns
- Expansion of Existing Employment Sites
- Development of New Employment Sites

Facilities

- Schools
- Rail Stations
- Health Facilities



UTTLESFORD EAST - Growth Locations



Legend



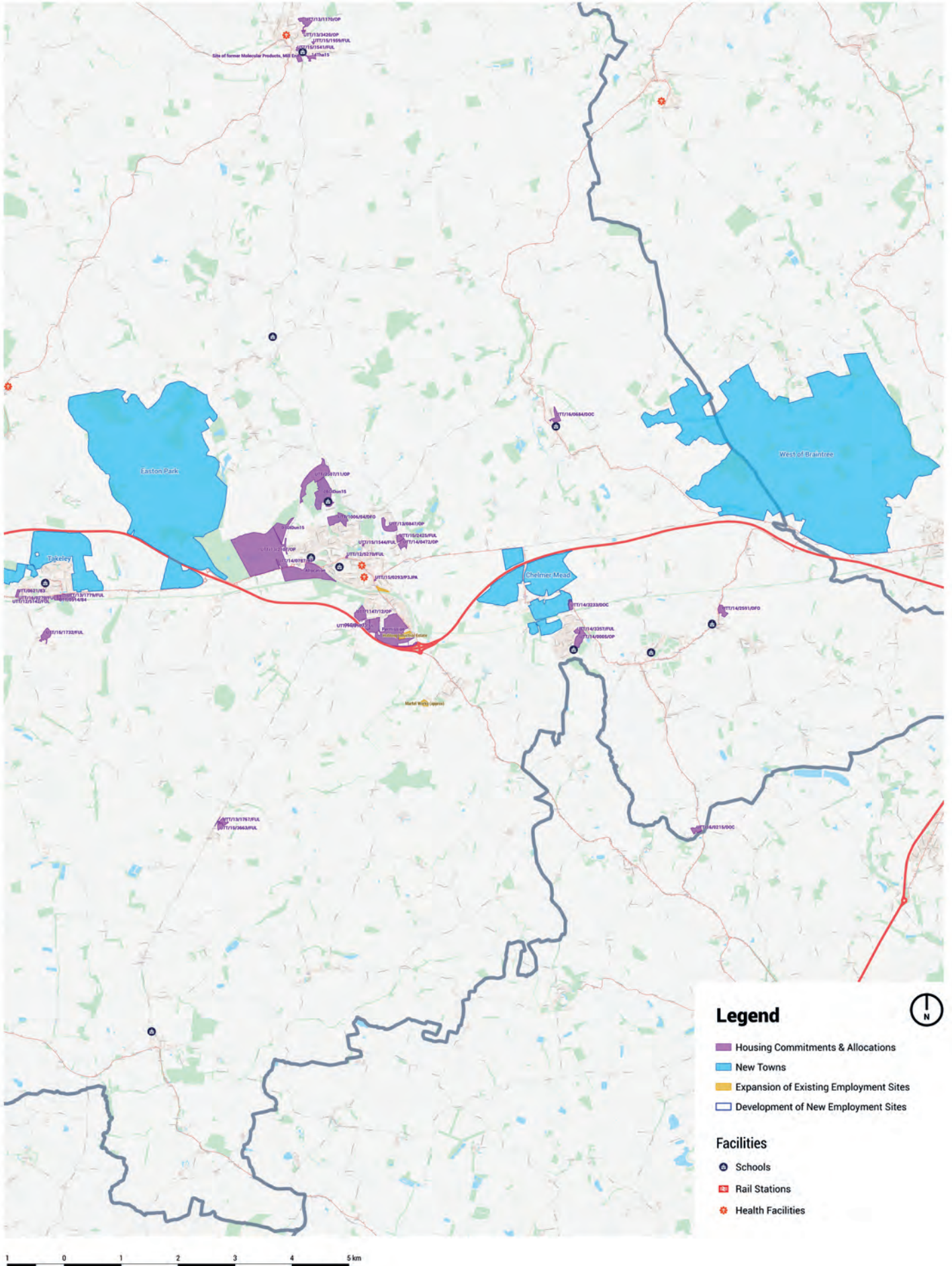
- Housing Commitments & Allocations
- New Towns
- Expansion of Existing Employment Sites
- Development of New Employment Sites

Facilities

- Schools
- Rail Stations
- Health Facilities



UTTLESFORD WEST - Growth Locations



1 0 1 2 3 4 5 km



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