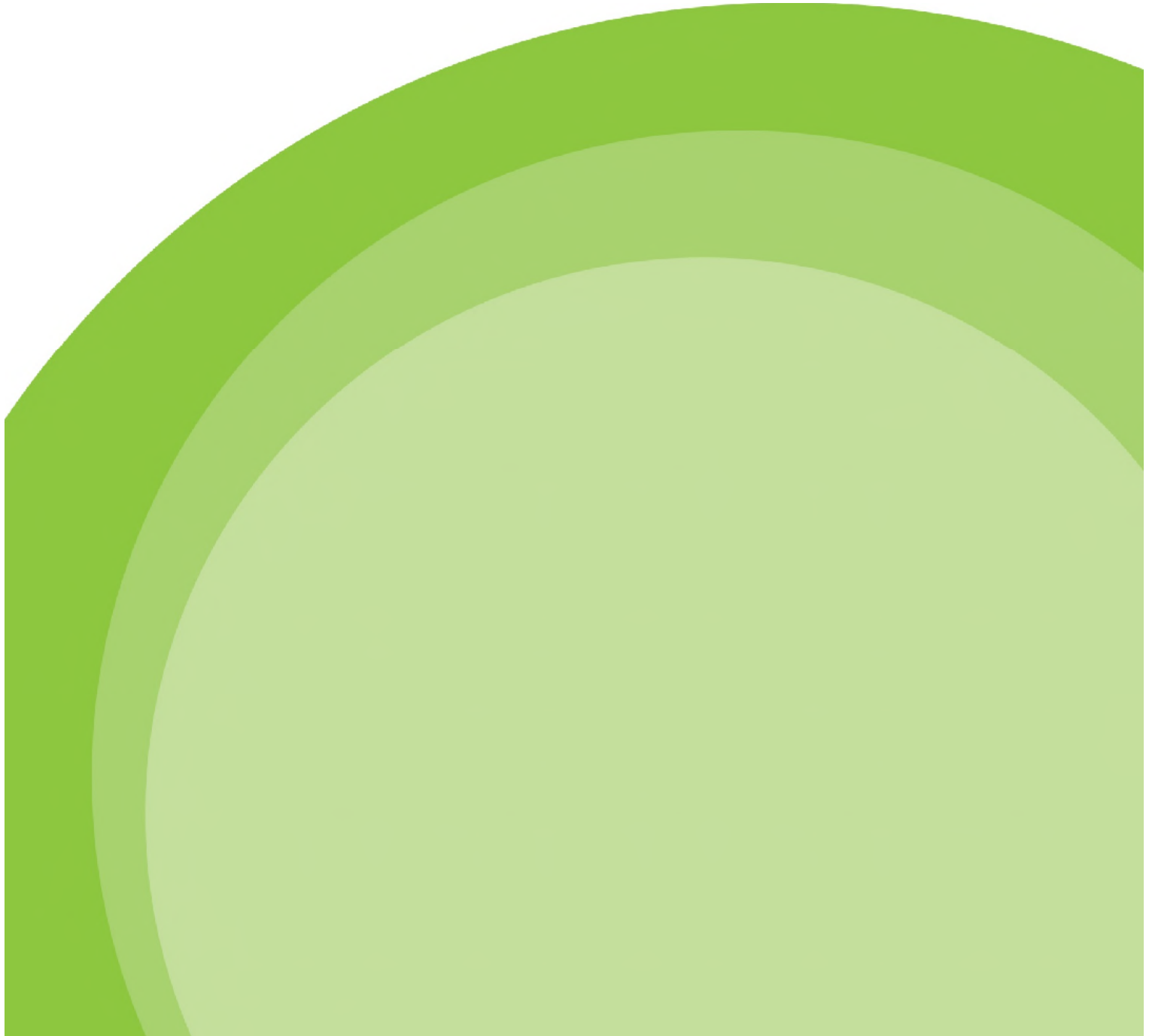**Central Bedfordshire**

# Luton HMA Growth Options Study

## July 2017

# Central Bedfordshire Council : Luton Housing Market Area Growth Options Study

## 1.    Introduction

1.1    This is a technical document which has been produced in support of the Central Bedfordshire Local Plan 2015-2035. It is just one part of the evidence base required to underpin the statutory plan making process and provides an independent review of growth options within the Luton Housing Market Area (HMA). The study was undertaken by Land Use Consultants (LUC) and was a joint commission between the four local authorities who sit within the HMA – namely Central Bedfordshire, Luton, Aylesbury Vale and North Hertfordshire.  The need for this study arose following extensive discussions between the four authorities on strategic cross boundary matters.

1.2    For clarification, the Luton HMA consists of the entirety of Luton Borough, a significant area of Central Bedfordshire and smaller areas of Aylesbury Vale and North Hertfordshire.

1.3    At the time of writing, there are no significant transport studies underway for the Luton HMA Area.  It is important to note however, that new transport infrastructure such as the A5-M1 Link road, new Junction 11a on the M1 and the Woodside Link are either built or under construction and that these significant pieces of infrastructure have been factored in to the study.

1.4    The study is a very high level assessment, the aim of which is to identify possible locations for housing growth, including unmet housing need from Luton, within the boundary of the HMA based upon a limited number of factors. There are a number of other technical studies that will ultimately help identify development options taken forward within the Local Plan and will need to be read in conjunction with this study when published.   It is important to note that this study does not consider the issue of coalescence between settlements, as this is considered at a more local level through the Central Bedfordshire Site Assessment process.

1.5    This study therefore forms part of the extensive evidence base of technical reports that will inform the Central Bedfordshire Local Plan (2015 to 2035).

## 2.    Executive Summary and Key Findings

2.1    Central Bedfordshire Council undertook the Luton HMA Growth Options Study as a joint commission with Luton Borough Council, Aylesbury Vale District Council and North Hertfordshire District Council.

2.2    The aim of the Growth Options Study is to identify and assess at a high level, potential options to help meet housing need within the Luton HMA, in terms of their "deliverability" which is defined as including proximity to basic services, required new infrastructure being delivered in the vicinity of the site and expected demand for housing.  The study also provides an assessment of the capacity for all types of housing (market and affordable) based on assumed densities. This does not mean the potential locations could necessarily come forward at these densities as this will be need to be subject to more detailed master planning. It is also important to note that the overall capacity of the locations identified within the study through this process, far exceeds that which will be required within the plan. The identification of a location as high or medium performance does not therefore mean that they will ultimately be taken forward within the local plan.  Further technical

work will determine which locations may be taken forward as options within the local plan and at what level of growth at each of the locations would be appropriate and sustainable given a wider range of factors.

2.3     The locations within Central Bedfordshire that have been assessed through the study were identified through the councils' call for sites process. The locations were grouped together, having been spatially mapped, to identify strategic scale locations for assessment. Were it was considered appropriate, 'gaps' between sites have been included within the identification of a location in order to ensure the full potential of the location has been considered. A sense check was also undertaken to identify 'missing sites' that had not been submitted through the Call for Sites process so as to ensure that all potential locations within the HMA were included within the study[1]. The Luton HMA Growth Options Study (the study) considers a number of strategic locations across the HMA. It is important again to note that the Council received a significant number of sites which far exceed the capacity of CBC to accommodate. The exact quantum of development at each location requires more thorough assessment.

2.4     The study narrowed down the number of locations by removing any sites/locations that were situated within areas of primary constraint, such as the Chilterns AONB and areas of high flood risk, as well as smaller sites that were isolated and could not be grouped to form larger strategic options. 32 locations in the HMA were taken forward within the study and considered in relation to secondary environmental constraints; access to existing and potential new services and facilities and Green Belt performance.

2.5     The locations were also assessed for their "deliverability", which considered non-financial factors that may help or limit the site being brought forward such as land availability. Deliverability was also assessed based on the prospect of the entirety of the location being delivered at the assumed size, type of development and dwelling capacity.  The locations were also assessed for viability which primarily considered the financial viability of the site based on the likely cost of bringing the site forward, the number of dwellings that could be delivered and the likely sales value of those dwellings.

2.6     Whilst at the time of writing, there are no significant transport studies underway for the Luton HMA Area, it is important to note that new transport infrastructure such as the A5-M1 Link road, new Junction 11a on the M1 and the Woodside Link are either built or under construction and that these significant pieces of infrastructure have been factored in to the study. Work is also being undertaken externally with regard to a potential new link road from the M1 to the A6 which could facilitate the provision of further housing growth to the north of Luton.

2.7     The performance of each location has been expressed as high, medium or low across the range of criteria and provides the Council with a guide as to where strategic level growth may be located across Central Bedfordshire.

2.8     **It is important to note that the identification in this high level study of a location as high or medium performance does not mean that they will ultimately be taken forward within the local plan,** and similarly, a location that has been assessed as low does not preclude any development coming forward at all.

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[1] [1] It is important to note that in relation to 'gaps' and 'missing' sites/locations, these have been identified through a map-based exercise and therefore are parcels of land not submitted to the Council through the Call for Sites process.  It is likely that landowners are unaware of this which may have implications for delivery and availability if a 'gap' or 'missing' location is considered appropriate of further consideration for growth.

2.9     The study sought to consider the locations across five Spatial Themes. These five themes were included so as to generate alternative spatial distributions of development in a transparent and consistent way.  The five spatial themes are:

1)  New Settlements – stand alone developments that are clearly separated from existing built areas;
2)  Village Extension – locations on the edge of smaller settlements within the study area;
3)  Growth in Transport Corridors – locations that have good access to the strategic transport network, including road and rail;
4)  Urban Extensions – locations on the edge of the larger, urban settlements within the study area; and
5)  Urban Intensification – locations within or adjacent to existing urban areas with good access to public transportation hubs.

2.10    The study identifies that when comparing alternative spatial distributions urban and village extensions are identified as likely to be deliverable, however alongside this, concentrating growth along key transport corridors is a predominant theme arising from the study, particularly growth along the rail corridor between Luton and Flitwick. Locations along this transport corridor offer the potential to promote sustainable forms of development in an area that has seen little, or very limited growth due to Green Belt restrictions.  In order to ensure the delivery of sustainable development across the HMA as well as Central Bedfordshire as a whole, the study identifies that it would be necessary to release land from the Green Belt designation.

**3.      Implications for the Local Plan**

3.1     The outcomes of the study provide the Council with high level options for delivering strategic level growth within the Central Bedfordshire element of the Luton HMA. However, the Growth Options study will need to be considered alongside a number of other evidence base studies being undertaken by the Council in order to inform the most appropriate options for delivering sustainable growth across Central Bedfordshire. Other technical evidence that will help inform the locations taken forward as options, and ultimately as allocations, within the local plan include a settlement capacity study, transportation modelling, detailed site assessment work including the consideration of coalescence and the sustainability appraisal.

Appendix A

**Central Bedfordshire Council**

# Luton Housing Market Area

# Growth Options Study

**Final Report**

**March 2017**

# Luton HMA Growth Options Study

Final Report
Prepared by LUC in association with BBP Regeneration
11 November 2016

**Project Title**: Luton HHMA Growth Options Study

**Client**: Central Bedfordshire Council; Luton Borough Council; Aylesbury Vale District Council; North Hertfordshire District Council

| Version | Date | Version Details | Prepared by | Checked by | Approved by |
|---------|------|-----------------|-------------|------------|-------------|
| 1.0 | 3/10/2016 | Emerging results for client review and comment | J Grantham; S Pritchard; J Pearson; R Schofield; E Lendak; R Thakrar | QA to take place prior to formal reporting at end of October 2016 | QA to take place prior to formal reporting at end of October 2016 |
| 2.0 | 24/10/2016 | Draft Final report for final review by officers and members | J Grantham; S Pritchard; J Pearson; R Schofield; E Lendak; R Thakrar | J Pearson; J Grantham | J Grantham |
| 3.0 | 11/11/2016 | Final Report | J Grantham; S Pritchard; J Pearson; R Schofield; E Lendak; R Thakrar | J Pearson; J Grantham | J Grantham |

www.landuse.co.uk
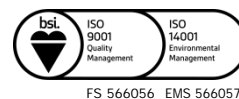
# Luton HMA Growth Options Study

Final Report
Prepared by LUC in association with BBP Regeneration
11 November 2016

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# EXECUTIVE SUMMARY

The Growth Options Study was commissioned by Central Bedfordshire Council, Luton Borough Council, North Hertfordshire District Council and Aylesbury Vale District Council, and overseen by a steering group comprising members and officers from the four authorities. The aim of the Study is to identify and assess realistic options to help meet housing need within the Luton Housing Market Area (HMA) during 2011-2031. The HMA covers parts of the administrative areas of the four authorities.

In light of the different periods covered by the Local Plans of the four authorities, the study also provides information on the number of homes that could be delivered up to 2035. The study is to be used alongside other studies, including Green Belt assessment, transport modelling, and Strategic Housing Land Availability Assessment (SHLAA), to support the selection of spatial options and their assembly into a spatial strategy to meet the total housing requirement through the preparation of separate Local Plans. The current best estimate of the number of dwellings to be provided within the Luton HMA but outside the administrative area of Luton Borough is 23,300. This figure may change as need and availability assessments are updated. The study provides an assessment of the capacity for all types of housing (market and affordable) and although the viability of delivering affordable housing in each location has been considered, the high level nature of the study does not allow conclusions to be drawn on the split between market and affordable housing

The study focuses on a relatively small number (approximately 30) of groupings of known or potential sites for strategic scale housing, referred to as 'locations'. The locations were identified through the councils' call for sites and Strategic Housing Land Availability Assessment (SHLAA) processes as a starting point. Some 'missing' sites were added as a way of rounding off areas, whereas others were precluded due to presence of primary environmental constraints, for example the AONB. Each location was then assessed in terms of secondary environmental constraints; access to existing and potential new services and facilities; Green Belt performance; deliverability; and viability.

Each location was allocated to one of five spatial options:

- New settlements: based on achieving clear separation from the HMA's largest existing settlements and on achieving a sufficient location size to support provision of a broad range of services and facilities.
- Village extensions: based on identifying locations that are edge of the HMA's smaller settlements.
- Growth in transport corridors: based on identifying locations that have good access to the strategic transport network.
- Urban extensions: based on identifying locations that are edge of the HMA's largest settlements.
- Urban intensification around public transport hubs: based on identifying locations that have good access to public transport hubs.

The findings of the assessment of locations are summarised in Table 1 below. Each location has been assessed taking account of the following factors:

1. **Deliverability** – The assessment of deliverability is based on a number of non-financial factors that may help or limit the site being brought forward. These include land availability (willing owner), proximity to basic services such as shops, schools and doctors' surgeries, required new strategic infrastructure being delivered in the vicinity of the site, and expected demand for housing. Deliverability is assessed based on the prospect of the entirety of the location being delivered, at the assumed size, type of development (i.e. village/urban extension) and dwelling capacity.

2. **Viability** - The viability assessment looks primarily at the financial viability of the site based on the likely cost of bringing the site forward, the number of dwellings that could be delivered on the site and the likely sale value of those dwellings. It considers each location with and without policy compliant affordable housing provision and takes account of contributions towards local infrastructure as well as 'abnormal' factors such as land remediation. An assumed density and development mix is applied based on the type of development and existing land use.

3. **Environmental constraints** - were categorised as either 'primary' or 'secondary' constraints. 'Primary' constraints are those constraints where significant development is likely to be precluded, for example within an AONB or an area with high flood risk. 'Secondary' constraints are those that are sensitive but have less weight applied to them in national policy, such as an Air Quality Management Area or a lower risk flood zone (i.e. Flood Zone 2). The types of constraints were mapped in relation to the study area. Areas of primary constraint are considered undevelopable. The number of secondary constraints which affect a potential growth location has been tabulated and mapped to form part of the assessment.

4. **Accessibility (transport)** - examines how sustainable the site is likely to be from a public transport perspective.

For those locations within the Green Belt, an assessment has also been made of its contribution to meeting the purposes of the Green Belt This required combining scores for the individual parcels within a particular location..

The assumed densities applied to each location compute to a total net capacity, which is presented up to 2031 and 2035. This demonstrates that sufficient capacity exists to accommodate the required level of housing, based on the various assumptions applied and documented in the methodology for the study, and taking into account housing delivery from sites that are already committed and from smaller sites falling outside the study scope. The study provides the supporting evidence for each local planning authority to consider the suitability of spatial options for inclusion in their respective local plans, taking account of the findings of the relevant sustainability appraisals.

The assessment is based on a range of assumptions consistent with existing evidence and otherwise agreed with the commissioning authorities. The performance of each location has been expressed as low to high across the range of criteria. It is important to note that the identification of a location as high does not indicate that it will ultimately be brought forward within the plan of the respective local authority, and similarly, the identification of a location as low does not necessarily indicate that the location will not be suitable for any growth at all. This should be considered as a guide and the assessment framework allows users to identify how it might be possible to improve an individual location's performance, for example by improving public transport accessibility or adjusting housing densities.

## Table 1: Assessment findings for all locations

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | Clophill | 199.0 | 44 | 5,275 | 2,000 | 804 | Low | High | 9 | No | 0% |
| L2 | Maulden East | 31.5 | 30 | 566 | 566 | 521 | Medium | High | 6 | No | 0% |
| L3 | Maulden South | 12.0 | 30 | 216 | 216 | 216 | Medium | High | 4 | No | 29% |
| L4 | Ampthill East | 37.3 | 30 | 671 | 671 | 671 | Medium | High | 5 | No | 96% |
| L5 | Flitwick West | 89.7 | 44 | 2,368 | 2,368 | 1,500 | High | Medium | 8 | Yes | 99% |
| L6 | North of Flitwick | 51.3 | 55 | 1,693 | 1,500 | 900 | High | Low | 6 | Yes | 96% |
| L7 | Flitwick East | 19.6 | 55 | 648 | 648 | 648 | High | Medium | 6 | Yes | 99% |
| L8 | Flitton | 22.8 | 30 | 410 | 410 | 410 | Medium | High | 7 | No | 0% |
| L9 | Gravenhurst | 16.8 | 30 | 302 | 302 | 240 | Low | High | 4 | No | 0% |
| L10 | Barton | 444.5 | 44 | 11,736 | 2,000 | 924 | Low | High | 6 | No | 66% |
| L11 | North of Harlington | 33.0 | 30 | 593 | 593 | 593 | High | High | 4 | Yes | 99% |
| L12 | Harlington West | 143.0 | 55 | 2,961 | 2,500 | 1,500 | High | High | 7 | Yes | 98% |
| L13 | Toddington | 151.0 | 44 | 3,987 | 2,500 | 1,500 | Low | High | 8 | No | 79% |
| L14 | Tebsworth | 14.6 | 30 | 263 | 263 | 263 | Medium | High | 4 | No | 99% |
| L15 | Hockliffe | 108.5 | 44 | 2,865 | 2,500 | 1,500 | Low | High | 6 | No | 72% |
| L16 | North of Leighton | 405.7 | 44 | 10,710 | 2,500 | 120 | Low | High | 9 | No | 98% |
| L17 | Leighton East | 23.8 | 30 | 428 | 428 | 420 | Medium | High | 5 | No | 99% |
| L18 | SE Leighton | 50.3 | 30 | 905 | 905 | 720 | Medium | Medium | 6 | No | 99% |
| L19 | Tilsworth | 10.9 | 30 | 195 | 195 | 195 | Medium | High | 4 | No | 100% |
| L20 | North Luton | 308.5 | 44 | 8,150 | 3,000 | 2,000 | High | High | 5 | No | 90% |
| L21 | Butterfield North | 36.5 | 55 | 1,205 | 1,205 | 900 | High | Medium | 5 | Yes | 98% |
| L22 | East Luton | 116.5 | 30 | 2,100 | 2,100 | 2,100 | High | Medium | 5 | No | 99% |
| L23 | Butterfield South | 10.1 | 55 | 330 | 330 | 330 | High | High | 4 | Yes | 99% |
| L24 | West Luton | 299.4 | 55 | 9,884 | 2,500 | 1,500 | High | High | 7 | Yes | 88% |
| L25 | Caddington NW | 20.4 | 30 | 368 | 368 | 368 | Medium | High | 3 | No | 13% |
| L26 | M1 J10 | 33.6 | 55 | 1,107 | 1,107 | 900 | High | High | 4 | Yes | 0% |
| L27 | Harpenden | 37.5 | 30 | 675 | 675 | 669 | High | High | 3 | No | 99% |
| L28 | West Dunstable | 117.1 | 44 | 3,093 | 2,000 | 1,200 | Medium | Low | 6 | Yes | 99% |
| L29 | Eaton Bray East | 22.8 | 30 | 411 | 411 | 411 | Medium | High | 5 | No | 99% |
| L30 | Eaton Bray West | 55.6 | 30 | 1,000 | 1,000 | 720 | Medium | High | 5 | No | 85% |
| L31 | Eddlesborough | 165.1 | 44 | 4,359 | 2,000 | 1,200 | Low | High | 3 | No | 0% |
| | Total net dwelling capacity | | | 79,474 | 39,761 | 25,943 | | | | | |

# 1 Introduction

1.1 The Luton Housing Market Area (HMA) Growth Options Study was jointly commissioned by Central Bedfordshire Council (CBC), Luton Borough Council (Luton BC), Aylesbury Vale District Council (AVDC), and North Hertfordshire District Council (NHDC).

## Aim

1.2 The aim of the Growth Options Study was to identify and assess realistic options to help meet housing need (both market and affordable and associated essential infrastructure) within the Luton HMA during 2011-2031. In light of the different periods covered by the Local Plans of the commissioning authorities (see below), the study also provides information on the number of homes that could be delivered up to 2035. The study provides an assessment of the capacity for all types of housing (market and affordable). Although the viability of delivering affordable housing in each location has been considered as part of the viability assessment, the high level nature of the study does not allow conclusions to be drawn on the split between market and affordable housing delivery.

1.3 The study will provide evidence to be used alongside other studies, including Green Belt assessment, transport modelling, and Strategic Housing Land Availability Assessment (SHLAA), to support the commissioning authorities' selection of spatial options and their assembly into a spatial strategy to meet the total housing requirement within the HMA through the preparation of separate Local Plans by the commissioning authorities.

1.4 It is important to note that the potential growth locations identified by the Growth Options Study were based only on the criteria and methodology for this study to determine which locations, could potentially deliver sustainable growth. The study grouped together individual sites and did not look in detail at the merits of these. Further work is being undertaken through the individual land availability assessment processes for each local planning authority (LPA) as a requirement of their Plan making process, including looking at smaller sites. This further assessment allows the locations and sites within them to be considered in greater detail and for site specific issues, locational factors and relationships to existing settlements or features to be given their due consideration. Each LPA will also have to consider the suitability of sites for inclusion in their respective local plans on the basis of their respective sustainability appraisals and spatial strategies.

## Background

1.5 The Luton HMA, depicted in Figure 1.1 comprises the administrative areas of Luton Borough Council, a large proportion of Central Bedfordshire Council, and small areas of North Hertfordshire and Aylesbury Vale Districts. This was confirmed through a refresh of the HMAs which looked more closely at the boundaries of the Luton HMA and nearby HMAs.

1.6 The starting point for this study was to identify if the Objectively Assessed Need (OAN) for the Luton HMA could be accommodated within the HMA. At the time of writing the most up-to-date assessment of housing need is set out in the Luton & Central Bedfordshire Strategic Housing Market Assessment Update (Summer 2015)[1]. This identifies the Full Objectively Assessed Need (OAN) for Housing in Luton and Central Bedfordshire administrative areas to be 47,300 dwellings over the 20-year period 2011-31. This comprises 17,800 dwellings in Luton, and 29,500

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[1] A new SHMA for Luton & Central Bedfordshire is currently in production. This will cover the period 2015 – 35, and it is likely that the OAN for Luton, and therefore the level of unmet need, will increase.

dwellings in Central Bedfordshire. Of this figure 31,200 is expected to arise within the Luton HMA, as part of a total HMA need of 31,800 dwellings[2]. As noted, Luton Borough's OAN is 17,800 (which includes an element of affordable housing), which would leave a figure of around 13,400 for the remainder of the Luton HMA (i.e. Central Bedfordshire's OAN arising within Luton HMA). Recent analysis of Luton's urban capacity (Luton SHLAA 2016) suggests that at least 8,500 new dwellings can be provided within the Borough over their Plan period to 2031. This would leave an unmet need of 9,300 arising from Luton Borough which will be met within the HMA as close to Luton as possible. Therefore, there is a need for 23,300 new dwellings arising from the Luton HMA (outside of Luton Borough) incorporating Luton's unmet housing need.

1.7    Whilst it is clear from the study that all of the OAN arising within the Luton HMA could be accommodated within the HMA, it will be for each commissioning authority to undertake more detailed technical studies, analysis and sustainability appraisal to determine the most sustainable options to deliver growth in their area.

1.8    It is important to stress that the above figures are provided for context only and may be subject to change. The purpose of this study is to identify and assess all realistic locations for growth, and is not capped at any specific unmet need figure.

1.9    Local Plan preparations for the relevant local authorities in the HMA are at various stages:

- CBC submitted its Development Strategy to the Secretary of State on 24th October 2014 for Examination. Following the initial hearings, the Inspector issued a letter indicating that his report would conclude that CBC had failed to meet the Duty to Cooperate. CBC subsequently applied for a Judicial Review of the Inspector's letter but have since withdrawn from the Examination process and halted the Judicial Review proceedings. The Council are now in the early stages of a new Local Plan for Central Bedfordshire with consultation on a Draft version scheduled for December 2016-February 2017. The Central Bedfordshire Local Plan will set out a vision for how the area will develop in the future, up to 2035.

- Luton BC's Local Plan covers the period 2011-2031 and was submitted to the Secretary of State in April 2016. The examination is currently underway and the final stage of hearings is scheduled for December 2016-January 2017.

- NHDC's Local Plan covers the period 2011-2031. It consulted on its Local Plan Preferred Options Plan in December 2014-February 2015 and intends to consult on the Proposed Submission version during October-November 2016.

- AVDC withdrew its Vale of Aylesbury Plan in February 2014. The new Vale of Aylesbury Local Plan covers the period to 2033 and consultation on the Draft Plan took place during July-September 2016. Consultation on the Proposed Submission version of the plan is scheduled to begin early in 2017.

1.10   The commissioning authorities have agreed a series of steps to reach agreement on the findings of this study which each LA will then take forward through their respective Local Plan processes. The approach is set out in Appendix 4.

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[2] Small areas of land in North Hertfordshire and Aylesbury Vale administrative areas lie within the Luton HMA; incorporating need generated from these areas gives a total OAN for the Luton HMA of 31,800 dwellings.

**Note**: Data outside Luton HMA is not complete.

## Legend
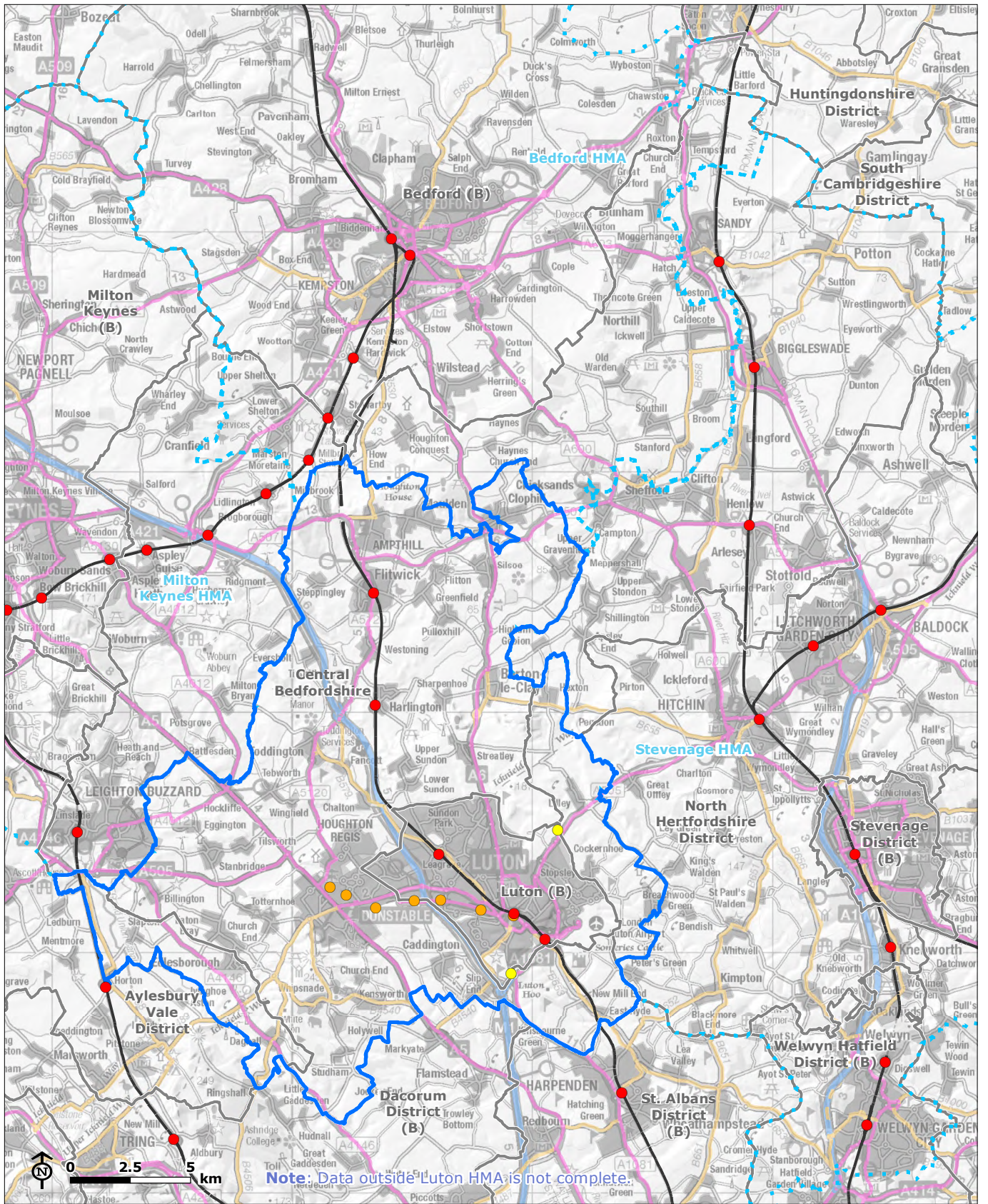
- Luton Housing Market Area
- Other Housing Market Area
- Local Authority boundary
- Motorway
- A Road
- B Road

- Railway station
- Guided busway stop
- Park & Ride
- Railway
- Built-up area

**LUTON HOUSING MARKET AREA**
Growth Options Study

**Figure 1.1: Luton Housing Market Area (HMA)**

**LUC**

Source: Central Bedfordshire

**Map Scale @ A4: 1:225,000**

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CB:EL EB:lendak_e LUCEDI FIG1-1_6772_r2_StudyArea_A4P 10/11/2016

# 2 Method

## Overview

2.1 To reflect the strategic remit of the Luton HMA Growth Options Study and to ensure that it could be achieved within the defined time and budget constraints, the study focused on a relatively small number (approximately 30) of groupings of known or potential sites for strategic scale housing, referred to as 'locations'. The list of locations for assessment was created in discussion with the steering group. It took known sites (identified through the councils' call for sites and Strategic Housing Land Availability Assessment – SHLAA - processes) as a starting point, gave consideration to additional 'missing' sites, and focused on those which are free of the types of constraint most likely to preclude development ('primary constraints') and which have relatively good access to existing services and facilities, whilst allowing for the possibility of providing a range of new services and facilities in the largest new developments.

2.2 Each location was assessed in terms of its:

- constraints;
- access to services and facilities;
- Green Belt performance;
- deliverability; and
- viability.

2.3 A small of number of thematic spatial options for growth was also agreed with the steering group, for example growth in transport corridors or growth as a new settlement. Each location was allocated to the relevant spatial options, according to its size and location, and a high level assessment made of the relative performance of the locations falling within each spatial option.

2.4 An overview of the study methodology is provided in Figure 1; the text below provides a description of each of the Growth Options Study steps shown. The process by which the findings of the study are then likely to be taken forward by the commissioning authorities is outlined in the Next Steps section of Chapter 4.

2.5 In order to help fulfil the duty to cooperate, a 'reference group' of neighbouring authorities was established by the four commissioning authorities and information shared with them at key stages of the study. Authorities represented on the reference group were Bedford Borough Council, Buckinghamshire Country Council, Dacorum Borough Council, Hertfordshire County Council, Milton Keynes Council, Saint Albans City and District Council, and Stevenage Borough Council.

**Figure 2.1 Main components of Growth Options Study method**



| | |
|---|---|
| | **1. Identify known sites** |
| **2. Categorise & map constraints** → | **3. Screen out sites with primary constraints** |
| | **4. Screen out or merge low capacity sites to identify locations for assessment** |
| **5. Map access to services & facilities, including future transport infrastructure** → | **6. Identify missing sites or locations** |
| | **7. Determine dwelling capacity of locations** |
| **8. Define location assessment framework** → | **10. Assess locations** |
| **9. Establish infrastructure constraints and opportunities** → | |
| **11. Define spatial options** → | **12. Assess relative performance of locations within spatial options** |

**OUT OF STUDY SCOPE**

DtC discussion on spatial distribution

Local Plan spatial strategies

## Detailed methodological steps

### Step 1. Identify known sites

2.7 GIS data was obtained from the four commissioning authorities showing potential or proposed sites for housing and associated essential infrastructure. These were based on information the commissioning authorities had gathered through their 'call for sites' and SHLAA processes, plus any other potential development sites known to them. Sites in this 'long list' could be of any size; the subsequent shortlisting process to identify locations for assessment is described in the following methodological steps.

2.8 Sites which had already been allocated in a plan which has been examined (including allocations in examined neighbourhood plans) or which had received planning permission did not count towards the growth capacity identified by the study but formed part of the baseline. These were referred to as 'committed' sites and the commissioning authorities indicated in the GIS data supplied to LUC any sites which they considered to be committed.[3]

### Step 2. Categorise and map constraints

2.9 Potential constraints to development were mapped under the following themes:

- Historic environment
- Biodiversity
- Landscape
- Air quality
- Soil quality
- Water quality and water bodies/ waterways

- Flood risk
- Energy supply infrastructure
- Mineral resources
- Open space, sport and recreation areas
- Luton Airport

2.10 The constraints were categorised as either 'primary' constraints or 'secondary' constraints, according to the environmental sensitivity of the asset in question and the strength of the policy safeguards that apply to them:

- 'Primary' constraints were those constraints where significant development is likely to be precluded, for example within an Area of Outstanding Natural Beauty (AONB) or within an area at high risk of flooding.

- 'Secondary' constraints were those that are sensitive but have less weight applied to them in national policy, i.e. where significant development may not be precluded, but where there is the risk of negative impacts which could be significant, for example at the sub-national level.

2.11 The types of constraint that were mapped and their categorisation as primary or secondary are shown in Appendix 1.

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[3] The GIS data supplied by Luton BC included a number of 'Action Area Allocations' for which the corresponding policies were reviewed in the adopted Luton Local Plan (2001-2011). Based on this review, the action area covered by policy 'BA1 – Butterfield Area' was treated as a committed employment site with a park and ride facility and that covered by policy 'KR1 – Redevelopment at Kimpton Road' was treated as a committed employment and housing site. Other action areas were not treated as committed sites on the basis that the corresponding policies were judged likely to result in infill/intensification over a wide area rather than representing a new housing or employment site.

### Step 3. Screen out sites within primary constraints

2.12    Primary constraints represent the most sensitive environmental assets and/or areas subject to the strongest policy safeguards.  To support the identification of 'locations' for detailed assessment, sites entirely within an area subject to primary constraint were excluded from further consideration.  If a site was partially within an area of primary constraint, only the unconstrained portion was carried forward for consideration as part of a potential development location.

### Step 4. Screen out or merge low capacity sites to identify locations for assessment

2.13    To further support the identification of locations for detailed assessment, since relatively few planned or potential sites with a large potential dwelling capacity were identified, additional locations were created by iteratively merging smaller sites in close proximity to one another.  The remaining isolated, smaller sites were not considered further.

2.14    The process of identifying locations for assessment began with the following iterative process:

- merge any overlapping or directly adjacent sites (regard sites separated by up to 10 m as directly adjacent);

- disregard any remaining sites smaller than 5 ha;

- merge any remaining sites smaller than 25 ha with any other site whose boundary lies within 100 m, continuing iteratively until a new location with an area of at least 25 ha is created;

- if the process above plus the identification of 'missing' locations (see Step 6 below) yields fewer than 30 locations, also carry forward a selection of the remaining, isolated sites smaller than 25 ha for assessment (the first three steps resulted in more than 30 locations so this final step was not necessary).

2.15    The locations created by this mechanistic process were then sense-checked in discussion with the steering group.  At this point, consideration was also given to whether any further 'missing' sites or locations should be assessed (see Step 6 below).

2.16    Although many sites within urban areas were identified in the call for sites data, particularly in Luton, most of these were small and the approach above generally resulted in them being excluded from the assessment.  These will nevertheless be considered by the local authorities in due course, through their SHLAA and development management processes.  When the results of the Growth Options Study are used to inform the commissioning authorities' spatial strategies it will be important for those strategies to account for the amount of housing expected to be provided on smaller sites that fell outside the scope of the study, whether these are to be allocated in a Local Plan or left to come forwards as 'windfall' sites.

### Step 5. Map access to existing services and facilities, including future transport infrastructure

2.17    To help inform the sense-checking of locations for assessment and to provide an assessment of the accessibility of chosen locations, a selection of existing services and facilities serving the HMA was mapped, as far as available data allowed.  To increase the usefulness of this information straight-line walking distance zones around these services and facilities were also mapped; these were indicative and not intended to represent cut-offs beyond which residents would not travel to the service/facility in question.  Walking zones were defined using professional judgement but with reference to 'desirable', 'acceptable', and 'preferred maximum' walking distance standards to various categories of destination established by the Institution of Highways and Transportation[4].  The standards assume that an 800 metre walk will take the average person around 10 minutes.

2.18    As well as existing services and facilities, the mapping also took account of new services and facilities that might be expected to be provided on committed[5] housing development sites.  It was assumed that committed sites of 100 hectares or more will, as a minimum, provide a bus stop, a primary school, a local / neighbourhood centre, and an area of publicly accessible open space;

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[4] Guidelines For Providing For Journeys On Foot, The Institution of Highways and Transportation, 2000.

[5] Those with planning permission or allocated in a Local Plan document which has been  subject to examination

this was judged to be a relatively conservative position. It was assumed that whilst housing sites within urban areas may achieve a similar scale of housing provision on smaller sites as they typically support higher densities, sites of less than 100 ha in urban areas would not provide the services and facilities listed above due to the proximity of such sites to existing infrastructure as well the reduced ability of smaller sites to accommodate on-site services and facilities. Similarly, when mapping access to existing employment areas, committed employment sites were also included.

2.19    Existing services and facilities that were mapped and the corresponding walking zones are shown in Table 2.1. It was considered that access to the first category – 'Railway stations, guided busway stops and park and ride facilities' (shown in bold text) – of potential housing development locations should be given greater weight than the other services and facilities. This was because new rail infrastructure will have longer lead times and require greater investment than other 'people-based' services and facilities and is therefore less likely to 'follow' strategic-scale housing development.

**Table 2.1 Access to existing services and facilities**

| Service/ facility | Indicative walking distance | Data gaps and limitations |
|---|---|---|
| **Railway stations, guided busway stops and park and ride facilities** | **1.2 km** | *Compiled by LUC based on national data, data received from LAs and from discussions with stakeholders* |
| Major employment areas | 2.0 km | *Compiled by LUC based on data received from LAs and from discussions with stakeholders* |
| Town centres and major out of centre retail parks | 0.8 km | *No AVDC and NHDC settlements within the HMA considered large enough to manually digitise 'centres'.*<br><br>*CBC centres are LUC manual digitisation of approximate centres of 'Major Service Centres'* |
| Publicly accessible open spaces | 1.2 km | *New Study currently underway by AVDC - no datasets available for that authority area.* |
| Secondary or upper schools and further or higher education establishments | 2.0 km | *Data not available from AVDC and NHDC but data supplied by CBC appears to cover North Herts. In the absence of local data from AVDC, a national dataset (Open Map Local) was used.* |
| Lower, middle or primary schools | 1.0 km | *Data not available from AVDC and NHDC but data supplied by CBC appears to cover North Herts. In the absence of local data from AVDC, a national dataset (Open Map Local) was used.* |
| Local / neighbourhood centres | 0.4 km | *Point data on defined size of settlements provided by AVDC, but the data set does not define local/neighbourhood centres. However, no AVDC settlements within the HMA considered large enough to manually digitise 'centres'.*<br><br>*CBC centres are LUC manual digitisation of approximate centres of 'Minor Service Centres'* |
| NHS primary healthcare (GPs) and hospitals | 1.2 km | *Data only supplied by Luton BC; for other commissioning authorities, hospitals were manually digitised and approximate GP surgery locations were based on postcode centre points downloaded from the Health and Social Care Information Centre* |
| Bus stops (including stops on non-guided sections of guided busway) | 0.8 km | *From National Public Transport Access Nodes (NaPTAN)* |

### Step 6. Identify missing sites or locations

2.20   The spatial information described above in relation to constraints, access to existing services and facilities, and known/ proposed housing sites was captured in a GIS system. This spatial information was then reviewed by the consultant team to help identify any obvious 'missing' sites or locations in addition to those based on call for sites information or otherwise already known to the commissioning authorities. This was a purely technical exercise and no landowner searches or consultation were carried out in identifying missing sites or locations.

2.21   A number of location boundaries were modified to take account of these 'missing' sites, by reference to the following broad principles:

- where a location created from sites identified via the call for sites process was not bounded by any obvious boundary features (e.g. settlement boundary, major road, railway line) the location was extended up to any available nearby boundary feature except where this would only result in a negligible change in the extent of the location;

- where a location created from sites identified via the call for sites process was in close proximity to a site smaller than 25 hectares which would otherwise have been discounted from consideration as a potential growth location, a missing site was added to amalgamate the two, provided that there were no apparent development constraints (for example, sensitive landscape, known proposal for an employment site, presence of a quarry) within the area to be added to the location;

- where existing or planned transport infrastructure created an opportunity for development in a location well served by transport networks but no sites had come forward through the call for sites, an entire 'missing' location with an indicative boundary would be added (rather than adding a missing site to a location already created by amalgamating sites from the call for sites process); in practice, no such locations were identified;

- where locations comprised entirely of sites identified via the call for sites process could result in settlement coalescence, this issue was noted but did not result in any change to the proposed location boundary; in contrast, when considering the addition of 'missing sites', these were only added if they would not contribute to coalescence with an existing settlement boundary (as modified by any committed sites but ignoring other potential locations for development).

2.22   The changes made to the initially identified locations as a result of this review for missing sites or locations are summarised in Table 2.2.

### Table 2.2 Consideration of missing sites or locations

| ID | Location name | Component site reference nos. from Councils' call for sites processes | Result of review for missing sites or locations |
|----|---------------|----------------------------------------------------------------------|-------------------------------------------------|
| L1 | Clophill | ALP295; ALP366; ALP405; ALP162; NLP465; NLP459; NLP189; NLP189; NLP349 | No extension required beyond call for sites boundaries |
| L2 | Maulden East | ALP023; ALP151; ALP153; ALP394; ALP415; NLP270; NLP276; NLP342; NLP287; NLP289; NLP253; NLP087 | No extension required beyond call for sites boundaries |
| L3 | Maulden South | ALP327; ALP409; NLP131; NLP129; NLP416 | No extension required beyond call for sites boundaries |
| L4 | Ampthill East | ALP053; NLP390; NLP367 | No change – extension would risk coalescence with Maulden |
| L5 | Flitwick West | NLP402; NLP408; NLP039; NLP094 | Missing sites added |
| L6 | North of Flitwick | ALP345; ALP098; ALP226; ALP251; ALP346; ALP379; NLP397; NLP105; NLP351; NLP043; NLP045; NLP044; NLP375; NLP444; NLP245; | Missing site added to south west; further potential areas not added as they contain a sewage works and proposed cemetery |

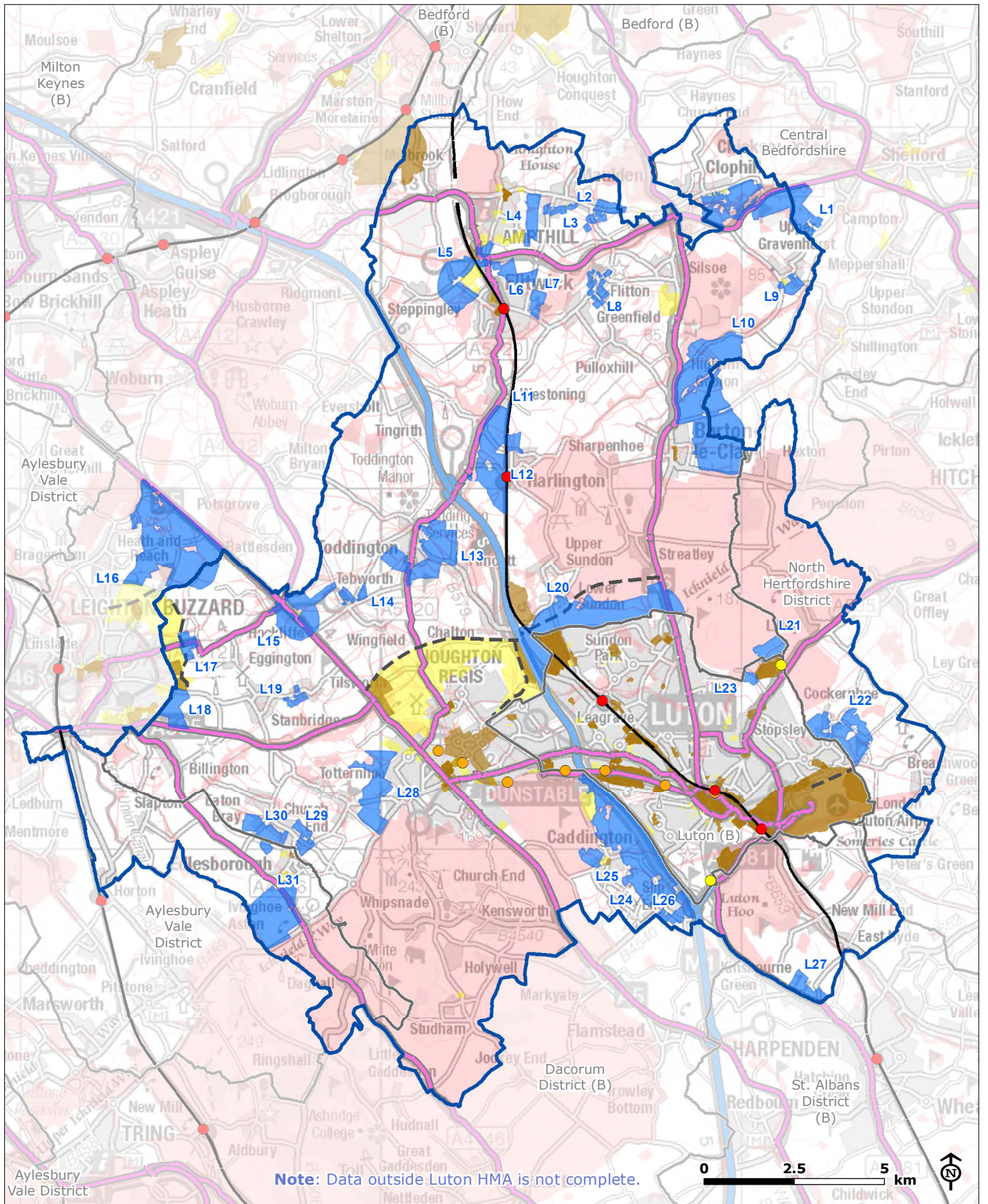| ID | Location name | Component site reference nos. from Councils' call for sites processes | Result of review for missing sites or locations |
|---|---|---|---|
| | | NLP081 | |
| L7 | Flitwick East | ALP174; ALP177; NLP321 | No extension required beyond call for sites boundaries |
| L8 | Flitton | ALP043; ALP240; NLP052; NLP449; NLP353; NLP203; NLP127; NLP164; NLP171; NLP172; NLP182; NLP011 | No extension required beyond call for sites boundaries |
| L9 | Gravenhurst | ALP243; ALP467; NLP404; NLP101 | No extension required beyond call for sites boundaries |
| L10 | Barton | ALP252; ALP418; ALP406; NLP400; NLP396; NLP382; NLP388; NLP385; NLP158 | No extension required beyond call for sites boundaries |
| L11 | North of Harlington | ALP316; ALP175; NLP317 | No extension required beyond call for sites boundaries |
| L12 | Harlington West | ALP117; ALP316; ALP123; ALP118; ALP146; NLP303; NLP381; NLP470; NLP471; NLP443 | Missing sites added to north and south of call for sites submissions; potential area to east of railway line and north of Harlington is school playing field so not added; potential area at Dyer's Hall Farm is adjacent to AONB so not added |
| L13 | Toddington | ALP078; ALP086; ALP091; ALP160; ALP189; ALP227; NLP453; NLP405; NLP152; NLP138; NLP378; NLP348; NLP294; NLP153; NLP184; NLP002 | Missing site added to west; potential missing sites to north not compliant with emerging Neighbourhood Plan and close to Toddington Manor so not added |
| L14 | Tebsworth | ALP10; ALP006; NLP023 | No extension required beyond call for sites boundaries |
| L15 | Hockliffe | ALP125; ALP184; NLP298; NLP278; NLP327; NLP242; NLP420; NLP413; NLP175; NLP259 | Former runway within submitted call for sites unlikely to be delivered in submitted form due to extension into open countryside; missing sites added to east and south east |
| L16 | North of Leighton | ALP066; NLP074; NLP457 | Missing sites added up to Watling Street |
| L17 | Leighton East | NLP336; NLP338 | No extension required beyond call for sites boundaries |
| L18 | SE Leighton | ALP022; ALP067; NLP072 | Missing site added to south west, ending at quarry site and stream to south; potential extension westwards to Leighton Buzzard settlement boundary not made as open space |
| L19 | Tilsworth | ALP308; ALP309; NLP134; NLP314 | No extension required beyond call for sites boundaries |
| L20 | North Luton | NLP426; NLP322; NLP368; NLP246 | No extension required beyond call for sites boundaries |
| L21 | Butterfield North | NLP247 | No extension required beyond call for sites boundaries |
| L22 | East Luton | EL1, EL2, EL3, Resi 340, Resi 360 | Considered adding missing site to east but ruled out in discussion with NHDC due to sensitivities relating to landscape/topography, historic environment and AONB setting. |
| L23 | Butterfield South | No ID (Luton 2015 SHLAA) | No extension required beyond SHLAA site boundaries; areas to south comprise sports and education uses therefore not added |
| L24 | West Luton | ALP110; ALP111; ALP207; ALP207; ALP286; NLP240; NLP239; NLP436; NLP422; NLP418; NLP174 | No extension required beyond call for sites boundaries |

| ID | Location name | Component site reference nos. from Councils' call for sites processes | Result of review for missing sites or locations |
|---|---|---|---|
| L25 | Caddington NW | ALP143; NLP148; NLP151 | No extension required beyond call for sites boundaries |
| L26 | M1 J10 | ALP069; NLP386; NLP380; NLP284; NLP167; NLP227 | No extension required beyond call for sites boundaries |
| L27 | Harpenden | NLP228 | No extension required beyond call for sites boundaries |
| L28 | West Dunstable | ALP144; ALP164; NLP306; NLP038; NLP432 | No extension – potential missing sites to west would contribute to coalescence risk with Totternhoe; potential filling in to Dunstable settlement boundary is open space therefore not added |
| L29 | Eaton Bray East | ALP103; ALP192; NLP300; NLP483; NLP250 | No extension required beyond call for sites boundaries |
| L30 | Eaton Bray West | ALP423; NLP316; NLP204 | No extension required beyond call for sites boundaries; potential extension to south would increase risk of coalescence with Eddlesborough therefore not added |
| L31 | Eddlesborough | SHLEDL005, SHLEDL011 | No extension required beyond call for sites boundaries |

2.23    Following completion of Step 6, Figure 2.2 was produced illustrating the potential growth locations to be subject to assessment.  New transport infrastructure shown in this figure is limited to schemes which were judged to be of major significance to growth within Luton HMA by 'opening up' less accessible areas; capacity upgrades to existing routes and schemes which will primarily improve accessibility of areas beyond the HMA boundary were not included.

**Legend**

Luton Housing Market Area
Local Authority boundary
Railway
Motorway
A Road
New road scheme
of significance to study

Railway station
Guided busway stop
Park & Ride
Primary constraints
Potential growth location
Existing or committed employment site
Committed housing site

Note: Data outside Luton HMA is not complete.

Source: LAs, NE, HE, EA, LUC

Map Scale @ A4: 1:150,000

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CB:EL EB:lendak_e LUCEDI FIG2-2_6772_r2_PotentialLocations_A4P 10/11/2016

**LUTON HOUSING MARKET AREA**
Growth Options Study

**Figure 2.2: Potential
Growth Locations**

LUC

### Step 7. Determine dwelling capacity of locations

2.24    In order to assess how much infrastructure might be required or funded by housing development at each location it was necessary to make an estimate of the number of houses likely to be provided at each location.

2.25    Existing dwelling capacity (and trajectory) calculations only existed for one of the locations, situated within NHDC. Assumptions on gross to net ratios (see Table 2.3), density standards (Table 2.4), and development trajectory based on market conditions (see Appendix 2) were used for the remaining locations.

2.26    Firstly, we reviewed the dwelling capacity methodologies employed by CBC and Luton BC and these are summarised below.

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**Central Bedfordshire Borough Council dwelling capacity approach[6]**

Work out the number of new homes from site size using a density of 30 dwellings per hectare (dph) and exclude up to 40% of site area for infrastructure and services, depending on site size and taking into account topography or significant areas of undevelopable land. Site size for this calculation is the smaller of the submitted Developable Area or the area measured in GIS.

Site size gross to net ratio standards:

- Up to 0.4 hectare: 100%

- 0.4 to 2.0 hectares: 80%

- 2.0 hectares or above: 60%

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**Luton Borough Council dwelling capacity approach**

Policy LP 3 of Luton's Pre-submission Local Plan 2011-2031 states that residential development within the Town Centre will make *'best use of opportunities for higher density development'* and Policy LP 15 states that *'Higher densities will be encouraged within Luton Town Centre and the district and neighbourhood centres'*. The monitoring indicator proposed in Appendix 8 of the plan states that *'Density of housing within the town centre, neighbourhood and district centre boundaries to be 75 dph or 50% greater than that surrounding the centre (to 300m or 5 minute walking distance of the centre boundary).'*

Policy H3 of Luton's adopted Local Plan 2001-2011 requires that residential developments are built to a minimum of 40 dph. For locations with good access to services, this should be increased to at least 50 dph.

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2.27    Feedback from the commissioning authorities indicated, however, that there should not be a fixed approach to densities and that the likely housing delivery at each location to 2035 should be estimated individually and in discussion with the commissioning authorities. It was also considered reasonable to assume that higher densities should be achieved in more accessible locations such as around settlement centres and railway stations.

2.28    We therefore reviewed the existing viability evidence base for both authorities, in order to select development mixes that could be applied depending on the characteristics of each location. Due to the high level nature of our viability assessment, we limited this selection to three, as below:

- **Houses, up to five-bed (30dph) -** CBC's latest viability evidence base assessed densities and development mixes ranging from 25dph to 55dph. We modelled the 30dph development mix as the lower density scenario, in line with Central Bedfordshire Council's methodology summarised above. This development mix does not include any flats, and includes houses up to five bedrooms.

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[6] Draft site assessment framework for housing v7, Central Bedfordshire Council, May 2016.

- **Houses, up to three-bed (44dph)** – Luton BC's latest viability evidence base includes a development mix entitled "contemporary development", comprising a mix of houses up to three bedrooms, but does not include any flats.

- **Lower density low rise flats and terraced housing (55dph)** - We modelled CBC's highest density development mix (55dph) as one of our scenarios. This development mix comprises low rise flats and terraced properties only.

2.29    A development mix comprising higher density low rise flats and terraced housing, providing an average of 64dph (drawn from Luton BC's latest viability evidence base), was also considered in detail, but this was not considered appropriate as an average for any of the locations after taking into account their scale.

2.30    Assumptions on gross to net ratios (see Table 2.3) and density standards (see Table 2.4) were applied, to estimate the total potential net dwelling capacity of locations, including potential housing delivery beyond the end of the plan period. These assumed total net dwelling capacity figures served as a guide to the amount of new infrastructure that might be supported by growth at each location and also facilitated the categorisation of locations by spatial option since locations needed to exceed a threshold capacity to be included in the 'new settlement' option.

**Table 2.3 Assumptions on gross to net ratios for Growth Options Study**

| Location size | Proportion of location required for infrastructure and services | Proportion of location available for housing |
|---|---|---|
| Up to 0.4 ha | 0% | 100% |
| 0.4 ha up to 2.0 ha | 20% | 80% |
| 2.0 ha or above | 40% | 60% |

**Table 2.4 Assumptions on density standards for Growth Options Study**

| Location category | Net density | Net density if within 1.2km of public transport interchange |
|---|---|---|
| Small (fewer than 2,000 units) infill / extension to village | 30 | 55 |
| Small (fewer than 2,000 units) infill / extension to settlement in top two tiers of hierarchy | 30 | 55 |
| Large (2,000 units or more) infill / extension to village (effectively a new settlement) | 44 | 55 |
| Large (2,000 units or more) infill / extension to settlement in top two tiers of hierarchy | 44 | 55 |
| New settlement | 44 | 55 |

2.31    In order to estimate the dwelling capacity to 2031 and 2035, we reviewed the document 'Housing Trajectory for Central Bedfordshire (Completions as at 30th June 2016)', drawing out benchmarks as detailed in Appendix 2.

**Step 8. Define location assessment framework**

2.32    Each location was subject to an assessment against an agreed framework to ensure consistency and transparency.  Five broad types of assessment were carried out as follows.

*Potential constraints to development (see also descriptions of Step 2 and Step 3 above)*

2.33    In light of the strategic nature of the Growth Options Study and the fact that it will be followed, in due course, by more detailed SHLAA and SA work, the assessment of sustainability performance was limited to a high level analysis of constraints and access to services and facilities at each location.

2.34    As previously described, areas of primary constraint were identified and screened out as potential locations for development.  Assessment was therefore made of the secondary constraints present at each potential location for development.

2.35    Only constraints that intersected with potential development locations were identified; this was on the assumption that it should generally be possible to avoid adverse effects on receptors beyond a potential development location's boundary through appropriate development design, site layout, screening etc.  This approach also reflected the fact that more detailed consideration of constraints would take place via the commissioning authorities' SHLAA and Sustainability Appraisal (SA) processes.

2.36    See Appendix 1 for further information.

*Access to services and facilities (see also description of Step 5 above)*

2.37    Buffer areas representing indicative, straight line walking distances were mapped around a range of services and facilities, for example employment areas, education facilities and town centres. Analysis was then undertaken to determine which potential locations for development intersected with the walking catchments of which types of service or facility.  Particular prominence was given to public transport hubs in the form of railway stations, guided busway stops and park and ride facilities for the reasons given under Step 5.  The results were summarised in tabular form for all locations and also provided in a separate assessment sheet for each location and in the GIS datasets supplied alongside this report.

*Contribution to Green Belt purposes*

2.38    With the exception of the built up areas of Luton and Dunstable, a narrow band on its south western edge in Aylesbury Vale District, and a band north and east of Flitwick, the remainder of Luton HMA is Green Belt.  Green Belt will be an important issue for the commissioning authorities in defining their spatial strategies and Green Belt assessments form part of the evidence base for each of their each of their Local Plans.

2.39    In order to facilitate consideration of the assessments carried out by the Growth Options Study alongside that Green Belt evidence, the Growth Options Study drew on the outputs of those studies[7,8,9] to report the performance of each potential location for development in Green Belt terms.  Each of the three Green Belt studies drawn on employed broadly similar methodologies in that each one sub-divided the Green Belt into parcels of land and rated each in terms of its performance against the following purposes of Green Belt set out in the NPPF:

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns merging into one another;
- to assist in safeguarding the countryside from encroachment; and
- to preserve the setting and special character of historic towns.

2.40    The NPPF also sets out fifth purpose of Green Belt, "to assist in urban regeneration, by encouraging the recycling of derelict and other urban land", but this is not generally assessed on a parcel by parcel basis.

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[7] Central Bedfordshire and Luton Green Belt Study, Draft Final Report, July 2016

[8] North Hertfordshire Green Belt Review, NHDC, July 2016.

[9] Buckinghamshire Green Belt Assessment, The Buckinghamshire Authorities, March 2016.

2.41   In order allow the results of the three Green Belt studies to be compared it was necessary to convert the three point rating scales used by the North Hertfordshire and Buckinghamshire studies to the five point scale used by the Central Bedfordshire and Luton study. Comparability was also enhanced by using the Stage 1 results of the Central Bedfordshire and Luton Green Belt study which divided all of the Green Belt within its study area into parcels of similar size to those defined by the North Hertfordshire and Buckinghamshire studies; this scale of reporting was also judged appropriate to the strategic scale of the Growth Options Study. The results of the Stage 2 the Central Bedfordshire and Luton Green Belt study which carried out more detailed assessment of small parts of parcels were not reported in the Growth Options Study. The Growth Options Study assesses potential locations for development as a whole but in taking forwards its findings, the councils may wish to consider the more detailed Stage 2 Green Belt findings when making site allocations through the Local Plan process and when masterplanning those sites.

2.42   The NPPF does not require all the Green Belt purposes to be met and it is therefore reasonable to assume that a parcel of land can make a significant contribution to the purposes of Green Belt if it makes a strong contribution to any one of the purposes. It is also notable that none of the three Green Belt studies referenced applied any weighting to the ratings achieved against individual purposes. Accordingly, the Growth Options Study used the highest contribution made to any of the four assessed purposes as a proxy for the overall performance of each parcel in Green Belt terms.

2.43   A further complexity was that the boundaries of the locations for assessment defined by the Growth Options Study did not align with those of the parcels defined by the Green Belt studies. This resulted in locations often overlapping with parts of several Green Belt parcels, each making a different level of contribution to the Green Belt. Rather than averaging the separate Green Belt ratings, the Growth Options Study reports the contribution of all Green Belt parcels within each location (other than those for parcels which overlapped less than 0.5% of a location's area).

*Deliverability*

2.44   Deliverability was assessed based on the prospect of the entirety of the location being delivered, at the assumed size, typology and dwelling capacity from Step 7. The deliverability of individual development parcels coming forward at different times may be different; however, this was not assessed at this stage. In assessing the deliverability of each location, we asked four questions, and assessed the answers set out in Table 2.5.

2.45   No landowner searches or consultation was carried out in carrying out the land availability assessment.

### Table 2.5 Deliverability assessment criteria

| Criteria / score | Highly likely | Moderately likely | Less likely |
|---|---|---|---|
| **Is land likely to be available at this location for development at the scale proposed by 2035?** | The entirety / majority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any resistance to development by landowners. | A minority of the site has been submitted by promoters through the Call for Sites process. The rest of the site comprises 'missing site(s)', and therefore the land availability is currently unknown. However, we are not specifically aware of any resistance to development by landowners. | Known evidence of landowner resistance to development. |
| **Is all essential strategic physical infrastructure likely to be delivered by 2035?** | Essential strategic physical infrastructure projects are unplanned but minor, or; planned and highly likely to be delivered by 2035. | Essential strategic physical infrastructure projects are unplanned but modest, or; planned but moderately likely to be delivered by 2035. | Essential strategic physical infrastructure projects are unplanned and significant, or; planned and less likely to be delivered by 2035. |
| **Is there likely to be demand for this scale of development in this location currently?** | Qualitative consideration of factors including: quality of life (access to natural, cultural and leisure assets); convenient access to employment and amenities; affordability. | | |
| **Is there likely to be demand for this scale of development in this location in future, if planned strategic physical infrastructure / employment sites can be delivered?** | Qualitative consideration of factors including: affordability; potential impact of regeneration / social / physical infrastructure / employment proposals; potential change in access to employment and amenities. | | |

2.46    The overall deliverability of each location was then determined as per the decision flow chart in Figure 2.3.

## Figure 2.3 Overall deliverability assessment flow

**Is <u>land likely to be available</u> at this location for development at the scale proposed by 2035?**

| Highly likely | Moderately likely | Less likely |

**Is all <u>essential strategic physical infrastructure</u> likely to be delivered by 2035?**

| Highly likely | Moderately likely | Less likely |

**Is there likely to be demand for this scale of development in this location <u>currently</u>?**

| Highly likely | Moderately likely | Less likely |

**Is there likely to be demand for this scale of development in this location <u>in future</u>, if planned strategic physical infrastructure / employment sites can be delivered?**

| Highly likely | Moderately likely | Less likely |

| HIGH OVERALL DELIVERABILITY | MEDIUM OVERALL DELIVERABILITY | LOW OVERALL DELIVERABILITY |

2.47 The deliverability assessment covers the period to 2035, and does not take account of financial viability (which is considered separately, and is based on current demand, costs and values). The overall deliverability assessment is not intended to 'rule out' any locations; those locations assessed as having "Low" overall viability are not necessarily undeliverable, and the position may change in the future as a result of further infrastructure projects, economic development activity, regeneration initiatives, and so on. Reduction in scale of the location may also increase deliverability.

*Viability*

2.48 In assessing the viability of each location, we asked two questions, with the answers assessed as set out in Table 2.6.

## Table 2.6 Viability assessment criteria

| Criteria / score | Highly likely | Moderately likely | Less likely |
|---|---|---|---|
| **Is development at the assumed density likely to be viable, if delivered on a cleared and serviced land parcel?** | High level viability modelling suggests that development at the assumed density with policy compliant affordable housing provision exceeds the Threshold Land Value at current costs and values. | High level viability modelling suggests that development at the assumed density with zero affordable housing provision exceeds the Threshold Land Value at current costs and values. | High level viability modelling suggests that development at the assumed density does not exceed the Threshold Land Value at current costs and values, even with zero affordable housing provision. |

| Criteria / score | Highly likely | Moderately likely | Less likely |
|---|---|---|---|
| **Is development at the assumed density likely to be viable, after accounting for potential local infrastructure and abnormal cost items?** | High level viability modelling suggests that development at the assumed density with policy compliant affordable housing provision provides a meaningful contribution towards potential local infrastructure and abnormal cost items at current costs and values. | High level viability modelling suggests that development at the assumed density with zero affordable housing provision provides a meaningful contribution towards potential local infrastructure and abnormal cost items at current costs and values. | High level viability modelling suggests that development at the assumed density does not provide a meaningful contribution towards potential local infrastructure and abnormal cost items at current costs and values, even with zero affordable housing provision. |

2.49    BBP Regeneration prepared a high level Residual Land Value viability model in order to establish the minimum average residential sales value required to achieve threshold land values for each location, with and without policy compliant affordable housing provision, given its:

- Assumed density and development mix, applied based on the typology of the location

- Previous land use (greenfield or brownfield threshold land value), applied based on information provided by the local authorities

2.50    We then estimated the average residential sales value for each postcode sector within the study area, by analysing Land Registry price paid data from January 2013 to mid-2016, adjusting to mid-2016 prices, as well as adjusting second hand values to reflect new build premium where evident (cross referenced with Zoopla predicted average asking prices, and comparables analysis of asking prices on Rightmove).

2.51    We then compared the minimum average sales values (with and without policy compliant affordable housing provision) against the estimated average residential sales value for each location.

2.52    The overall viability of each location was then determined as per the decision flow chart in Figure 2.4.

### Figure 2.4 Overall viability assessment flow
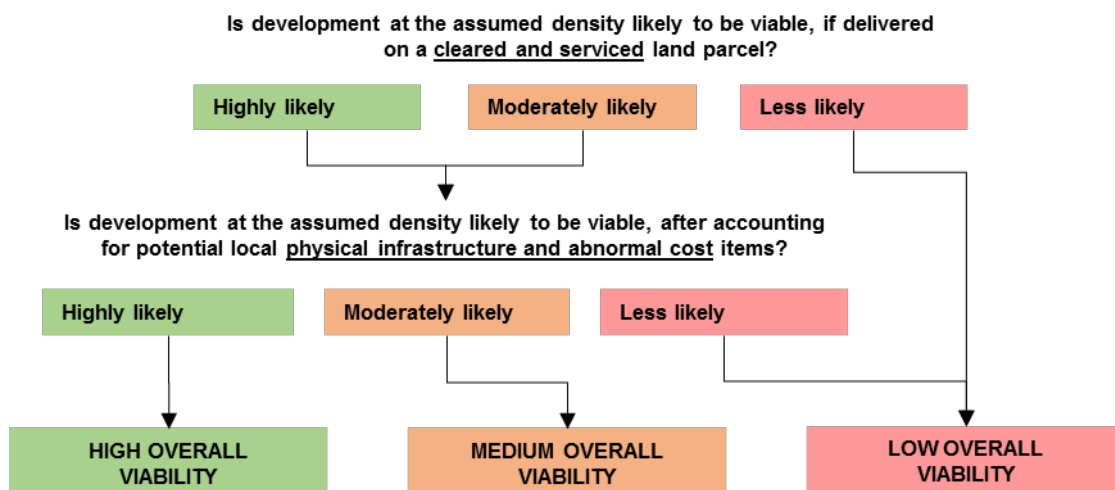


2.53    The overall viability assessment provides a snapshot based on current demand, costs and values. However, commentary within the deliverability assessment provides a high level assessment of potential future demand over the study period.

### Step 9. Establish infrastructure constraints and opportunities

2.54 Infrastructure constraints and opportunities have been considered as part of our methodology, based upon the best available evidence. It should be stressed that this is a high level assessment based on a largely generic set of assumptions; however, each location will have its own unique infrastructure requirements that can only be fully tested on a site-specific basis.

*Establishing a baseline of existing and future infrastructure assets likely to be delivered by 2035*

2.55 GIS information was provided by the four commissioning authorities relating to existing social and physical infrastructure assets (see Step 5).

2.56 Infrastructure Delivery Plans were reviewed for the four local authorities in order to establish known utilities infrastructure requirements relevant to each location.

2.57 Local Transport Plans were reviewed to establish potential future transport projects. Consultation with transport planners from Luton BC and CBC informed an assessment of the likelihood of delivery for each potential future transport project by 2035, and routes were digitised into GIS based on the best available information. A schedule outlining the potential future transport projects considered is provided at Appendix 3.

*Considering the impact of strategic transport infrastructure on dwelling capacity*

2.58 Proximity to existing and/or planned public transport interchanges and strategic roads was considered in determining the typology of each location (see Step 11). In turn, the typology determined the assumed density for that location.

*Considering the impact of infrastructure requirements on deliverability / viability*

2.59 Table 2.7 summarises the approach to deliverability / viability across the range of infrastructure requirements considered.

### Table 2.7 Impact of infrastructure on deliverability / viability

| Infrastructure category | Strategic physical infrastructure | Local physical infrastructure | Social infrastructure |
|---|---|---|---|
| **Examples of relevant infrastructure** | Physical infrastructure comprises transport and utilities.<br><br>Strategic infrastructure for these purposes was considered as infrastructure that is less scalable – that is, each asset or upgrade creates significant additional capacity, often beyond the immediately proposed scale of development (e.g. new gas / water mains, power plant, railway station). | Physical infrastructure comprises transport and utilities.<br><br>Local infrastructure for these purposes was considered as infrastructure that is more scalable – that is, each asset or upgrade can be tailored to the immediately proposed scale of development (e.g. local service connections / diversions, SUDS, district heating network). | Social infrastructure comprised health, education, and community infrastructure. |
| **Assumed funding mechanism** | Statutory authority and mainstream public sector funding commitments in line with housing and employment growth. Developer contributions may be available, depending on viability. | Land and funding generally secured through developer contributions. Where viability poses a development constraint, gap funding may be sought from the public sector in order to unlock growth. | Statutory authority and mainstream public sector funding commitments in line with housing and employment growth. Land and gap funding secured through developer contributions, depending on viability. |
| **Approach to deliverability / viability assessment** | Known utilities infrastructure requirements were noted and considered in | Headroom in excess of threshold land values on a cleared and serviced site considered in viability | Headroom in excess of threshold land values on a cleared and serviced site considered in viability |

| Infrastructure category | Strategic physical infrastructure | Local physical infrastructure | Social infrastructure |
|---|---|---|---|
| **model** | deliverability assessment.<br><br>*N.B. Site-specific work beyond the scope of this commission may result in the identification of additional utilities infrastructure requirements, particularly as the existing evidence base upon which we have relied will have focused around known, committed growth locations at the time of their preparation.*<br><br>Likelihood of delivery of essential strategic transport infrastructure (see table below) by 2035 were considered in deliverability assessment, with regard to current funding status.<br><br>High level qualitative assessment of accessibility (with regard to proximity, routes, and congestion) to both employment and amenities, and; key quality of life attractions (natural, cultural and leisure assets) were considered in assessing likely current and potential future demand for development of the assumed scale in each location. In turn, this impacted on the overall deliverability assessment. | assessment.<br><br>*N.B. Site-specific work beyond the scope of this commission may result in the identification of additional local physical infrastructure requirements beyond the levels considered in our viability assessment.* | assessment.<br><br>*N.B. Secondary schools have considerable land and funding requirements, and often create capacity beyond the immediately proposed scale of development. Demand for secondary schools is dependent on factors such as the nature and affordability of new development, catchment areas / accessibility, current unmet demand and relationships with feeder schools, current utilisation / capacity for growth of existing assets, and demographic profiles of the existing and new population – assessment of this demand is beyond the scope of this commission. At some locations, this may result in the identification of significant investment requirements beyond the levels considered in our viability assessment.* |

2.60    The assumptions in Table 2.8 were made in determining the essential strategic transport infrastructure requirements for each location, alongside an assessment of whether these requirements existed already, or were likely to be delivered by 2035. In turn, this impacted on the overall deliverability assessment.

### Table 2.8 Strategic transport infrastructure assumptions

| Number of units | Village extension | Urban extension | New settlement |
|---|---|---|---|
| **0-499 units** | If strategic road within 1.0km, assume only **local access works** required.<br><br>If not within 1.0km of strategic road, assume **moderate improvements** in access to strategic road network required. | If strategic road within 1.0km, assume only **local access works** required.<br><br>If not within 1.0km of strategic road, assume **moderate improvements** in access to strategic road network required. | n/a |
| **500-1,999 units** | If strategic road within 1.0km, assume **minor improvements** in access to strategic road network required.<br><br>If not within 1.0km of strategic road, assume **moderate** | If strategic road within 1.0km, assume **minor improvements** in access to strategic road network required.<br><br>If not within 1.0km of strategic road, assume **moderate** | n/a |

| Number of units | Village extension | Urban extension | New settlement |
|---|---|---|---|
| | **improvements** in access to strategic road network required. | **improvements** in access to strategic road network required. | |
| **2,000+ units** | See 'New settlement' | If strategic road within 1.0km, and within 1.2km of public transport interchange, assume **minor improvements** in transport infrastructure required. | If strategic road within 1.0km, and within 1.2km of public transport interchange, assume **minor improvements** in transport infrastructure required. |
| | | If not within 1.0km of strategic road, but within 1.2km of public transport interchange, assume **moderate improvements** in transport infrastructure required. | If not within 1.0km of strategic road, but within 1.2km of public transport interchange, assume **moderate improvements** in transport infrastructure required. |
| | | If strategic road within 1.0km, but not within 1.2km of public transport interchange assume **moderate improvements** in transport infrastructure required. | If within 1.0km of strategic road, but not within 1.2km of public transport interchange, assume **significant improvements** in transport infrastructure required. |
| | | If not within 1.0km of strategic road, and not within 1.2km of public transport interchange, assume **significant improvements** in transport infrastructure required. | If not within 1.0km of strategic road, and not within 1.2km of public transport interchange, assume **significant improvements** in transport infrastructure required. |

*Considering strategic growth opportunities along public transport interchanges and transport corridors*

2.61    We provided a commentary highlighting where existing / planned transport infrastructure presented opportunities for housing and employment growth (see Chapter 4).

*Considering opportunities for new strategic transport infrastructure to support housing and employment growth*

2.62    We provided a commentary highlighting where new public transport infrastructure could unlock housing and/or employment growth at two or more locations that were otherwise considered to have low deliverability (see Chapter 4).

### Step 10. Assess locations

2.63    Each location was assessed against the framework of criteria defined in Step 8 above. Assessments were desk-based, supported by GIS proximity analysis and reference to relevant documentary sources.  Assessment results are summarised in Chapter 3 and presented as a standard form and boundary map for each location in Appendix 4.

### Step 11. Define spatial options

2.64    Spatial options are different thematic groupings of locations.  The following five themes were agreed with the commissioning authorities:

- new settlements;
- village extensions;
- growth in transport corridors;

- urban extensions; and

- urban intensification around public transport hubs.

2.65    Potential development locations were allocated to one or more of the spatial options, using the criteria set out in Table 2.9 for guidance.  These criteria were not intended to provide an assessment of the location but merely to help generate alternative spatial distributions of development in a transparent and consistent way.

### Table 2.9 Guidance framework for including locations within spatial options

| Spatial option | Criteria: location considered for inclusion if… |
|---|---|
| **New settlements**<br><br>Criteria are based on achieving clear separation from the HMA's largest existing settlements and on achieving a sufficient location size to support provision of a broad range of services and facilities. | Location boundary > 1.0 km from the edge of an existing settlement (or permitted extension to an existing settlement) in the top tier of the local authority's settlement hierarchy, *and*<br><br>Location has capacity for > 2,000 dwellings. |
| **Village extensions**<br><br>Criteria are based on identifying locations that are edge of the HMA's smaller settlements. | Location boundary < 100 m from boundary of existing settlements below the top tier of the settlement hierarchy. |
| **Growth in transport corridors**<br><br>Criteria are based on identifying locations that have good access to the strategic transport network. | Location boundary < 1.2 km from a railway station, guided busway stop or park and ride facility *or*<br><br>Location boundary < 1.0 km from an A-road or motorway |
| **Urban extensions**<br><br>Criteria are based on identifying locations that are edge of the HMA's largest settlements. | Location boundary < 100 m from the edge of an existing settlement (or permitted extension to an existing settlement) in the top tier of the local authority's settlement hierarchy, *and*<br><br>Location is not contained within the existing urban area. |
| **Urban intensification around public transport hubs**<br><br>Criteria are based on identifying locations that have good access to public transport hubs. | Site is within or adjacent to the existing urban area of a settlement in the top tier of the local authority's settlement hierarchy, and < 1.2 km from an existing or proposed public transport hub (railway station, guided busway stop or park and ride facility). |

2.66    While settlement hierarchies may be subject to change through the Local Plan process, for the purposes of categorising locations according to the rules in Table 2.9, settlements in the 'top tier of the local authority settlement hierarchies' were assumed to be as follows:

- Central Bedfordshire District: Ampthill, Biggleswade, Dunstable, Flitwick, Houghton Regis, Leighton Buzzard, Sandy, Wixams

- Luton Borough: Luton town

- North Hertfordshire District: Baldock, Great Ashby, Hitchin, Letchworth Garden City, Royston,

- Aylesbury Vale District: Aylesbury, Buckingham, Haddenham, Wendover, Winslow

### Step 12. Assess relative performance of locations within spatial options

2.67    Having allocated locations to spatial options, the relative performance of all locations within each spatial option was compared, drawing on the results of the separate assessments of constraints, accessibility, Green Belt, deliverability and viability.   This was intended to provide a selection of building blocks from which future alternative spatial strategies could be generated through the Local Plan process.

# 3 Results

3.1 This chapter summarises the results of the assessments of constraints, access to services and facilities, Green Belt, deliverability and viability.

## Constraints

3.2 As explained in the methodology chapter, none of the potential locations for development are within an area of primary constraint such as a nationally designated biodiversity or landscape designation as these areas have been excluded from consideration as possible locations for growth. The secondary constraints to which the locations are subject is summarised in Table 3.1.

3.3 The analysis shows that all potential locations for development are subject to a range of secondary constraints, the most commonly occurring relating to biodiversity, landscape, soil quality, and flood risk. Conversely, none of the locations are subject to secondary constraints relating to air quality, and very few are constrained in relation to water quality, energy infrastructure, or Luton Airport noise zones.

3.4 Note that the methodology only reveals presence or absence of constraints within the potential growth locations; it does not assess the proportion of the location subject to particular constraints. Furthermore, it does not assess the potential impacts of growth at the locations on environmental receptors beyond their boundaries, for example potential impacts on the setting of historic assets or setting of designated landscapes are not considered. As indicated in Chapter 0, more detailed work is being undertaken through the individual SHLAA processes of each LPA.

3.5 The results of the constraints analysis are illustrated by Figure 3.1 which shows those parts of the Luton HMA subject to primary constraints as well as the number of different secondary constraints present across the remainder of the HMA.

3.6 Further representations of the results of the constraints analysis are provided in the location assessment forms in Appendix 4 and the GIS datasets supplied alongside this report.

**Table 3.1 Secondary constraints present within potential development locations**

| ID | Location name | Listed Building | Conservation Area | Priority Habitat Inventory | Locally designated wildlife site | Local Nature Reserve | Local geological site | Locally identified sensitive landscape | Current AQMA | Grade 1, 2, or 3 agricultural land | Source Protection Zone 1 or 1c | Flood Zone 2 | Surface water flooding (1:100) | High voltage electricity line <400m | Mineral Safeguarding Area | Sustrans national cycle route | Publicly accessible open space | Luton Airport noise zones | No. of secondary constraints |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | Clophill | No | Yes | Yes | Yes | No | Yes | Yes | No | Yes | No | Yes | Yes | No | Yes | No | No | No | 9 |
| L2 | Maulden East | No | No | Yes | No | No | No | Yes | No | Yes | No | Yes | Yes | No | Yes | No | No | No | 6 |
| L3 | Maulden South | No | No | Yes | No | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 4 |
| L4 | Ampthill East | No | No | Yes | No | No | No | Yes | No | Yes | No | No | Yes | No | No | No | Yes | No | 5 |
| L5 | Flitwick West | Yes | No | Yes | No | No | No | Yes | No | Yes | No | Yes | Yes | Yes | Yes | No | No | No | 8 |
| L6 | North of Flitwick | No | No | Yes | No | No | No | Yes | No | Yes | No | Yes | Yes | No | No | No | Yes | No | 6 |
| L7 | Flitwick East | No | No | Yes | Yes | No | No | No | No | Yes | No | Yes | Yes | No | Yes | No | No | No | 6 |
| L8 | Flitton | No | Yes | Yes | No | No | No | Yes | No | Yes | No | Yes | Yes | No | Yes | No | No | No | 7 |
| L9 | Gravenhurst | No | No | Yes | No | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 4 |
| L10 | Barton | Yes | No | Yes | No | No | No | Yes | No | Yes | No | Yes | Yes | No | No | No | No | No | 6 |
| L11 | North of Harlington | No | No | No | No | No | No | Yes | No | Yes | No | Yes | Yes | No | No | No | No | No | 4 |
| L12 | Harlington West | No | No | Yes | Yes | No | No | Yes | No | Yes | No | Yes | Yes | Yes | No | No | No | No | 7 |
| L13 | Toddington | Yes | Yes | Yes | Yes | No | No | Yes | No | Yes | No | No | Yes | No | No | No | Yes | No | 8 |
| L14 | Tebsworth | No | Yes | No | No | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 4 |
| L15 | Hockliffe | Yes | No | No | Yes | No | No | Yes | No | Yes | No | Yes | Yes | No | No | No | No | No | 6 |
| L16 | North of Leighton | No | No | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Yes | No | Yes | No | No | No | 9 |
| L17 | Leighton East | No | No | No | No | No | No | Yes | No | Yes | No | Yes | Yes | No | No | Yes | No | No | 5 |
| L18 | SE Leighton | No | No | Yes | No | No | No | Yes | No | Yes | No | No | Yes | Yes | Yes | No | No | No | 6 |
| L19 | Tilsworth | No | No | Yes | No | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 4 |
| L20 | North Luton | No | No | Yes | Yes | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 5 |
| L21 | Butterfield North | No | No | Yes | Yes | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 5 |
| L22 | East Luton | No | No | Yes | Yes | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 5 |
| L23 | Butterfield South | No | No | Yes | Yes | No | No | Yes | No | Yes | No | No | No | No | No | No | No | No | 4 |
| L24 | West Luton | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | Yes | No | No | No | Yes | Yes | 7 |
| L25 | Caddington NW | No | No | Yes | No | No | No | No | No | Yes | No | No | Yes | No | No | No | No | No | 3 |
| L26 | M1 J10 | No | No | No | No | No | No | No | No | Yes | No | No | Yes | No | No | No | Yes | Yes | 4 |
| L27 | Harpenden | No | No | No | No | No | No | Yes | No | Yes | No | No | Yes | No | No | No | No | No | 3 |
| L28 | West Dunstable | No | No | Yes | Yes | No | No | Yes | No | Yes | No | No | Yes | No | No | Yes | No | No | 6 |
| L29 | Eaton Bray East | No | No | Yes | Yes | No | No | No | No | Yes | No | Yes | Yes | No | No | No | No | No | 5 |
| L30 | Eaton Bray West | No | No | Yes | Yes | No | No | No | No | Yes | No | Yes | Yes | No | No | No | No | No | 5 |
| L31 | Eddlesborough | No | No | Yes | No | No | No | No | No | Yes | No | No | Yes | No | No | No | No | No | 3 |
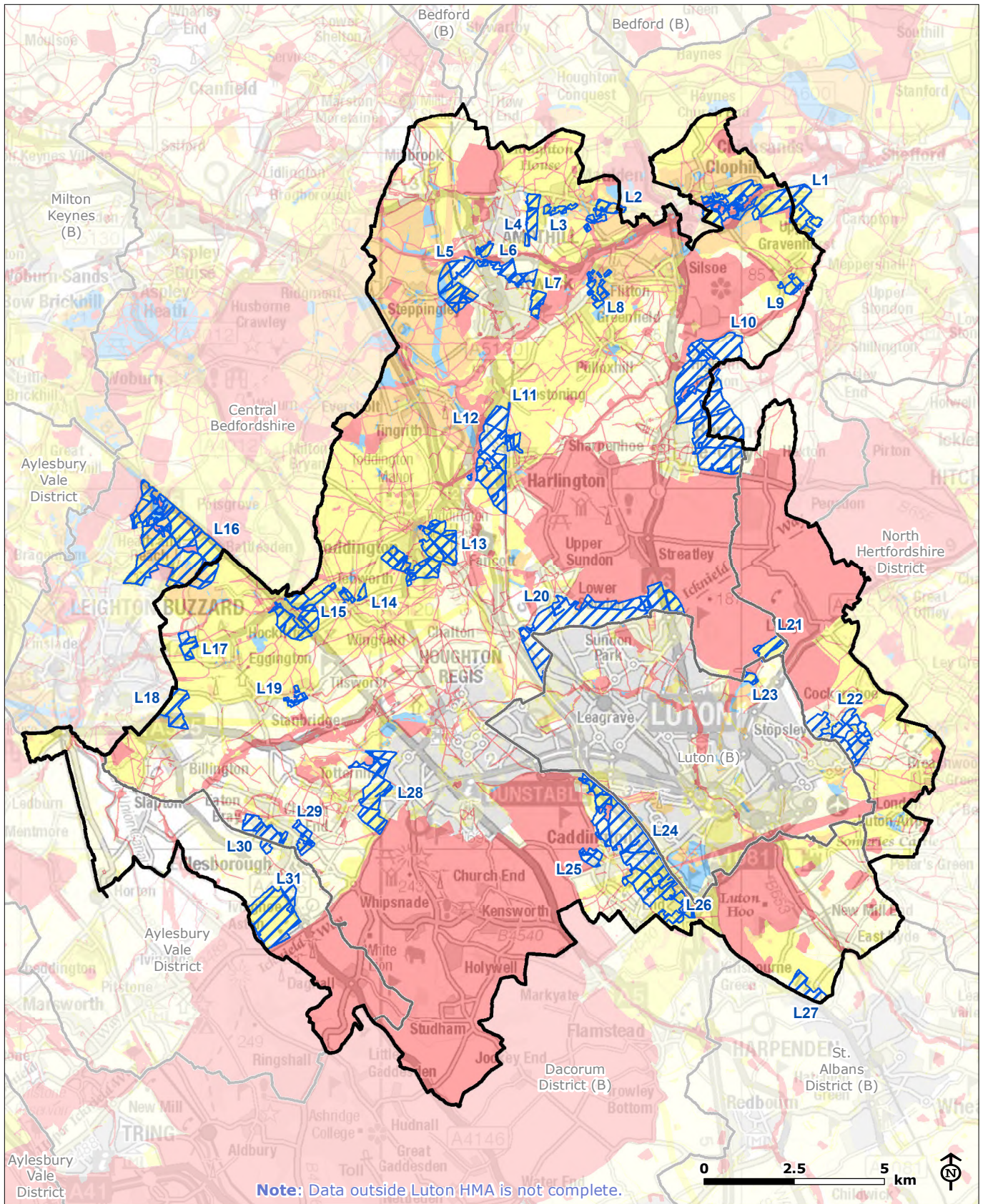
Note: Data outside Luton HMA is not complete.

**Legend:**

- Luton Housing Market Area
- Local Authority boundary
- Potential growth location
- Primary constraint

**Number of secondary constraints**
- 1
- 2
- 3
- 4 - 6
- 7 - 9
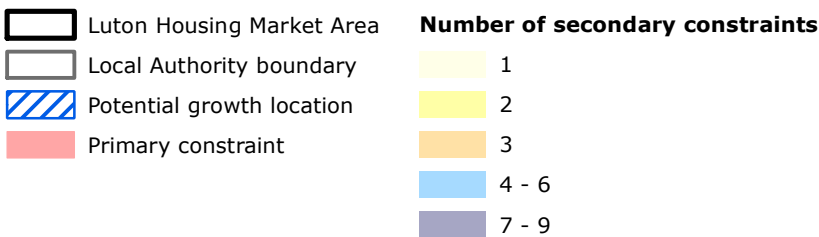
**LUTON HOUSING MARKET AREA**
Growth Options Study

**Figure 3.1: Primary and Secondary Constraints within Luton HMA**

LUC

Source: Local Authorities, Natural England, English Heritage, National Grid, Sustrans, ODC, Environment Agency, LUC

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Map Scale @ A4: 1:150,000

CB:EL EB:lendak_e LUCEDI FIG3-1_6772_r2_Constraints_A4P 10/11/2016

## Access to services and facilities

3.7     The types of different service and facility present within indicative, straight line walking distance of the boundary of each potential location for development are summarised in Table 3.2.  As explained in the methodology, this proximity analysis takes account of both existing services and facilities and those assumed to be provided when large (100 hectares or more) committed development sites are delivered.

3.8     The analysis shows that all locations are accessible to bus stops and almost all are accessible to public open spaces, and lower, middle or primary schools.  Conversely, relatively few locations are within walking distance of a town centre, major out of centre retail park, or local / neighbourhood centre.

3.9     Whilst many of these types of service or facility can be expected to be provided wherever the demand for them arises, this is less likely to be the case for public transport hubs which will generally involve more significant capital investment, longer lead times and/or greater political commitment.  It is therefore significant that most potential locations for development are not within walking distance of a railway station, guided busway stop or a park and ride facility.

3.10    The results of the constraints analysis are illustrated by Figure 3.2 which shows those parts of Luton HMA within walking distance of a railway station, guided busway or park and ride facility. Also shown is the total number of other types of service or facility within walking distance of each area of the HMA.

3.11    The results of the analysis of access to services facilities are also provided for each location in the assessment forms in Appendix 4 and the GIS datasets supplied alongside this report.

**Table 3.2 Services and facilities present within indicative walking distance of potential development locations**

| ID | Location name | Railway stations, guided busway stops and park and ride facilities (1.2 km) | Major employment areas (2.0 km) | Town centres and major out of centre retail parks (0.8 km) | Publicly accessible open spaces (1.2 km) | Secondary or upper schools and further or higher education establishments (2.0 km) | Lower, middle or primary schools (1.0 km) | Local / neighbourhood centres (0.4 km) | NHS primary healthcare (GPs) and hospitals (1.2 km) | Bus stops, inc. stops on non-guided sections of guided busway (0.8 km) |
|---|---|---|---|---|---|---|---|---|---|---|
| L1 | Clophill | No | No | No | Yes | No | Yes | No | No | Yes |
| L2 | Maulden East | No | Yes | No | Yes | No | Yes | No | No | Yes |
| L3 | Maulden South | No | Yes | No | Yes | Yes | Yes | No | Yes | Yes |
| L4 | Ampthill East | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| L5 | Flitwick West | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| L6 | North of Flitwick | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| L7 | Flitwick East | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| L8 | Flitton | No | Yes | No | Yes | No | Yes | No | No | Yes |
| L9 | Gravenhurst | No | No | No | Yes | No | Yes | No | No | Yes |
| L10 | Barton | No | No | No | Yes | Yes | Yes | No | Yes | Yes |
| L11 | North of Harlington | Yes | No | No | Yes | Yes | Yes | No | No | Yes |
| L12 | Harlington West | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes |
| L13 | Toddington | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes |
| L14 | Tebsworth | No | No | No | Yes | No | No | No | No | Yes |
| L15 | Hockliffe | No | No | No | Yes | No | Yes | No | No | Yes |
| L16 | North of Leighton | No | Yes | No | Yes | Yes | Yes | No | No | Yes |
| L17 | Leighton East | No | Yes | No | Yes | Yes | Yes | No | No | Yes |
| L18 | SE Leighton | No | Yes | No | Yes | Yes | Yes | No | No | Yes |
| L19 | Tilsworth | No | Yes | No | Yes | No | Yes | No | No | Yes |
| L20 | North Luton | No | Yes | No | Yes | Yes | Yes | No | Yes | Yes |
| L21 | Butterfield North | Yes | Yes | No | Yes | Yes | No | No | No | Yes |
| L22 | East Luton | No | Yes | No | Yes | Yes | Yes | No | Yes | Yes |
| L23 | Butterfield South | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes |
| L24 | West Luton | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| L25 | Caddington NW | No | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes |
| L26 | M1 J10 | Yes | Yes | No | Yes | Yes | Yes | No | No | Yes |
| L27 | Harpenden | No | No | No | No | Yes | Yes | No | Yes | Yes |
| L28 | West Dunstable | Yes | Yes | No | Yes | Yes | Yes | No | Yes | Yes |
| L29 | Eaton Bray East | No | No | No | Yes | No | Yes | Yes | Yes | Yes |
| L30 | Eaton Bray West | No | No | No | Yes | No | Yes | Yes | Yes | Yes |
| L31 | Eddlesborough | No | No | No | Yes | No | Yes | No | Yes | Yes |
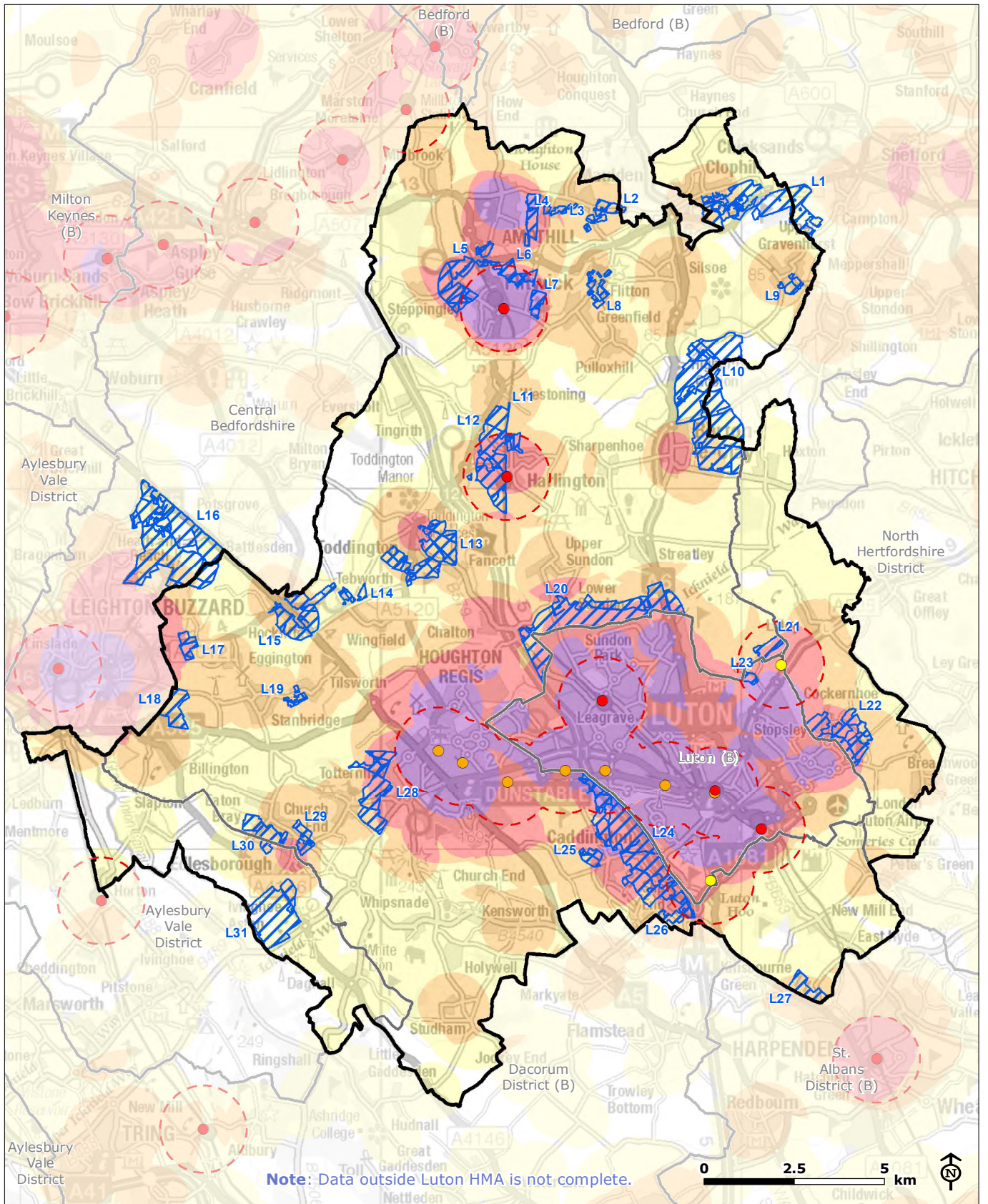
**Note**: Data outside Luton HMA is not complete.

0    2.5    5
km

Map Scale @ A4: 1:150,000

**Legend:**
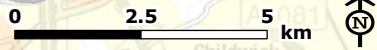
| Luton Housing Market Area |
| Local Authority boundary |
| Potential growth location |
| ● Railway station |
| ● Guided busway stop |
| ● Park & Ride |
| 1200m from rail station, guided busway stop or park & ride |

**Number of accessible services**

| 1 - 2 |
| 3 - 4 |
| 5 - 6 |
| 7 - 9 |

## Green Belt

3.12 Drawing on the results of stand-alone Green Belt studies referenced in the methodology chapter, Table 3.3 sets out the contribution to the following Green Belt purposes of each land parcel overlapping a potential location for development:

- Purpose 1: to check the unrestricted sprawl of large built-up areas;

- Purpose 2: to prevent neighbouring towns merging into one another;

- Purpose 3: to assist in safeguarding the countryside from encroachment; and

- Purpose 4: to preserve the setting and special character of historic towns.

3.13 For the reasons explained in the methodology chapter, the highest contribution to any individual Green Belt purpose has then been used to represent the overall contribution of each constituent parcel to the Green Belt.

3.14 The following locations are not within the Green Belt and do not therefore appear in Table 3.3: L1, L2, L8, L9, L31. Locations partially within the Green Belt are identifiable by the fact that the percentage figures in the final column do not add to approximately 100% (ignoring small differences due to the exclusion of Green Belt parcels which overlapped less than 0.5% of a location).

3.15 The overall contribution of parcels to Green Belt purposes is also illustrated in Figure 3.3. It should be noted that no ratings are shown for the area of Green Belt to the east of Leighton Buzzard/west of location L17 nor for that on the northern boundary Houghton Regis. This is because the Luton and Central Bedfordshire Green Belt Study did not assess these areas since they were both recognised as committed development sites.

## Table 3.3 Contribution to Green Belt purposes of potential development locations

| ID | Location name | GB study parcel ID | P1 - Restricting sprawl | P2 - Preventing merging | P3 - Safeguarding countryside | P4 - Preserving setting | Overall contribution to GB purposes | Parcel % of location area |
|---|---|---|---|---|---|---|---|---|
| L3 | Maulden South | AH1 | none or weak | none or weak | relatively strong | relatively strong | relatively strong | 29.0 |
| L4 | Ampthill East | AH1 | none or weak | none or weak | relatively strong | relatively strong | relatively strong | 87.0 |
| L4 | Ampthill East | AH2 | none or weak | relatively strong | relatively strong | relatively strong | relatively strong | 9.0 |
| L5 | Flitwick West | FW4 | none or weak | relatively weak | strong | relatively weak | strong | 71.0 |
| L5 | Flitwick West | FW5 | none or weak | relatively strong | moderate | none or weak | relatively strong | 28.0 |
| L6 | North of Flitwick | FW1 | none or weak | relatively strong | moderate | relatively weak | relatively strong | 79.0 |
| L6 | North of Flitwick | AH2 | none or weak | relatively strong | relatively strong | relatively strong | relatively strong | 17.0 |
| L7 | Flitwick East | FW2 | none or weak | none or weak | relatively strong | relatively weak | relatively strong | 99.0 |
| L10 | Barton | BC2 | none or weak | none or weak | strong | none or weak | strong | 44.0 |
| L10 | Barton | BC1 | none or weak | none or weak | strong | none or weak | strong | 22.0 |
| L11 | North of Harlington | WE2 | none or weak | relatively weak | relatively strong | none or weak | relatively strong | 98.0 |
| L11 | North of Harlington | WE1 | none or weak | none or weak | relatively strong | none or weak | relatively strong | 1.0 |
| L12 | Harlington West | H3 | none or weak | relatively weak | relatively strong | none or weak | relatively strong | 76.0 |
| L12 | Harlington West | WE2 | none or weak | relatively weak | relatively strong | none or weak | relatively strong | 12.0 |
| L12 | Harlington West | H1 | none or weak | relatively weak | strong | none or weak | strong | 10.0 |
| L13 | Toddington | T2 | none or weak | none or weak | strong | none or weak | strong | 53.0 |
| L13 | Toddington | T3 | none or weak | none or weak | strong | relatively weak | strong | 25.0 |
| L13 | Toddington | T4 | none or weak | none or weak | moderate | none or weak | moderate | 19.0 |
| L13 | Toddington | A | relatively weak | relatively strong | strong | none or weak | strong | 1.0 |
| L14 | Tebsworth | A | relatively weak | relatively strong | strong | none or weak | strong | 97.0 |
| L14 | Tebsworth | HL3 | none or weak | none or weak | strong | none or weak | strong | 2.0 |
| L15 | Hockliffe | HL3 | none or weak | none or weak | strong | none or weak | strong | 57.0 |
| L15 | Hockliffe | HL2 | none or weak | none or weak | moderate | none or weak | moderate | 25.0 |
| L15 | Hockliffe | F | strong | relatively strong | strong | none or weak | strong | 14.0 |
| L15 | Hockliffe | HL1 | none or weak | none or weak | relatively strong | moderate | relatively strong | 1.0 |
| L16 | North of Leighton | H | none or weak | relatively weak | strong | relatively strong | strong | 42.0 |
| L16 | North of Leighton | LL7 | strong | moderate | strong | moderate | strong | 34.0 |
| L16 | North of Leighton | LL6 | strong | relatively weak | strong | moderate | strong | 21.0 |
| L16 | North of Leighton | HAR2 | none or weak | none or weak | relatively strong | none or weak | relatively strong | 1.0 |
| L17 | Leighton East | LL8 | strong | moderate | strong | relatively strong | strong | 56.0 |
| L17 | Leighton East | LL7 | strong | moderate | strong | moderate | strong | 43.0 |
| L18 | SE Leighton | LL8 | strong | moderate | strong | relatively strong | strong | 99.0 |
| L19 | Tilsworth | F | strong | relatively strong | strong | none or weak | strong | 100.0 |
| L20 | North Luton | L2 | relatively strong | relatively weak | strong | relatively strong | strong | 76.0 |
| L20 | North Luton | L1 | strong | none or weak | moderate | relatively strong | strong | 9.0 |
| L20 | North Luton | L3 | strong | none or weak | strong | relatively strong | strong | 5.0 |

| ID | Location name | GB study parcel ID | P1 - Restricting sprawl | P2 - Preventing merging | P3 - Safeguarding countryside | P4 - Preserving setting | Overall contribution to GB purposes | Parcel % of location area |
|---|---|---|---|---|---|---|---|---|
| **L21** | Butterfield North | L4 | strong | none or weak | strong | strong | strong | 97.0 |
| **L21** | Butterfield North | 2 | strong | none or weak | strong | none or weak | strong | 1.0 |
| **L22** | East Luton | 2c | strong | none or weak | strong | none or weak | strong | 80.0 |
| **L22** | East Luton | 2d | strong | none or weak | strong | none or weak | strong | 19.0 |
| **L23** | Butterfield South | 2 | strong | none or weak | strong | none or weak | strong | 99.0 |
| **L24** | West Luton | L6 | relatively strong | none or weak | moderate | relatively strong | relatively strong | 55.0 |
| **L24** | West Luton | C1 | relatively strong | none or weak | relatively strong | relatively weak | relatively strong | 33.0 |
| **L24** | West Luton | SE2 | moderate | none or weak | moderate | none or weak | moderate | 11.0 |
| **L25** | Caddington NW | C4 | none or weak | none or weak | moderate | relatively weak | moderate | 86.0 |
| **L25** | Caddington NW | D5 | strong | none or weak | strong | strong | strong | 13.0 |
| **L26** | M1 J10 | SE1 | moderate | none or weak | moderate | none or weak | moderate | 99.0 |
| **L27** | Harpenden | HP1 | none or weak | relatively weak | relatively strong | none or weak | relatively strong | 93.0 |
| **L27** | Harpenden | C | none or weak | relatively strong | strong | moderate | strong | 6.0 |
| **L28** | West Dunstable | D1 | strong | moderate | strong | none or weak | strong | 99.0 |
| **L29** | Eaton Bray East | EB2 | none or weak | moderate | relatively strong | none or weak | relatively strong | 99.0 |
| **L30** | Eaton Bray West | EB1 | none or weak | relatively weak | strong | none or weak | strong | 85.0 |

**Legend:**
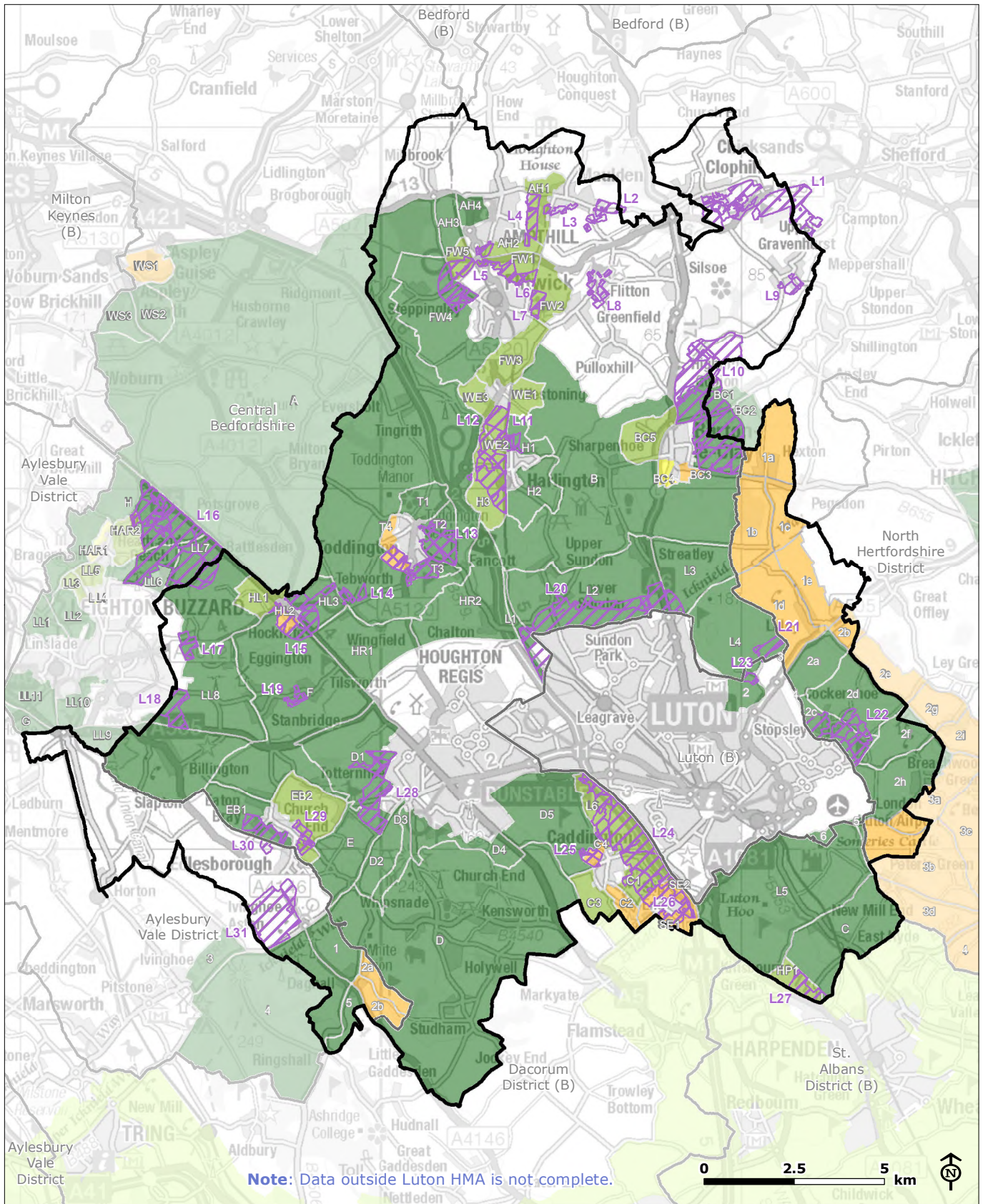
Luton Housing Market Area

Local Authority boundary

Potential growth location

Other Green Belt

**Overall contribution of parcel to Green Belt**

Strong contribution

Relatively strong contribution

Moderate contribution

Relatively weak contribution

Weak/No contribution

Note: Data outside Luton HMA is not complete.

Source: Local Authorities, DCLG, LUC

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Map Scale @ A4: 1:150,000

**LUTON HOUSING MARKET AREA**
Growth Options Study

**Figure 3.3: Overall Contribution of Green Belt Parcels within Luton HMA**

LUC

CB:EL EB:lendak_e LUCEDI FIG3-3_6772_r2_GreenBelt_A4P 10/11/2016

# Dwelling capacity and delivery trajectories

3.16 The results of the determination of dwelling capacity for each location are provided in Table 3.4 and show that:

- The assumed total net capacity of the locations ranges from 195 to almost 11,750.

- Locations with an assumed dwelling capacity below 2,500 are generally capable of being delivered in their entirety by 2035.

- In four cases, less than one-third of the assumed capacity of the location is capable of being delivered by 2035, due to the total number of dwellings being over 7,500 homes: L10 (Barton), L16 (North of Leighton), L20 (North Luton), and L24 (West Luton).

- Five locations have some of their site area outside of the Luton HMA boundary: L01 (Clophill), L02 (Maulden East), L10 (Barton), L16 (North of Leighton), and L27 (Harpenden). In one case, less than two-thirds of the site area of the location lies within the Luton HMA boundary: L16 (North of Leighton).

**Table 3.4 Assumed dwelling capacity, and estimated delivery to 2035**

| Location ID | Site area (ha) | Site area within Luton HMA (%) | Assumed typology | Assumed density | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary |
|---|---|---|---|---|---|---|---|
| L01 - Clophill | 199.81 | 67% | New settlement | 44 | 5,275 | 2,000 | 804 |
| L02 - Maulden East | 31.47 | 92% | Small village extension, not in close proximity to public transport interchange | 30 | 566 | 566 | 521 |
| L03 - Maulden South | 11.98 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 216 | 216 | 216 |
| L04 - Ampthill East | 37.25 | 100% | Small urban infill site / extension, not in close proximity to public transport interchange | 30 | 671 | 671 | 671 |
| L05 - Flitwick West | 89.70 | 100% | Large urban infill site / extension, not in close proximity to public transport interchange | 44 | 2,368 | 2,368 | 1,500 |
| L06 - North of Flitwick | 51.30 | 100% | Small urban infill site / extension, in close proximity to public transport interchange | 55 | 1,693 | 1,500 | 900 |
| L07 - Flitwick East | 19.65 | 100% | Small urban infill site / extension, in close proximity to public transport interchange | 55 | 648 | 648 | 648 |

| Location ID | Site area (ha) | Site area within Luton HMA (%) | Assumed typology | Assumed density | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary |
|---|---|---|---|---|---|---|---|
| L08 - Flitton | 22.76 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 410 | 410 | 410 |
| L09 - Gravenhurst | 16.76 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 302 | 302 | 240 |
| L10 - Barton | 444.56 | 77% | New settlement | 44 | 11,736 | 2,000 | 924 |
| L11 - North of Harlington | 32.94 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 593 | 593 | 593 |
| L12 - Harlington West | 89.73 | 100% | New settlement, in close proximity to public transport interchange | 55 | 2,961 | 2,500 | 1,500 |
| L13 - Toddington | 151.04 | 100% | New settlement | 44 | 3,987 | 2,500 | 1,500 |
| L14 - Tebsworth | 14.60 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 263 | 263 | 263 |
| L15 - Hockliffe | 108.51 | 100% | New settlement | 44 | 2,865 | 2,500 | 1,500 |
| L16 - North of Leighton | 405.70 | 8% | New settlement | 44 | 10,710 | 2,500 | 120 |
| L17 - Leighton East | 23.80 | 100% | Small urban infill site / extension, not in close proximity to public transport interchange | 30 | 428 | 428 | 420 |
| L18 - SE Leighton | 50.30 | 100% | Small urban infill site / extension, not in close proximity to public transport interchange | 30 | 905 | 905 | 720 |
| L19 - Tilsworth | 10.85 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 195 | 195 | 195 |
| L20 - North Luton | 308.70 | 100% | Large urban infill site / extension, not in close proximity to public transport interchange | 44 | 8,150 | 2,500 | 1,500 |
| L21 - Butterfield North | 36.51 | 100% | Small urban infill site / extension, in close proximity to public | 55 | 1,205 | 1,205 | 900 |

| Location ID | Site area (ha) | Site area within Luton HMA (%) | Assumed typology | Assumed density | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary |
|---|---|---|---|---|---|---|---|
| | | | transport interchange | | | | |
| L22 - East Luton | 116.50 | 100% | Location L22 - Emerging masterplan indicates capacity c.2,100 homes (equivalent 116ha units at 30dph) | 30 | 2,100 | 2,100 | 2,100 |
| L23 - Butterfield South | 10.01 | 100% | Small urban infill site / extension, in close proximity to public transport interchange | 55 | 330 | 330 | 330 |
| L24 - West Luton | 299.53 | 100% | Large urban infill site / extension, in close proximity to public transport interchange | 55 | 9,884 | 2,500 | 1,500 |
| L25 - Caddington NW | 20.44 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 368 | 368 | 368 |
| L26 - M1 J10 | 33.55 | 100% | Small urban infill site / extension, in close proximity to public transport interchange | 55 | 1,107 | 1,107 | 900 |
| L27 - Harpenden | 37.52 | 99% | Small urban infill site / extension, not in close proximity to public transport interchange | 30 | 675 | 675 | 669 |
| L28 - West Dunstable | 117.16 | 100% | Large urban infill site / extension, not in close proximity to public transport interchange | 44 | 3,093 | 2,000 | 1,200 |
| L29 - Eaton Bray East | 22.82 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 411 | 411 | 411 |
| L30 - Eaton Bray West | 55.57 | 100% | Small village extension, not in close proximity to public transport interchange | 30 | 1,000 | 1,000 | 720 |
| L31 - Eddlesborough | 165.12 | 100% | New settlement | 44 | 4,359 | 2,000 | 1,200 |

## Deliverability

3.17   We have presented the detailed results of the deliverability assessment against each of the relevant criteria and the justification for each assessment in the location assessment forms in Appendix 5.  A summary of the assessment scores and the overall deliverability assessment for each location are provided in Table 3.5.  Figure 3.4 presents the overall deliverability assessment for each location as either Low, Medium, or High.  The figure also shows each location in the context of key neighbouring HMAs and settlements.

3.18   The results illustrate that:

- Availability of land is moderately or highly likely for all of the locations.

- Location L09 (Upper Gravenhurst) has low overall deliverability due to lower market demand for development at that scale in that location.

- The new settlements / large village extensions, which have an assumed requirement for a public transport interchange within 1.2km, but none are currently planned and so they have been assessed as having "Low" overall deliverability.  The exception to this is Location L12 ( Harlington), is within 1.2km of the existing public transport interchange at Harlington railway station, and so has "High" overall deliverability.

- Market demand is anticipated to increase by 2035 at four locations as a result of planned strategic physical infrastructure / regeneration initiatives / delivery of employment sites: L20 (North Luton), L21 (Butterfield North), L22 (East Luton), and L23 (Butterfield South).
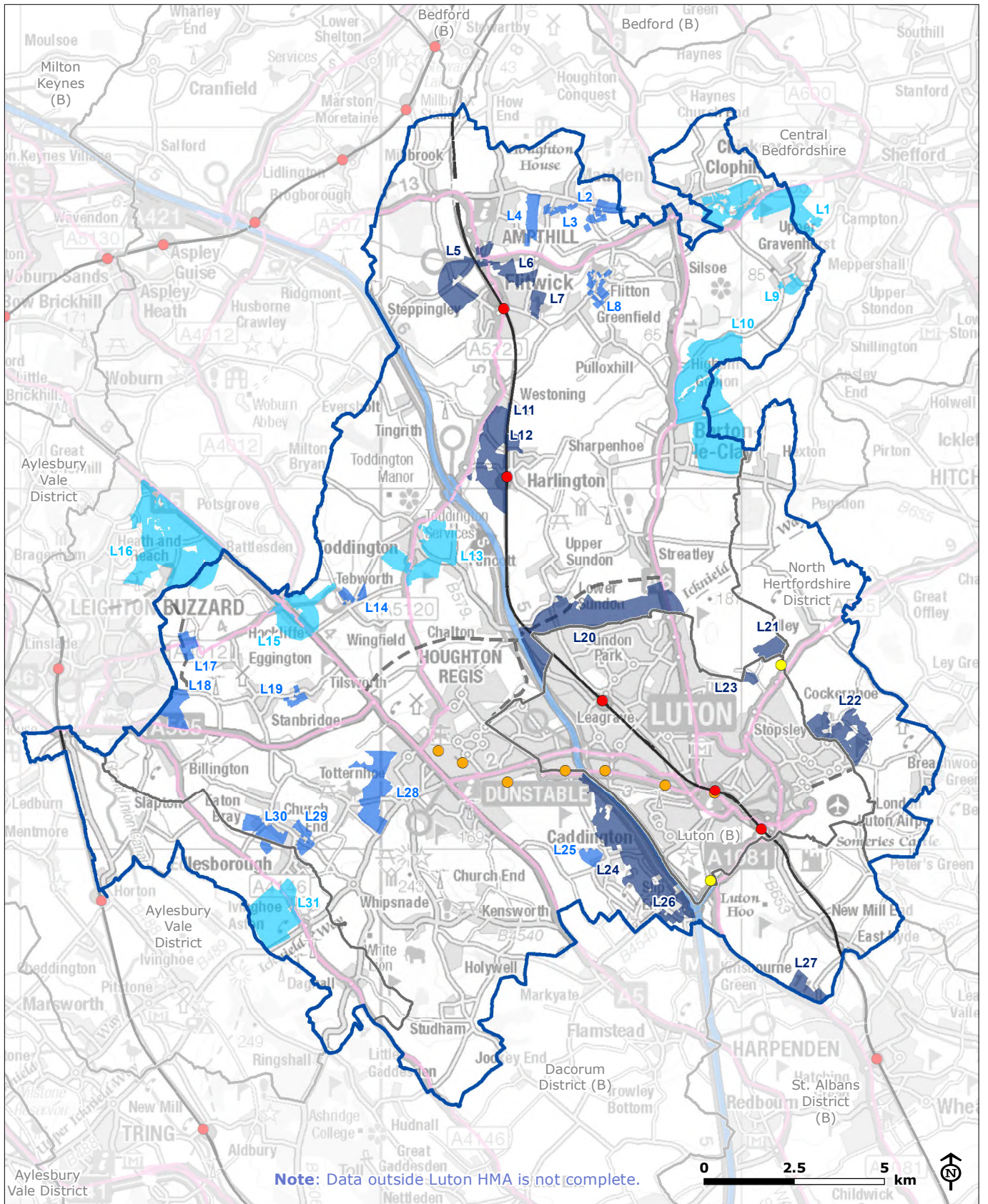
Figure 3.4: Overall Deliverability of Locations

**LUTON HOUSING MARKET AREA**
Growth Options Study

**Legend**

- Luton Housing Market Area
- Local Authority boundary
- Railway
- Motorway
- A Road
- New road scheme of significance to study

- Railway station
- Guided busway stop
- Park & Ride

**Overall deliverability of location**

- High
- Medium
- Low

Source: LAs, LUC, BBP
**Map Scale @ A4: 1:150,000**

Note: Data outside Luton HMA is not complete.

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CB:EL EB:lendak_e LUCEDI FIG3-4_6772_r2_Deliverability_A4P 10/11/2016

LUC   BBP Regeneration

**Table 3.5 Overall deliverability assessment**

| Location ID | Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period? | Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period? | Is there likely to be current demand for this scale of development in this location? | Is there likely to be future potential demand for this scale of development in this location, if planned regeneration / employment / infrastructure projects are delivered? | Overall deliverability assessment (High / medium / low) |
|---|---|---|---|---|---|
| L01 - Clophill | Highly likely | Less likely | Moderately likely | Moderately likely (no change from current assessment) | **Low** |
| L02 - Maulden East | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L03 - Maulden South | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L04 - Ampthill East | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L05 - Flitwick West | Highly likely | Moderately likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L06 - North of Flitwick | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L07 - Flitwick East | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L08 - Flitton | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L09 - Gravenhurst | Highly likely | Highly likely | Less likely | Less likely (no change from current assessment) | **Low** |
| L10 - Barton | Highly likely | Less likely | Moderately likely | Moderately likely (no change from current assessment) | **Low** |
| L11 - North of Harlington | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L12 - Harlington West | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L13 - Toddington | Highly likely | Less likely | Highly likely | Highly likely (no change from current assessment) | **Low** |
| L14 - Tebsworth | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L15 - Hockliffe | Moderately likely | Less likely | Highly likely | Highly likely (no change from current assessment) | **Low** |
| L16 - North of Leighton | Highly likely | Less likely | Highly likely | Highly likely (no change from current assessment) | **Low** |
| L17 - Leighton East | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L18 - SE Leighton | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L19 - Tilsworth | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L20 - North Luton | Highly likely | Highly likely | Moderately likely | Highly likely (increase from current assessment) | **High** |
| L21 - Butterfield North | Highly likely | Highly likely | Moderately likely | Highly likely (increase from current assessment) | **High** |

| Location ID | Is the location likely to be available for development and is there a reasonable prospect of delivery of the site within the time period? | Is there a reasonable prospect that required strategic infrastructure can be delivered within the time period? | Is there likely to be current demand for this scale of development in this location? | Is there likely to be future potential demand for this scale of development in this location, if planned regeneration / employment / infrastructure projects are delivered? | Overall deliverability assessment (High / medium / low) |
|---|---|---|---|---|---|
| L22 - East Luton | Highly likely | Highly likely | Moderately likely | Highly likely (increase from current assessment) | **High** |
| L23 - Butterfield South | Highly likely | Highly likely | Moderately likely | Highly likely (increase from current assessment) | **High** |
| L24 - West Luton | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L25 - Caddington NW | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L26 - M1 J10 | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L27 - Harpenden | Highly likely | Highly likely | Highly likely | Highly likely (no change from current assessment) | **High** |
| L28 - West Dunstable | Highly likely | Moderately likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L29 - Eaton Bray East | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L30 - Eaton Bray West | Highly likely | Highly likely | Moderately likely | Moderately likely (no change from current assessment) | **Medium** |
| L31 - Eddlesborough | Highly likely | Less likely | Moderately likely | Moderately likely (no change from current assessment) | **Low** |

## Viability

3.19    We have presented the detailed results of the viability assessment against each of the relevant criteria and the justification for each assessment in the location assessment forms in Appendix 5. A summary of the assessment scores is presented in Table 3.6, alongside the overall viability assessment for each location in the final column.  It should be noted that this is a high level assessment based on a largely generic set of assumptions; however, each location will have its own unique infrastructure requirements and abnormal costs that can only be fully tested on a site-specific basis.  A detailed methodology is provided at Appendix 2.

3.20    Figure 3.5 presents the overall viability assessment for each location as either Low, Medium, or High.  The figure also shows each location in the context of key neighbouring HMAs and settlements, and the relationship with estimated average sales values per sq ft for each postcode sector.

3.21    The results show that, at current costs and values, and with the assumed development mix:

- For the vast majority of the locations (24 out of 31), development at the assumed scale is likely to be viable with policy compliant affordable housing (as applicable to the relevant local authority – see Appendix 2).

- At locations L05 (Flitwick West), L07 (Flitwick East), L18 (South East Leighton), L21 (Butterfield North) and L22 (East Luton), development at the assumed scale could only deliver policy compliant affordable housing if local infrastructure works and abnormal costs are below £30,000 per unit / £750,000 per hectare.  If this was not the case, then development is only likely to be viable with less than policy compliant affordable housing provision (as applicable to the relevant local authority – see Appendix 2).  We also note that a reduction in density at Locations L07 (Flitwick East) and L21 (Butterfield North) may improve viability.

- At locations L06 (North of Flitwick) and L28 (West Dunstable), development at the assumed scale could deliver less than policy compliant affordable housing provision, but only if local infrastructure works and abnormal costs are below £30,000 per unit / £750,000 per hectare. If this was not the case, then development is unlikely to be viable, even with zero affordable housing provision (as applicable to the relevant local authority – see Appendix 2).  We also note that a reduction in density at Location L06 (North of Flitwick) may improve viability.

3.22    This study is not intended to provide an assessment of potential affordable housing delivery and does not, therefore, provide any granularity beyond policy compliant levels, lower than policy compliant levels, or zero affordable housing.

**Average sales value (£ / sq ft)**

- 100 - 200
- 201 - 300
- 301 - 400
- 401 - 500
- 501 - 600
- 601 - 700

**Note**: Data outside Luton HMA is not complete.

Map Scale @ A4: 1:150,000

**Legend:**

- Luton Housing Market Area
- Local Authority boundary
- Railway
- Motorway
- A Road
- New road scheme of significance to study
- Railway station
- Guided busway stop
- Park & Ride

**Overall Viability of Locations**

- High
- Medium
- Low
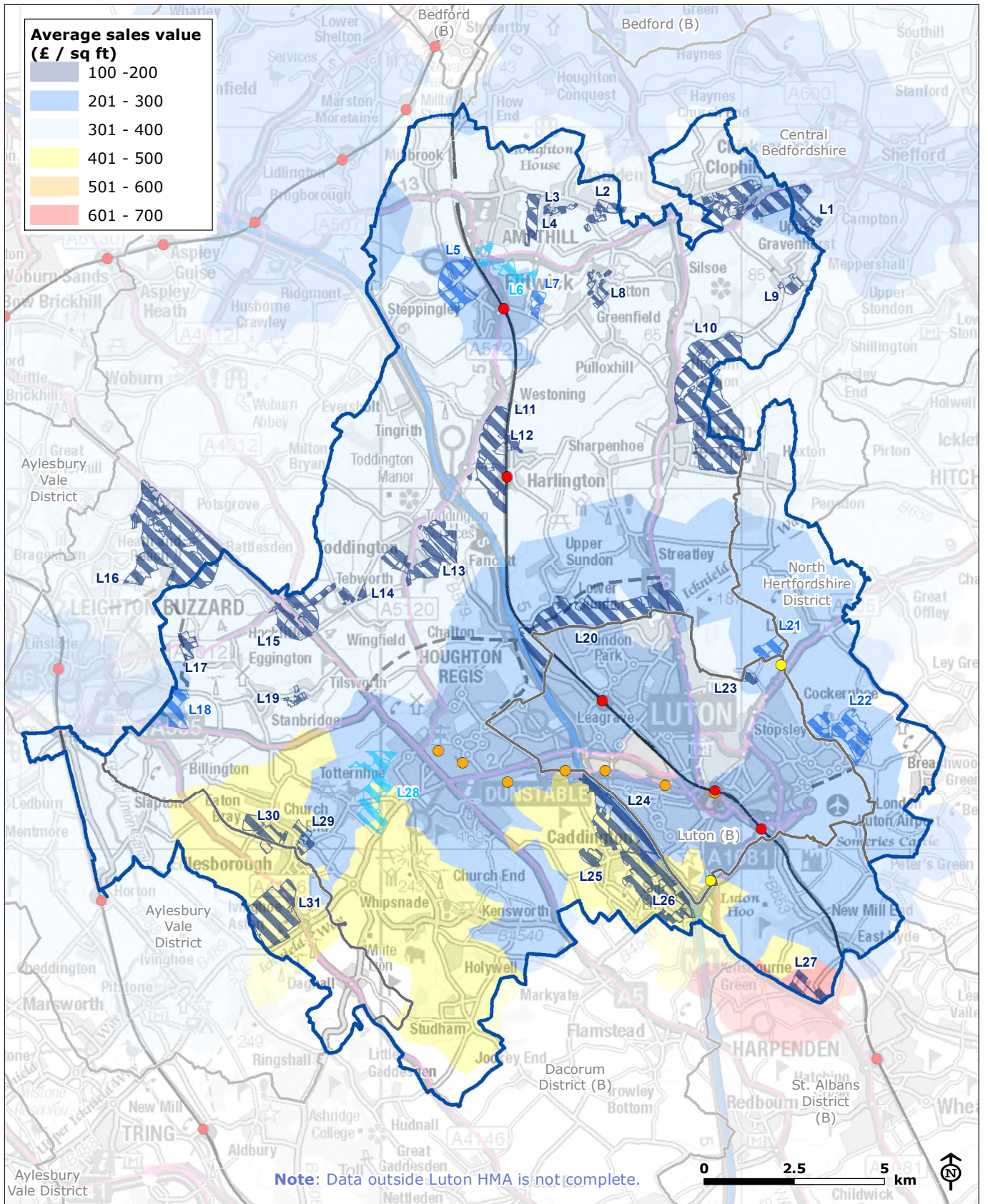
**LUTON HOUSING MARKET AREA**
Growth Options Study

**Figure 3.5: Overall Viability of Locations**

Source: LAs, LUC, BBP

LUC    BBP Regeneration

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CB:EL EB:lendak_e LUCEDI FIG3-5_6772_r2_Viability_A4P 10/11/2016

## Table 3.6 Viability assessment

| Location ID | Assumed net capacity | Viability of cleared and serviced development parcel | Is there a reasonable prospect that required local infrastructure and abnormal cost items can be delivered within the time period? | Overall viability assessment (High / medium / low) |
|---|---|---|---|---|
| L01 - Clophill | 5,275 | Highly likely | Highly likely | **High** |
| L02 - Maulden East | 566 | Highly likely | Highly likely | **High** |
| L03 - Maulden South | 216 | Highly likely | Highly likely | **High** |
| L04 - Ampthill East | 671 | Highly likely | Highly likely | **High** |
| L05 - Flitwick West | 2,368 | Highly likely | Moderately likely | **Medium** |
| L06 - North of Flitwick | 1,693 | Moderately likely | Less likely | **Low** |
| L07 - Flitwick East | 648 | Highly likely | Moderately likely | **Medium** |
| L08 - Flitton | 410 | Highly likely | Highly likely | **High** |
| L09 - Gravenhurst | 302 | Highly likely | Highly likely | **High** |
| L10 - Barton | 11,736 | Highly likely | Highly likely | **High** |
| L11 - North of Harlington | 593 | Highly likely | Highly likely | **High** |
| L12 - Harlington West | 2,961 | Highly likely | Highly likely | **High** |
| L13 - Toddington | 3,987 | Highly likely | Highly likely | **High** |
| L14 - Tebsworth | 263 | Highly likely | Highly likely | **High** |
| L15 - Hockliffe | 2,865 | Highly likely | Highly likely | **High** |
| L16 - North of Leighton | 10,710 | Highly likely | Highly likely | **High** |
| L17 - Leighton East | 428 | Highly likely | Highly likely | **High** |
| L18 - SE Leighton | 905 | Highly likely | Moderately likely | **Medium** |
| L19 - Tilsworth | 195 | Highly likely | Highly likely | **High** |
| L20 - North Luton | 8,150 | Highly likely | Highly likely | **High** |
| L21 - Butterfield North | 1,205 | Highly likely | Moderately likely | **Medium** |
| L22 - East Luton | 2,100 | Highly likely | Moderately likely | **Medium** |
| L23 - Butterfield South | 330 | Highly likely | Highly likely | **High** |
| L24 - West Luton | 9,884 | Highly likely | Highly likely | **High** |
| L25 - Caddington NW | 368 | Highly likely | Highly likely | **High** |
| L26 - M1 J10 | 1,107 | Highly likely | Highly likely | **High** |
| L27 - Harpenden | 675 | Highly likely | Highly likely | **High** |
| L28 - West Dunstable | 3,093 | Moderately likely | Less likely | **Low** |
| L29 - Eaton Bray East | 411 | Highly likely | Highly likely | **High** |
| L30 - Eaton Bray West | 1,000 | Highly likely | Highly likely | **High** |
| L31 - Eddlesborough | 4,359 | Highly likely | Highly likely | **High** |

## Spatial options

3.23    The assessed locations were allocated to one or more spatial options according to the criteria described in Chapter 2.  The results of this process are shown in Table 3.7 with the shaded cells indicating that the location meets the criteria to be included within a spatial option.

## Table 3.7 Categorisation of locations by spatial option

| ID | Location name | Assumed total net capacity | New settlements | Village extensions | Growth in transport corridors | Urban extensions | Urban intensification around public transport hubs |
|---|---|---|---|---|---|---|---|
| L1 | Clophill | 5,275 | Yes | Yes - within 100m of Clophill | Yes - Within 1 km of A507 | No | No |
| L2 | Maulden East | 566 | No | Yes - within 100m of the edge of Mauldon | Yes - Within 1 km of A507 | No | No |
| L3 | Maulden South | 216 | No | Yes - within 100m of Maulden | No | No | No |
| L4 | Ampthill East | 671 | No | No | Yes - Within 1 km of A507 | Yes - within 100 m of Ampthill | No |
| L5 | Flitwick West | 2,368 | No | No | Yes - Within 1 km of A507/A5120; partly within 1.2 km from railway station | Yes - within 100 m of Flitwick | Yes - part of site within 1.2 km of railway station and adjacent to Flitwick |
| L6 | North of Flitwick | 1,693 | No | No | Yes - Within 1 km of A507/A5120; Within 1.2km from railway station | Yes - within 100 m of Flitwick | Yes - majority of site within 1.2 km of railway station and adjacent to Flitwick |
| L7 | Flitwick East | 648 | No | No | Yes - Within 1 km of A507/A5120; Within 1.2 km from railway station | Yes - within 100 m of Flitwick | Yes - less than 1.2 km from railway station and adjacent to Flitwick |
| L8 | Flitton | 410 | No | Yes - within 10 0m of Flitton & Wardhedges | Yes - Within 1 km of A507 | No | No |
| L9 | Gravenhurst | 302 | No | Yes - within 100 m of Upper Gravenhurst | No | No | No |
| L10 | Barton | 11,736 | Yes | Yes - within 100 m of Barton-Le-Clay | Yes - Majority of site within 1 km of A6 | No | No |
| L11 | North of Harlington | 593 | No | Yes - within 100 m of Westoning | Yes - Within 1 km of A5120; small part of site within 1.2 km of railway station | No | No |
| L12 | Harlington West | 2,961 | Yes | Yes - within 100 m of Harlington | Yes - Within 1 km of A5120; within 1.2 km of railway station | No | No |
| L13 | Toddington | 3,987 | Yes | Yes - within 100 m of Toddington | Yes - Within 1 km of A5120 | No | No |
| L14 | Tebsworth | 263 | No | Yes - within 100 m of Tebworth | No | No | No |
| L15 | Hockliffe | 2,865 | Yes | Yes - within 100 m of Hockliffe | Yes - Within 1 km of A5 | No | No |
| L16 | North of Leighton | 10,710 | No | No | Yes - Approx. within 1 km of A5 and Leighton | Yes - within 100 m of Leighton Buzzard | No |

| ID | Location name | Assumed total net capacity | New settlements | Village extensions | Growth in transport corridors | Urban extensions | Urban intensification around public transport hubs |
|---|---|---|---|---|---|---|---|
| | | | | | East Link Road (proposed) | committed housing/employment site | |
| L17 | Leighton East | 428 | No | No | Yes - Within 1 km of A4012, Leighton East Link Road (proposed) | Yes - within 100 m of growth strategy/urban expansion designation to Leighton Buzzard | No |
| L18 | SE Leighton | 905 | No | No | Yes - Within 1 km of A505, Leighton East Link Road (proposed) | Yes - within 100 m of Leighton Buzzard | No |
| L19 | Tilsworth | 195 | No | Yes - within 100 m of Tilsworth | No | No | No |
| L20 | North Luton | 8,150 | No | No | Yes - East and West portions of site within 1 km of M1, A6, M1-A6 Link (proposed) | Yes - within 100 m of Luton | No |
| L21 | Butterfield North | 1,205 | No | No | Yes - Within 1km of A505 and 1.2 km of park & ride (proposed) | Yes - within 100 m of Luton committed site | Yes - Adjacent to committed site and within 1.2 km of Park and Ride |
| L22 | East Luton | 2,100 | No | No | Yes – within 1 km of Century Park access road (proposed) | Yes - within 100 m of Luton | No |
| L23 | Butterfield South | 330 | No | No | Yes - Within 1km of A505, A5228, and 1.2 km of park & ride (proposed) | Yes - within 100 m of Luton committed site | Yes - Adjacent to committed site and within 1.2 km of Park and Ride |
| L24 | West Luton | 9,884 | No | Yes - within 100 m of Caddington | Yes - Within 1 km of M1 and parts within 1.2 km of guided busway stops and park and ride (proposed) | Yes - within 100 m of Luton | Yes - Adjacent to Luton and partly within 1.2 km of guided busway stop and park and ride |
| L25 | Caddington NW | 368 | No | Yes - within 100 m of Caddington | No | No | No |
| L26 | M1 J10 | 1,107 | No | Yes - within 100 m of Slip End and Pepperstock | Yes - Within 1 km of M1 and parts within 1.2 km of park & ride (proposed) | No | Yes - Approx. half of site within 1.2 km of park and ride |
| L27 | Harpenden | 675 | No | No | Yes - Within 1 km of A1081 | Yes - within 100 m of Harpenden (top tier equivalent of St Albans) | No |
| L28 | West Dunstable | 3,093 | No | No | Yes - Within 1 km of | Yes - within 100 m of | No |

| ID | Location name | Assumed total net capacity | New settlements | Village extensions | Growth in transport corridors | Urban extensions | Urban intensification around public transport hubs |
|---|---|---|---|---|---|---|---|
| | | | | | A5 | Dunstable | |
| **L29** | Eaton Bray East | 411 | No | Yes - within 100 m of Eaton Bray | No | No | No |
| **L30** | Eaton Bray West | 1,000 | No | Yes - within 100 m of Eaton Bray | Yes - majority of site within 1 km of A4146 | No | No |
| **L31** | Eddlesborough | 4,359 | Yes | Yes - Corner of site within 100 m of existing development in Edlesborough | Yes - majority of site within 1 km of A4146 | No | No |

# 4　Conclusions and next steps

## Assessment findings

4.1　Key findings from each strand of the assessment of locations are brought together in Table 4.1. Locations are simply listed in numerical order.  For each location, information is presented on:

- Deliverability – the overall assessment rating;

- Viability – the overall assessment rating;

- Secondary constraints – the total number of different secondary constraints  present within the location, up to a maximum possible total of 17 different secondary constraints considered;

- Accessibility – results of what is considered to be the key accessibility test, whether there is a public transport hub within walking distance of the location;

- Green Belt – the proportion of the location's total area that overlaps Green Belt parcels which were assessed by separate Green Belt studies as making a 'relatively strong' or higher overall contribution to Green Belt.

## Table 4.1 Assessment findings for all locations

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | Clophill | 199.0 | 44 | 5,275 | 2,000 | 804 | Low | High | 9 | No | 0% |
| L2 | Maulden East | 31.5 | 30 | 566 | 566 | 521 | Medium | High | 6 | No | 0% |
| L3 | Maulden South | 12.0 | 30 | 216 | 216 | 216 | Medium | High | 4 | No | 29% |
| L4 | Ampthill East | 37.3 | 30 | 671 | 671 | 671 | Medium | High | 5 | No | 96% |
| L5 | Flitwick West | 89.7 | 44 | 2,368 | 2,368 | 1,500 | High | Medium | 8 | Yes | 99% |
| L6 | North of Flitwick | 51.3 | 55 | 1,693 | 1,500 | 900 | High | Low | 6 | Yes | 96% |
| L7 | Flitwick East | 19.6 | 55 | 648 | 648 | 648 | High | Medium | 6 | Yes | 99% |
| L8 | Flitton | 22.8 | 30 | 410 | 410 | 410 | Medium | High | 7 | No | 0% |
| L9 | Gravenhurst | 16.8 | 30 | 302 | 302 | 240 | Low | High | 4 | No | 0% |
| L10 | Barton | 444.5 | 44 | 11,736 | 2,000 | 924 | Low | High | 6 | No | 66% |
| L11 | North of Harlington | 33.0 | 30 | 593 | 593 | 593 | High | High | 4 | Yes | 99% |
| L12 | Harlington West | 143.0 | 55 | 2,961 | 2,500 | 1,500 | High | High | 7 | Yes | 98% |
| L13 | Toddington | 151.0 | 44 | 3,987 | 2,500 | 1,500 | Low | High | 8 | No | 79% |
| L14 | Tebsworth | 14.6 | 30 | 263 | 263 | 263 | Medium | High | 4 | No | 99% |
| L15 | Hockliffe | 108.5 | 44 | 2,865 | 2,500 | 1,500 | Low | High | 6 | No | 72% |
| L16 | North of Leighton | 405.7 | 44 | 10,710 | 2,500 | 120 | Low | High | 9 | No | 98% |
| L17 | Leighton East | 23.8 | 30 | 428 | 428 | 420 | Medium | High | 5 | No | 99% |
| L18 | SE Leighton | 50.3 | 30 | 905 | 905 | 720 | Medium | Medium | 6 | No | 99% |
| L19 | Tilsworth | 10.9 | 30 | 195 | 195 | 195 | Medium | High | 4 | No | 100% |
| L20 | North Luton | 308.5 | 44 | 8,150 | 3,000 | 2,000 | High | High | 5 | No | 90% |
| L21 | Butterfield North | 36.5 | 55 | 1,205 | 1,205 | 900 | High | Medium | 5 | Yes | 98% |
| L22 | East Luton | 116.5 | 30 | 2,100 | 2,100 | 2,100 | High | Medium | 5 | No | 99% |
| L23 | Butterfield South | 10.1 | 55 | 330 | 330 | 330 | High | High | 4 | Yes | 99% |
| L24 | West Luton | 299.4 | 55 | 9,884 | 2,500 | 1,500 | High | High | 7 | Yes | 88% |
| L25 | Caddington NW | 20.4 | 30 | 368 | 368 | 368 | Medium | High | 3 | No | 13% |
| L26 | M1 J10 | 33.6 | 55 | 1,107 | 1,107 | 900 | High | High | 4 | Yes | 0% |
| L27 | Harpenden | 37.5 | 30 | 675 | 675 | 669 | High | High | 3 | No | 99% |
| L28 | West Dunstable | 117.1 | 44 | 3,093 | 2,000 | 1,200 | Medium | Low | 6 | Yes | 99% |
| L29 | Eaton Bray East | 22.8 | 30 | 411 | 411 | 411 | Medium | High | 5 | No | 99% |
| L30 | Eaton Bray West | 55.6 | 30 | 1,000 | 1,000 | 720 | Medium | High | 5 | No | 85% |
| L31 | Eddlesborough | 165.1 | 44 | 4,359 | 2,000 | 1,200 | Low | High | 3 | No | 0% |
| | **Total net dwelling capacity** | | | **79,474** | **39,761** | **25,943** | | | | | |

## Assessment findings by spatial option

4.2     As previously described, locations were categorised into various thematic spatial options.  It is considered unlikely that a Local Plan spatial strategy would be comprised purely of locations falling into one of these spatial options.  Nevertheless, stakeholders within a particular local authority area may have a clear preference for focussing the majority of development in a particular spatial pattern.  The results of the Growth Options Study are therefore also presented by spatial option in Table 4.2 to Table 4.6 to support such an approach.

## Table 4.2 Assessment findings for 'New Settlement' locations

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|----|---------------|----------------|----------------------|----------------------------|--------------------------------|------------------------------------------------------------|----------------------------------------------|------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| L1 | Clophill | 199.0 | 44 | 5,275 | 2,000 | 804 | Low | High | 9 | No | 0% |
| L10 | Barton | 444.5 | 44 | 11,736 | 2,000 | 924 | Low | High | 6 | No | 66% |
| L12 | Harlington West | 143.0 | 55 | 2,961 | 2,500 | 1,500 | High | High | 7 | Yes | 98% |
| L13 | Toddington | 151.0 | 44 | 3,987 | 2,500 | 1,500 | Low | High | 8 | No | 79% |
| L15 | Hockliffe | 108.5 | 44 | 2,865 | 2,500 | 1,500 | Low | High | 6 | No | 72% |
| L31 | Eddlesborough | 165.1 | 44 | 4,359 | 2,000 | 1,200 | Low | High | 3 | No | 0% |

## Table 4.3 Assessment findings for 'Village Extension' locations

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | Clophill | 199.0 | 44 | 5,275 | 2,000 | 804 | Low | High | 9 | No | 0% |
| L2 | Maulden East | 31.5 | 30 | 566 | 566 | 521 | Medium | High | 6 | No | 0% |
| L3 | Maulden South | 12.0 | 30 | 216 | 216 | 216 | Medium | High | 4 | No | 29% |
| L8 | Flitton | 22.8 | 30 | 410 | 410 | 410 | Medium | High | 7 | No | 0% |
| L9 | Gravenhurst | 16.8 | 30 | 302 | 302 | 240 | Low | High | 4 | No | 0% |
| L10 | Barton | 444.5 | 44 | 11,736 | 2,000 | 924 | Low | High | 6 | No | 66% |
| L11 | North of Harlington | 33.0 | 30 | 593 | 593 | 593 | High | High | 4 | Yes | 99% |
| L12 | Harlington West | 143.0 | 55 | 2,961 | 2,500 | 1,500 | High | High | 7 | Yes | 98% |
| L13 | Toddington | 151.0 | 44 | 3,987 | 2,500 | 1,500 | Low | High | 8 | No | 79% |
| L14 | Tebsworth | 14.6 | 30 | 263 | 263 | 263 | Medium | High | 4 | No | 99% |
| L15 | Hockliffe | 108.5 | 44 | 2,865 | 2,500 | 1,500 | Low | High | 6 | No | 72% |
| L19 | Tilsworth | 10.9 | 30 | 195 | 195 | 195 | Medium | High | 4 | No | 100% |
| L24 | West Luton | 299.4 | 55 | 9,884 | 2,500 | 1,500 | High | High | 7 | Yes | 88% |
| L25 | Caddington NW | 20.4 | 30 | 368 | 368 | 368 | Medium | High | 3 | No | 13% |
| L26 | M1 J10 | 33.6 | 55 | 1,107 | 1,107 | 900 | High | High | 4 | Yes | 0% |
| L29 | Eaton Bray East | 22.8 | 30 | 411 | 411 | 411 | Medium | High | 5 | No | 99% |
| L30 | Eaton Bray West | 55.6 | 30 | 1,000 | 1,000 | 720 | Medium | High | 5 | No | 85% |
| L31 | Eddlesborough | 165.1 | 44 | 4,359 | 2,000 | 1,200 | Low | High | 3 | No | 0% |

## Table 4.4 Assessment findings for 'Growth in Transport Corridors' locations

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L1 | Clophill | 199.0 | 44 | 5,275 | 2,000 | 804 | Low | High | 9 | No | 0% |
| L2 | Maulden East | 31.5 | 30 | 566 | 566 | 521 | Medium | High | 6 | No | 0% |
| L4 | Ampthill East | 37.3 | 30 | 671 | 671 | 671 | Medium | High | 5 | No | 96% |
| L5 | Flitwick West | 89.7 | 44 | 2,368 | 2,368 | 1,500 | High | Medium | 8 | Yes | 99% |
| L6 | North of Flitwick | 51.3 | 55 | 1,693 | 1,500 | 900 | High | Low | 6 | Yes | 96% |
| L7 | Flitwick East | 19.6 | 55 | 648 | 648 | 648 | High | Medium | 6 | Yes | 99% |
| L8 | Flitton | 22.8 | 30 | 410 | 410 | 410 | Medium | High | 7 | No | 0% |
| L10 | Barton | 444.5 | 44 | 11,736 | 2,000 | 924 | Low | High | 6 | No | 66% |
| L11 | North of Harlington | 33.0 | 30 | 593 | 593 | 593 | High | High | 4 | Yes | 99% |
| L12 | Harlington West | 143.0 | 55 | 2,961 | 2,500 | 1,500 | High | High | 7 | Yes | 98% |
| L13 | Toddington | 151.0 | 44 | 3,987 | 2,500 | 1,500 | Low | High | 8 | No | 79% |
| L15 | Hockliffe | 108.5 | 44 | 2,865 | 2,500 | 1,500 | Low | High | 6 | No | 72% |
| L16 | North of Leighton | 405.7 | 44 | 10,710 | 2,500 | 120 | Low | High | 9 | No | 98% |
| L17 | Leighton East | 23.8 | 30 | 428 | 428 | 420 | Medium | High | 5 | No | 99% |
| L18 | SE Leighton | 50.3 | 30 | 905 | 905 | 720 | Medium | Medium | 6 | No | 99% |
| L20 | North Luton | 308.5 | 44 | 8,150 | 3,000 | 2,000 | High | High | 5 | No | 90% |
| L21 | Butterfield North | 36.5 | 55 | 1,205 | 1,205 | 900 | High | Medium | 5 | Yes | 98% |
| L22 | East Luton | 116.5 | 30 | 2,100 | 2,100 | 2,100 | High | Medium | 5 | No | 99% |
| L23 | Butterfield South | 10.1 | 55 | 330 | 330 | 330 | High | High | 4 | Yes | 99% |
| L24 | West Luton | 299.4 | 55 | 9,884 | 2,500 | 1,500 | High | High | 7 | Yes | 88% |
| L26 | M1 J10 | 33.6 | 55 | 1,107 | 1,107 | 900 | High | High | 4 | Yes | 0% |
| L27 | Harpenden | 37.5 | 30 | 675 | 675 | 669 | High | High | 3 | No | 99% |
| L28 | West Dunstable | 117.1 | 44 | 3,093 | 2,000 | 1,200 | Medium | Low | 6 | Yes | 99% |
| L30 | Eaton Bray West | 55.6 | 30 | 1,000 | 1,000 | 720 | Medium | High | 5 | No | 85% |
| L31 | Eddlesborough | 165.1 | 44 | 4,359 | 2,000 | 1,200 | Low | High | 3 | No | 0% |

**Table 4.5 Assessment findings for 'Urban Extension' locations**

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L4 | Ampthill East | 37.3 | 30 | 671 | 671 | 671 | Medium | High | 5 | No | 96% |
| L5 | Flitwick West | 89.7 | 44 | 2,368 | 2,368 | 1,500 | High | Medium | 8 | Yes | 99% |
| L6 | North of Flitwick | 51.3 | 55 | 1,693 | 1,500 | 900 | High | Low | 6 | Yes | 96% |
| L7 | Flitwick East | 19.6 | 55 | 648 | 648 | 648 | High | Medium | 6 | Yes | 99% |
| L16 | North of Leighton | 405.7 | 44 | 10,710 | 2,500 | 120 | Low | High | 9 | No | 98% |
| L17 | Leighton East | 23.8 | 30 | 428 | 428 | 420 | Medium | High | 5 | No | 99% |
| L18 | SE Leighton | 50.3 | 30 | 905 | 905 | 720 | Medium | Medium | 6 | No | 99% |
| L20 | North Luton | 308.5 | 44 | 8,150 | 3,000 | 2,000 | High | High | 5 | No | 90% |
| L21 | Butterfield North | 36.5 | 55 | 1,205 | 1,205 | 900 | High | Medium | 5 | Yes | 98% |
| L22 | East Luton | 116.5 | 30 | 2,100 | 2,100 | 2,100 | High | Medium | 5 | No | 99% |
| L23 | Butterfield South | 10.1 | 55 | 330 | 330 | 330 | High | High | 4 | Yes | 99% |
| L24 | West Luton | 299.4 | 55 | 9,884 | 2,500 | 1,500 | High | High | 7 | Yes | 88% |
| L27 | Harpenden | 37.5 | 30 | 675 | 675 | 669 | High | High | 3 | No | 99% |
| L28 | West Dunstable | 117.1 | 44 | 3,093 | 2,000 | 1,200 | Medium | Low | 6 | Yes | 99% |

## Table 4.6 Assessment findings for 'Intensification around Public Transport Hubs' locations[10]

| ID | Location name | Site area (ha) | Assumed density (dph) | Assumed total net capacity | Estimated net capacity to 2035 | Estimated net capacity to 2031 within Luton HMA boundary | Overall deliverability (high / medium / low) | Overall viability (high / medium / low) | No. of secondary constraints present (0-17) | Public transport hub within 1.2 km? (rail stn, guided busway stop, park & ride) | % of location with 'relatively strong' or higher overall contribution to Green Belt |
|---|---|---|---|---|---|---|---|---|---|---|---|
| L5 | Flitwick West | 89.7 | 44 | 2,368 | 2,368 | 1,500 | High | Medium | 8 | Yes | 99% |
| L6 | North of Flitwick | 51.3 | 55 | 1,693 | 1,500 | 900 | High | Low | 6 | Yes | 96% |
| L7 | Flitwick East | 19.6 | 55 | 648 | 648 | 648 | High | Medium | 6 | Yes | 99% |
| L21 | Butterfield North | 36.5 | 55 | 1,205 | 1,205 | 900 | High | Medium | 5 | Yes | 98% |
| L23 | Butterfield South | 10.1 | 55 | 330 | 330 | 330 | High | High | 4 | Yes | 99% |
| L24 | West Luton | 299.4 | 55 | 9,884 | 2,500 | 1,500 | High | High | 7 | Yes | 88% |
| L26 | M1 J10 | 33.6 | 55 | 1,107 | 1,107 | 900 | High | High | 4 | Yes | 0% |

[10] Locations are sorted by deliverability and then by location ID number, i.e. locations are NOT ranked within each deliverability category

# Potential transport-led opportunities for housing growth locations

### Planned transport infrastructure

4.3    Housing delivery may be unlocked or accelerated by planned transport infrastructure projects, bolstering the business case for investment.  Indeed, the business cases for some of these planned transport infrastructure projects will already be predicated upon planned housing or employment schemes being progressed; for example, Houghton Regis North urban extension, East of Leighton Linslade urban extension, Century Park employment site, Butterfield employment site.

4.4    We have given regard to the impact of those projects with a high likelihood to be delivered by 2035 upon the deliverability of each of the potential growth locations.  For example:

- The planned Century Park Access Road may provide L22 – East Luton with strategic road access

- The planned Park and Ride facility close to Junction 10 of the M1 may provide L24 - West Luton and L26 - M1 J10 with a public transport interchange

- The planned Park and Ride facility at Butterfield may provide L21 – Butterfield North and L23 – Butterfield South with a public transport interchange

- The planned Leighton Eastern Relief Road may provide L17 – Leighton East and L18 – SE Leighton with improved strategic road access

- The planned M1-A6 link road may provide L20 – North Luton with improved strategic road access

### Existing transport infrastructure

4.5    Housing growth within the catchment of existing public transport interchanges could improve utilisation of existing service provision, where capacity exists. Transport modelling would be required to consider demand and capacity, but for example, we note that:

- Housing growth at Locations L06 – North of Flitwick and L07 – Flitwick East would increase the number of homes within 1.2km of Flitwick railway station, which has a similar timetable to Leagrave but currently has fewer homes within 1.2km

- Housing growth at Location L12 – Harlington West would increase the number of homes within 1.2km of Harlington railway station, which has a similar timetable to Leagrave and Flitwick but currently has fewer homes within 1.2km

- Housing growth at Location L24 – West of Luton would increase the number of homes within 1.2km of the Luton-Dunstable guided busway, subject to addressing issues of severance by the M1

4.6    Conversely, transport modelling would be needed to test the relationship between existing and planned public transport interchanges.  For example, we are aware of discussions about a potential new Thameslink railway station between Luton and Bedford, potentially requiring reduction of services at existing Thameslink stations.  In this case, both existing and/or planned development around the affected existing public transport interchanges could potentially become less sustainable in future.

# Potential housing-led opportunities for transport infrastructure projects

4.7    Future public transport infrastructure projects may also unlock or accelerate housing delivery, creating an opportunity to develop / bolster business case(s) for investment predicated on potential housing outputs.

4.8     In particular, five locations have been assessed has having "Low" deliverability due to delivery of required transport infrastructure by 2035 being less likely.  The underlying assumption driving this assessment is that new settlements (2,000 or more units, other than urban extensions) require a public transport interchange (railway station, park and ride location, or guided busway stop) within 1.2km of their boundary in order to be more sustainable – and none are currently likely to be delivered by 2035.

- L01 – Clophill (assumed capacity of 5,275 dwellings)

- L10 - Barton (assumed capacity of 11,736 dwellings)

- L15 - Hockliffe (assumed capacity of 2,865 dwellings)

- L16 - North of Leighton (assumed capacity of 9,816 dwellings)

- L31 - Eddlesborough (assumed capacity of 4,359 dwellings)

4.9     The feasibility and cost benefit analysis for particular modes, routes and interchanges would require further input from transport specialists to consider the potential for:

- **New routes between major settlements:** For example, a new public transport route between Luton and Bedford could potentially unlock housing delivery at Barton and/or Clophill, and support housing delivery at Wixams.

- **Extension of existing routes to additional major settlements:** For example, an extension of the Luton-Dunstable Guided Busway to Milton Keynes could potentially unlock housing delivery at Hockliffe and/or North of Leighton.

- **Between existing public transport interchanges:** For example, a new public transport route between the Luton-Dunstable Guided Busway and Thameslink railway could potentially unlock housing delivery at Hockliffe, and/or support housing delivery at Toddington and Harlington.  Another route could potentially support housing delivery at Houghton Regis and/or North Luton, as well as at Harlington.

4.10    Such projects may also unlock or accelerate housing outputs in other Housing Market Areas and boroughs.  For example, new public transport routes between Luton and the new East-West Rail stations at Ridgmont and/or North of Sandy may unlock housing growth in the north of Central Bedfordshire that could potentially respond to unmet need within Luton.

4.11    The local authorities may wish to commission further work in order determine the feasibility, costs and benefits of such routes and interchanges.  The relationship with potential employment growth would also need to be explored.


## Next steps

4.12    The commissioning authorities have agreed a series of steps to reach agreement on the findings of this study which each LA will then take forward through their respective Local Plan processes. The approach is set out in Appendix 4.  This was prepared to answer Luton Local Plan Examination Matter 7, Question 80.