Response to
Environmental Sensitivity Study
prepared to inform the selection of
Potential Growth Areas around Luton
&
Response to the emerging Luton and
South Bedfordshire Core Strategy

for

North Hertfordshire District Council



Quality control

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Checked by Project Manager:	Approved by:
Signature:	Signature:
Name: Jonathan Billinglsey	Name: Jonathan Billingsley
Title: Director	Title: Director
Date: 24/07/09	Date: 24/07/09

The Landscape Partnership is registered with the Landscape Institute, the Royal Town Planning Institute, and is a member of the Institute of Environmental Management and Assessment

The Landscape Partnership

Registered office Greenwood House 15a St Cuthberts Street Bedford MK40 3JB

Registered in England No. 2709001

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1 Introduction

- 1.1 The Landscape Partnership was commissioned in May 2009 to:
 - a. Review and critique the Environmental Sensitivity Assessment (ESA) work already undertaken by Bedfordshire County Council and its consultants to inform the selection of potential future growth areas around Luton.
 - b. Review and make comments on the policies and proposals within Luton and South Bedfordshire's Core Strategy Preferred Options from a landscape perspective.
- 1.2 In the preparation of this response we have reviewed the following documents:
 - Environmental Sensitivity Assessment South Bedfordshire Growth Area (Bedfordshire County Councils, Revised December 2008)
 - Environmental Sensitivity Assessment South Bedfordshire Growth Area Supplementary Report relating to portions of land in adjoining Council Areas affected by the Delivery of Growth (Land Use Consultants December 2008)
 - Core Strategy: Preferred Options Summary (Luton and South Bedfordshire Joint Committee April 2009)
 - Core Strategy: Site Assessment Matrix (Luton and South Bedfordshire Joint Committee April 2009)
 - Landscape Character Assessments for Bedfordshire , North Hertfordshire, St Albans District Aylesbury Vale District and the Chalk Arc
 - Citations for Registered Parks and Gardens in the study area
- 1.3 The authorities of Luton and South Bedfordshire are located within the Milton Keynes and South Midlands Growth Areas. Growth targets for the Luton and South Bedfordshire include 26,300 new homes by 2021 and a further 15,400 by 2031. In addition it is proposed to create 23,000 new jobs.

Summary of Conclusions

1.4 A number of shortcomings have been identified with the methodology used in the ESA by Bedfordshire County Council in regard to landscape and visual issues. These include: the scope of the geographical scope of the study, concern over the correlation with existing landscape character studies and the lack of a clear and adequate methodology for deriving relative sensitivity.

- 1.5 The Supplementary Assessment carried out by LUC for sites outside Bedfordshire and including areas in North Herefordshire provides an improved methodology but retains a number of the shortcomings of the approach taken within the Bedfordshire. Areas assessed in North Hertfordshire are comparatively large and do not sufficiently reflect the local pattern of landscape character and sensitivity.
- 1.6 Despite the criticisms of the methodology the sites put forward within Bedfordshire in the County Council ESA are generally considered suitable for urban extensions. It is noted that the ESA finds that sufficient development capacity is provided within the areas currently identified within Bedfordshire without the need to expand into adjacent counties. It is also further considered in this report that there are further locations within Bedfordshire that could have been identified as potential locations for development.
- 1.7 Despite differences on the methodology used we are broadly in agreement with the findings of LUC in the Supplementary Assessment in regard to the overall sensitivity of the two sites L and L1 located east of Luton and within North Hertfordshire District. The LUC report identifies for Site L that, 'Constraints to development relate to the rural character of the landscape however some small scale development may be appropriate provided sufficient mitigation is implemented.' In regard to Site L1 the LUC report concludes, 'It is a quiet, rural chalk landscape and an area of strong character and high quality. There are significant constraints such that it is not considered appropriate for development to take place'.
- 1.8 However, the proposals and recommendations in the Core Strategy: Preferred Options do not reflect the recommendations in the LUC study or the Site Assessment Matrix in the Core Strategy . Rather the Core Strategy proposes an urban extension into Sites L and L1 comprising up to 5,500 dwellings, a strategic employment allocation and an eastern bypass. This proposal could not be considered 'small scale' . The development would not respect the sensitivity of the local landscape as identified both by the LUC report and confirmed by the findings of this report. Rather there would be significant adverse impacts on the landscape and visual character of the area. The proposed development would irreversibly affect the tranquillity and quality of the area and directly impact upon Putteridge Bury Registered Park and Garden.
- 1.9 It is concluded that in the case of the land in North Hertfordshire that development on the scale proposed is wholly inappropriate to the receiving landscape. It is considered that the 5,500 dwellings currently allocated East of Luton could be accommodated through a combination of either an alternative urban extension/s or through provision over a wider range of smaller sites where there is identified capacity in landscape terms.

2 Critique of Methodology in Environmental Sensitivity Assessments

Environmental Sensitivity Assessment South Bedfordshire Growth Area (Dec 2008)

- 2.1 The Environmental Sensitivity Study (ESA) carried out by Bedfordshire County Council covers the following environmental topics:
 - Landscape
 - Biodiversity
 - Archaeology and historic landscape
 - Historic Buildings and Areas
- 2.2 The ESA was carried out by the County Council's own specialists in the above topics. This report concentrates in the approach taken in regard to landscape. However it is noted that the final proposals combined the results for all disciplines to identify suitable sites for the required growth within Southern Bedfordshire.
- 2.3 The methodology for landscape is set out at section 2.1 of the County Councils Report. We consider that there are a number of shortcomings with the assessment method as summarised below:
 - a. The units of assessment do not show any consistent correlation with the areas or scale of the existing landscape character assessments identified in the Bedfordshire Landscape Character Assessments (LCA) as shown at drawing L1 in the ESA. Despite the statement in the ESA (para 2.1) that landscape character assessment (LCA) provides the basis for assessing sensitivity it appears that the units selected are based other criteria which are not otherwise clearly set out in the ESA. It is likely that the areas used in the ESA have simply been taken forward from the earlier Issues and Options work stage. The outer extent of a number of the areas in the ESA do not relate to any specific landscape character features. A graphical comparison of the units in the ESA and the published LCA's is provided by drawing 03 in this report.
 - b. The Chalk Arc LCA has been undertaken at a finer scale for the area north of Dunstable, Houghton Regis and Luton. This includes smaller landscape units e.g. groups of similar fields and 'nests' more readily within the Bedfordshire LCA units. However the location and extent of these areas is also at variance to the geographical units used in the ESA, (see drawing 03 for an illustration of the differences). This again highlights the lack of correlation with existing LCA studies.
 - c. The size of units used in the ESA is highly variable. There are a number of relatively small units e.g. Site B and J, whereas others are much more extensive e.g. Sites L1, K1 and M1.

While it is accepted that landscape character units will vary according to the pattern of character the marked variable nature of the size of units in a number of cases does not enable comparability. Some units are very large and therefore variations within those units can be hidden. Within a larger site it is quite possible that more detail is required to identify 'sub- areas' that could have a lower or higher sensitivity. For a number of the sites within Bedfordshire there have been further sub divisions e.g. Sites C, D, G and I. This additional level of detail and further refinement does not seem to have been consistently carried through including the land East of Luton and is considered a failing of the approach used in the ESA.

- d. The different discipline sections of the ESA: landscape, biodiversity and historic buildings/areas evaluate different sub divisions of units A-M. For example the landscape section assesses Unit C1 see drawing LS2 (page 20), while the biodiversity section at page 33 sub- divides the same area into C1 and C2. There is also an omission on the landscape plan at Page 20 where A2 is not marked even though it is discussed in the accompanying table. This error is compounded in the LUC report Fig 2 where A2 is marked 'B1'.
- e. The ESA omits areas around the conurbation and Leighton Buzzard e.g. west of Dunstable, south of Luton, Butterfield Green and land south and north of Leighton Buzzard. While there are constraints in some of these areas e.g. AONB and the registered Park & Garden at Luton Hoo other similarly designated areas were included in the ESA. For completeness and comparability the perimeter of all settlement areas should have been included
- f. A description of sensitivity and issues affecting it is given at para 2.1 of the ESA. However there is no reference in the methodology to the main national guidance of Landscape Sensitivity and capacity namely Topic Paper 6 'Techniques and criteria for judging capacity and sensitivity'. This document identifies the main landscape character and visual criteria that should be considered in assessing landscape sensitivity¹. The ESA does not set out a transparent and repeatable method to the use of the criteria identified in Topic Paper 6 and how it applies to the site assessments. The commentary provided has some good and pertinent points but is variable in coverage.
- g. The District scale LCA and the character area names are referenced in the text. However there is also no reference to the landscape character and visual sensitivity descriptions that are provided in the Bedfordshire District LCA, the results of which give some different results to that provided in the ESA, e.g. the sensitivity for Site M in the District scale LCA is 'moderate' where as in the ESA most of it is Grade 1 (= most sensitive).
- h. The Area of Great Landscape Value (AGLV) is indicated as a constraint on the plan in the Draft Preferred Options Core Strategy Key Diagram included in the ESA. As mentioned in section 2.1 of the ESA this local designation may not be taken forward in the Local Development Framework. However the inclusion of the AGLV on the plan could be seen as

giving weight to the sensitivity assessment. The extent of areas M and M1 appear to be defined by the boundary of the AGLV rather than the Beds LCA. Comparable local landscape designations, called 'Landscape Conservation Areas' previously existed in Hertfordshire and similarly affected the land East of Luton as an area of local landscape quality. However these local landscape designations were removed from the Structure and Local Plans in order to be consistent with PPS7. There removal therefore does not indicate that the land East of Luton is in any way of a lower quality or value to the land included in the Bedfordshire AGLV's.

- i. The ESA at para 2.2 provides a Table detailing for each 'Unit' the assessed sensitivity, together with a commentary and separate notes of potential mitigation measures. However some of the mitigation measures are incorrectly located in the commentary sections e.g. Unit F where the need 'to secure additional mitigation' is located in the commentary section rather than the mitigation column.
- j. The grading of the sites has been carried out on a scale of Grade 1-3. A fourth Grade 4 is described in the ESA as, 'No constraints have been identified'. However by reference to the drawings L2 and L3 in the ESA it is not there is a lack of constraints but rather that the Grade 4 areas are all outside Bedfordshire and had not been considered in the study. Furthermore there is no detailed method or justification of how the assignments of Grades 1-3 have been determined in landscape terms. It is considered that a more structured approach should have been used to justify the judgements made particularly since large areas are classified as Grade 1. In contrast the Chalk Arc character assessment provides a more transparent and detailed method which includes 5 categories of sensitivity². It is noted that the relative sensitivities in the Chalk Arc study are in a number of cases different to those in the ESA.³ The use of the Chalk Arc study method is referenced at the concluding section of Section 2 (page 27 of the ESA) as a means of providing guidance for integrating planned development and into a green infrastructure framework. However it is considered that the Chalk Arc approach to sensitivity should also have been included at the earlier stage of the ESA in identifying suitability of sites for development and not just in the mitigation It is considered that a 5 point scale of sensitivity would have been more appropriate for the whole study from the outset. This should also have provided a clearer indication of the criteria affecting the relative sensitivity of the sites.
- k. There is no consideration of the sensitivity of each site and the landscape character to accept a particular scale of development i.e. sensitivity to small, medium or large scale development. This could for example have included indicative threshold of numbers of dwellings in each unit or the suitability for employment uses. The approach could also have

¹ Fig 1 (b) Techniques and criteria for judging capacity and sensitivity (Countryside Agency and Scottish Natural Heritage)

² Section 2 Chalk Arc Landscape Character Assessment Hyder Consulting Ltd

B Landscape Sensitivity Sheets 1-3 Chalk Arc Landscape Character Assessment

- been developed in combination with a measure of landscape capacity for the units following methods similar to those discussed in Topic Paper 6 where capacity includes inter alia consideration of designations and landscape value.
- I. There is no consideration in the method or commentary on the presence of any existing urban fringe issues that may be relevant to affect the sensitivity of a site. Consideration of potential issues of coalescence with adjacent settlements in rural areas could also be included.
- m. There is limited consideration of the existing urban context and the appropriateness of expansion from adjacent residential areas within urban areas into the undeveloped landscape. The ability of a potential expansion area to relate well in urban form, layout and design is a key consideration at the stage of assessing the landscape sensitivity. It is considered that this should have been a factor more explicitly considered within the ESA with sensitivity and capacity being influenced by existing patterns of built form and existing open spaces within the urban area.
- n. The plans in the report are generally too small to identify locations and the hatching used on drawings L2 and L3 obscures much of the base map detail. In contrast the drawings used in the Chalk Arc LCA are much clearer and at more appropriate scale (c. 1:25,000 base) to engage the reader. Drawing 03 in this report shows the landscape unit information against a 1:25,000 OS base and how features such as woodlands, field boundaries and contours can be more readily appreciated.
- The results of the initial landscape assessment in the County Council ESA identified that there was insufficient capacity to deliver the housing numbers that needed to be allocated. On this basis some of the Grade 1 areas were considered in more detail in section 3.3. It is noted that the ESA considers that any development in these areas would be 'beyond the optimum boundaries'. While we would agree that this may be the case in some locations we are not in agreement in all of the Grade 1 areas, e.g. a number of the areas to the east of Leighton Buzzard are in our view capable of accommodating more development in landscape terms. It is accepted that in some locations within the study areas growth in 'Grade 1' sites may require mitigation which is not entirely in character, since much of the study area involves landscape is large scale rolling chalklands. However development will inevitably bring change to underlying character.
- 2.5 Section 3.3 provides a more refined methodology for the Additional Areas of potential development within the sites assessed in the ESA the Grade 1 in landscape terms. This approach includes consideration of a number of the historic environment and biodiversity considerations. The Table at Section 3.3 provides a fuller description of the reasons for including additional land and suitable mitigation measures. It also points to the need to 'knit together' existing and future communities. The identification of both the 'additional' and 'initial' areas is shown on drawings SS1

and SS2 in the ESA. The areas for additional land are located in three main areas; to the east of Leighton Buzzard, north of Houghton Regis and north of Luton. It is not clear why further growth opportunities were not examined south west of Luton near Caddington and Slip End.

2.6 A total of 191ha of an additional land is indicated on land originally identified as Grade 1. It is noted that the identification of this land provides for sufficient development within the targets for growth without involving land outside Bedfordshire.

Environmental Sensitivity Assessment South Bedfordshire Growth Area – Supplementary Report (Dec 2008)

- 2.7 The supplementary report prepared by LUC considers land outside Bedfordshire and assesses sites A, L, L1 and M2 within Buckinghamshire and Hertfordshire. The report provides a more structured approach to the assessment of landscape and visual criteria in accordance with best practice and national guidance and an overall justification on the judgement for the sensitivity rating. It also provides a description of the context, location and summary details together with a brief review of the relevant national and district character areas. However there are also a number of the criticisms of the County ESA as listed above still remain. In particular the following should be noted:
 - a. The location, extent and scale of the landscape units is unchanged from the units as set out in the County Council ESA. This means that the location and scale of the landscape assessment units do not fit with the local landscape character as identified in the appropriate LCA's e.g. for North Herts District Council.
 - b. Due to the different approaches there is less direct compatibility between the two ESA studies carried out by Bedfordshire CC and LUC. The more structured approach used in the LUC methodology highlights the relative lack of structure and detail in the County ESA. This raises doubts over the transparency of the judgments reached in the County ESA.
 - c. The consideration of the sites in adjacent counties includes a more limited sub-division of potential sites into Grades 1-3 as more fully detailed within the County's ESA report. Site M2 is subdivided however there is no further sub-division of A/A1 or L/L1 from the boundaries used in the ESA (drawings L2 and L3). Such a further refinement would have been able to identify areas of relative sensitivity and capacity in the areas outside of Bedfordshire.
 - d. The LUC report shows a reasonably large area as 'L' as potentially suitable for some 'small scale development' provided sufficient mitigation is implemented. There is no definition of 'small scale' and where this development may be best allocated. A more refined study should have been able to refine this overall judgement.

- e. The LUC report indicates at Figure 2 that the largest area of least sensitive -Grade 3 land is located in M2. However no reason is given as to why development is not proposed in this location. It also identifies the two largest areas of Grade 2 land in the combined study area as 'L' and 'M2'. This indicates that the scale of assessment is not sufficiently comparable or detailed outside of Bedfordshire and Luton. For example the Registered Park and Garden at Markyate Cell falls within a Grade 2 site but this should have been identified as a smaller scale Grade 1 site. There are also concerns over the comparability of the judgements and conclusions made between the LUC report and the ESA e.g. why the southern section of M2 is assessed as Grade 3 while similar areas along the M1 corridor north of Luton (H1 and J1) are assessed as Grade 1. Further sub divisions of H, H1, J, & J1 would perhaps lead to greater compatibility.
- f. The LUC report mentions at para 2.4 that field survey forms were used to gather data on landscape and visual matters. These forms should be made available together with any similar entries used by the County Council in their ESA.
- g. The LUC report does not cover historic landscape, listed buildings or archaeology. As a result there are no combined plans that bring all the disciplines together as in the case on the county ESA. This is a shortcoming which means the potential development areas outside Bedfordshire appear larger as they have not been subject to other pertinent constraints. It also means the areas outside of Bedfordshire have potentially been undervalued because these constraints have not been taken into account.

3 Comments on ESA sites

- 3.1 The ESA's considered some 26 sites for their sensitivity to growth. We have carried out preliminary visits to all of the sites in May 2009. This involved visits mainly by local roads but also including rights of way where visibility was restricted. We set out below at Table 1 comments against the ESA returns and our draft conclusions on the landscape sensitivity following the initial site visits.
- 3.2 Furthermore since the ESA considers, (at section 3.3) potential 'additional sites' which are all drawn from their Grade 1 areas, we have added a level of relative sensitivity for the Grade 1 sites and based on our judgment including observations in the field. Sub division of Grade 2 and 3 sites are not proposed in the review below to aid comparability with the ESA approach; however an alternative approach for sensitivity assessment is set out at Section 5 of this report. The sub division Grade 1 sites used is as follows:
 - 1a highly sensitive and negligible detractors
 - 1b highly sensitive but isolated few detractors
 - 1c highly sensitive but a number of detractors or a significant detractor

This includes sites within both Bedfordshire County Council and LUC ESA's within one table.

Table 1

Site	Study	ESA	TLP Draft	Comments			
		Sensitivity	Sensitivity				
		Grade	Grade				
	Leighton Buzzard						
A	LUC	1	1c	Western boundary does not relate to Stoke Hammond bypass as stated. The area is rural but now adversely affected by the noise and movement of traffic which reduces its relative tranquillity and sensitivity of the area. There are some limited views from the urban edge of Linslade in summer but probably more so in winter. However overall agree that site is sensitive and development on the west facing slopes would be inappropriate and adversely affect the setting of Linslade and the rural areas to the west.			
A1	LUC	1	1b	Eastern boundary affected by bypass. Otherwise a rural area of high condition quality and sensitivity			
A2	Beds CC	1	1a & 2	Main area around Southcott Grade 1a. Open fields to the north of area have some small/medium scale growth potential adjacent to existing development with existing tree belt providing separation. Some visual connection to urban area to north.			
				NB Site A2 not labelled on L2 in ESA or Fig 2 in LUC report. A2 is identified at pages 33, 54 & 58 under different topics. However different sub division of sites apply to other Units e.g. M1, 2, 3 & on page 55 which			

Site	Study	ESA	TLP Draft	Comments
	_	Sensitivity	Sensitivity	
		Grade	Grade	
				adds a level of potential confusion over areas assessed between topics.
В	Beds CC	2 &3	2 & 3	Parcel of land to north adjacent to railway suitable for development – Grade 3. Remainder of site partially restored, GI potential as open space.
B1	Beds CC	1	1a & 1c	Strong Estate character south west of A505. Rising ground north of A505 prominent feature and visually sensitive to development. A505 and pylons prominent and detracting feature.
B4	LUC	2	1c	Area is detached from rest of Leighton Buzzard by A505 southern bypass. Too small a piece of land and unrelated for residential growth. (NB Highlights illogical way study area has been defined in certain locations)
С	Beds CC	2 & 3	1, 2 & 3	Site of variable character. Parts of site shown as Grade 1 on drawing LS1. Agree this should apply to higher ground leading up to reservoir site. Views from east on the lower ground could be largely contained by mitigation due to relatively level topography. Additional land for growth included on Drawing SS1. In agreement with scope for additional development as shown and potentially some more.
C1	Beds CC	1	1 a, 1c & 2	Site of variable character. Agreed that higher ground towards Heath and Reach more sensitive. Scope in longer term for growth to south east north of Clipstone with appropriate planting mitigation.
D	Beds CC	2 & 3	2 & 3	Sites shown as Grade 1, 2 & 3 on drawing L2. Isolated area of land identified as Grade 2 by bypass under pylons which would be unsuitable unless part of a wider area. Considerable scope for growth as long as ridge towards Egginton is protected. Additional land for growth included on Drawing SS1. In agreement with scope for additional development and further scope to achieve more extensive growth to most of existing urban edge linking with existing development to the south east with suitable mitigation in character.
D1	Beds CC	1	1b, c and 2	Site of variable character and considerable scale. Setting of Egginton should be retained. Some areas of lower quality and sensitivity to the south near the A505.
			Luton a	nd Dunstable
E	Beds CC	1 & 2	1b & 2	Agree that ridgeline and 'intimate scale of Sewell village' should be protected. Scope for some modest development at French's Avenue (Grade 2) as long it id does not impact on skyline as seem from the north.
E1	Beds CC	1	1c	ESA considers that 'essential to conserve the rural character'. Generally agree that chalk slopes and skylines should be protected. However there are locations with existing prominent development which adversely affects the existing character and quality. Scope to mitigate this impact should be promoted.

Site	Study	ESA	TLP Draft	Comments
		Sensitivity	Sensitivity	
		Grade	Grade	
F	Beds CC	1	1c, 2 & 3	Drawing L2 indicates a number of Grade 1 and 2 areas as supported by text as 'complex and varied'. Quite a lot of the commentary is about mitigation. Agree that should protect skylines from north from any further built forms and to mitigate existing impacts. Second stage of ESA suggests development towards Thorn Lane and A5 which would affect character. However the approved A5/M1 link will affect the character in any event. The area contains a number of detractors e.g. sewage works
F1	Beds CC	1	1c	ESA says pastoral landscape. Majority is large scale arable and plantations. Site is isolated from existing development and probably not suitable on that basis
G	Beds CC	3	3	Open gently rolling chalk dip slope landscape. Edge of Houghton Regis very visible and M1 and pylons major intrusive features. Scope to create new urban extension and provision of Green Infrastructure vital to establish strong buffer to north and within area.
Н	Beds CC	1	2 & 1c	Scope to develop north of stream as part of same landscape unit with G, but should not visually impact on ridge south of Charlton as seen from north and south. Potential for important Green Infrastructure resource. Green link connection over proposed M1/A5 link required. Difficult to retain open character, may need to evolve to more wooded character to accommodate development to south.
H1	Beds CC	1	1b, 1c and 2	Variable area. Some important skylines towards Toddington. North of Charlton very open tracts of landscape of moderate character and extensive area of infrastructure including sewage works, substations and motorway service area. These are locally lower the sensitivity and quality as recognised in the Chalk Arc study.
I	Beds CC	1,2,& 3	1b, 2 and 3	Part of gently undulating dip slope to fringe of North Luton. Area boundary appears to correspond with AONB boundary rather than being landscape character led. Main section of Grade 1 is closer to rising ground up to Sundon Wood. Sections where north Luton is clearly visible e.g. south of Sundon Road are generally a less sensitive. Agree that scope for localised development north of proposed Northern Bypass as per drawing SS2. Additional scope inside the line of bypass east of A6 subject to protection of views to skyline of Gailey Hill.
J	Beds CC	2	1a and 2	Small area containing two contrasting parts. To west part of large field with close associations to Luton – Grade 2. Eastern part of parkland and Sundon village of high sensitivity and should be protected.
J1	Beds CC	1	1b	Extensive area largely, but not wholly within AONB. Elevated views to northern Luton. Streatley and Upper Sundon have separate identity. Pylons one of few detractors. Important to restrict any development that would affect the main Chiltern escarpment to the north. (NB ESA contains mitigation comments in commentary section.)
K	Beds CC	1	1b & 2	Logic for site area unclear but could be to reflect area of locally higher ground. Area to the south west could

Site	Study	ESA	TLP Draft	Comments
		Sensitivity	Sensitivity	
		Grade	Grade	
				form part of urban extension as indicated on SS2 but retaining George Wood. Important to avoid upper slopes as would visually encroach towards Streatley.
K1	Beds CC	1	1b	Extensive area wholly within AONB and part of Chilterns escarpment. Open and elevated views towards northern Luton. Eastern boundary formed by county boundary with HNDC. Warden Hill and escarpment major landscape feature and backdrop to views from both countryside and urban areas. Some areas of visually intrusive housing to south west of area particularly as seen from the top of the escarpment.
L	LUC	2	1b, c & 2	In agreement with the LUC assessment which identifies most of the key characteristics. Area to the south and eastern edge has more open views into adjacent character areas and has a more pronounced topography as reflected in the NHDC LCA units. Airport traffic and structures locally affect tranquillity and visual quality to the south. Settlements and local road pattern are considered highly sensitive to change. The area appears to be highly valued for informal recreation. Significant that LUC consider 'some small scale' development may be appropriate. There is no indication on the scale envisaged. Agree with the mitigation measures proposed.
L1	LUC	1	1a & 1b	In agreement with the LUC assessment which identifies most of the key characteristics, except for omitting Putteridge Bury and the associated parkland. Most of the area is Grade 1a away from A505 and flight path of Luton Airport. In agreement that the area is of strong character, high quality and sensitivity and that development is not appropriate. NB. The LUC report considers the area is within the Chilterns AONB. This is only true of the area north of the A505. LUC include the village of Lilley and surrounding area to the north of the A505 as being part of L1. It is considered by TLP that the area south of the A505 is of equal quality and sensitivity to that north of the A505 which is within the AONB.
М	BCC	1, 2 & 3	1b, 1c, 2 & 3	Area shown on drawing L3 as including Grades 1, 2 & 3. Areas of 2 & 3 linked to Caddington and Slip End. Scope for more comprehensive development as an alternative the modest expansion of villages thereby retaining the identity of villages. Area of urban fringe uses around existing villages e.g. car storage, car boot sales and parking for airport. Views to Luton Hoo, Stockwood Park and residential areas help visually connect to Luton.
M1	BCC	1	1a, 1b, 1c & 2	Boundary formed in part by AONB to west and south. Views to west over Ver valley. Relatively remote in parts to north where also panoramic views over conurbation from edge of downs. Area to east includes part of AGLV up to M1 relatively less sensitive. Area east of Chaul End Road has some potential for development as more closely related to Luton and Dunstable and separated from west by

Site	Study	ESA	TLP Draft	Comments
		Sensitivity	Sensitivity	
		Grade	Grade	
				gentle ridgeline. East contains gently undulating plateau with some reasonable enclosure by woods and hedges.
M2	LUC	2 & 3	1b, 1c, 2 & 3	The areas are in the main part separate from existing development apart from where adjacent to villages and development along A5 corridor. Agreed that less sensitive closer to the M1 and A5 however question the widespread definition as Grade 2 and 3. Some sensitive Grade 1 areas e.g. Markyate Cell Registered Park and garden. The LUC returns highlights a lack of consistency with BCC assessment for M and M1

4 Comments on Core Strategy Preferred Options Summary Document

- 4.1 The Core Strategy: Preferred Options Summary Document (April 2009) identifies the spatial approach following the publication of the Issues and Options (2007) and the ensuing consultation. The document sets out an approach to provide growth through a combination of:
 - Brownfield development
 - Four strategic urban extensions
 - Development in the rest of southern Bedfordshire concentrated in named larger villages
- 4.2 It is noted at para 4.22 of the Preferred Options document that urban extensions are the preferred approach, providing a smaller number of larger more sustainable developments as opposed to spreading development more widely. The four proposed urban extensions are:
 - East of Leighton Buzzard 2,500 dwellings
 - North of Houghton Regis 7,000 dwellings
 - North of Luton 4,000 dwellings
 - East of Luton 5,500 dwellings
- 4.3 However the Preferred Options document does not set out a justification for the approach taken in regard to a smaller number of strategic locations. Neither does it provide a rational for the numbers located at each of the four locations. This is a failing in regard to the need to assess relative landscape sensitivity and capacity of the site. It is possible that a combination of fewer larger strategic sites and a number for smaller sites could be more appropriate in landscape terms, however this option is not considered. Furthermore with the introduction of the 'Community Infrastructure Levy' or tariff system it would be quite feasible for smaller developments to proportionately contribute to the wider infrastructure requirements.

Main concerns affecting North Hertfordshire

- 4.4 The main concerns with the content of the Core Strategy: Preferred Option document from a landscape perspective in regard to the areas, 'L' and 'L1' included within North Hertfordshire are noted below:
 - a. **Protection of the Countryside**. The proposed Development East of Luton includes; up to 5,500 dwellings in Site 'L', major employment sites near Luton airport and an eastern bypass which would run into and through Site 'L1' Lilley Bottom. It is accepted that any urban extension will have an impact on the countryside. In addition all the land around Luton and Dunstable is designated as Green Belt and some areas are either AONB or close to AONB.

However the relative sensitivity of the areas affected in landscape terms should be a prime consideration in guiding location for growth. This should be assessed at an appropriate level of detail and with a consistent and transparent methodology. For the reason set out in Section 2 and 3 above we consider that there are some inadequacies with the process undertaken and that landscape sensitivity and potential impacts within North Hertfordshire have not been given sufficient consideration. Development as currently proposed would be a major contravention of the principle of safeguarding areas of important landscape around the conurbation as stated in para 6.14 (bullet 2).

- b. **Inappropriate Scale of development.** The ESA broadly assesses Site L as Grade 2, i.e. where there are, 'Significant Constraints identified although it may be possible for some development with appropriate mitigation.' The ESA (Supplementary Report) then concludes following a review of Site L that 'some small scale 'development may be appropriate in Site 'L'. The nature and form of such small scale development is not set out on the ESA. However from our own assessment (see Section 5) we consider there is possible scope for either some relatively small areas of infill/expansion to the perimeter of the existing settlements e.g. at Cockernhoe and Mangrove Green or some small pockets of developments close to the existing urban edge. In the case of the latter there would be a need to ensure that coalescence with existing settlements is avoided. However it is not considered that the proposed allocation of 5,500 dwellings and the associated infrastructure would in any measure constitute small scale development. This would be the second largest urban extension and is promoted at para 4.28 of the Preferred Option as 'a strategic mixed use urban extension'. Site L1 is noted in the LUC ESA as having a, 'strong character'; being of 'high quality' and 'high landscape sensitivity'. It would seem that the Preferred Options document has ridden roughshod over the clear findings of its own ESA.
- c. **Impact on rural communities**. Para 4.9 seeks to protect the rural communities. Of the three main proposed growth areas within Bedfordshire with the exception of Bidwell there would be limited impact on existing rural communities. Indeed the ESA's generally seek to protect the setting of the rural settlements of differing sizes e.g. Sewell, Egginton and Streatley. We are supportive of this approach. However in contrast by the proposed accommodation of up to 5,500 dwelling in area 'L' in NHDC east of Luton there would be a significant impact on the existing small hamlets and villages e.g. Mangrove Green, Tea Green and Cockernhoe. These settlements are a key characteristic of the area. The sensitivity of and protection of the settlements in North Hertfordshire does not appear to have been given equivalent consideration as those areas in Bedfordshire.

- d. **Impact on Registered Park and Garden.** The Grade II Registered Putteridge Bury is located directly adjacent to the existing edge of Luton. The park and garden is included on English Heritages 'at Risk Register' due to the proposed expansion of Luton. The Park and Garden is included within Site 'L1' in the ESA which is identified as Grade 1 in landscape sensitivity terms. The location of the Urban Extension from the Figure 1 Key Diagram indicates the development would run directly into the park as also does the proposed extension to the Luton to Dunstable guided busway. This approach seems to directly conflict with the national designation of the historic park and garden. The approach in North Hertfordshire is very much in contrast to the Registered Park and Garden within Bedfordshire at Luton Hoo where there is no proposed extension or development. Indeed Luton Hoo did not even form part of the study area for the ESA.
- e. Impact of proposed strategic employment site. A site is proposed at the eastern end of Luton Airport for strategic employment within NHDC. This would add to the existing allocated site within Luton at Century Park. However our preliminary assessment of the site conditions in the indicated area is that the natural topography would be unsuitable. The area compromises two landscape character areas which include the narrow ridge of Winch Hill and the chalk valleys of Whiteway Bottom. The areas also include number of woodland belts. It is likely that any employment related development would include large buildings which would necessitate major cut and fill operations. This would create a significant adverse impact on the local landscape character at the head of the Kimpton and Whiteway Bottom LCA. The area would also be located in the upper sections of the environmentally sensitive River Mimram catchment area.
- f. **Luton Eastern Bypass.** We are not qualified to comment on the need for an eastern bypass in traffic terms however the construction of a modern bypass within Lilley Bottom would radically affect the scenic beauty of the area and destroy forever its existing tranquil quality. We consider the conclusion of the Bedfordshire Councils' own ESA (Supplementary Report) indicates that development is inappropriate where it states at page 21, '*There are significant constraints such that it is not considered appropriate for development to take place.'* This view is reinforced by our own assessment of the site as detailed in Section 5 and the supporting Appendices and drawings.
- **g. Park and Ride Facility.** A park and ride facility is proposed near the A505 in the Lilley Bottom close to the edge of the AONB. This is likely to be visually intrusive on the open character of the Lilley Bottom valley including the AONB and bring associated lighting impacts to the countryside.

h. Loss of Recreation. The area East of Luton is currently well used for recreation by the existing population including residents of Luton. It is an important green lung close to where they live. The existing pattern of minor roads that discourages through traffic and are ideal for walking, cycling and horse riding.

Concerns relating to Sections in the Document

- 4.5 It is noted that in the Spatial Portrait at Section 2 that there is no inclusion of North Hertfordshire despite the proposal that it accommodates some 5,500 of the 19,000 new homes proposed in urban extensions.
- 4.6 Section 11 of the Preferred Options report considers Green Infrastructure (GI). This includes reference to locations where there are current deficits of shortfalls for strategic green space. These include locations identified in the Luton and Bedfordshire GI Plan. Areas of potential strategic open space include areas south of Toddington, west of Caddington and south east of Luton. The general areas where these might be provided are not indicated on a plan. There is no coverage in the GI plan for the land outside Luton and Bedfordshire and as such the contribution of land East of Luton in NHDC is not specifically identified or considered in the approach to Green Infrastructure as part of an integrated network of open spaces and corridors that could serve the Luton and Dunstable conurbation. This is a failing and current omission of the Preferred Options report.
- 4.7 Section 12 of the Preferred Options addresses Preserving and Enhancing the Countryside and Heritage. It refers to the ESA and how the findings have informed the 'location and scale' of the preferred urban extensions. The report identifies that the least sensitive areas are those to the north of Dunstable, Houghton Regis and Luton and these are accordingly identified for two of the main strategic urban extensions. At para 12.7 the report provides a comment on the suitability of land East of Luton. The section does mention the need to respect the distinctive landscape and topography however it does not mention the presence of the registered Park and Garden at Putteridge Bury .In our view the summary is inaccurate and misleading to the reader where it says, it was found that development would be appropriate provided that sufficient mitigation measures were implemented.' The ESA by LUC indicated that 'small scale development' may be appropriate. The Preferred Options report does not mention this comment on scale in regard to Site L and L1 suitability and therefore does not comply with its own approach as set out at para 12.4. that says the findings of the ESA , 'informed the location and scale of the preferred urban extensions'. The proposed expansion at L1 is for 5,500 dwellings and is the second largest extension. This is greater than other sites that are considered less sensitive to the north of the conurbation.

- 4.8 Section 12 also briefly mentions other sites on the edge of urban areas where urban extensions were not included in the Preferred Options. The Key Diagram indicates Urban Extensions that are not preferred. These include locations at:
 - Caddington/Slip End
 - North West Dunstable
 - North Houghton Regis- north of proposed A5-M1 link
 - North Luton north of proposed Luton Northern Bypass
 - West of Leighton Buzzard

However there is no justification to why these areas are no longer considered appropriate. The above list of locations includes areas of land that in our view are relatively less sensitive from a landscape perspective than the area East of Luton (within North Hertfordshire) that is identified in the Core Strategy: Preferred Options for a preferred Urban Expansion. These locations include: parts of Units M and M1 south west of Luton around Caddington and Slip End and west of the M1 and parts of Unit H north of Houghton Regis. In this location there are some relatively good associations with the edge of Luton and Dunstable and development would have less impact on the wider landscape with opportunities for suitable mitigation in keeping with the local landscape character. A further location is the land north of the approved M1/A5 link Road. This would be an extension of the proposed development north of Houghton Regis and an area that was included as an additional area for potential development on drawing SS2 in the ESA.

4.9 The conclusion of Section 12 indicates that the quality and attractiveness of the countryside has been a key consideration. While this may be the case we do not agree that this has been adequately extended to the areas of proposed strategic growth in NHDC. The report also says that, 'limiting development in other (non AONB) sensitive areas of landscape, the impact of development on valuable landscape areas has been minimised'. We would not agree with this statement in regard to the impact on areas L and L1. The introduction of built development and the associated highway infrastructure would fundamentally change the character of these areas identified by the Bedfordshire Councils' own ESA as of high quality and highly sensitive landscape. Para 12.9 also comments that the mitigation measures identified in the ESA will be implemented. The ability to accommodate these would need to be tested in the context of any proposed development. For example one measure is to, 'avoid tall or large scale developments that would impinge on the distinctive chalk valley landscape around Lilley Bottom'. However we consider that the description and scope of the proposed mitigation is not extensive enough. For example we would consider that the impact on Whiteway Bottom should be given equal consideration to Lilley Bottom and also for 'L1' no mitigation is recommended since development is not recommended. The concluding Delivery and Monitoring section at para 12.10 of Section 12 omits reference to NHDC.

Site Assessment Matrix

- 4.10 The Preferred Option Report is supported by a number of documents including the ESA and the Site Assessment Matrix. The Matrix includes a review of the Sites A to M under 27 headings of which the following are those most relevant to this report:
 - Impact on important areas of landscape
 - Impact on landscape views
 - Contribution to the delivery of Strategic Green Infrastructure provision
 - Potential to contribute to place making
- 4.11 There is merit in the comparison matrix and providing a brief summary of the issues. We would agree with a number of the entries however having reviewed the Matrix we have the following comments on the document:
 - a. The sites listed are described only as 'A' or 'B. There is no reflection of the 'A1' sites etc.

 This means that either the 'A1' sites are excluded from the assessment or the A + A1 sites are combined. It appears from the entry in some Sites e.g. C and H that all parts are included in the entry however this needs to be clarified as it would otherwise be inadequate or worse misleading.
 - b. Based on the above it is unclear whether the land in North Hertfordshire namely, L and L1 are all included within one entry. If the two areas L and L1 are combined are combined it should be noted that even on the basis of the ESA there are areas of Grade 1 and 2 land. It is noted in the conclusion that, 'small scale development may be appropriate,' but this is not carried forward into the discussion in the main Preferred Options Report. In regards to visual sensitivity it is acknowledged that significant views will constrain development. However the ability of the site to accommodate the scale of development proposed has not been adequately tested. Text under the 'place making' entry for 'L' states that development, 'further away from the existing urban edge will also make use of existing features to ensure a locationally and contextually distinctive development and 'place' is delivered.' It seems incongruous to be suggesting this level of detail away from the urban edge where in other sites away from the existing urban edge the typical conclusion e.g. for sites 'H' and M the entry is, 'limited opportunity for place making.'
 - c. There is not always consistency of approach in the 'Assessment Factors Measurement' entry and the conclusion, e.g. for site A the fact the western edge of the settlement is well contained and the area offers a rural approach (despite the presence of the bypass which is not mentioned) leads to the conclusion that development is inappropriate in landscape and visual terms. While we would agree with this conclusion for site A the same could equally if not more so be said for sites L and L1, however despite this a major urban extension is proposed.

d.	There is no means of deriving from the Matrix how any overall conclusions have been
	reached from the text entry for each site and topic.

e.	The addition of the place making comment is welcome. It is considered that this asp	ect
	should have been included within the ESA.	

5 Alternative approaches

- 5.1 From the above review it is our view that the following approaches could have been included within the landscape sensitivity aspects of the ESA's.
 - a. A landscape character led approach that was more directly based on the existing assessments that have been produced in the District scale studies. An assessment of the urban edge a study at the scale used for the Chalk Arc LCA (c. 1:10,000) would have been more appropriate. This should also have been extended to cover the full perimeter of all the urban areas involved.
 - b. The range of sensitivity should have been increased to allow for at least 5 categories (as used in the Chalk Arc Study) rather that the 3 used in the ESA. This process would also allow for more interpretation of the relative sensitivity of the extensive areas of Grade 1 land that were identified through the ESA method. This could include the following range of sensitivity:
 - High
 - Medium-high
 - Medium
 - Low-medium
 - Low
 - c. A more systematic assessment of a full range of landscape and visual criteria and how suitable development would be on a defined scale and against agreed terms. It is appreciated that the LUC ESA follows a defined pattern broadly in accordance with Guidance in Topic Paper 6. However we consider that the following potential factors should be considered:

Landscape Sensitivity

- Slope analysis
- Vegetation Enclosure
- Complexity / scale
- Condition / Quality
- Openness to public view numbers and locations
- Openness to private view

 numbers and locations
- Relationship with existing urban built form
- Safeguarding of settlement separation prevention of coalescence with villages
- Scope to mitigate development

Landscape Value

- Designations
- Recreational and perceptual factors

- d. The sensitivity and capacity could have considered suitability of a site for a range of scale and types developments.
- 5.2 To illustrate the approach promoted above we have carried out a preliminary study of Site 'L' and parts of 'L1' for the land East of Luton. The methodology used and the returns for the smaller subdivision of areas by identifying 'Land Parcels' are detailed in Appendix 1 and 2 and illustrated on Drawings 09013. 01 and 02. A measure of the overall landscape sensitivity and capacity of the areas is set out below:

Summary Landscape Sensitivity and Capacity East of Luton

Parcel Number	Parcel Name	Overall Sensitivity	Overall Capacity
L- a	Cockernhoe Plateau	Medium-high	Low-medium
L- b	Cockernhoe Slopes	Medium-high	Low-medium
L- c	Tea Green Plateau	Medium-high	Low-medium
L1 – d	Winch Hill	Medium	Medium
L1 - e	Lawrence End Plateau	Medium	Medium
L1 - f	Whiteway Bottom	High	Low
L1 - g	Putteridge Bury Parkland West	Medium-high	Low-medium
L1 – h	Putteridge Bury Parkland South	High	Low
L1 - i	Putteridge Bury House & Gardens	High	Low
L1 - j	Putteridge Bury Parkland East	High	Low
L1 – k	Lilley Bottom Slopes West	High	Low
L1-l	Lilley Bottom Slopes Valley Floor	High	Low
L1-m	Lilley Bottom Slopes East	High	Low

5.3 The commentary for each land parcel also provides information on: Landscape Character, Landscape Quality, Views and Visual amenity and Existing settlements. It also provides a brief review of the capacity for a range of types and sizes of development.

6 Conclusions

- A review of the ESA prepared by Bedfordshire County Council has been carried out. We have noted a number of shortcomings with the methodology used in regard to landscape and visual issues. These include: the scope of the geographical scope of the study, concern over the correlation with existing landscape character studies and the lack of a clear and adequate methodology for deriving relative sensitivity.
- 6.2 The Supplementary Assessment carried out by LUC for sites outside Bedfordshire provides a clearer methodology more consistent with National Guidance. However the study still retains a number of the shortcomings within the Bedfordshire ESA. Furthermore the scale of the assessment in North Hertfordshire does not match the level of consideration provided in some parts of Bedfordshire. Sites L and L1 are comparatively large and do not sufficiently reflect the local pattern and changes in landscape character and sensitivity.
- 6.3 We have also carried out a visit to all the sites both within and outside Bedfordshire and provided a commentary on the text in the ESA's for each site including a response to the relative sensitivity. Our assessment of some of the sensitivity measures differ from the conclusions of the ESA.
- Despite the above criticisms we conclude that the sites put forward within Bedfordshire in the County Council ESA as illustrated on drawings SS1 and SS2 of the ESA for urban extensions are generally considered suitable. This includes both the 'areas identified for potential development' and the 'additional areas identified for potential development'. From our assessment there are further locations that could also be identified as potential locations for development beyond those included on Drawings SS1 and SS2 e.g. north of Caddington and east of Leighton Buzzard. However it is significant that the ESA finds that sufficient capacity is provided within the areas currently identified in the County Council ESA without the need to expand into adjacent counties.
- 6.5 Despite differences on the scale and units in the landscape sensitivity assessment we are broadly in agreement with the findings of LUC in the Supplementary Assessment in regard to the sensitivity of the two sites L and L1 east of Luton. The LUC report identifies Site L as having,

'a strong and distinctive character forming a rural context to the villages east of Luton, a strong wooded setting to the eastern edge of Luton and the setting of the Lilley Valley. Constraints to development relate to the rural character of the landscape however <u>some small scale</u> development may be appropriate provided sufficient mitigation is implemented.'⁴

⁴ Environmental Sensitivity Assessment Supplementary Report (LUC December 2008 p20)

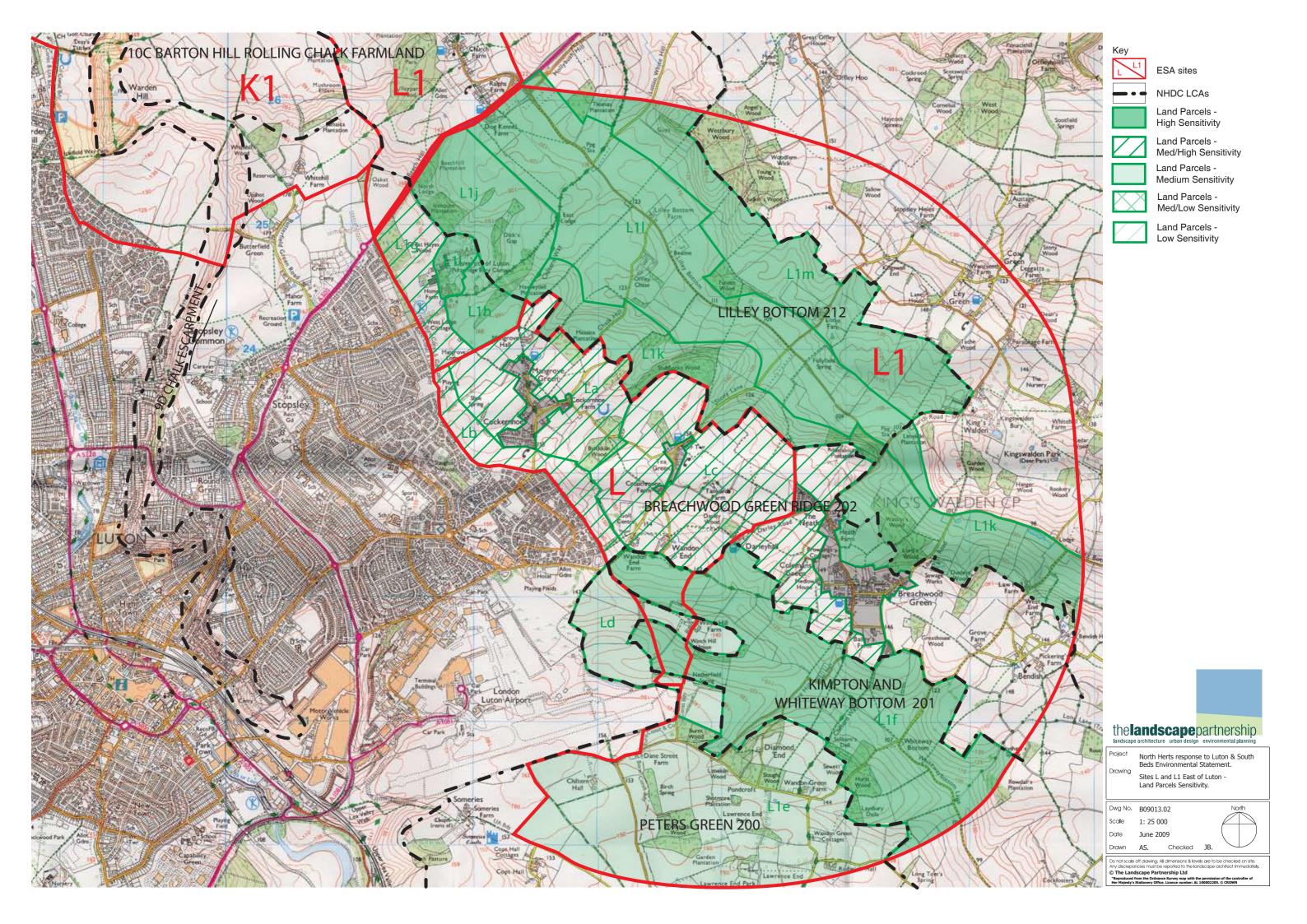
In regard to Site L1 the LUC report concludes,

'This is a high quality chalk landscape defined by the sloping valley sides of the Lilley Bottom Valley within The Chilterns AONB. It is a quiet, rural chalk landscape and an area of strong character and high quality. There are significant constraints such that it is not considered appropriate for development to take place'.⁵

- 6.6 However, the proposals and recommendations in the Core Strategy: Preferred Options Summary Document (April 2009) do not comply or respond to the recommendations in the LUC ESA or the Site Assessment Matrix. Rather the Core Strategy proposes an urban extension into Sites L and L1 of up to 5,500 dwellings and a Strategic Employment allocation. This proposal could not be considered 'small scale' within Site L. Development on the scale proposed would not reflect the sensitivity of the local landscape as identified both by the LUC report and confirmed by our own independent findings as set out in Appendices 1 and 2 to this report. There would be likely to be a significant adverse impact arising from such a development. This would include impacts on the landscape character and the visual and recreational resource. There would also be significant impacts on the local villages in Site L and L1.
- In the case of site 'L1' the ESA recommends that development is not appropriate. However, the Preferred Options include an eastern bypass, housing, employment site and park & ride which would directly, permanently and adversely affect the strong Chiltern character of a chalk valley with wooded hangers to the valley sides. It is (perhaps wrongly) inferred in the LUC report that the section of Lilley Bottom south of the A505 is within the AONB while the AONB boundary currently stops at the A505. However it is our view that the character and quality of the Lilley Bottom landscape south of the A505 is as good if not better than the landscape which lies to the north within the AONB. However the proposed development would irreversibly affect the tranquillity and quality of the area which is a valuable recreational resource. The proposed development would also directly impact upon Putteridge Bury Registered Park and Garden.
- The Preferred Options promotes the approach of concentrating the required urban expansion development in four main sites rather than distributing the development over a wider area. While this approach would seem to be of merit for the majority of the urban expansions it does not mean that all the planned development needs to be at this scale and in this form. If any of the potential receptor areas would significantly and adversely affect areas of high and medium- high sensitivity then alternative solutions should be considered. The current boundary between Luton and North Hertfordshire is marked by a clear break from urban to rural. There are few examples of urban fringe problems that are often associated with this transition and currently occur in other locations around the perimeter of the conurbation.

⁵ Environmental Sensitivity Assessment Supplementary Report (LUC December 2008 p 21)

6.9 It is concluded that in the case of the land in North Hertfordshire that development on the scale proposed is wholly inappropriate to the receiving landscape. The LUC report identifies scope for some small scale development. We would agree that in principle there is scope for some modest pockets of development but not enough to create a viable and sustainable urban extension in its own right. It is considered that the balance of the 5,500 dwellings could be accommodated through a combination of either an alternative urban extension/s or through provision over a wider range of smaller sites where there is identified capacity in landscape terms.



Methodology for Landscape Sensitivity and Landscape Capacity

- 1.1 The methodology to assess the capacity of the landscape to accommodate development within this study is based on the approach promoted in Topic Paper 6—'Techniques and criteria for judging capacity and sensitivity', which forms part of the Countryside Agency and Scottish Heritage guidance 'Landscape Character Assessment Guidance for England and Scotland'. The paper explores current thinking and recent practice on judging capacity and sensitivity. Topic Paper 6 also reflects the thinking in the publication, 'Guidelines for Landscape and Visual Impact Assessment' 2002.
- 1.2 The methodology developed for this study adopts the following premise that:
 - "existing landscape character sensitivity + visual sensitivity = Overall Landscape Sensitivity"
- 1.3 A number of criteria have been selected to identify both the landscape features that form part of the landscape character and the visual sensitivities. These criteria reflect the relevant criteria from the national guidance in Topic Paper 6 and the particular circumstances for the rural landscape of North Hertfordshire in the context of the proposed expansion of Luton.
- 1.4 The following criteria have been selected to reflect the landscape character:
 - slope analysis
 - tree cover/hedgerow type pattern and enclosure
 - the complexity and scale of the landscape including land use
 - the condition or quality of the landscape
- 1.5 The following criteria have been selected to reflect visual sensitivity:
 - openness to public view
 - openness to private views
 - relationship with existing urban built form
 - safeguarding of separation between settlements
 - scope to mitigate the development
- 1.6 It is recognised that Topic Paper 6 makes reference to a wider range of factors within what is termed Landscape Character Sensitivity. However, in the context of this assessment it is assumed that other topics listed in Topic Paper 6 are covered elsewhere by the assessments of Biodiversity (covering the extent and pattern of semi natural vegetation) and Cultural Heritage (covering historic landscape, archaeology and listed buildings). It is considered that for the purpose of this assessment the main relevant existing landscape and visual factors are addressed in the above categories set out in 1.4. In regard to Visual Sensitivity the influence of landform and vegetation is not included twice as suggested by Topic Paper 6 to avoid double counting.
- The Overall Landscape Sensitivity profile provides an evaluation of the sensitivity of a number of 'land parcels' which have been identified in the field as sub-divisions of the district scale landscape character assessment areas produced by North Herts District Council. The scale of units is considered appropriate to identify sensitivity and capacity in landscape terms to respond to the proposed growth proposals around the Luton/Dunstable conurbation. The location of the land parcels are shown on Drawing no B09013/01.

Methodology for Landscape Sensitivity and Landscape Capacity

1.7 In order to assess an area's Overall Landscape Capacity, landscape value is added to the equation as follows.

"Overall Landscape Sensitivity + Landscape Value = Overall Landscape Capacity"

- 1.8 In the absence of any specific stake holder consultation and based on the scale of the land parcels being considered the landscape value was assessed by considering a combination of the following factors:
 - landscape designations, including AONB and Registered Parks and Gardens
 - value of area for recreation and perceptual factors including tranquillity and scenic beauty
- 1.9 To effectively assess the landscape capacity of a site, an assumption is made as to the form that the potential development may take. For the purposes of this study it is assumed that residential areas would include predominantly two storey dwellings with a smaller proportion of 3 storeys. It is assumed that any employment uses will be located to the south of the areas adjacent to the allocated site east of Luton Airport.
- 1.10 Each site will be assessed against the criteria noted above, using a 5-point scale from A to E where A is most suitable and E least suitable. The definitions are devised for this particular study and are contained in Table A as below. A site visit to each land parcel is a necessary pre-requisite to assess each criteria.
- 1.11 The entries are aggregated for each land parcel to provide both a Landscape Sensitivity Profile and a Landscape Capacity Profile.
- 1.12 It should be emphasized that no absolute conclusion should be drawn from the totals. There may be individual criteria at the E end of the scale that would suggest that development may be incompatible unless it can be effectively mitigated. It is important that the overall spread and balance of the profiles is fully considered, in order that one factor does not skew the outcome.
- 1.13 To aid these considerations a brief commentary of the key points is provided under the following headings.
 - Landscape Character
 - Landscape Quality
 - Views and Visual amenity
 - Existing settlements
 - Overall Sensitivity
- 1.14 A measure is also provided on the overall landscape capacity of land parcels. Capacity is broadly derived as the opposite of sensitivity in accordance with the following:

High sensitivity = Low capacity

Medium-high sensitivity = Medium -low capacity

Medium sensitivity = medium capacity

Medium-low sensitivity = medium -high capacity

Low sensitivity = high capacity

Methodology for Landscape Sensitivity and Landscape Capacity

- 1.15 An indication is also provided in regard to the likely capacity for a range of types of development and of a range of scales. The development types include:
 - Residential
 - Employment office
 - Employment warehouse
 - Green infrastructure
 - Grey Infrastructure roads etc
 - 1.16 In regard to the potential scale of residential development the following broad parameters are assumed. Small = <100 units, medium = 100-500units large = >500 units.

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Methodology for Landscape Sensitivity and Landscape Capacity

Table A

Criteria group	Criteria	Measurement of criteria	Comments
Landscape Character	Slope analysis	A= Plateau (away from edge) B= Rolling /undulating landform providing enclosure	
		C= Valley Floor	
		D= Tributary valleys/lower valley slopes	
		E= Elevated landforms, plateau edge, ridges and prominent slopes on valley sides	
	Enclosure by vegetation	A= Enclosed by mature vegetation – extensive tree belts/woodland	
		B= Semi-enclosed by vegetation - moderate woodland cover, good quality tall hedgerows/ hedgerows with hedgerow trees	
		C= Fragmented vegetation - scattered small woodlands, fragmented shelterbelts and/or hedgerows	
		D= Limited/poor hedges (with few /no trees) and/or isolated copses	
		E= Largely open with minimal vegetation	
	Complexity/ Scale	A= Extensive simple landscape with single land uses	
		B= Large scale landscape with limited land use and variety	
		C= Large or medium scale landscape with variations in pattern, texture and scale	
		D= Small or medium scale landscape with a variety in pattern, texture and scale	
		E= Intimate and organic landscape with a richness in pattern, texture and scale	
	Landscape Character	A= Area of weak character in a poor condition	
	Quality/ Condition	B= Area of weak character in a moderate condition or of a moderate character in a weak condition	
		C= Area of weak character in a good condition or of a moderate character in a moderate condition or of	

East of Luton Methodology for Landscape Sensitivity and Landscape Capacity

Criteria group	Criteria	Measurement of criteria	Comments
		a strong character in a poor condition D= Area of moderate character in a good condition or of a strong character in a moderate condition E= Area of strong character in a good condition	
Visual Factors	Openness to public view	A= Site is well contained from public views B= Site is generally well contained from public views C= Site is partially contained from public views D= Site is moderately open to public views E= Site is very open to public views	Public views will include views from Roads, Rights of Way and public open space. The evaluation considers a summer and winter evaluation. However due to the time of the study the winter evaluation was estimated based on the character of the vegetation. This criteria is also considered in association with 'Scope to mitigate the development' criteria. Score will depend on the extent of the visibility from the parcel perimeters and the rights of way through the site.
	Openness to private view	A= Site is well contained from private views B= Site is generally well contained from private views C= Site is partially contained from private views D= Site is moderately open to private views E= Site is very open to private views	This relates to private views from residential properties and private landholdings. The evaluation considers a summer and winter evaluation. However due to the time of the study the winter evaluation was estimated based on the character of the vegetation. This criteria is also considered in association with 'Scope to mitigate the development' criteria. The score will depend on the extent of the visibility from the parcel perimeters. A greater weight will also be given where there are relatively more private views affected.
	Relationship	A= Location where built	

East of Luton Methodology for Landscape Sensitivity and Landscape Capacity

Criteria group	Criteria	Measurement of criteria	Comments
	with existing urban built form	development will form a natural extension of an adjacent part of the urban fabric	
		B= Location where built development will form some close associations with the existing parts of the urban fabric	
		C= Location where built development will form some moderate associations with the existing urban fabric	
		D= Location where built development will only form some limited associations with the existing urban fabric due to major obstacles	
		E= Location where development will be isolated from and not form any relationship with the existing urban fabric	
	Relationship with existing villages and potential	A= Location where built development will form a natural extension of an adjacent village	
	coalescence	B= Location where built development will form some good associations with an adjacent village and not adversely affect its setting and character	
		C= Location where built development will form some reasonable associations with an adjacent village and not adversely affect its setting or character or where there is no impact on a village due to distance/or major existing screening	
		D= Location where development would adversely affect the setting of an existing village and/or cause partial coalescence	
		E= Location where development would and significantly adversely dominate an existing village and/or cause complete coalescence	
Potential Landscape Features	Scope to mitigate the development	A= Good scope to provide mitigation in the short to medium term in harmony with existing landscape	This is an assessment based on landscape character, aesthetic factors

East of Luton Methodology for Landscape Sensitivity and Landscape Capacity

Criteria group	Criteria	Measurement of criteria	Comments
		pattern B= Good scope to provide mitigation in the medium term and in keeping with existing landscape pattern	- scale, enclosure, pattern, movement – overall visibility of site and consideration of existing viewpoints
		C= Moderate scope to provide mitigation in the medium term broadly in keeping with existing landscape pattern	
		D= Limited scope to provide adequate mitigation in keeping with the existing landscape in the medium term	
		E= Very limited scope to provide adequate mitigation in the medium to long term	
Landscape Value	Landscape designations	A= Location where built development is unlikely to have any landscape or visual impact on landscape designations	Landscape designations include AONB and Registered Parks and Gardens
		B= Location where built development will have slight landscape or visual impact on landscape designations	
		C= Location where built development will have moderate landscape or visual impact on landscape designations	
		D= Location where built development is adjacent to a landscape designation and /or will have high landscape or visual impact	
		E= Location fully within existing landscape designations	

Appendix 1

East of Luton

Methodology for Landscape Sensitivity and Landscape Capacity

Criteria group	Criteria	Measurement of criteria	Comments
	Value for recreation and perceptual factors	A= No identified use for recreation/ poor scenic value and low tranquillity B= Minimal use for recreation/ low scenic value and low /moderate tranquillity C= Moderate use for recreation/ moderate scenic value and/or area of moderate tranquillity D= Moderate-high use for recreation/ moderate- high scenic value and/or area of moderate - high	This criteria is used as a proxy for Landscape Value in absence of specific stakeholder consultation, and includes consideration of value for recreation, rights of way, locally identified greenspace, remoteness/tranquillity and scenic beauty
	tranquillity E= High use for recreation/ high scenic value and/or area of high tranquillity		

