Stevenage Landscape Sensitivity and Capacity Study

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FINAL REPORT Halcrow Group Limited



Stevenage Borough Council and North Herts District Council

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Executive Summary

Halcrow has prepared this study on behalf of Stevenage Borough and North Herts District Council to help inform decisions about the future extent and directions of residential and employment growth around Stevenage. It takes account of the fact that the draft East of England Regional Spatial Strategy (RSS) proposes 14,400 new dwellings and a strategic employment site within the wider Stevenage area. Of the 14,400 dwellings around 11,000 may need to be found within land beyond the existing urban edge.

The key objectives were to provide a transparent and consistent assessment of landscape sensitivity and capacity of the landscape of the study area, to identify potential growth areas where urban extensions and employment development could best be accommodated without unacceptable adverse landscape and visual impacts, and to identify essential mitigation measures.

The study methodology followed current good practice guidance produced by the Countryside Agency, adapted to the needs of the study. The study area was divided into distinctive local landscape character areas and the key factors that affected the sensitivity and capacity of the area to urban extensions and employment development were analysed. Potential development areas were then identified, focussing on those identified as having a moderate and high capacity to absorb development

The key findings of the study were:

1. Extensive areas of the landscape around Stevenage have a high sensitivity, and a low capacity to accommodate the main types of development identified above. This includes the major Beane and Langley Valleys which are highly sensitive to development which would fundamentally alter their landform, unspoilt rural character, their characteristic long views, and tranquility. In addition there is a range of other local landscape character areas with intimate small scale landscapes, or with strong historic and ecological character that are equally highly sensitive.

2. Nevertheless it is possible, particularly in some locations close to the existing urban edge, to identify a number of potential development areas, where, assuming effective implementation of essential mitigation measures, it should be possible to accomodate development of similar scale to that envisaged in the regional plan, without unacceptable landscape impacts. The land budget calculations have suggested this may be of the order of 8,100 – 13,500 dwellings (depending on density) and approximately 28ha gross of employment development. It is concluded that development outside the development areas identified would be likely to have unacceptable adverse landscape and visual impacts. This includes further extensions to the west north and east beyond the development areas identified.

3. The essential landscape mitigation measures identified included:

- creation of strong multipurpose greenspace frameworks throughout the developments including structural planting of new woodlands, hedgerows, and tree belts as appropriate to the local landscape.
- advance planting 10 years in advance of built development
- high standards of urban and architectural design

These are specified in more detail within the study on a site specific basis.

1 Introduction

1.1 Background

In September 2005, North Herts District Council and Stevenage Borough Council commissioned Halcrow to prepare this Landscape Sensitivity and Capacity Study to help inform decisions about the future extent and directions of residential and employment growth around Stevenage. It will be one of the evidential based studies submitted to the examination in public of the draft East of England Regional Spatial Strategy (RSS) and will be used to influence the subsequent preparation of local development framework (LDF) policies for the local authorities involved.

1.2 Planning Context

The draft East of England Regional Spatial Strategy (RSS) proposes 14,400 new dwellings and a strategic employment site within the wider Stevenage area. Of the 14,400 dwellings approx 3,000 may be able to be accommodated within the existing urban area leaving around 11,000 dwellings needing to be found within the countryside around Stevenage. At present no specific guidance is given to identify where this development could be most sustainably located, although the draft RSS states that 'an urban extension to the west, and possibly to the north' are the preferred locations.

1.3 Objectives of the Study

The main objectives of the study are to:

- Provide a transparent, consistent and objective assessment of landscape sensitivity and capacity of the landscape of the study area
- Identify areas where residential urban extensions and employment development could be best accommodated without unacceptable adverse landscape and visual impacts
- Identify a robust framework of landscape mitigation measures for each of the potential growth locations and advise on any likely residual landscape and visual impacts on the local landscape character areas

2 Study Methodology

2.1 Approach

The overall approach is in accordance with the following key guidance documents:

- Landscape Character Assessment. Guidance for England and Scotland – Countryside Agency and Scottish Natural Heritage 2002
- Topic Paper 6: Techniques and Criteria for judging capacity and sensitivity – Countryside Agency and Scottish Natural Heritage 2004

For the purposes of this study landscape sensitivity and capacity are defined as follows:

Landscape Sensitivity – The relative ability of the landscape to accommodate a specified type of development/change without unacceptable adverse impacts, taking account of the likelihood of achieving appropriate mitigation. It is based on judgements about both landscape character sensitivity and visual sensitivity.

Landscape Capacity – The relative ability of the landscape to accommodate different amounts of a specified type of development/change without unacceptable adverse impacts, taking account of the likelihood of achieving appropriate mitigation. It is a reflection of the interaction between landscape sensitivity, landscape value and the potential extent and scale of development.

2.2 Methodology

The methodology used is set out below:

Definition of Study Area and Review of Existing Information

The study area was defined based upon an understanding of both the potential areas of land that could be targeted for development and a reasonable judgement of the maximum extent of the wider landscape around Stevenage that could be subject to development impacts. It takes account of the fact that around 11,000 houses and a strategic employment site may need to be accommodated.

A rapid review of existing relevant information was undertaken as follows:

- Stevenage and North Herts, and East Herts Landscape Character Assessments (Babtie 2003)
- Masterplan and design principles accompanying the West Stevenage Planning Applications for 3,600 and 5,000 dwellings together with A1, A2, A3, B2, D1 and D2 users.
- Review of sub area analysis for Stevenage in A Study of the Relationship Between Transport and Development in the Stansted, Cambridge and Peterborough Growth Area (Colin Buchanan and Partners, GVA Grimley August 2004)
- Review of the Inspectors Report to the Secretary of State December 2004 re the above West Stevenage Planning applications.
- Review of other key environmental designations affecting the area
- Review of the relevant local plans

Local Landscape Characterisation and Baseline Landscape Assessment

Local landscape character areas within the defined study area at a 1:10,000 scale were then identified for subsequent sensitivity and capacity analysis. This classification involved , as appropriate, subdividing the county/district 1:25,000 scale character areas of the Stevenage and North Herts Landscape Character Assessment into smaller distinctive units. A field survey was undertaken to confirm the boundaries of these local character areas and to record on a structured field survey their key landscape features and elements and their aesthetic and perceptual qualities.

Sensitivity and Indicative Capacity Analysis

This stage analysed the information produced from Task 2 to make transparent, objective judgements about the sensitivity and indicative capacity of each local landscape character area to different types/ scales of development. Specifically these were:

- Sensitivity to residential urban extensions
- Sensitivity to employment development (ie commercial/office development)
- Capacity for urban residential extensions
- Capacity for employment development (ie commercial/office development)

The broad landscape character, visual and value criteria that were considered in judging sensitivity and capacity are identified in Table 1 below:

Landscape	Landscape Character Sensitivity	-	Landscape condition
Sensitivity		-	Cultural and natural factors
		-	Aesthetic factors e.g. scale, enclosure pattern
		-	Mitigation potential
	Visual Sensitivity	-	General visibility and mitigation potential
Landscape	Landscape Sensitivity	-	(As defined above)
Capacity	Landscape Value	-	Tranquility, remoteness, cultural associations

Table 1 – Broad Sensitivity and Capacity Criteria

It was then necessary to identify more specific landscape and visual factors that were considered to be most influential in determining the relative sensitivity of the landscape to the specified types of change. These were as follows:

- A) Landscape Character Sensitivity:
 - Extent of semi-natural habitat areas with extensive semi natural habitat, contributing to landscape character, are likely to be more sensitive to the footprint impact of residential urban extensions and employment development compared with those with limited coverage.
 - Extent of historic landscape features areas with many historic landscape features are likely to be more sensitive to residential urban extensions and employment development compared with those with few.
 - Field pattern areas with a complex small scale field pattern are likely to be more sensitive to disruption of field pattern from large scale employment development compared with those with few
 - Landform areas with a rolling land form are likely to be more sensitive to large scale employment development compared with those with a flat landform.
 - Condition areas with well managed landscape features in good condition are likely to be more sensitive to the footprint of employment development and urban residential extensions compared with those in poor condition where there may be an opportunity to enhance landscape character in association with new development.

- Complexity areas with a complex range and pattern of distinctive landscape features are likely to be more sensitive to impacts of employment development and residential urban extensions compared with those with a simple pattern.
- Scale areas with an intimate small scale landscape pattern are likely to be more sensitive to employment development compared with those with a large scale pattern.

The landscape character sensitivity factors for each local landscape character area were set out in a table – see Appendix 1.

A judgement was then made about the likely impacts from development on these characteristics and whether they would be affected positively or negatively. It was assumed that the built development would be well designed with a strong greenspace framework to achieve as good as fit as possible in the landscape.

The degree of Landscape Character Sensitivity was defined as follows:

High – Areas where there are likely to be large adverse effects on one or more of the specific characteristics considered sensitive to the specified type of change.

Moderate – Areas where there are only likely to be minor or moderate adverse effects on the range of specific characteristics considered relevant to the specified type of change.

Low – Areas where there are unlikely to be any adverse effects on the specific characteristics considered relevant to the specified type of change.

B) Visual Sensitivity

- General visibility areas which are very open with high intervisibility are likely to be more sensitive to the impacts of urban residential extensions and employment development compared with those with low intervisibility.
 Visibility is a function of both landform and tree and woodland cover influences.
- Viewers Areas with many potential viewers are likely to be more sensitive to urban residential extensions compared with those with few.

A judgement was then made about the likely impacts from development on these characteristics, particularly in terms of the visual conspicuousness of residential urban extensions or employment development, and the potential number of viewers affected. The potential or otherwise for visual mitigation was taken account of. The degree of Visual Sensitivity was defined as follows:

High – Areas where there are likely to be large adverse effects from the specified type of change.

Moderate – Areas where there are likely to be no greater than moderate adverse visual effects from the specified type of change.

Low – Areas where there are likely to be only minor adverse visual effects from the specified type of change.

Having arrived at judgements about landscape character sensitivity and visual sensitivity these were then combined to determine overall landscape sensitivity as set out on Table 2.

SENSITIVITY	HIGH	MODERATE	HIGH	HIGH
CHARACTER	MODERATE	LOW	MODERATE	HIGH
LANDSCAPE	LOW	LOW	LOW	MODERATE
		LOW	MODERATE	HIGH
			VISUAL SENSITIVITY	

Table 2 – Landscape Sensitivity

To then provide an indicative landscape capacity judgement for each of the local landscape character areas, it was necessary to consider in combination with landscape sensitivity the value of the local landscape character areas taking account of tranquility, scenic beauty, cultural associations, contribution to settlement setting, and conservation interest criteria (see Appendix 1). This was considered to provide a more rigorous assessment than using local designations. The degree of landscape value was defined as follows:

High – areas with at least two of the following characteristics – tranquil, attractive, important contribution to settlement setting, or many conservation interests.

Moderate – areas with only one of the above characteristics

Low – areas with none of the characteristics identified above.

Areas of high landscape value were considered to be more likely adversally affected by the impact of urban residential extensions and employment development compared with those with moderate or low value. The way in which landscape sensitivity and value were combined is set out in Table 3 below:

FIVITY	HIGH	MODERATE	LOW	LOW
SCAPE SENSI	MODERATE	HIGH	MODERATE	LOW
LAND	LOW	HIGH	HIGH	MODERATE
		LOW	MODERATE	HIGH
			LANDSCAPE VALUE	

Table 3 – Indicative Landscape Capacity

The degree of landscape capacity was defined as follows:

- Low Capacity This local landscape character area is unlikely to be able to absorb this type and scale of development without unacceptable adverse landscape impacts or compromising the values attached to it, taking account of potential mitigation
- Moderate Capacity This local landscape character area may be able to accommodate this type and scale of development. Developments to be considered on their individual merits to ensure no unacceptable adverse landscape impacts or no compromise to the values attached to it, taking account of potential mitigation
- High Capacity This local landscape character area is in principle likely to be able to absorb this type and scale of development without unacceptable landscape impacts or compromising the values attached to it, taking account of potential mitigation

Detailed Capacity Analysis

Drawing on the outputs of the above tasks the final stage identified potential development areas, focussing on those areas identified as having a moderate and high capacity to absorb development of the specified types and scale to provide actual quantitative amounts – dwelling numbers or hectarage of employment growth that could be accommodated without unacceptable landscape impacts. This included more detailed consideration of appropriate scale, mass and height of development.

In order to estimate the specific capacity of different sites appropriate assumptions were made about land budget figures for infrastructure, different development densities, open space etc.

Finally the following were identified:

- A list of required landscape mitigation measures for all developments and specific ones needed for the relevant local landscape character areas directly or indirectly affected
- Identification of any likely residual landscape impacts on the local landscape character areas after mitigation

3 Local Landscape Character Areas - Sensitivity and Capacity Assessment

3.1 Characterisation

Consideration of landform, ecological character (Figure 1), historic character (Figure 2) and the District Landscape Character Areas (Figure 3) provided the basis for the identification of more detailed Local Landscape Character Areas (Figure 4) suitable for sensitivity and capacity analysis. The local areas are sub divisions of the district areas. The characterisation was also informed by an understanding of the contribution to character made by designated nature conservation areas, visible ancient monuments, conservation areas and historic parks and gardens and other key landscape features (Figures 5a-5f and Figures 6, 7 and 8). Generally any boundary changes are due to the more detailed scale of characterisation. However, one significant amendment has been made to the boundary between the Langley Valley and the Almshoebury Plateau/Ridge, where the district character area boundary follows a field boundary on the upper valley slopes rather than the actual ridgeline that marks the edge of the plateau.

3.2 Local Character Areas - Key Characteristics, Sensitivity and Capacity

Each local landscape character area is described below and pointers are provided to their landscape sensitivity and indicative capacity (see also Figures 9, 10, 11 and 12). The detailed range of sensitivity and capacity characteristics combined to arrive at these judgements are set out on Tables 5, 6 and 7 in Appendix 1. Cross reference should be made to the methodology in section 2. However the key characteristics identified below are the main ones that influence the sensitivity and capacity judgements.

1. Bragbury and Hooks Cross



Key Characteristics:

- Narrow valley of Stevenage Brook
- Gently undulating landform
- Parkland in valley bottom and on northern valley sides
- Dispersed roadside development
- Regular pastoral and arable fields
- Attractive small historic settlement of Bragbury End
- Visual/noise intrusion from A602 and the railway

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

2. Ladywood and Astonbury Farm



Key Characteristics:

- Gently undulating estate farmland
- Well wooded
- Well hedged
- Narrow rural lanes
- Historic house and extensive parkland of Aston Bury

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

3. Middle Beane Valley (South)



Key Characteristics:

- Narrow winding valley
- Rolling valley sides
- Medium scale arable field pattern on valley sides, some small scale pastures on valley bottom
- Small woodlands
- Network of narrow rural lanes
- Long panoramic views
- Tranquil and relatively remote
- Dispersed settlement pattern of isolated farms

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

4. Aston



Key Characteristics:

- Ridgetop nucleated historic settlement
- Parkland setting to the west
- Narrow rural lanes
- Common land/open space on Brookfield Lane
- Many mature trees

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

5. Aston End



Key Characteristics:

- Small scale field pattern of well hedged pastures
- Historic narrow rural lanes
- Scattered historic farms and dispersed early 20th century smallholdings
- Intrusive poultry farm buildings

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

6. Chells Manor Farmlands



Key Characteristics:

- Mostly plateau/ridge top lying above the Beane Valley
- Irregular hedgerowed field pattern
- Urban development of Stevenage concealed behind tree belts
- Arable fields
- Views to the Langley Valley

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

Employment development – High sensitivity and low capacity

7. Middle Beane Valley (North)



Key Characteristics:

- Wide sweeping valley with a sculptural landform
- Strongly rolling valley sides
- Large irregular fields
- Scattered small woodlands
- Panoramic views
- Tranquil and undisturbed

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

8. Walkern

Key Characteristics:

- Historic linear settlement in Beane Valley
- Small hedged paddocks
- Many mature trees and tree belts contribute to setting

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

9. Dane End and Churchend Common



Key Characteristics:

- Prominent ridge
- Large arable fields
- Occasional medium size woodlands
- Rural character
- Tranquil

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

10. Boxbury Valley



Key Characteristics:

- Very narrow tributary valley
- Extensive woodland
- Rolling valley sides
- Tranquil and undisturbed

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

11. Tilekiln and Warrens Green Farmlands



Key Characteristics:

- Small scale field pattern of hedgerowed pastures and arable fields
- Flat to gently undulating
- Intimate landscape
- Many small woodlands

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

12. Roundwood and Claypitts Farmlands



Key Characteristics:

- Medium scale field pattern of hedgerowed arable fields
- Small woodlands
- Narrow, historic rural lanes
- Localised urban intrusion

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

13. Chesfield Park



Key Characteristics:

- Historic parkland
- Chesfield Manor and Church
- Small scale field pattern of pastures around Chesfield Manor
- Narrow historic lane

Sensitivity and Capacity:

Urban extensions - high sensitivity and low capacity

Employment development – high sensitivity and low capacity

14. St Nicholas and Rook Nest Farm Valley



Key Characteristics:

- Small enclosed valley
- Hedged pasture fields
- Attractive views of St Nicholas Church and The Bury

Sensitivity and Capacity:

Urban extensions - high sensitivity and low capacity

15. North Stevenage Farmlands



Key Characteristics:

- Gently undulating arable farmland rising to ridgeline
- Open character
- Few field boundaries
- Pylon intrusion

Sensitivity and Capacity:

Urban extensions – moderate sensitivity and moderate capacity

Employment development – moderate sensitivity and moderate capacity

16. Gravely Farmlands



Key Characteristics:

- Narrow valley
- Rolling landform
- Attractive views of Gravely

Sensitivity and Capacity:

Urban extensions - high sensitivity and low capacity

17. North Lister



Key Characteristics:

- Small valley
- Visual/noise intrusion from urban development road and pylons
- Lack of field boundaries
- Patches of scrub

Sensitivity and Capacity:

Urban extensions - Low sensitivity and high capacity

Employment development – Low sensitivity and high capacity

18. Graveley



Key Characteristics:

- Historic linear settlement
- Small and medium scale field pattern
- Hedgerows and mature trees contribute to setting

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

19. West Wymondley Farmlands



Key Characteristics:

- Large arable fields
- Gently undulating topography
- Very open
- Visual and noise intrusion from A1(M)

Sensitivity and Capacity:

Urban extensions - Moderate sensitivity and capacity

Employment development – High sensitivity and low capacity

20. Great Wymondley and Wymondley Priory Farmlands



Key Characteristics:

- Medium scale field pattern
- Pasture and arable farmland
- Well hedged with hedgerow trees

Sensitivity and Capacity:

Urban extensions - High sensitivity and capacity

21. North Todds Green



Key Characteristics:

- Small enclosed fields surrounded by major roads and railway
- Significant visual/noise intrusion

Sensitivity and Capacity:

Urban extensions - Low sensitivity and high capacity

Employment development – Low sensitivity and high capacity

22. Little Wymondley



Key Characteristics:

- Nucleated settlement older linear and modern estate development
- Some large houses with parkland setting
- Visual/noise intrusion from pylons

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

23. Todds Green



Key Characteristics:

- Small scale linear development with some modern infill
- Small scale hedgerowed field pattern
- Some intrusive farm buildings and industrial uses

Sensitivity and Capacity:

Urban extensions - Moderate sensitivity and capacity

Employment development – High sensitivity and low capacity

24. Titmore Green Farmlands



Key Characteristics:

- Small to medium scale field pattern
- Hedgerowed arable and pasture fields
- Small woodlands and copses
- Linear settlement of Todds Green, scattered farms and small holdings
- Rural, mostly unspoilt character

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

25. Little Almshoe and Mill Hill Slopes



Key Characteristics:

- Rolling valley sides
- Large arable fields
- Rural character
- Very open

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

26. Almshoe Bury Plateau/Ridge

Key Characteristics:

- Plateau bounded by ridgeline to the west
- Open arable farmland
- Medium to large scale field pattern
- Industrial backdrop of Stevenage in south west
- Travellers site, former refuse tip and gas pumping station
- Visual/noise intrusion from A1(M)

Sensitivity and Capacity:

Urban extensions - Low sensitivity and high capacity

Employment development – Moderate sensitivity and moderate capacity

27. Langley Valley Eastern Slopes



Key Characteristics:

- Steep to gently undulating valley sides
- Very open
- Arable fields
- Rural character

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

28. Langley Valley Bottom



Key Characteristics:

- Narrow valley bottom
- Small scale hedged pastures
- Small airfield
- Mostly rural character

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

29. Langley Scarp



Key Characteristics:

- Steep escarpment on the western side of Langley Valley
- Many small to medium size woodlands
- Irregular arable and pasture fields
- Tranquil and unspoilt

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

30. Knebworth Woods and Norton Green

Key Characteristics:

- Extensive ancient woodland
- Small hedgerowed pastures
- Tranquil and undisturbed

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

31. Junction 7 Novotel



Key Characteristics:

- Large area of rough pasture surrounded on two sides by large ancient woodlands
- Flat landform
- Noise intrusion from the A1(M)
- Backdrop of urban development to the east
- Approach to Knebworth Park

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

Employment development – Moderate sensitivity and moderate capacity

32. Old Knebworth



Key Characteristics:

- Major historic parkland with avenues, parkland trees and parkland tree belts
- Historic settlement of old Knebworth
- Tranquil

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

33. Old Knebworth – Stevenage Road Farmlands



Key Characteristics:

- Flat to gently undulating arable farmland
- Extensive woodland
- Discontinuous field pattern
- Significant noise from A1(M)

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

Employment development – High sensitivity and low capacity

34. Knebworth - Broadwater Farmlands



Key Characteristics:

- Flat to gently undulating arable farmland
- Very open with few hedgerows or woodlands
- Glaxo campus buildings prominent in some views
- Noise from Stevenage Road and railway

Sensitivity and Capacity:

Urban extensions – Moderate sensitivity and moderate capacity

Employment growth – Moderate sensitivity and moderate capacity

35. Knebworth – Datchworth Farmlands



Key Characteristics:

- Rolling arable farmland
- Irregular field boundaries
- Very open with relatively few woodlands
- Narrow rural lanes with high grass banks
- Relatively tranquil

Sensitivity and Capacity:

Urban extensions - High sensitivity and low capacity

Employment development – High sensitivity and low capacity

3.3 Previous Assessment of Landscape Sensitivity

The report by Colin Buchanan and Partners "A Study of the Relationship Between Transport and Development in the London Stansted, Cambridge, Peterborough Growth Area" August 2004 includes general comments in section 10.11 on the landscape sensitivity of the landscape around Stevenage with a supporting plan of landscape character sensitivity.

Areas of high, moderate/high, moderate, low/ moderate sensitivity are identified on the plan. The main areas of difference from this study are as follows:

- Land around Knebworth Park and Knebworth woods – moderate sensitivity as compared with high sensitivity in this study.
- Land around Aston End High sensitivity as compared with moderate sensitivity in this study.
- Land to the north east of Stevenage Moderate sensitivity as compared with mainly high sensitivity in this study.

It is considered the differences mainly reflect the differing scale of character areas used as the basis for the sensitivity assessment. The Colin Buchanan study uses the District Landscape Character areas whereas this study identifies Local Landscape Character areas that are subdivisions of the District landscape character areas. This means that more localised differences in sensitivity can be masked in the Colin Buchanan & Partners study. This study also uses a more rigorous, transparent and detailed methodology. As such it can be argued that this assessment provides a better basis for making judgements about the degree of sensitivity of the landscape around Stevenage.

4 Potential Development Areas

4.1 Introduction

This section considers in more detail the capacity of the landscape around Stevenage to absorb urban residential extensions and employment growth, identifying specific development areas and quantifying the amount of change that may be possible. The potential development areas are all located in local landscape areas assessed in section 3 above as having a high or moderate indicative capacity. The extent of any potential development change in the areas of high or moderate capacity was influenced by more detailed consideration of appropriate extent, scale, massing, height of development and necessary landscape mitigation measures. It should be emphasised that these areas have been identified on the basis of landscape considerations. Other planning factors will influence what might be acceptable. However sites of recognised cultural and ecological importance have been avoided (see Figures 6, 7 and 8).

4.2 Overall Landscape Capacity

The total potential areas of residential urban extensions and employment development are illustrated on Figure 24 with dwelling numbers based on land budget calculations set out in Table 4.

In summary there is potential without unacceptable adverse impacts on the landscape, for:

- Approx 8,099 dwellings at a density of 30dpha
- Approx 10,796 dwellings at a density of 40dpha
- Approx 13,497 dwellings at a density of 50dpha

together with approx 28ha gross of employment development.

With regard to the urban extensions it is notable that at the higher average density of 50 dwellings per ha up to 13,347 dwellings may be possible. Indeed, per se this need not mean very visually conspicuous high rise development or compromise on ensuring a high standard of urban and landscape design. However it is considered that development beyond these potential development areas would have an unacceptable adverse impact on the landscape.

4.3 Key Landscape Mitigation Measures for all Development Areas

The above capacity figures in 4.2 assume the following general landscape mitigation and enhancement measures will be applied to the development areas:

- Creation of strong purposefully planned multipurpose greenspace frameworks compromising a network of greenspaces and linkages throughout the developments, allowing for structural planting of new woodlands, hedgerows, tree belts, as appropriate to the local landscape
- The greenspace framework in addition to providing a basis for visual and landscape character mitigation and enhancement can fulfil a range of other functions including for recreation and access, energy conservation, shelter, 'air conditioning', sustainable urban drainage etc
- Provision for smaller well planned open spaces within the residential and employment development that can allow for structural tree planting and help to achieve a better fit with the landscape
- Advance planting of woodland belts and hedgerows at least 10 years in advance of development

• High standards of urban and architectural design

Opportunities for greening buildings should also be considered e.g. green walls, roofs etc. Examples of necessary mitigation measures are shown on figures 24a-d.

The greenspace framework











High standards of urban and architectural design

POTENTIAL RESIDENTIAL DEVELOPMENT AREA	GROSS AREA	ROADS	WIDER GREENSPACE	COMMUNITY	, NET	Ō	MELLING I	Nos
	(ha)	(ha)	FRAMEWORK (ha)	(ha)	(ha)			
						30dp ha	40dp ha	50dp ha
West Stevenage (A)	152ha	15ha	25ha	24.5ha	87.5ha	2625	3500	4375
Little Wymondley and Todds Green (B)	57ha	5.7ha	9.3ha	6ha	36ha	1080	1440	1800
North Stevenage (C)	65ha	6.5ha	12ha	8ha	38.5ha	1155	1540	1925
North East Stevenage (D)	20ha	2ha	3ha	3ha	12ha	360	480	600
East Stevenage (Northern Section) (E)	38ha	3.8ha	5ha	6ha	23.2ha	696	926	1160
East Stevenage (Southern and Central Sections) (F)	51ha	5.1ha	9.5ha	7.65ha	31.25ha	938	1250	1562
South East Stevenage (G)	18ha	1.8ha	2.5ha	2.7ha	11ha	330	440	550
South Stevenage	55ha	5.5ha	10ha	gha	30.5ha	915	1220	1525
Total for all potential areas	456ha	45.4ha	76.3ha	66.85ha	269.5ha	8099	10,796	13,497
Lote 1 – Assumption of 6-8 primary s			darv schools	-				

Note 1 – Assumption of 6-8 primary schools and 2 secondary schools.

Note 2 – Community Infrastructure includes provision for schools, playing fields, healthcare and other public services.

The wider greenspace framework are the areas identified on the potential development area plans as essential for landscape Note 3 – Assumption that some open space requirements can be accommodated within the wider greenspace framework. mitigation.

Note 4 – A recent urban task force report recommends a minimum of 40dpha.

Table 4 – Land Budgets for Residential Developments

4.4 Potential Development Areas

Specific Mitigation Measures and possible Residual Impacts

West Stevenage (A) – Figure 13

Specific, essential landscape mitigation measures are:

- Extensive green space and structural woodland and hedgerow planting on the ridgeline with development set well back on the plateau, avoiding spilling out into the Langley and Almshoebury Valley sides (to prevent extensive adverse landscape and visual impact and urban development on the largely unspoilt rural character of these valleys)
- Conservation and enhancement of existing hedgerows and small woodlands
- Substantial structural planting and sensitive earth bunding along the boundary with the A1(M)
- 3 storey development maximum should be located below the 110m contour line

Possible residual landscape and visual impacts are:

- Moderate adverse impact on the Almshoebury Valley (Ridge)
- Localised slight adverse impacts on the eastern Langley Valley sides south east of Dyes Farm

It should be noted that during the preparation of this study the Secretary of State has advised that he is minded to grant permission for the planning application made by the West Stevenage Consortium for 3,600 dwellings in this location. The area of the residential development proposed differs significantly from that identified as being possible in this study in that it extends in places over the ridgeline of the Langley Valley and in particular on to the upper slopes of Little Almshoe Valley.

It is accepted that the visual impact of this development can be substantially softened by significant areas of planting proposed by the applicants. However, there will remain a large adverse impact from the intrusion of development on the tranquil and unspoilt rural character of the Langley Valley and Almshoe Valley, which overall are considered to be of high value.

Little Wymondley and Todds Green (B) - Figure 14

Specific essential landscape mitigation measures are:

- Higher parts of the land north west of Junction 8 (on A1(M)) to be retained as open space, with provision of substantial woodland belts and sensitive earth bunding adjacent to the A1(M)
- Wide new strengthened hedgerow with hedgerow tree planting on the northern boundary
- Strengthened woodland framework for employment sites north of Todds Green
- Provision of substantial structural tree belts to the boundary of the proposed residential area adjacent to Arch Road
- Conservation and enhancement of existing tree belts and copses on the southern boundary of Little Wymondley
- Provision of new green 'gateway' to Little
 Wymondley with a double avenue of forest scale trees
- Provision of new copse planting within proposed open space areas between the double pylon lines
- Residential development to be 2 storeys in height only to ensure no wider visual impact of development in the open countryside
- Low density residential development around Todds Green

Possible residual impacts are:

• Slight to moderate adverse impacts on tranquility in Little Wymondley Village

North Stevenage (C) - Figure 15

Specific essential landscape mitigation measures are:

- Creation of a framework of significant structural belts for the new employment areas north of the Lister Hospital, especially to the boundary with the A602 and Graveley Road
- Protection of the setting of Graveley with new woodland/copse planting on its southern boundary
- Creation of a new 'green' gateway to Stevenage with a wide double avenue of forest scale on the B197 running south to Old Stevenage
- Linear open space incorporating existing advance planting on the northern boundary of the development lying south west of Chesfield Park (to provide an effective transition to open countryside)
- Mostly 2 storey residential development. Maximum 3 storeys, kept below the 110m contour line (to prevent any wider visual impacts of development on open countryside)
- Off site hedgerow and hedgerow tree planting adjacent to the footpath between ten acre plantation and Gravely

Possible residual impacts are:

 Minor – moderate adverse landscape and visual impacts on Gravely farmlands until planting fully established

North East Stevenage Potential Development Area (D) – Figure 16

Specific essential landscape mitigation measures are:

• Development to be set back 30-40m from Weston Lane to conserve the distinctive character and appearance of the historic rural lane

- Sensitivity designed traffic management scheme to discourage access onto Weston Lane with main access connecting to the existing Great Ashby development
- Creation of new woodland on the western boundary to protect the setting of Chesfield Manor
- Provide linear open space to northern boundary including strengthen existing hedgerow between Claypitts Wood and Harbour Close Wood
- Off site planting in gaps of existing own tree belt between Harbour Close wood and Weston Lane

Possible residual impacts are:

• Minor – moderate adverse impacts on the character of the rural lanes in the surrounding area

East Stevenage North Section (E) - Figure 17

Specific essential landscape mitigation measures are:

- Open space to western boundary, incorporating and strengthening existing areas of advance woodland planting (to prevent wider visual impacts of urban development on the Beane Valley, conserving and enhancing its undeveloped character)
- Conservation and enhancement of the existing historic hedgerow framework
- 2 storey residential development only (see reasons above)

Possible residual impacts are:

• Minor adverse impacts on the Beane Valley until planting is fully established

East Stevenage (Central and Southern Sections) (F) – Figures 18 and 19

Specific essential landscape mitigation measures are:

- Conservation and enhancement of the existing dense pattern of historic hedgerows
- Dispersed linear pattern of development only along Long Lane to conserve and enhance existing character
- Core of open space/farmland retained between Whites Farm and Lords Farm
- New accesses created to serve development rather than from historic rural lanes which will need sensitive traffic management or designation as greenways to conserve their historic rural character
- Linear park created adjacent to Aston End Brook (see Figure 25d)
- Provision of significant structural tree planting to soften the impact of development on Aston Brook valley sides

Possible residual impacts are:

• Minor – moderate adverse impacts on the character of the rural lanes

South East Stevenage (G) - Figure 20

Specific essential landscape mitigation measures are:

- Creation of a new linear park adjacent to the A602 with substantial structural forest scale parkland tree planting to enhance the valleyside of the Stevenage Brook. Create green 'gateway' to Stevenage
- Protection of the existing landscape setting of Bragbury end with new hedgerow tree planting on the western boundary of the development

Possible residual impacts are:

• None identified

South Stevenage (H) – Figure 21

Specific essential landscape mitigation measures are:

- Creation of a major new greenspace/country park between Stevenage (Broadwater) and Knebworth to protect the landscape setting of Knebworth, to provide an effective green wedge and long term development boundary. To include significant areas of new woodland and other structural planting. There is the potential to provide new green link to Fairlands Valley Park
- Provision of a new 'green' gateway to Stevenage with a double avenue of forest scale trees along the Stevenage Road
- Significant belt of structural planting and sensitive earth binding for the area adjacent to the A1(M)

Possible residual impacts are:

• Moderate adverse visual impacts until new planting more fully established

Novotel (I) – Figure 22

Specific essential landscape mitigation measures are:

- Creation of an effective greenspace planted buffer to ecologically important woodlands
- Retention of open land on the approach to the historic Knebworth Park to protect its wider setting with creation of a new avenue tree approach
- Wooland belt planting to the boundary with the A1(M)
- High quality science/business park landscape for the employment development site

Possible residual impacts are:

• None identified

5 Conclusions and Recommendations

Extensive areas of the study area around Stevenage have been found to have a high sensitivity and low landscape capacity for urban extensions and employment growth. This includes the major Beane and Langley Valleys which are highly sensitive to employment development or urban extensions which could fundamentally alter their unspoilt rural character, their characteristic long views, and tranquility. In addition there are a range of other local landscapes with intimate small scale landscapes, or with strong historic and ecological character that are equally sensitive.

It has been possible, however, particularly around the immediate urban fringe to identify a number of potential development areas where, assuming the essential mitigation measures are implemented effectively, it should be possible to accommodate both urban extensions and employment growth of the scale envisaged in the regional plan without unacceptable adverse landscape impacts.

It is concluded that urban residential extensions and employment areas of a greater extent than those identified in the study would result in unacceptable landscape impact, including areas to the west, north and east of Stevenage. It is recommended that:

- If potential development areas are taken forward as allocations in local development frameworks, the relevant policies should incorporate the essential mitigation measures identified
- A comprehensive greenspace framework strategy is prepared for the potential development areas around Stevenage. This should set out a purposeful planned approach to greenspace planning with detailed guidance on design, engendering public involvement, and funding mechanisms
- A landscape 'led' approach to any possible future masterplan preparation is adopted

Appendix 1