

**ASSESSMENT  
OF  
DISPERSED  
GROWTH STRATEGY**

**(Option 3)**

*May 2009*

## **Contents:**

### **o) Sieve mapping**

- 65. Flood risk
- 66. Statutory environmental designations
- 67. Non-statutory environmental designations
- 68. Heritage designations
- 69. Agricultural land classification
- 70. Pipelines
- 71. Overhead power lines
- 72. Location in relation to Health and Safety consultation zones
- 73. Impact upon key environmental designations (from SA/SEA)

### **p) Infrastructure and deliverability**

- 74. Infrastructure
- 75. Deliverability

### **q) Geological Considerations**

- 76. Mineral protection areas and/or areas of search
- 77. Land contamination
- 78. Ground stability
- 79. Landfilling records
- 80. Hydrogeological sensitivity

### **r) Transport and Accessibility**

- 81. Results from Paramics Model
- 82. Wider transport assessment

### **s) Economic development and regeneration potential**

- 83. Proximity to existing employment opportunities
- 84. The adjacency principle
- 85. Scope to support Hemel 2020 Vision

### **t) Green Belt and Landscape Character**

- 86. Conformity with PPG2 criteria
- 87. Ability to promote sustainable patterns of development
- 88. Ability to Core Strategy objectives
- 89. Landscape Character Assessment
- 90. Historic Landscape Characterisation
- 91. Topography considerations

### **u) Conformity with established New Town principles**

- 92. Enable sensitive recognition of natural and historic features and landform in new layouts
- 93. Capacity to overcome features which would be damaging to the occupiers
- 94. Ability to ensure local neighbourhood's needs are met
- 95. Ability to provide access to services (which are not part of the neighbourhood)
- 96. Ability to help achieve the future vision of the town

**Maps:**

Map 1	Dispersed Growth Option
Map 2	Flood Risk
Map 3	(a) Statutory Environmental Designations (b) Special Area of Conservation (c) Tree Preservation Orders at Shendish
Map 4	Non-Statutory Environmental Designations
Map 5	Heritage Designations
Map 6	Agricultural Land Designation
Map 7	Pipelines, High Voltage Power Lines and Hazardous Sites
Map 8	Built Infrastructure
Map 9	Green Infrastructure
Map 10	Employment Locations
Map 11	Landscape Character Areas
Map 12	Transport Linkages

Option comprises land at:

- Shendish (1,100 units\*)
- West Hemel extended to include part of land at Fields End Farm (1,400 units\*)
- Wood End Farm (2,500 units\*)
- Leverstock Green (1,500 units\*)
- Marchmont Farm (300 units\*)

Total units = c6,800

\* Note: Dwelling capacities are indicative only.

**Notes:**

7. For further explanation of the issues being considered, please refer to the accompanying Methodology Statement (March 2009).
8. This document sets out the Councils' assessment of the issues as at 1<sup>st</sup> May 2009. Some information is incomplete. These gaps are not considered to be significant in terms of the forthcoming consultation. However, outstanding information will be sought prior to any decisions being made by the Councils with regard to the preferred growth option.
9. Please note that some information for land in St Albans district is not available in electronic form, so does not feature on the maps.

## **Key**

- ✓            Impact assessed as broadly positive**
- ✘            Impact assessed as broadly negative**
- Impact considered as neutral**
- ?            Impact is unclear and/or cannot be assessed at this stage**
  
- ✓ / -        Impact is a mix of positive and neutral**
- ✘ / -        Impact is a mix of negative and neutral**

For a full assessment of the economic, social and environmental impact of the growth option, and an indication of the weightings accorded to key sustainability indicators, please refer to the Sustainability Working Note prepared by independent consultants C4S.

**(a) Sieve mapping**

	Issue	Assessment	Nature of impact
1.	Flood risk	<p><b>Shendish:</b> The site falls within Flood Zone 1, denoting the lowest level of flood risk i.e. 1 in 1000 year or less for river flooding. A 'Flooding, Drainage and Potable Water Summary' has been produced by consultants Odyssey on behalf of Shendish Manor. This suggests that a pumping station may be required to convey surface water to the northern part of the site due to the topography. Attenuation could also be provided through the creation of ponds, swales and underground water storage units.</p> <p><b>West Hemel Hempstead:</b> The site falls within Flood Zone 1, denoting the lowest level of flood risk i.e. 1 in 1000 year or less for river flooding. Consideration would however need to be given to the design of any buildings to reduce the risk of localised flooding from localised ponding and runoff during an extreme flood event. A preliminary Flood Risk Assessment has been prepared for the site by consultants EPG Clear, acting on behalf of Barratts. This recommends that the existing balancing pond off Long Chaulden in the eastern section of the site is retained and/or enhanced, to prevent any deterioration in performance with regard to runoff generated by the site. As the site is located on a slope there is potential for overland flow routes to develop within the site, which could pose a flood risk to properties located on the lower sections. Overland flow routing will therefore need to be carefully considered to ensure that roads and open spaces are configured and aligned to safely convey and attenuate flooding. These are however matters for the masterplanning and detailed design stages.</p> <p><b>Marchmont Farm:</b> The site falls within Flood Zone 1, denoting the lowest level of flood risk i.e. 1 in 1000 year or less for river flooding. A flood risk assessment will however be required to demonstrate how runoff will be managed and how drainage solutions would be implemented.</p> <p><b>Wood End Farm:</b></p>	-

		<p>The site falls within Flood Zone 1, denoting the lowest level of flood risk i.e. 1 in 1000 year or less for river flooding. A flood risk assessment will however be required to demonstrate how runoff will be managed and how drainage solutions would be implemented.</p> <p><b>Leverstock Green:</b> The site falls within Flood Zone 1, denoting the lowest level of flood risk i.e. 1 in 1000 year or less for river flooding. A flood risk assessment will however be required to demonstrate how runoff will be managed and how drainage solutions would be implemented.</p> <p><b><u>OVERVIEW:</u></b> All of the sites are located in Flood Zone 1 and hence outside the flood plain. The Dispersed option therefore satisfies the requirements of the sequential test outlined in Planning Policy Statement 25: Development and Flood Risk. Appropriate Sustainable Urban Drainage Systems (SUDS) can be considered further through the detailed design and masterplanning process.</p>	
2.	<p><b>Statutory environmental designations</b></p> <ul style="list-style-type: none"> <li>(a) Special Areas of Conservation (SACs)</li> <li>(b) Sites of Special Scientific Interest (SSSIs)</li> <li>(c) Local Nature Reserves (LNRs)</li> <li>(d) Chilterns Area of Outstanding Natural Beauty (AONB)</li> </ul>	<p><b>West Hemel Hempstead:</b> The closest SAC is at Ashridge (Chilterns Beechwoods). The Appropriate Assessment (AA) Scoping Report (April 2008) considered that development of a neighbourhood (or slightly larger) to the west / northwest of Hemel Hempstead, which does not require significant new road infrastructure such as a bypass is unlikely to have a significant impact on the SAC. It would therefore not have a detrimental impact on the SCA and would therefore not trigger the requirement for a full Appropriate Assessment.</p> <p>Development at West Hemel Hempstead would bring the extended town closer to the AONB boundary. The impact of this new development would need careful mitigation through the inclusion of landscape buffering and new woodland planting. Part of Shrubhill Common, adjacent to West Hemel Hempstead is designated as a Local Nature Reserve. It will therefore be important to ensure that the biodiversity corridor is extended through any new development that takes place and into the countryside beyond.</p> <p><b>Marchmont Farm:</b></p>	-

		<p>The closest nature reserve to Marchmont Farm is Howe Grove, but this is separated from the site by the link road.</p> <p><b>Shendish, Wood End Farm and Leverstock Green:</b> No statutory environmental designations affect these areas.</p> <p><b><u>OVERVIEW:</u></b> None of the other sites that comprise the Dispersed option directly impact upon any statutory environmental designations, although longer range visual impacts of development at West Hemel Hempstead need to be carefully assessed. Does not trigger the requirement for a full Appropriate Assessment as impact on the Special Area of Conservation at Ashridge is not considered to be significant.</p> <p>See Maps 3(a) and 3(b)</p>	
3.	<p><b>Non-statutory environmental designations</b></p> <p>(g) Ancient Semi Natural Woodland</p> <p>(h) Wildlife Sites</p> <p>(i) RIGGS</p>	<p>The Nickey Line corridor to the north of the Wood End Farm site is designated as a Wildlife Site. It is an important green corridor, used as a feeding / commuting habitat for pipistrelle bats. Other bat species may also use the area in a similar way.</p> <p>One Wildlife Site (Westwick Row Wood) falls within the Leverstock Green area. This is also classified as Ancient Semi-Natural Woodland and supports a range of native tree species and ground flora.</p> <p>There are two Wildlife Sites within close proximity to the Shendish area (Phasels Wood to the west of the A41 and The Nucket south of Rucklers Lane). There are also significant areas on non-designated woodland within the site which may be of consideration and ecological value and will therefore require protection.</p> <p>Whilst development of the Dispersed option is unlikely to directly impact upon these Wildlife Sites, appropriate mitigation measures will need to be considered.</p> <p>Protected species such as badgers are known to be present in certain areas and their</p>	-



		<p>habitats will need to be carefully accommodated within any development.</p> <p>Established hedgerows are the most significant ecological feature at West Hemel Hempstead. These features can be retained and incorporated as part of the green corridors that run through the new development.</p> <p>A large number of trees and groups of trees adjacent to Shendish Manor and within the golf course are covered by Tree Preservation Orders. These trees would need to be retained and integrated into any future development. There is also extensive tree cover on other parts of the site. Although these have no statutory protection, they should also be retained and integrated where possible, as part of the landscaping scheme (see Map 3c)</p> <p>There are no RIGGS within the Dispersed option.</p> <p>See Map 4.</p>	
4.	<p><b>Heritage designations</b></p> <p>(g) Conservation Areas</p> <p>(h) Listed Buildings</p> <p>(i) Scheduled Ancient Monuments</p> <p>(j) Areas of Archaeological Interest</p> <p>(k) Historic Parks and Gardens</p>	<p><b>Shendish Manor:</b></p> <ul style="list-style-type: none"> <li>• The Manor is a Grade II Listed Building, whose setting will need to be protected. The walled garden and summerhouse and Apsley Manor Farm are also Grade II Listed.</li> <li>• The development site comprises much of the original parkland of the Manor and this would effectively be lost. This area is not however on the register of Historic Parks and Gardens.</li> <li>• Part of the site (around Shendish Manor) falls within an Area of Archaeological Significance. Whilst the presence of archaeological designation does not in itself preclude development, it would necessitate further investigation to ensure that any artefacts or finds are recorded and catalogued.</li> </ul> <p><b>Marchmont Farm:</b></p> <ul style="list-style-type: none"> <li>• Piccotts End is designated as a Conservation Area and there is also a sizeable Area of Archaeological Significance. Provided development is kept to the east side of the ridge in the landscape and supplemented by a significant new landscaped buffer, it is not considered that there will be any significant impact on either of these designations.</li> </ul>	*

		<p><b>West Hemel Hempstead:</b></p> <ul style="list-style-type: none"> <li>• Winkwell to the south is a Conservation Area. However, all but a very small section adjacent to Primrose Cottage is on the other side of the railway line.</li> <li>• There is also an Area of Archaeological Significance at Winkwell, but as this is separated from the proposed development area by the railway line, there is unlikely to be any impact upon this. The area is considered to have limited archaeological potential. The only exceptions are the possible line of a Roman Road along Chaulden Lane and some evidence of agricultural exploitation of the landscape in the Roman period.</li> <li>• Boxted Farm, to the north of the site outside of the development area is a Grade II Listed Building. Development would need to ensure that the setting of the buildings is protected and a degree of physical separation maintained.</li> </ul> <p><b>Wood End Farm and Leverstock Green:</b></p> <ul style="list-style-type: none"> <li>• There are number of Grade II Listed Buildings within these areas. These are predominantly agricultural buildings dating from the medieval period through to the 19<sup>th</sup> century. This includes a number of buildings at Corner Farm and Westwick Row.</li> <li>• There are two Areas of Archaeological Significance within or adjacent to the site boundaries (the Iron Age Aubreys Camp and the Roman Temple at Wood Lane End). Neither would be impacted upon by the development.</li> </ul> <p>See Map 5.</p>	
5.	<b>Agricultural land classification</b>	<p>All of the development locations with each of the three growth options are currently used for agricultural purposes. An area adjacent to Wood End Farm is Grade 2. The remainder is Grade 3(a) or 3(b).</p> <p>See Map 6.</p>	-
6.	<b>Pipelines</b>	<p>Wood End Farm is the only area directly affected by the presence of underground pipelines that serve the Buncefield Oil Depot. These pipelines would need to incorporate a 'buffer zone' to enable access for future repair and maintenance. This buffer zone could form part of</p>	-

		<p>the greenspace network for the neighbourhood. Whilst these pipelines do therefore not preclude the development of a new neighbourhood in this location, they do have an impact upon the land area available. This has the effect of pushing the boundary of the residential area further north and east.</p> <p>Within the Leverstock Green area the pipeline runs close to the M1. As this corridor area would be required as landscape / noise buffer to mitigate against the impact of motorway traffic, the pipelines would not have an impact upon development the wider site – either in terms of capacity or layout.</p> <p>Entec have informed the Councils that as part of the deed of grant relating to pipelines crossing the Crown Estate land, there is provision for diverting some sections if necessary.</p> <p>See Map 7.</p>	
7.	<b>Overhead power lines</b>	<p>A high voltage (400kV) transmission line runs through the proposed development area at Wood End Farm. National Grid has confirmed to Entec, the agents acting for the landowner, that due to environmental, technical and cost reasons they prefer to retain these lines in situ and encourage developers to plan and design their development taking the presence of the overhead lines into account. There may however be exceptional circumstances where the ‘under-grounding’ of existing power lines may be considered, although this would have significant cost implications. There is no current statutory guidance relating to the proximity of residential development to high voltage lines. The inclusion of a 50m buffer is however considered to be ‘good practice.’ The extensive nature of the Crown Estate’s landholdings in this location means that consideration can be given to the relocation of these lines, subject to the agreement of the National Grid.</p> <p>A radio mast is located along the footpath that passes through the centre of the West Hemel Hempstead site. This could either be repositioned outside of the site, or accommodated within the development layout.</p> <p>See Map 7.</p>	-

8.	<b>Location in relation to Health and Safety consultation zones</b>	<p>None of the areas are affected by the Health and Safety Executive's current consultation zones relating to the Buncefield Oil Depot.</p> <p>Much of the area proposed for employment growth – which is common to all three growth scenarios - does fall within these buffer zones. However, only a small area is within the recently defined 'Development Proximity Zone' where new built development of any form is not advised. The majority lies within the outer zones, where employment development is permissible, subject to a sliding scale of constraints regarding size of buildings and number of employees.</p> <p>See Map 7.</p>	-
9.	<b>Impact upon Key Environmental designations (from SA/SEA)</b>  (s) Chilterns Area of Outstanding Natural Beauty (AONB) (t) Special Area of Conservation (SAC) (u) Site of Special Scientific Interest (SSSI) (v) Local Nature Reserve (LNR) (w) Semi-Natural Ancient Woodland (x) Historic Parks and Gardens (y) Scheduled Ancient	<b>(a) Chilterns AONB</b> None of the sites that comprise the Dispersed option falls within the Chilterns Area of Outstanding Natural Beauty (AONB). If developed as a full neighbourhood (or slightly more), land at West Hemel Hempstead would bring the extended town significantly closer to the AONB boundary. The impact of this new development would need careful mitigation through the inclusion of landscape buffering and new woodland planting.  <b>(b) Special Area of Conservation (SAC)</b> None of the land that comprises the Dispersed option falls within the SAC. The closest SAC is at Ashridge (Chilterns Beechwoods). The Appropriate Assessment (AA) Scoping Report (April 2008) considered that development of a neighbourhood (or slightly larger) to the west / northwest of Hemel Hempstead, which does not require significant new road infrastructure such as a bypass, would not trigger the requirement for a full Appropriate Assessment. The level of development put forward in this location for the Dispersed option comprises a development only slightly larger than one of our standard neighbourhood buildings blocks and does not include proposals for a bypass. Full AA is therefore not required, as it is not considered that development will have a detrimental impact upon the Special Area of Conservation.	-

	<p>Monument (SAM) (z) Floodplain</p>	<p>No other locations within the Dispersed option are considered to have an impact on the Chilterns SAC.</p> <p><b>(aa) Sites of Special Scientific Interest (SSSIs)</b> Part of Shrubhill Common, which lies adjacent to West Hemel Hempstead is designated as a SSSI.</p> <p><b>(bb) Local Nature Reserves (LNRs)</b> Shrubhill Common, adjacent to West Hemel Hempstead is a LNR. This green wedge would need to be continued through the site to maintain the existing countryside link.</p> <p><b>(cc) Semi-Natural Ancient Woodland</b> <b>(dd) Historic Parks and Gardens</b> <b>(ee) Scheduled Ancient Monuments (SAMs)</b> <b>(ff) Floodplain</b></p> <p>For consideration of these issues, please refer to Section 1 (flood risk), 3 (Non-Statutory environmental designations) and 4 (heritage designations).</p> <p>See Maps 2, 3 and 4.</p>	
--	--	--	--

## (b) Infrastructure and Deliverability

	Issue	Assessment	Nature of impact
10.	<p><b>Infrastructure</b> To include consideration of the following:</p> <ul style="list-style-type: none"> <li>▪ Are there places available in existing schools which can meet some of the future requirements?</li> <li>▪ Is there sufficient green infrastructure to meet future requirements; or can appropriate provision be made as part of new development?</li> <li>▪ How are increased requirements covered by current planned investment and to what extent can these meet the requirements of new development?</li> <li>▪ What are the thresholds to make specific infrastructure viable?</li> <li>▪ Conclusions of the Hertfordshire Infrastructure and Investment Study (HIIS)</li> </ul>	<p><b>Shendish:</b></p> <ul style="list-style-type: none"> <li>• The nearest primary schools (Two Waters and Nash Mills) are both operating at full capacity. The development of a new neighbourhood in this location would therefore necessitate the creation of a two-form school – either through the expansion of Two Waters School on its existing site, or through the provision of a new school to serve both the new development and the Manor Estate.</li> <li>• Although there is currently no doctors surgery in Apsley, a new surgery building has planning permission in the Apsley Local Centre as part of a mixed use development. This will accommodate an existing doctors’ practice, but will enable its expansion.</li> <li>• A new railway bridge will be required to enable site access to meet Highway Authority standards. Initial discussions with Network Rail, the Highway Authority and agent representing the developer have indicated that there are no overriding reasons why this key structure cannot be provided.</li> <li>• The Highway Authority have raised concerns that a new junction with London Road would however require a significant land take and would therefore need further consideration to ensure that sufficient space is available on land which either the Shendish Estate or Highway Authority own.</li> <li>• In terms of green infrastructure, the site is of sufficient size to enable the provision of appropriate new open space and woodland planting to ensure the retention of green links with the adjacent countryside.</li> </ul> <p><b>West Hemel Hempstead:</b></p> <ul style="list-style-type: none"> <li>• New small-scale health facilities (i.e. a GP surgery) would be required as part of the new neighbourhood, as access to existing facilities within the town is poor and there is insufficient spare capacity. Some small-scale retail provision will be required to meet local needs.</li> <li>• Development would require additional primary school provision. This could be provided</li> </ul>	-

		<p>through the relocation of an existing one form entry school (Pixies Hill) to create a new two form entry school to serve both the existing and new development, or through utilising space capacity at Chaulden School, which is a 2 form entry school currently operating at less than 1 form entry capacity.</p> <ul style="list-style-type: none"> <li>Initial draft masterplans drawn up by the landowners show the inclusion of areas of new planting and open space as part of the proposed development. In terms of green infrastructure, the area is of sufficient size to allow the main part of the dry valley adjoining Fields End to be retained as a link to Shrubhill Common (a Local Nature Reserve and important wildlife corridor connecting the town with the countryside beyond. A new 30m tree belt was planted by one of the landowners in 2004/5 and runs through the centre of the site. This will help break up and screen new development and also act as an ecological corridor.</li> </ul> <p><b>Marchmont Farm:</b></p> <ul style="list-style-type: none"> <li>This development is of limited size and will therefore not provide the range of services and facilities assumed for a new neighbourhood. Rather it will be treated as an extension to the existing neighbourhood of Grovehill. The increase in population would however require the improvement and/or extension of existing facilities. Primary school arrangements are still being discussed with Hertfordshire County Council. One option is for Aycliffe Drive primary school to be enlarged to two-form entry. There is scope to extend the existing school onto the adjacent park, but this would require compensatory open space provision within the new development site.</li> <li>In addition to the potential expansion of the existing open space, significant boundary screening will be required to maintain physical and visual separation from Piccotts End.</li> </ul> <p><b>Wood End Farm:</b></p> <ul style="list-style-type: none"> <li>Brockswood School could relocate to create a new 2 form entry school. The current preference of Hertfordshire County Council is however for a new 3 form entry school to be provided to serve the new development.</li> <li>Development to the east of the town provides scope to accommodate significant new green infrastructure and this forms an integral part of the Gorhambury Concept put forward for this area by the Crow Estate. The masterplan submitted for the site shows a</li> </ul>	
--	--	---	--

		<p>network of green corridors linking this site with existing green spaces, the countryside beyond, and the proposed new development at Leverstock Green. The integrity of the dry valley that runs to the north of the site will be retained, as it is excluded from the development area. Further open space provision can be accommodated in the north eastern section, to provide a green buffer between the expanded town and Redbourn to the north.</p> <p><b>Leverstock Green:</b></p> <ul style="list-style-type: none"> <li>• There are several options for ensuring appropriate primary school capacity in this area. Leverstock Green School could be expanded to 2 form entry, or a larger replacement school provided as part of the new development. Hertfordshire County Council's current preference is for the current school to remain and a new 2 form entry school to be provided in addition.</li> <li>• There is currently a lack of GP surgery provision within the Leverstock Green area. This current deficit would need to be taken into account when planning provision for any new development.</li> <li>• The masterplan submitted for the site shows a network of green corridors linking this site with existing green spaces and the countryside beyond. It will be important to retain a 'green approach' to the town when arriving from the south, through the creation of appropriate landscaping and open space. The scope to provide this within the Dispersed option is less than for the Eastern option, where a larger area of land is being considered for development in this location</li> <li>• The reduced size of the site in this location, compared to that contained within the Eastern option may have implications for its ability to comfortably accommodate key town-wide infrastructure and significant areas of new woodland planting and public open space.</li> </ul> <p><b><u>OVERVIEW:</u></b></p> <p>The Hertfordshire Infrastructure and Investment Study (HIIS) does not lead to any firm conclusions regarding any of the growth options.</p> <p>Discussions regarding schooling are still ongoing with the Local Education Authority (Hertfordshire County Council), but it is clear that appropriate primary school provision can be</p>	
--	--	---	--



		<p>made within the new development. The Dispersed nature of the development may however make it harder for the Hertfordshire County Council policy of providing 2 form entry primary schools with on-site nursery provision harder to follow.</p> <p>Whilst the neighbourhood configuration allows for the provision of essential local facilities, such as primary schools and doctors surgeries, (subject to future detailed discussions with relevant service providers), consideration also needs to be given to the ability of the growth option to accommodate more significant infrastructure, such as a reserve secondary school site, a new cemetery and a town stadium. These more strategic pieces of infrastructure, which are of town-wide importance, are more easily accommodated where there is a larger agglomeration of new development. This is considered to be a significant disadvantage of the Dispersed option.</p> <p>A Dispersed form of development also makes it more difficult for the neighbourhoods to deliver a wide range of local services and facilities – and through this improve their sustainability credentials by reducing the need to travel.</p> <p>See Maps 8 and 9.</p>	
11.	<p><b>Deliverability</b></p> <p>To include consideration of the following:</p> <ul style="list-style-type: none"> <li>▪ the willingness of landowners to bring land forward for development</li> <li>▪ the level of co-operation between landowners on sites that are in more than one ownership</li> <li>▪ the viability of the development, particularly with regard to provision of</li> </ul>	<p><b>Shendish:</b></p> <ul style="list-style-type: none"> <li>• Interest in developing this area of land goes back many years, and was actively pursued at the last Local Plan Inquiry.</li> <li>• Land split within 3 separate land ownerships – Shendish Manor, Fairfields and Porterfield. There is verbal commitment between these landowners to work together to bring forward comprehensive and co-ordinated development on the wider site. During 2007 the owners off the two largest land parcels (Shendish Manor and Fairfields) were working on a more formal collaboration agreement to cover the joint promotion of the land for development. Whilst this has not progressed, both parties continue promote their land either as stand-alone allocations or as part of a wider scheme.</li> </ul> <p><b>West Hemel Hempstead:</b></p> <ul style="list-style-type: none"> <li>• Land ownership is split, but there appears to be a willingness for landowners / developers</li> </ul>	✓

	<p>key infrastructure</p> <ul style="list-style-type: none"> <li>▪ flexibility of options – in terms of phasing options and capacity to accommodate appropriate non-residential uses.</li> <li>▪ the likelihood of sites actually progressing from designation to dwelling construction at the required rate.</li> <li>▪ relative costs</li> </ul>	<p>to work together to bring forward a comprehensive and co-ordinated development. The northern part of site is owned by the Gardener family (who have extensive landholdings and farm locally). Taylor Wimpey have an option on part of this land. There is not known to be any current housebuilder involvement on the most northerly section of the Gardener land (adjacent to Fields End Farm), although the land is being actively promoted by agents acting on behalf of the family. The southern section of this area, formerly owned by the Proctor family, is now owned by Barratts, with a small area in the ownership of Hertfordshire County Council.</p> <p><b>Marchmont Farm:</b></p> <ul style="list-style-type: none"> <li>• Site is in two ownerships – Gleeson Homes and the Homes and Communities Agency (a central Government body), who are working in close partnership to progress the development of the two land parcels. HCA have indicated their desire to bring forward an exemplar scheme in terms of sustainability, which could be used to set the benchmark for future development within the town. HCA have expressed their willingness to consider potential cross-subsidy of the Gleeson land to ensure this objective is met.</li> </ul> <p><b>Wood End Farm and Leverstock Green:</b></p> <ul style="list-style-type: none"> <li>• Land owned by The Crown Estate. The Homes and Communities Agency (HCA) also have an interest in the area due to potential linkages with their land holdings. This area has actively been promoted for a high quality, mixed use, sustainable urban extension to Hemel Hempstead over a number of years. This proposal is known as the Gorhambury Concept. The land included within the dispersed option includes a significant amount of this Gorhambury land. Joint working between The Crown and the HCA would bring significant benefits in terms of the future funding of infrastructure and the emphasis upon maximising the sustainability credentials of the development. It would also assist delivery.</li> </ul> <p><b><u>OVERVIEW:</u></b>  All landowners and/or appointed agents and housebuilders are actively involved in bringing forward their sites for development. All have positively engaged with the Council in terms of their attendance at landowner meetings to discuss the growth agenda and have shown a willingness to enter into open discussions and share technical work. All have engaged in at</p>	
--	--	--	--

		<p>least initial discussions with adjoining landowners where ownership of a site is split. Deliverability of the individual sites that comprise the Dispersed option is therefore assessed to be very good.</p> <p>Adopting a dispersed approach could make it easier to develop neighbourhoods with distinctive characters and qualities, due to the influence of their different surroundings. It would also provide greater locational choice for those looking to buy a new property within the area. These factors could help ensure that schemes come on-stream as programmed over the plan period. The dispersed option could however be more complex to manage for service providers as opposed to the northern and eastern options where development is in larger agglomerations.</p> <p>The delivery of sites would need to be carefully planned to ensure that for each neighbourhood the key non-residential elements (such as the community facilities, schools and GP services) come on-stream at the appropriate time and does not overburden existing provision in the interim. Establishing a clear phasing for sites throughout the plan period i.e. to 2031 would help prevent these problems arising.</p> <p>Whilst development at Wood End Farm and Leverstock Green would necessitate a new eastern relief road, the cost of this could be borne by the development and would be significantly lower than for the northern bypass. The environmental impact would also be less than for a bypass as it would be of a smaller scale and integrated into the development scheme.</p>	
--	--	--	--

**(c) Geological considerations**

	<b>Issue</b>	<b>Assessment</b>	<b>Nature of impact</b>
<b>12.</b>	<b>Mineral protection areas and/or areas of search</b>	None of the areas are affected by any minerals designations.	-
<b>13.</b>	<b>Land contamination</b>	<p><b>Shendish:</b> Dacorum Borough Council's Environmental Health team has no records of any potentially contaminative former uses on the site.</p> <p><b>West Hemel Hempstead:</b> Dacorum Borough Council's Environmental Health team has no records of any potentially contaminative former land uses on the site, although there is a potentially infilled old chalk pit and a few potentially infilled agricultural ponds within the site boundary.</p> <p><b>Marchmont Farm:</b> Dacorum Borough Council's Environmental Health team has no records of any potentially contaminative former land uses on the site.</p> <p><b>Wood End Farm and Leverstock Green</b> Dacorum Borough Council's Environmental Health team has no records of any potentially contaminative former land uses within the Dacorum part of the site. However, most of this area is within the St Albans district. Therefore St Albans Council's Environmental Health department may hold information that may be of use. Historical maps show the presence of 'Cherrytrees Hospital (Infectious Diseases)' on the current Cherrytree Farm site. Otherwise contamination risk is considered to be low and commensurate with any land that has been in agricultural use.</p> <p><b><u>OVERVIEW:</u></b> No significant issues raised which cannot be overcome through appropriate mitigation and remediation.</p>	-
<b>14.</b>	<b>Ground stability</b>	No known issues.	-

15.	<b>Landfilling records</b>	See Section 13 (Land Contamination). No significant issues raised which cannot be overcome through appropriate mitigation and remediation.	-
16.	<b>Hydrogeological sensitivity (i.e. groundwater / aquifer protection zones)</b>	<p>All sites except Shendish fall within Zone 3 of the Groundwater Protection Zone (with Zone 1 being the most sensitive). Zone 3 is known as the 'Total Catchment Area.' The Environment Agency define the Total Catchment Area as the total area needed to support removal of water from the borehole and to support any discharge from the borehole.</p> <p>Shendish falls within Zone 2 (Outer Zone), which is a slightly more sensitive area in terms of groundwater protection. This means that extra precautions would need to be put in place to prevent pollution entering the groundwater.</p>	-

**(d) Transport and Accessibility**

	<b>Issue</b>	<b>Assessment</b>	<b>Nature of impact</b>
17.	<b>Results from Paramics Model</b>	Full results not yet available. Please see separate report relating to Future Year Model run outputs (relating to impact of growth within existing town boundaries).	?
18.	<p><b>Wider Transport Assessment</b></p> <p>To include an initial assessment of the following:</p> <ul style="list-style-type: none"> <li>▪ Accessibility – including on foot and by cycle</li> <li>▪ Public transport routes and their potential for dealing with growth</li> <li>▪ Ability of locations to be served by all modes of travel</li> <li>▪ Quality of the routes linking new development to town centre and other key locations</li> <li>▪ Capacity of existing roads and services</li> </ul>	<p>Advice from Hertfordshire County Council is as follows:-</p> <p><b>Shendish:</b> The development will require the introduction of a bus link into the adjacent Manor Estate to allow buses to travel through the area.</p> <p>The development benefits from direct access to Apsley Rail station.</p> <p>A development of this scale will generate significant amounts of traffic. The Apsley area is already heavily congested with few opportunities to increase capacity.</p> <p>The development is near to local facilities, and relatively near to the town centre. There are opportunities to provide dedicated cycle routes to the town but they will need to negotiate many existing barriers in terms of restricted road junctions and narrow sections of highway, as a result a route to connect this area with the town centre is unlikely to be of a high quality.</p> <p>There have been previous disputes with the Land Registry regarding ownership of part of the Shendish Driveway verge, with both Shendish Manor and the residents of Shendish Edge claiming ownership. This could impact upon the ability of the owners of Shendish Manor to widen the access road to the site and improve the junction with London Road. If development were to be proposed in this location this potential issue would need to be resolved.</p> <p><b>West Hemel Hempstead:</b> There is an opportunity to introduce a cycle route to connect with the town centre but it will need to negotiate many existing barriers in terms of restricted road junctions and narrow sections of highway, as a result a route to connect with the town centre is unlikely to be of a high quality.</p>	?

		<p>The area is not highly accessible by the existing bus service. The existing local services are hindered by the layout of the Warners End and Gadebridge. Extending the existing services will add to the journey times. There is minimal opportunity for bus priority measures towards the town centre and the approaches to the town from this direction suffer from significant congestion in the peak hours.</p> <p>The nature of the road network in the adjacent residential areas consists of quite narrow local access roads designed to serve the existing layout and due to their characteristics they may not be suitable to accommodate a significant increase in through traffic.</p> <p><b>Wood End Farm and Leverstock Green:</b> It is assumed that the New road infrastructure in the form of an eastern link road connecting the A414 (Breakspear Road) and the A4147 (Hemel Hempstead Road) will still be provided. A development of this scale will generate significant traffic, it will be necessary to increase the capacity of the existing road network.</p> <p>The development offers the opportunity to introduce major improvements to the bus services and infrastructure in the area. Any design must incorporate through routes to enable residents to directly access both local and interurban bus services.</p> <p>Although a development in this area extends Hemel Hempstead further to the east away from the town centre and rail station, there is relatively good direct access to the main routes with the opportunities to introduce quality cycling and pedestrian access throughout the town and links to the nearby Maylands area.</p> <p><b>Marchmont Farm:</b> A development in this area will have direct vehicular connection to the adjacent residential area. However, direct cycling and pedestrian access to the Link Road may also be possible which will provide opportunities to direct access to local and interurban bus services and to a cycling route to the town centre and the Maylands area.</p>	
--	--	--	--

		<p>The nature of the road network in the adjacent residential areas consists of quite narrow local access roads designed to serve the existing layout and due to their characteristics they may not be suitable to accommodate a significant increase in through traffic.</p> <p><b><u>OVERVIEW:</u></b> At this stage the locations of the site accesses have not been determined therefore it is difficult to predict the likely impact of the Option on the surrounding road network.</p> <p>See Map 12.</p>	
--	--	---	--



**(e)Economic development and regeneration potential**

	Issue	Assessment	Nature of impact
19.	<b>Proximity to existing employment opportunities</b>	<p><b>Shendish:</b> One of the furthest locations from the main employment area at Maylands. However, accessibility will be improved with the wider town if a new bus link is created through the Manor Estate. The smaller employment areas in Two Waters and Apsley and the Apsley local centre are accessible by non-car modes. Apsley railway station is also close to the site and could provided a sustainable form of transport for commuters.</p> <p><b>West Hemel Hempstead:</b> Poorly located in respect of existing employment opportunities. Detailed consideration will need to be given to new bus routes connecting the area with the town centre, railway station and employment areas to ensure car-borne travel is minimised.</p> <p><b>Marchmont Farm:</b> Reasonable accessibility to employment opportunities at Maylands and the town centre.</p> <p><b>Wood End Farm:</b> The closest area to the main employment opportunities at Maylands, but relatively distant from the town centre and railway stations. Would be close to the proposed park and ride facility at Maylands, which could assist with promoting public transport access to the town centre and railway station</p> <p><b>Leverstock Green:</b> Majority of the site assessed to have relatively good accessibility to employment opportunities at Maylands. Would be close to the proposed park and ride facility at Maylands, which could assist with promoting public transport access to the town centre and railway station.</p> <p><b><u>OVERVIEW:</u></b> Three of the five areas within the Dispersed option are considered to be within relatively easy</p>	- / ✓

		<p>distance of the main employment area, and could therefore enable access by foot or bicycle. The remaining two sites are more peripheral, although other employment opportunities are available within the town centre, local centres and/or the smaller employment areas.</p> <p>The new neighbourhoods will provide additional local employment opportunities, although these are expected to be limited in both their range and scale.</p> <p>See Maps 8 and 10.</p>	
20.	<b>The adjacency principle (i.e. potential to impact positively on neighbouring areas)</b>	<p><b>Shendish:</b> Development here is not expected to have a significant beneficial impact in terms of ‘uplift’ for neighbouring areas, as these are already relatively prosperous (i.e. Manor Estate and Rucklers Lane).</p> <p><b>West Hemel Hempstead:</b> Development here is not expected to have a significant beneficial impact in terms of ‘uplift’ for neighbouring areas, as these are already relatively prosperous (i.e. Chaulden and Warners End)</p> <p><b>Marchmont Farm:</b> The site is located to Grovehill, one of the most deprived wards within Hemel Hempstead. There is therefore considerable scope for new development to assist with the regeneration of this existing neighbourhood. Of particular importance could be the positive impact upon the regeneration and / or viability of the local centre.</p> <p><b>Wood End Farm:</b> Development here is not expected to have a significant beneficial impact in terms of ‘uplift’ for neighbouring areas, as these are already relatively prosperous.</p> <p><b>Leverstock Green:</b> Development here is not expected to have a significant beneficial impact in terms of ‘uplift’ for neighbouring areas, as Leverstock Green is one of the more prosperous areas of Hemel Hempstead.</p>	?

		<p><b><u>OVERVIEW:</u></b> Impact difficult to assess, but considered to be relatively limited in terms of uplift of existing residential areas. Refer also to consideration of ability to support Hemel 2020 (Section 21 below).</p>	
21.	<p><b>Scope to support Hemel 2020 Vision</b></p>	<p><u>Neighbourhood centres</u> The development at Marchmont Farm should assist with ensuring the continuing vitality and viability of the local centre at Grovehill. As the other locations will comprise new neighbourhoods, they are not expected to have any direct impacts (positive or negative) on the town's existing neighbourhood structure.</p> <p><u>Waterhouse Square and Wider town centre</u> An increase in the town's population should help ensure the viability of existing town centre uses and encourage the provision of improved facilities included as part of the proposed Waterhouse Square development. This benefit is assessed to be equal for all three growth options.</p> <p><u>Green spaces</u> All neighbourhoods and extensions to neighbourhoods will be expected to make appropriate open space provision. This should include the continuation of any existing green links / biodiversity corridors connecting the town with the open countryside. The Dispersed approach does not however offer the same scope for the provision of a significant new area of open space that could be provided as part of a more agglomerated form of growth, as set out in the Northern and Eastern options.</p> <p><u>Maylands regeneration</u> All 3 growth scenarios assume that additional employment land will be provided on land to the east of the existing industrial area. The expansion of this employment area will assist with the regeneration of Maylands by providing expansion opportunities for existing businesses, new space to accommodate new employment development and the opportunity to provide other facilities (such as park and ride provision and a green energy centre). This will benefit both new and existing businesses. The expansion of the town will also result in an increase in the size of the local workforce and, if planned properly, boost services and facilities within the town, which will attract highly skilled workers to the area. Eastern relief road could assist in alleviating some existing traffic congestion problems in Maylands, which has a detrimental impact upon the area's image and</p>	-

		<p>attractiveness. This impact will become clearer following the results of the Paramics transport model (see Section 17).</p> <p><b><u>OVERVIEW:</u></b> Impact difficult to assess with any certainty at this stage, but considered to be relatively significant on a town-wide basis.</p>	
--	--	--	--

**(f) Green Belt and Landscape Character**

	Issue	Assessment	Nature of impact
22.	<p><b>Conformity with PPG2 criteria:</b></p> <ul style="list-style-type: none"> <li>xi. to check the unrestricted sprawl of large built-up areas;</li> <li>xii. to prevent neighbouring towns from merging into one another;</li> <li>xiii. to assist in safeguarding the countryside from encroachment;</li> <li>xiv. to preserve the setting and special character of historic towns; and</li> <li>xv. to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.</li> </ul> <p><b>Impact upon width of remaining Green Belt and ability to create</b></p>	<p><b>Shendish:</b></p> <ul style="list-style-type: none"> <li>• The railway line currently provides a firm boundary between the Green Belt and town. This boundary would be breached, although the A41 would create a new boundary to the south.</li> <li>• Development in this location would effectively merge Hemel Hempstead with the settlement at Rucklers Lane.</li> </ul> <p><b>West Hemel Hempstead:</b></p> <ul style="list-style-type: none"> <li>• There would be no actual merging, but there would be limited physical separation with Winkwell, Bourne End and Potten End. The impact upon Potten End would be greater for the enlarged development area within the Dispersed option, than for the smaller area under consideration as part of the Eastern option.</li> <li>• Shape of the site reduces the impact of development and prevents urban sprawl.</li> <li>• The railway line forms a physical barrier to the south and Pouchen End Lane would provide a new boundary to the west and north.</li> </ul> <p><b>Marchmont Farm:</b></p> <ul style="list-style-type: none"> <li>• Scale of development needs to be restricted to ensure the impact on Piccotts End Conservation Area is reduced and a clear green buffer is retained between the new development and this small settlement.</li> </ul> <p><b>Wood End Farm:</b></p> <ul style="list-style-type: none"> <li>• Clear Green Belt boundary formed by M1 and Redbourn Road.</li> <li>• Development would link with land currently allocated for (employment and residential) development within the adopted Local Plan.</li> </ul> <p><b>Leverstock Green:</b></p> <ul style="list-style-type: none"> <li>• Clear Green Belt boundary to the east formed by M1.</li> </ul>	- / ✓

	<p><b>new defensible Green Belt boundaries.</b></p> <p><b>To prevent settlements from merging.</b></p>	<ul style="list-style-type: none"> <li>Extent of development to the south needs to be considered to prevent merging with Pimlico (in Three Rivers District)</li> </ul> <p><b><u>OVERVIEW:</u></b></p> <p>All three growth options will result in the loss of Green Belt land and significant change to existing Green Belt boundaries. Green belt land is only being considered as there is insufficient land to accommodate growth needs within the existing town boundary. None of the sites that comprise the Dispersed option extend arbitrarily into the open countryside.</p> <p>The Dispersed option would result in the breaching of existing Green Belt boundaries and a reduction in Green Belt land in five separate locations around the town. An assessment will need to be made as to whether this is more or less damaging to the future role and integrity of the Green Belt than a more significant change in a more concentrated area(s). Whilst all locations would be able to provide clear boundaries, using woodland edges or existing roads, the strength and robustness of these boundaries is variable.</p> <p>No merging of towns or villages would occur as a result of following the dispersed approach to growth. Several hamlets and small-scale settlement would however be significantly affected or subsumed and in effect become part of greater Hemel Hempstead. This would obviously have a significant impact upon their individual and unique characteristics.</p> <p>The development of land at Wood End Farm could however help promote the development of adjacent sites already allocated within the Local Plan for employment and residential uses (Sites H18, E4 and H41). The Landscape Character Assessment considers the land adjacent to the M1 to be of lesser landscape quality than elsewhere around the town.</p> <p>See also discussion under Sections 4 (heritage designations), 20 and 21 (regeneration)</p>	
23.	<p><b>Ability to promote sustainable patterns of development</b></p>	<p>Neighbourhood based growth is inherently a relatively sustainable form of development. However, some concerns are raised regarding the ability of a dispersed form of development to accommodate key infrastructure, which is associated with growth and wider town regeneration. To be truly sustainable, this infrastructure should be located close to the population it will serve. The distance</p>	-

		between some of the areas and the main employment areas and town centre is also a sustainability issue.	
24.	<p><b>Ability to support Core Strategy objectives which seek to prevent</b></p> <p>(g) merging of settlements</p> <p>(h) substantial intrusion into open countryside and development which is poorly related to the town</p> <p>(i) extensive building along prominent open countryside in the Gade and Bulbourne valleys</p>	<p>See Sections 22 (Conformity with PPG2 criteria) and 25 (Landscape Character Assessment).</p> <p>Development at Wood End Farm and Leverstock Green will have no impact either upon the Gade or Bulbourne Valleys. Whilst it would have some impact upon the Bulbourne Valley, the elongated shape (north-south) of the proposed development at West Hemel Hempstead ensures that it avoids extensive building (east-west) along the valley sides.</p> <p>Shendish also occupies a sensitive valley-side location. Although narrower north-south, the site is wider (east-west) than West Hemel Hempstead. The physical extent of building along the valley side is therefore perceived to be greater. The sensitivity of the site is increased by virtue of its proximity to the Listed Building and the associated parkland. The impact upon the valley sides for both sites can also be mitigated through the inclusion of woodland planting and the careful positioning of open space on the more prominent areas.</p> <p>Due to its restricted size, the impact of development at Marchmont Farm on the wider Gade Valley is assessed to be localised and limited.</p> <p>See Maps 3, 4 and 11.</p>	- / ✘
25.	<p><b>Landscape Character Assessment</b></p>	<p><b>Shendish:</b>  <i>Located in Area 8 – Upper Gade Valley.</i>  Characterised by steep valley sides, falling away from the plateau above to the valley floor below. Key characteristic identified as medium-scale parklands overlooking the valley. Report notes that there are a few areas of calcareous grassland on the slopes adjacent to Rucklers Lane. Shendish Manor identified as an important feature of the local built form. The character of the valley is uncommon within the county. The community regards the area around Shendish Manor as a distinctive landscape. The overall strategy proposed is to ‘Improve and Conserve.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• providing planting to minimise the impact of existing built development up the valley sides;</li> </ul>	- / ✘

		<ul style="list-style-type: none"> <li>• ensuring that design proposals for minor roads fit the grain of the local landscape and avoid significant impact on the local field patterns and hedgerows; and</li> <li>• conserve and enhance the distinctive character of individual buildings.</li> </ul> <p><b>West Hemel Hempstead:</b>  <i>Southern section located in Area 118 – Lower Bulbourne Valley.</i>  Area characterised by a narrow valley floor with steeply sloping valley sides. Most of the area is stated to have no species of particular note, with the valley slopes characterised by large prairie fields with few hedges and narrow verges. Key buildings within Hemel Hempstead, such as the Kodak tower, are intermittently visible throughout the area. The overall strategy proposed is to ‘Improve and Conserve.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• Promoting awareness and consideration of the setting of the AONB and views to and from it.</li> <li>• Developing a strategy to limit built development within the area and mitigate the impact of existing development</li> <li>• Ensure that local highway improvements are sympathetic to the scale, pattern and character of the existing road network.</li> </ul> <p><i>Northern section located in Area 120 – Little Heath Uplands.</i>  A plateau area of gently undulating upland. There is evidence of loss of field boundaries as fields have been increased in size for the intensification of agriculture. Key characteristics include urban fringe influences, arable farming, isolated farms and pasture fields and contained views. There are no recorded species of note. Forms part of ancient common land associated with the Ashridge Estate. The area is only locally visible from outside due to its plateau location. The landscape character is not considered to be unusual in Hertfordshire. However, it is made more unusual by distinctive features. Impact of built development is minimal due to the presence of mature hedgerows that act as screening. The overall strategy is to ‘Improve and Conserve.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• Ensure that the surroundings of converted and new buildings are designed and maintained so as to be in keeping with their agricultural surroundings.</li> <li>• Conserve and enhance the distinctive character of traditional settlements and individual buildings, through the use of high quality design and materials</li> <li>• Promote awareness of the setting of the AONB and views to and from it, when considering land</li> </ul>	
--	--	--	--



		<p>use change proposals.</p> <ul style="list-style-type: none"> <li>• Support a strategy to limit built development within the area and the visual impact of development that may affect the area from the outside.</li> </ul> <p><b>Marchmont Farm:</b>  <i>Located in Area 123 – High Gade Valley</i>  Area characterised by steep valley slopes, with long views along the open valley and clustered settlements along the watercourse. Distinctive features include a row of cottages at Piccotts End, with remnants of a 15<sup>th</sup> century hall-house that is said to have been a pilgrims’ hostel and Piccotts End Mill and weirs along the upper stream. The valley has a broad and gently undulating floor. Piccotts End follows the historic pattern of the settled valley floor, although its general character is noted to be affected by its position at the edge of Hemel Hempstead’s extensive urban area. The character of the area is unusual within the county and the overall intervention by built development is generally low. The community view the area as being very picturesque with lovely views. The overall strategy proposed is to ‘Conserve and Strengthen.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• Restricting further built development within the valley and developing a strategy to mitigate against existing impacts; and</li> <li>• Conserving and enhancing the distinctive character of traditional settlements.</li> </ul> <p><b>Wood End Farm:</b>  <i>Located mostly in Area 94 – Buncefield Plateau</i>  The Buncefield Plateau is an extensive, linear, undulating plateau confined to the west by the urban settlement of Hemel Hempstead. The M1 motorway dominates the plateau’s length and the industrial area also influences the character and long views. The plateau is crossed by dry valleys, creating an undulating topography. Much of the cultural landscape pattern has been lost or interrupted by the motorway. The area is only locally visible because of its plateau location. The motorway is elevated across the dry valleys, which without adequate screening increase its dominance. The area generally has an inhospitable and neglected image. The plateau landscape is common in the County. The overall strategy proposed is to ‘Restore condition to maintain character.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• Encourage the reversal of habitat fragmentation and hedgerow and woodland planting;</li> <li>• Promote a clear strategy for the visual and noise mitigation of the motorway and positively</li> </ul>	
--	--	---	--

		<p>integrate these into the landscape.</p> <p>A small part of the northern section is located in <i>Area 96 – Upper Ver Valley</i>. This area includes the dry valley west of Redbourn along Hempstead Road / Redbourn Road. A continuous strip of pasture tracks the base of the dry valley from Redbourn. Generally open landscape, with gently undulating valley slopes and large arable fields. Distinctive features include the impact of the M1 motorway junctions, Aubrey’s hill fort and horseyculture along the Hempstead Road. Although this is one of a number of river valleys in the county, it is unusual to find one that is so broad and open. The impact of current built development is low. The overall strategy is to ‘Conserve and Strengthen.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• Promote a clear strategy for the visual and noise mitigation of motorways and trunk roads and positively integrate these into the local landscape character.</li> <li>• Enhance and restore hedgerows and ditches as characteristic field boundary patterns.</li> </ul> <p><b>Leverstock Green:</b>  <i>Primarily located within Area 94 - Buncefield Plateau (see above)</i></p> <p>Some of the southern area falls within <i>Area 10 – St Stephen’s Plateau</i> and borders <i>Area 9 – Bedmond Plateau</i>.</p> <p><i>Area 10 – St Stephen’s Plateau</i>  Area is dissected by the M1 motorway. It is a working farmed landscape of predominantly open arable fields. The settlement pattern is dispersed, connected by a series of narrow winding lanes. The historic land-use pattern is overlaid by a strong network of motorways and junctions. Landform mostly comprises a gently undulating plateau. Pre-18<sup>th</sup> century field pattern has been subject to considerable field amalgamation, with the removal of hedgerows creating some large, featureless prairie fields. M1 motorway is generally poorly integrated, with little in the way of screen planting. This landscape is assessed to be relatively common within the County. The overall strategy proposed is to ‘Improve and Reinforce.’ Strategy guidelines include:</p> <ul style="list-style-type: none"> <li>• Promote hedgerow restoration and creation throughout the area, with pattern to follow historic field boundaries where possible;</li> <li>• Promote the creation of a network of new woodlands;</li> </ul>	
--	--	--	--

		<ul style="list-style-type: none"> <li>• Broaden the range of recreational opportunities;</li> <li>• Manage and enhance the existing landscape setting and historical and ecological value.</li> </ul> <p>The area east of the town (Leverstock Green and Wood End farm) is designated as part of a 'Landscape Development Area' in the St Albans Local Plan (1994). The policy relating to this notes that '<i>These areas are in need of attention. Structure Plan Policy 7 therefore seeks to guide long-term change, secure renewal, improvement and management of landscapes and create new landscapes.</i>' See Map 4.</p> <p><b><u>OVERVIEW:</u></b> The eastern component of this option is considered to be of less significant landscape value than a number of alternative growth locations around the town. However, this option also involves significant development of areas that are assessed to have a more significant landscape value and be relatively rare within the County.</p> <p>Careful mitigation measures would be required to ensure that the landscape impact of any development on the prominent slopes of the Gade and Bulbourne Valleys (West Hemel Hempstead and Shendish) are minimised.</p>	
26.	<b>Historic Landscape Characterisation</b>	<p>See Landscape Character Assessment above (Section 25).</p> <p>This issue will require further consideration at the detailed design and masterplanning stage, to ensure that any new development reflects historic hedgerow and settlement patterns.</p>	?
27.	<b>Topography considerations</b>	See Section 25 (Landscape Character Assessments)	-

**(g) Conformity with established New Town principles**

	Issue	Assessment	Nature of impact
28.	<b>Enable sensitive recognition of natural and historic features and landform in new layouts.</b>	See section 25 (Landscape Character Assessment) and 26 (Historic Landscape Characterisation) above.	- / ✘
29.	<b>Capacity to avoid or overcome features which would be damaging to the occupiers (i.e. through noise or air pollution)</b>	<p><b>Shendish:</b> Adjacent to the main Euston – Northampton/Birmingham railway line to the north, with the A41 running relatively close to the south of the site. Appropriate noise mitigation measures would be required to reduce these impacts. The A41 bypass is unlit along the sections that run adjacent to the site.</p> <p><b>West Hemel Hempstead:</b> No significant issues highlighted.</p> <p><b>Marchmont Farm:</b> Some noise and air pollution could arise from the proximity of the site to the Link Road, but this is likely to be minimal and easily mitigated against.</p> <p><b>Wood End Farm and Leverstock Green:</b> Both sites are bordered to the east by the M1 motorway. The issues of both noise and air pollution will therefore need to be addressed. Some initial work has already been carried out by consultants acting on behalf of the landowners and a buffer zone of 100m is recommended for residential uses. This could be utilised as informal recreation space. These buffers have been assumed in the area shown on the map.</p> <p><b>OVERVIEW:</b> Although noise and pollution mitigation measures will be required in accordance with Planning Policy Guidance Notes (PPGs) 23 and 24 for the sites. This will include the design of individual</p>	✓

		buildings, the layout of the site and appropriate buffering through landscaping. However, none of the impacts are considered so significant as to rule out particular locations form further consideration.	
30.	<b>Ability to ensure the local neighbourhood's needs are met</b>	Assuming that the neighbourhoods are of an appropriate size in terms of meeting particular thresholds, then it will be viable to provide essential local services and facilities within each area. This will include both 'hard' infrastructure, such as shops and community buildings, and 'soft' infrastructure, such as appropriate open space and landscaping.	✓
31.	<b>Ability to provide good access to services (which are not part of the neighbourhood)</b>	The provision of improved public transport facilities, including park and ride, is currently being pursued with the Highway Authority. Provision of this, together with appropriate bus connections, high quality and well located pedestrian and cycle routes will help to connect the new development to existing services and facilities elsewhere within the town, whilst reducing dependence upon the car. Advice from the Highway Authority is that it is usually easier to achieve and co-ordinate these improvements where there is an agglomerated form of development, rather than a dispersed form.	- / ✓
32.	<b>Ability to help achieve the future vision of the town in terms of:</b>  13. Retaining the separate identity of the town; 14. Enhancing the vitality and attractiveness of the town centre; 15. Maintaining a balanced distribution of employment (with growth and rejuvenation in the Maylands business area);	<p>All of the proposed locations, apart from Marchmont Farm, are of sufficient size to accommodate the full range of uses outlined in our 'Neighbourhood Concept'.</p> <p>The scale of development proposed at Marchmont Farm would enable it to be accommodated as an extension to the existing neighbourhood of Grovehill. The Inspector at the last Local Plan Inquiry concluded that if carefully sited, development in this location would help round off the urban form in this location. There is also reasonable access to Grovehill local centre and its facilities, which are considered to have sufficient spare capacity to cope with, and indeed benefit from, the additional population. The dispersed model therefore accords with the neighbourhood approach supported by the Council and by respondents to previous consultation.</p> <p>They key drawback with the Dispersed option is that it would not deliver the concentrations of development in particular parts of the town that would be required to accommodate and/or ease delivery of some of the larger-scale town wide infrastructure that will also be required as part of the growth of Hemel Hempstead. Town-wide infrastructure that will have to be provided on Green Belt land as part of the growth includes a new secondary school site, town stadium, park and ride,</p>	- / ✓

	<p>16. Maintaining the existing neighbourhood pattern;</p> <p>17. Making best use of the existing green infrastructure; with</p> <p>18. Any new development being:</p> <ul style="list-style-type: none"> <li>- Based on the neighbourhood concept;</li> <li>- Providing its own infrastructure; and</li> <li>- Supporting relevant town-wide needs.</li> </ul>	<p>cemetery and additional open space.</p> <p>The Dispersed option would require the provision of additional employment land, and in common with the other two growth options, this would be provided to the east of the town between the existing Maylands Business Area and the M1.</p> <p>See also Section 10 (infrastructure), 19 (proximity to existing employment opportunities), 20 (the adjacency principle), 21 (scope to support Hemel 2020 Vision), 22 (conformity with PPG2 criteria), 23 (ability to promote sustainable patterns of development) and 30 (ability to ensure the local neighbourhood's needs are met).</p>	
--	---	--	--