



Analysis of Accessible Natural Greenspace Provision for **Hertfordshire**

Commissioned and funded by:



www.naturalengland.org.uk

Analysis and report undertaken by:

thelandscapepartnership

www.landscapepartnership.com

Front cover photograph: Verulamium Park, St Albans
The Landscape Partnership

Contents

- Overview (by Natural England)
- Introduction
- What is the Accessible Natural Greenspace Standard (ANGSt)?
- Background to ANGSt
- Accessible natural greenspace definition
- Methodology
- Study area
- Accessible natural greenspace datasets
- Data analysis
- Results
 - Broxbourne Borough Council
 - Dacorum Borough Council
 - East Hertfordshire District Council
 - Hertsmere Borough Council
 - North Hertfordshire District Council
 - St Albans City and District Council
 - Stevenage Borough Council
 - Three Rivers District Council
 - Watford Borough Council
 - Welwyn Hatfield Council
- Conclusions
- Bibliography

Overview

Natural England believes that everyone should have access to good quality natural greenspaces near to where they live. Natural England published its 'Nature Nearby' report in March 2010, which provides guidance for the planners and managers of greenspace; guidance on the amount, quality, and visitor services we believe everyone is entitled to. The 'Nature Nearby' report complements this report, which analyses the accessible natural greenspace provision across Hertfordshire using the Accessible Natural Greenspace Standard (ANGSt), and provides the evidence for greenspace planners and managers to look at improving both the quantity and quality of this important resource.

Natural greenspaces are very important to our quality of life. They provide a wide range of benefits for people and the environment. Recent evidence shows that access to natural greenspaces for fresh air, exercise and quiet contemplation has benefits for both physical and mental health. Research provides good evidence of reductions in levels of heart disease, obesity and depression where people live close to greenspaces. In addition to their potential ecological value, greenspaces also help us adapt to changes in climate through their role in reducing the risk of flooding and by cooling the local environment. Where trees are present they also act as filters for air pollution.

So it is timely that Natural England commissioned this analysis of accessible natural greenspace provision in Hertfordshire. The report uses the best data available, and by applying the Natural England recommended standard for provision, it provides the evidence to help plan for future improvements to the quantity and location of natural greenspaces. This is particularly important for a county where substantial new growth is planned, and green infrastructure planning is just getting underway. The findings of this analysis will provide a strong evidence base in the green infrastructure planning process, which gives the opportunity to make recommendations on how to rectify existing deficits in greenspaces at neighbourhood, town, and sub-regional scales.

The report shows that:

36.2% of households have access to an accessible natural greenspace of at least 2 hectares within 300 metres

75.4% of households have access to an accessible natural greenspace of at least 20 hectares within 2 kilometres

69.7% of households have access to an accessible natural greenspace of at least 100 hectares within 5 kilometres

26.5% of households have access to an accessible natural greenspace of at least 500 hectares within 10 kilometres

6.7% of households have access to all the areas of accessible natural greenspace within the standard

6.4% do not have access to any of the accessible natural greenspace within the standard

Using the evidence from this report and the guidance provided in 'Nature Nearby', Natural England looks forward to working in partnership with local authorities and other organisations in Hertfordshire to achieve improvements in the quantity, location and quality of natural greenspaces as part of the wider green infrastructure network.

Diana Curtis

Access Mapping Adviser
East of England Region

Introduction

ANGSt was developed in the early 1990's and was based on research into minimum distances people would travel to the natural environment. Natural England reviewed the standard in 2008 and concluded that the standard was still useful, but that further guidance was required to explain how the standard should be applied. The "Nature Nearby" report, published in March 2010, provides this additional clarity, and should therefore be read in conjunction with this report.

What is the Accessible Natural Greenspace Standard (ANGSt)?

ANGSt recommends* that everyone, wherever they live, should have an accessible natural greenspace:

- of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from home;
- at least one accessible 20 hectare site within two kilometres of home;
- one accessible 100 hectare site within five kilometres of home; and;
- one accessible 500 hectare site within ten kilometres of home; plus
- a minimum of one hectare of statutory Local Nature Reserves per thousand population

ANGSt is a powerful tool in assessing current levels of accessible natural greenspace, and planning for better provision. The three underlying principles of ANGSt are:

- Improving access to greenspaces
- Improving naturalness of greenspaces
- Improving connectivity with greenspaces

* Information sourced from 'Nature Nearby', Accessible Natural Greenspace Guidance document

Background to ANGSt

Planning Policy Guidance 17 (PPG17) (ODPM [now CLG], 2002a) recommends that local authorities carry out assessments and audits to identify deficits or surpluses in the provision of open space (including natural and semi-natural greenspace), sports and recreational facilities. The Companion Guide to PPG17 (ODPM [now CLG], 2002b) highlights the use of Natural England's ANGSt as the model to assess the provision of natural and semi-natural greenspace, although it does not constrain local authorities from developing alternative approaches.

The East of England Biodiversity Delivery Plan (East of England Biodiversity Forum, 2008) aims to push for regional compliance with the ANGSt. This study undertaken for and on behalf of Natural England will support the Delivery Plan by contributing to an understanding of the regional provision of green infrastructure, together with similar reports for other counties in the region.

Accessible Natural Greenspace (ANG) definition

The 'Nature Nearby' report gives clear explanations on how to interpret the standard with respect to naturalness and accessibility. This analysis was commissioned ahead of the publication of 'Nature Nearby', and uses the definition 'places where human control and activities are not so intensive so that natural processes are allowed to predominate' (Handley et al, 2003a).

Within the ANGSt model, accessibility means the 'ability of visitors to physically gain access to a site' (Handley et al, 2003b). In Hertfordshire, sites with unrestricted entry were included, but those with known access restrictions or no rights of access were excluded. Also excluded were sites where accessibility and naturalness were not clear from supporting information, and sites not easily discernable from desktop assessments of aerial photography or internet searches. This was particularly important when dealing with datasets provided by local authorities in place of PPG17 data (because, it is presumed, no PPG17 study has yet been undertaken) where the quality and depth of the supporting information varied.

Methodology

The methodology followed was based on the ANGSt analysis toolkit (Handley et al, 2003b). An inventory of accessible natural greenspace data was compiled in a Geographic Information System (GIS), to which the ANGSt model was then applied, with the results showing areas of adequate provision or deficiency, as described in the ANGSt model. The flowchart in **Figure 1** (McKernan & Grose, 2007, adapted from Handley et al, 2003b) shows the analysis process.

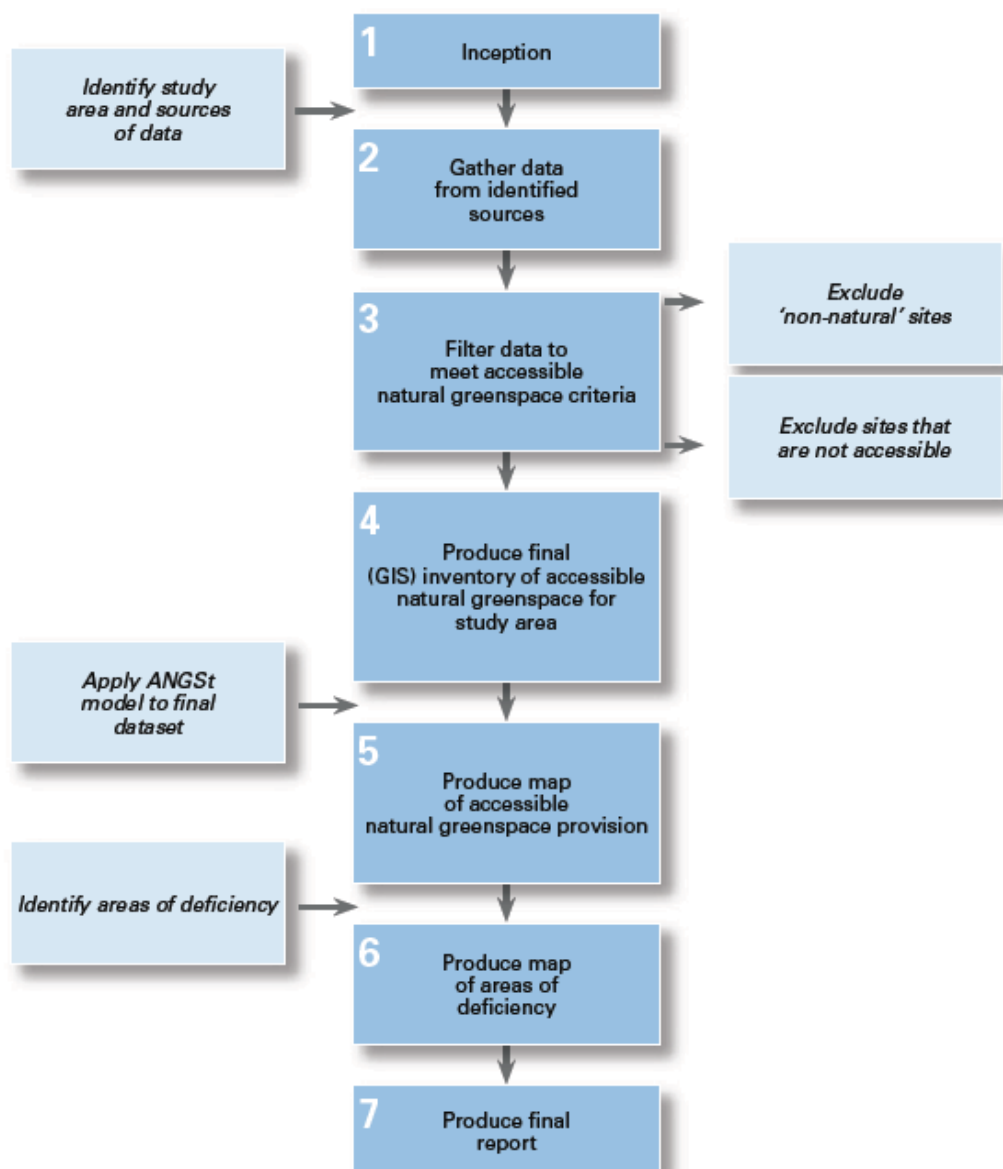
Limitations to the data analysis included some local authorities being unable to provide PPG17 data or they provided 'open space' data which did not feature the typologies that PPG17 data includes.

This had the effect of potentially reducing the supply of smaller sites for analysis in the affected areas; it is advised that the results be regarded in light of this.

With respect to the Village Green data this was only available in point format. To enable these important sites to be included in the overall analysis, circular features were generated which were equal to the size of the sites on the ground. It was envisaged that any differences resulting from the analysis in terms of proximity of households to these sites would be minimal and not affect the validity of the final report in terms of its intended use.

Figure 1

Flowchart showing Study area ANGSt analysis process



Study area

The study aimed to produce an analysis for Hertfordshire. In order to take account of areas of accessible natural greenspace outside of Hertfordshire that may be serving the needs of the population within Hertfordshire, accessible natural greenspace data were collated (where providers were able to do so) from within a ten kilometre buffer of the study area, as required by the ANGSt toolkit (Handley et al, 2003b). Because of issues of limited accessibility the Community Forests dataset was excluded from the analysis.

Accessible natural greenspace datasets

Data were collated from a variety of sources, (detailed below) and filtered to the criteria in the ANGSt definition (in the introduction).

Data were provided in digital (GIS) format and attribute information for the data was checked to ensure compliance with the criteria.

When requesting data from suppliers the need for it to represent accessibility and naturalness was expressed. This was intended to provide an initial sifting effect to remove non-natural sites.

For local authorities' PPG17 data, sites within some categories of data (e.g. parks and gardens, commons, amenity space) were checked against aerial photographs to ascertain 'naturalness'. The Landscape Partnership's local knowledge helped with the sifting exercise. Where there was doubt over a site it was removed from the inventory.

The following datasets were included in the analysis:

Accessible county wildlife sites; commonland; Country Parks; open access under the Countryside and Rights of Way Act 2000 (CRoW); Doorstep Greens; Forestry Commission Freehold Land with unrestricted access; Forestry Commission Walkers Welcome Woodland Grant Scheme; local authority PPG17 datasets; Local Nature Reserves; Millenium Greens; National Nature Reserves (excluding those with limited accessibility); Natural England agri-environment grant schemes providing access; Village Greens; Woodland Trust sites; Woods for People; National Trust sites that are accessible all year.

Data were kindly provided by:

Natural England, Woodland Trust, the Forestry Commission, Hertfordshire County Council, Hertfordshire Biological Records Centre and the following local authorities.

Local authorities that supplied PPG17 data:

Dacorum Borough Council, Three Rivers District Council.

Local authorities that supplied other open space data:

East Herts District Council, North Herts District Council, St Albans City and District Council, Welwyn Hatfield Borough Council

Local authorities unable to provide data:

Broxbourne Borough Council, Hertsmere Borough Council, Stevenage Borough Council, Watford Borough Council

Data analysis

The data analysis was carried out using the GIS programme ArcView 9.3 by ESRI. All overlapping and adjoining sites within the accessible natural greenspace inventory were aggregated and extracted to the ANGSt.

The aggregated sites were subjected to further scrutiny by eye – where sites were immediately adjacent but not abutting (so the GIS programme did not merge them) they were manually merged where the nature of the division could be ascertained by reference to Ordnance Survey maps and aerial photos. If the sites were separated by a minor road this was considered ‘acceptable’, where the division was caused by a river, railway line or major road the division remained. This manual aggregation was undertaken mostly at the 100ha+ level where aggregation of sites meant they moved up to the 500ha+ level and therefore provided a more realistic 10km catchment. Some 100ha+ sites were generated this way too.

Sites of less than 2 hectares were removed from the inventory and the areas within each size class had buffers created around them according to the catchment zone stated within the ANGSt model (as per introduction).

Data for residential households (using AddressPoint, 2005) within the study area were extracted to each local authority area to establish the number of households served by each size class in the ANGSt model. In order to ensure consistency across the data analysis, population levels were represented as percentages. As a method of quality control the figures for households in each local authority area were compared against figures from the 2001 Census from the Office of National Statistics website. In all cases the 2001 figure was lower than the 2005 figure as would logically be expected.

In Plan 1 overleaf the ANG that is ‘visible’ represents sites:

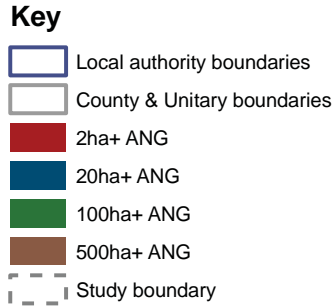
- 500ha and above
- 100ha and above but below 500ha
- 20ha and above but below 100ha
- 2ha and above but below 20ha

The ANG provision is represented graphically following this hierarchy. The mapping featured in this report is also being issued to Natural England as a layered GEO.pdf (a layered pdf). Using this format the user can turn off, for instance, the 500ha+ layer revealing the relevant sites at the other ANGSt levels.

Results

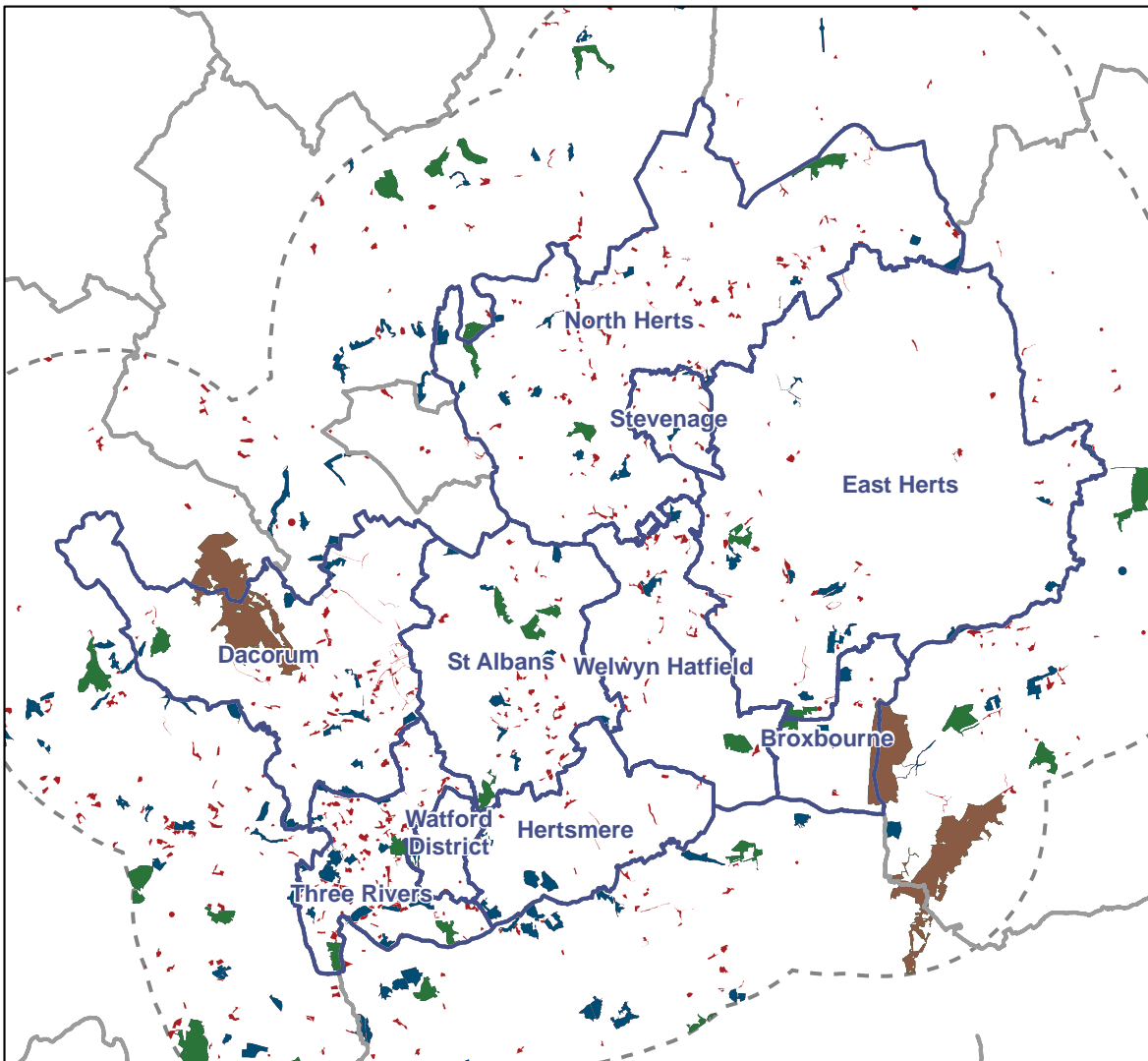
The results of the analysis of accessible natural greenspace provision for Hertfordshire are provided in this section.

Plan 1 shows all the accessible natural greenspace within the study area and the 10km buffer zone, displayed by ANGSt model size classes.










Plan 1

All accessible natural greenspace divided into ANGSt size classes



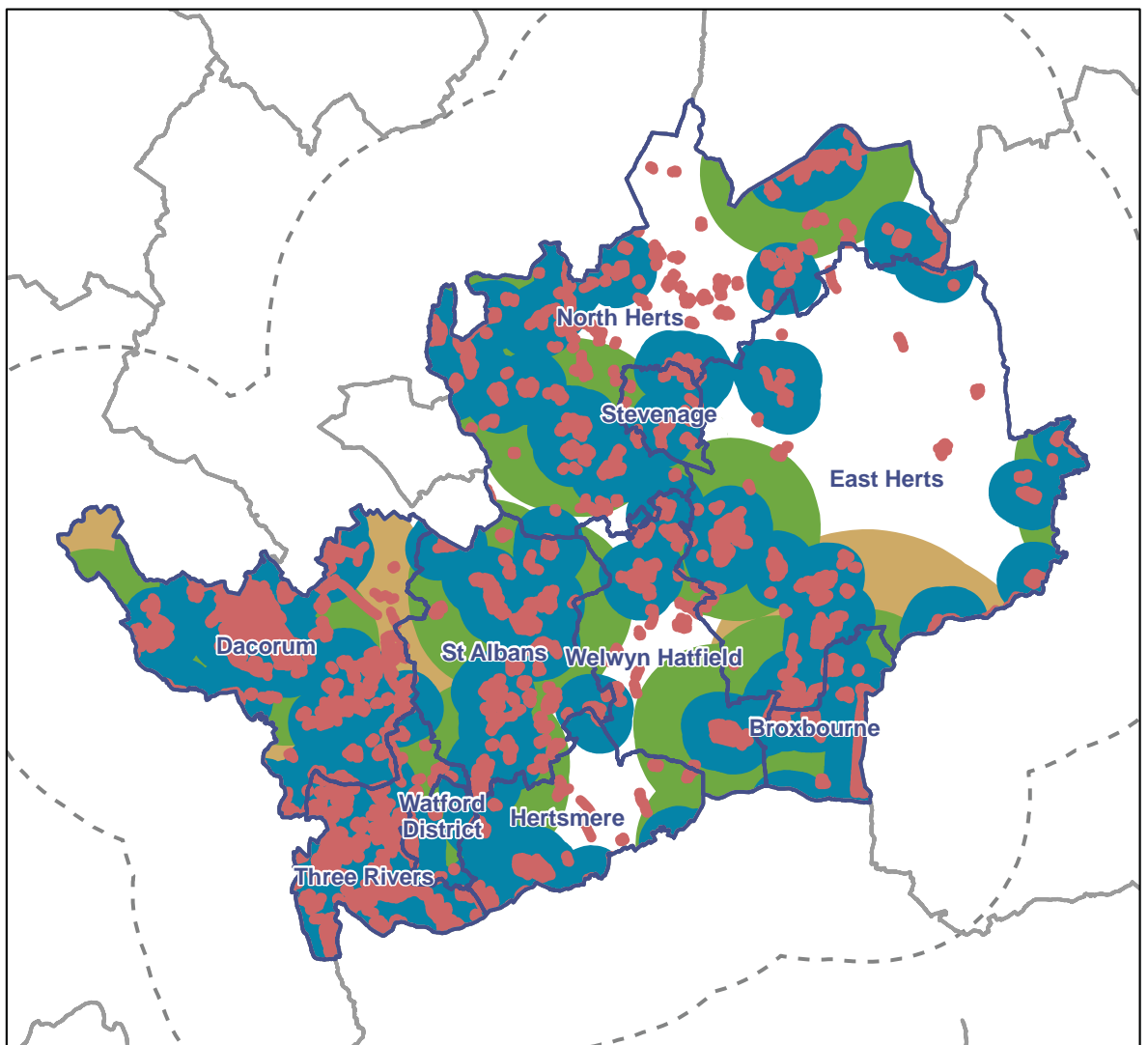
Plan 2 shows the combined buffers around the accessible natural greenspace for the study area as a whole, with the varying colours representing the 300m, 2km, 5km and 10km distances from the relevant size classes of accessible natural greenspace. It can be seen that a site of 20 hectares would not only have a two kilometre buffer but would also serve as a two hectare site for those households situated within the 300m buffer. The areas not covered by the buffers and therefore not benefiting from any ANG provision are more clearly shown in Plan 3.

Key

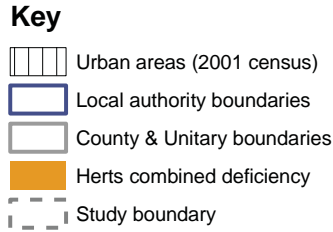
-  Local authority boundaries
-  County & Unitary boundaries
-  300m buffer
-  2km buffer
-  5km buffer
-  10km buffer
-  Study boundary

Plan 2

All combined buffers for ANGst size classes



Plan 3 highlights areas with no accessible natural greenspace provision and the accompanying table displays the percentages of households within each local planning authority that have some or none of their ANGSt met. Plan 3 shows that the main areas of deficiency are in East Herts, North Herts, Hertsmere and Welwyn Hatfield.



Plan 3

Highlights those areas with no accessible natural greenspace provision at all levels of ANGSt analysis

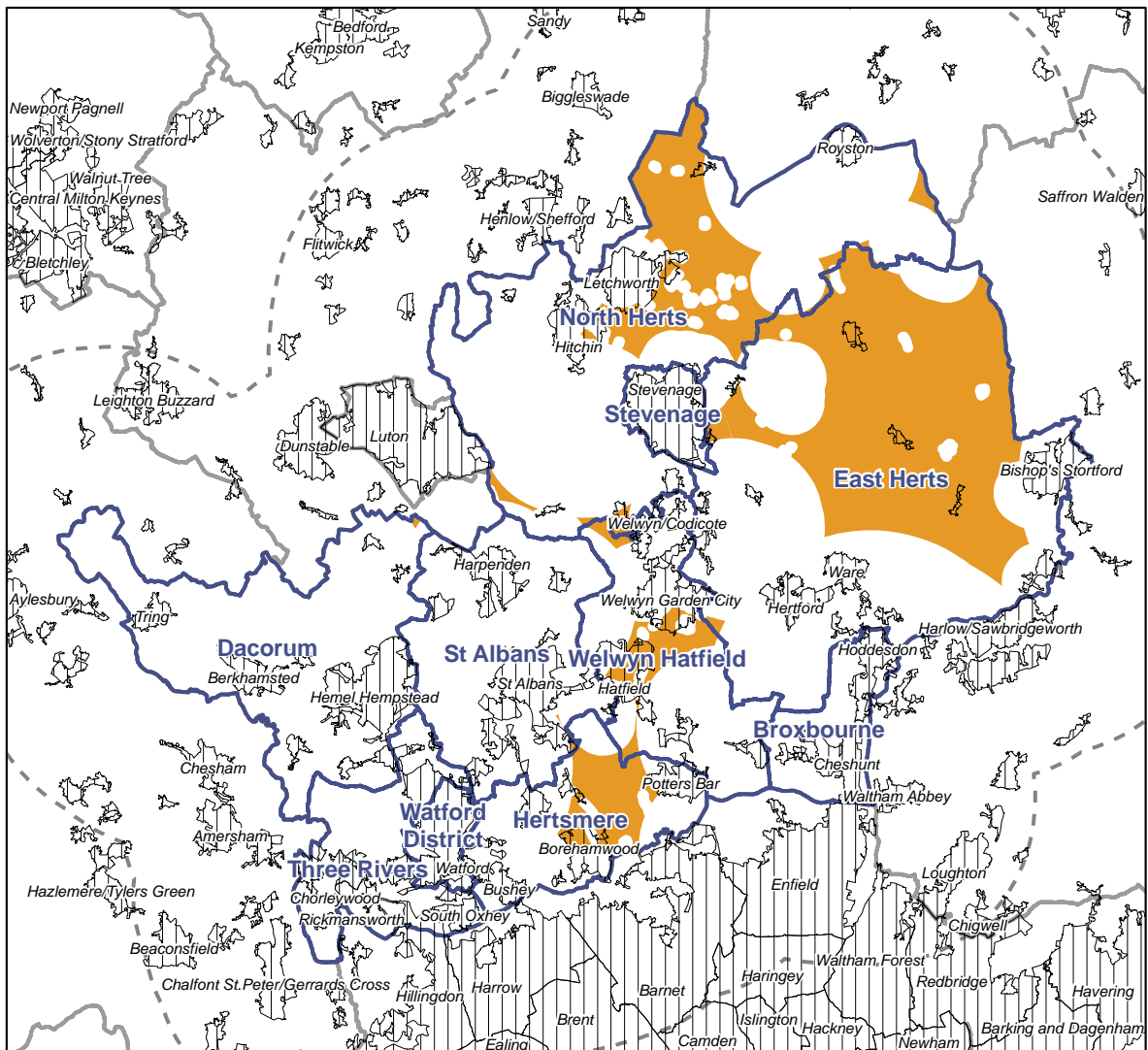


Table 1 Area of accessible natural greenspaces and the number of households within each local planning authority in Hertfordshire

Dacorum and Three Rivers have the largest area of ANG as a proportion of their local authority's area. Interestingly it was these two local authorities that kindly provided full PPG17 data.

Broxbourne and St Albans both performed above the county average; the former were unable to provide PPG17 data and the latter provided open space data.

East Herts, Hertsmere, North Herts, Stevenage, Watford and Welwyn Hatfield all have a below average provision of ANG in proportion to their area in comparison to the county average. Half of these local authorities kindly provided open space data and half were unfortunately unable to do so, as such the provision or otherwise of PPG17 or open space data is not the sole reason for this result.

| Local planning authority (LPA) | LPA area (ha) | Area (ha) of ANG | ANG area as % of LPA | Total number of households* |
|-------------------------------------|----------------|------------------|----------------------|-----------------------------|
| Broxbourne | 5,143 | 462 | 9.0 | 40,452 |
| Dacorum | 21,248 | 2,192 | 10.3 | 63,305 |
| East Herts | 47,569 | 875 | 1.8 | 60,631 |
| Hertsmere | 10,116 | 323 | 3.2 | 43,354 |
| North Herts | 37,537 | 1,488 | 4.0 | 57,390 |
| St. Albans | 16,118 | 885 | 5.5 | 60,272 |
| Stevenage | 2,596 | 101 | 3.9 | 36,309 |
| Three Rivers | 8,881 | 1,392 | 15.7 | 37,247 |
| Watford | 2,143 | 79 | 3.7 | 38,249 |
| Welwyn Hatfield | 12,955 | 468 | 3.6 | 47,078 |
| Combined Hertfordshire total | 164,306 | 8,264 | 5.0 | 484,287 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

| |
|--------------------------|
| PPG17 data provided |
| Open space data provided |
| No data provided |

Table 2 Summary data for accessible natural greenspace provision in Hertfordshire compared to other counties assessed by Natural England for their greenspace provisions

It can be seen that Hertfordshire has a higher proportion of its population meeting all the ANGSt and a far lower proportion meeting none, when compared to Norfolk and Suffolk. Essex has both a slightly higher proportion of households meeting all the ANGSt and a higher proportion meeting none.

| Local Planning Authority | No of households* | % of households* | | | | | |
|--------------------------|-------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Norfolk | 407,153 | 18.1 | 48.9 | 36.2 | 16.1 | 3.2 | 29.7 |
| Suffolk | 337,001 | 18.9 | 45.9 | 25.9 | 28.3 | 3.4 | 32.9 |
| Herts | 484,287 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |
| Essex | 698,095 | 29.0 | 68.0 | 72.0 | 19.0 | 7.0 | 14.0 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

Table 3 Summary results for provision of ANG in the districts studied in Hertfordshire

This shows the percentage of households in each of the ANGSt, eg. within 300m of at least a 2ha site. All ten local authorities can be compared to one another and against the county average. It also shows the percentage of households meeting both all and none of the ANGSt. Here are some of the key results:

- Over 60% of households in Dacorum and Three Rivers are within 300m of a 2ha+ ANG site – twice the county average
- Less than 50% of households in Hertsmere and Welwyn Hatfield are within 2km of a 20ha+ ANG site – below the county average
- 37.7% of households in Stevenage are within 5km of a 100ha+ ANG site – below the county average
- 100% of households in Dacorum and Broxbourne are within 10km of a 500ha+ ANG site – nearly three times the county average
- 39.8% of households in Dacorum meet all of the ANGSt
- 25.6% of households in Welwyn Hatfield meet none of the ANGSt

| Local Planning Authority | % of households | | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | Number of households* | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Broxbourne | 40452 | 19.2 | 84.8 | 100.0 | 100.0 | 19.1 | 0.0 |
| Dacorum | 63305 | 63.3 | 89.2 | 62.7 | 100.0 | 39.8 | 0.0 |
| East Herts | 60631 | 25.7 | 76.6 | 54.6 | 44.9 | 3.8 | 14.1 |
| Hertsmere | 43354 | 12.6 | 47.8 | 60.7 | 2.7 | 0.0 | 15.2 |
| North Herts | 57390 | 52.3 | 70.7 | 39.9 | 0.0 | 0.0 | 8.7 |
| St Albans | 60272 | 52.1 | 80.5 | 97.8 | 4.0 | 0.0 | 0.6 |
| Stevenage | 36309 | 33.7 | 86.7 | 37.7 | 0.0 | 0.0 | 0.0 |
| Three Rivers | 37247 | 60.5 | 87.9 | 99.6 | 7.0 | 3.6 | 0.0 |
| Watford | 38249 | 8.7 | 86.8 | 100.0 | 0.0 | 0.0 | 0.0 |
| Welwyn Hatfield | 47078 | 33.9 | 42.8 | 44.4 | 5.9 | 0.8 | 25.6 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

Broxbourne

Broxbourne has a proportionately higher than average amount of its area made up of ANG. At the 2ha+/300m level Broxbourne performs below the county average, in Plan 4a it can be seen that large areas of Cheshunt and Hoddesdon fall outside the ANG provision boundaries and are thus deficient. Broxbourne were unable to provide any PPG17 data and it is likely this had an effect at this level of analysis.

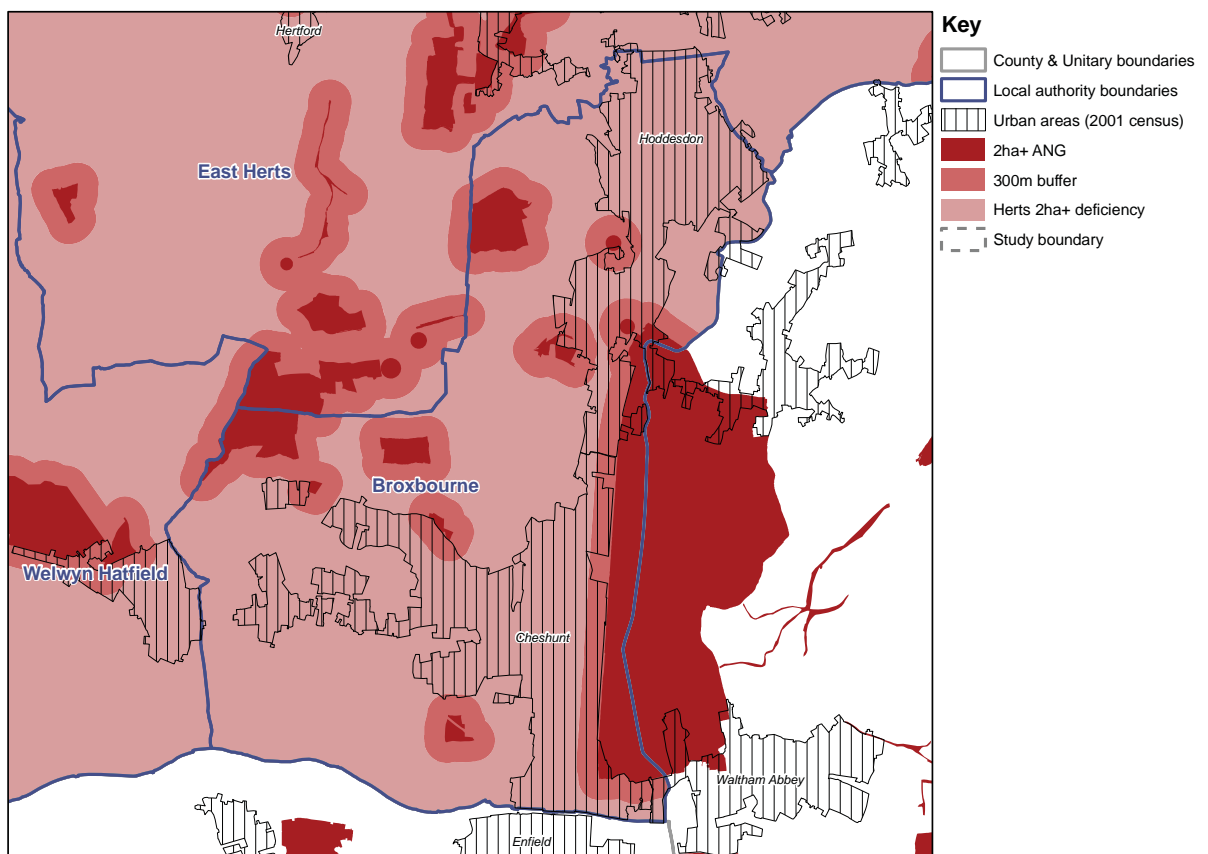
At the next three levels; 20ha+/2km, 100ha+/5km and 500ha+/10km, Broxbourne performs better than the county average with the provision coming from a large ANG site on its eastern boundary. Because of this Broxbourne has a higher than average proportion of households meeting all the ANGSt.

Table 4 ANGSt analysis results for Broxbourne

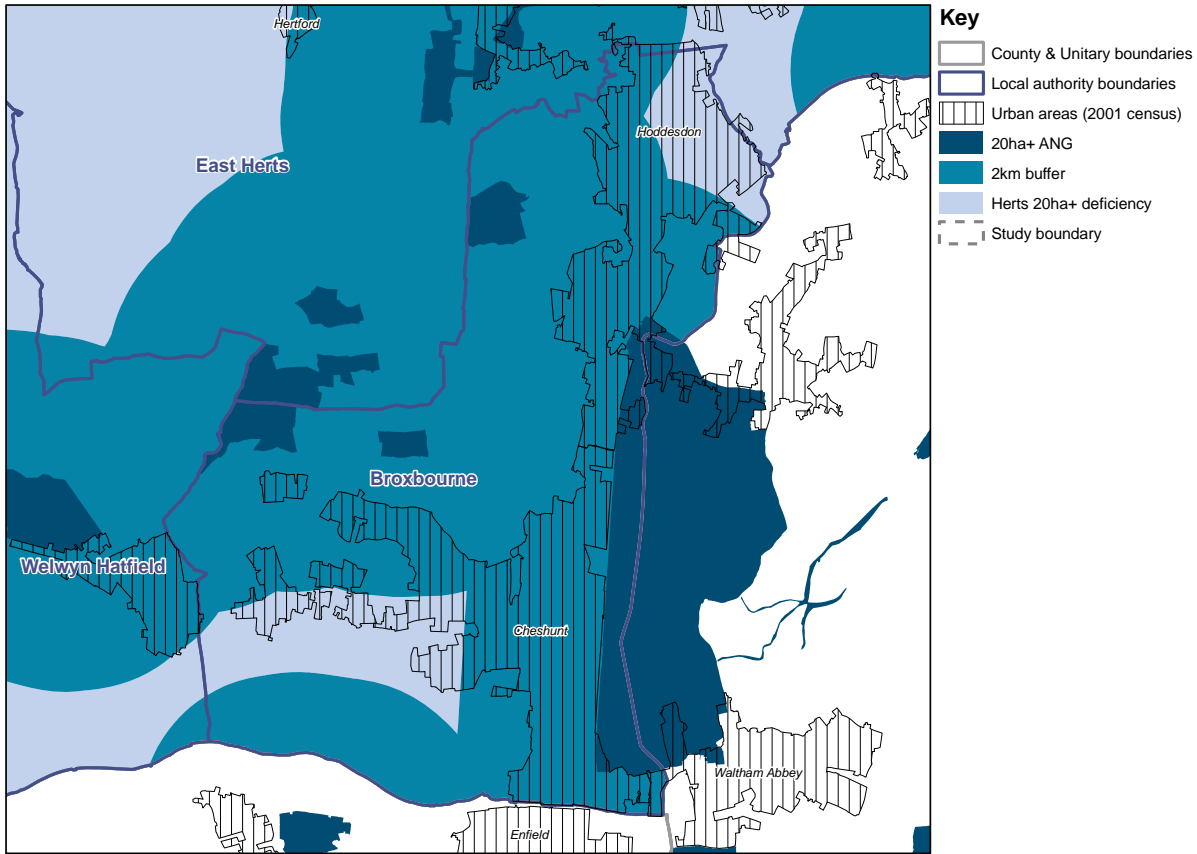
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Broxbourne | 40452 | 19.2 | 84.8 | 100.0 | 100.0 | 19.1 | 0.0 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

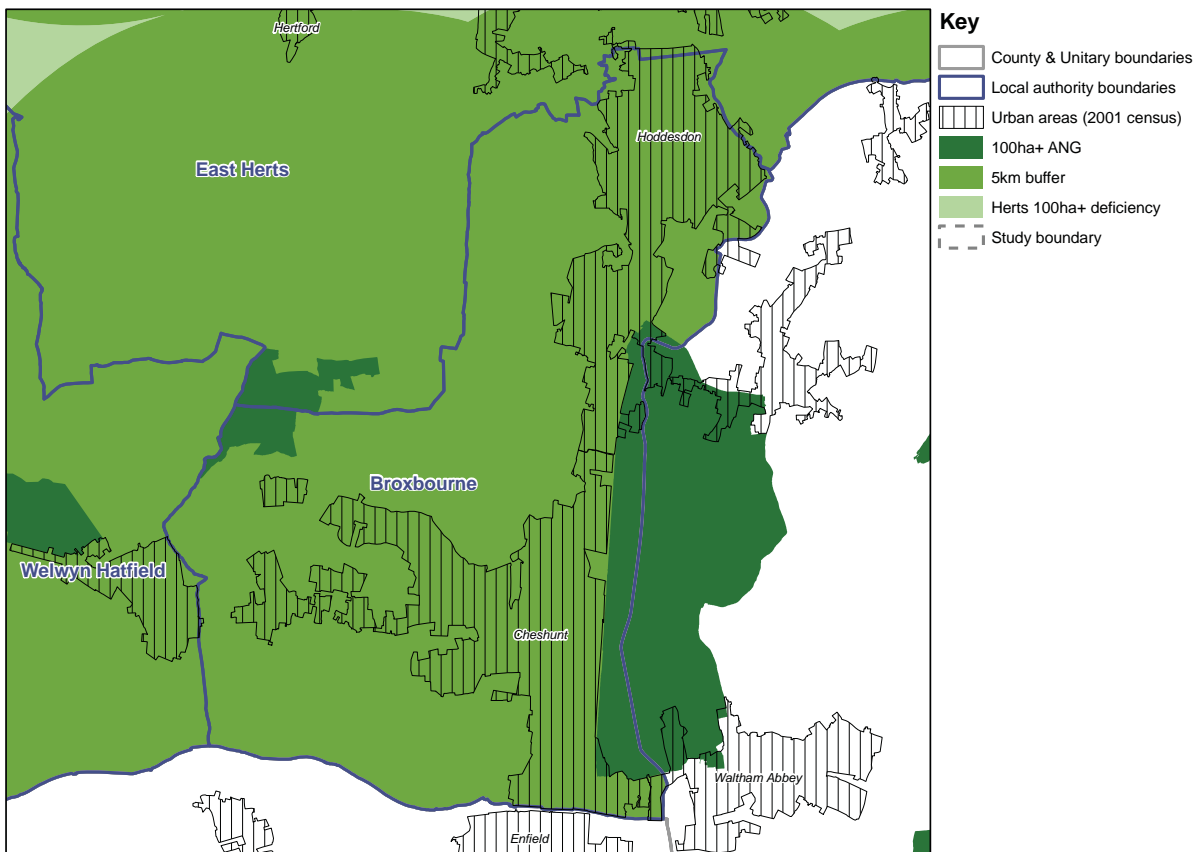
Plan 4a Accessible natural greenspace provision (2ha and above)



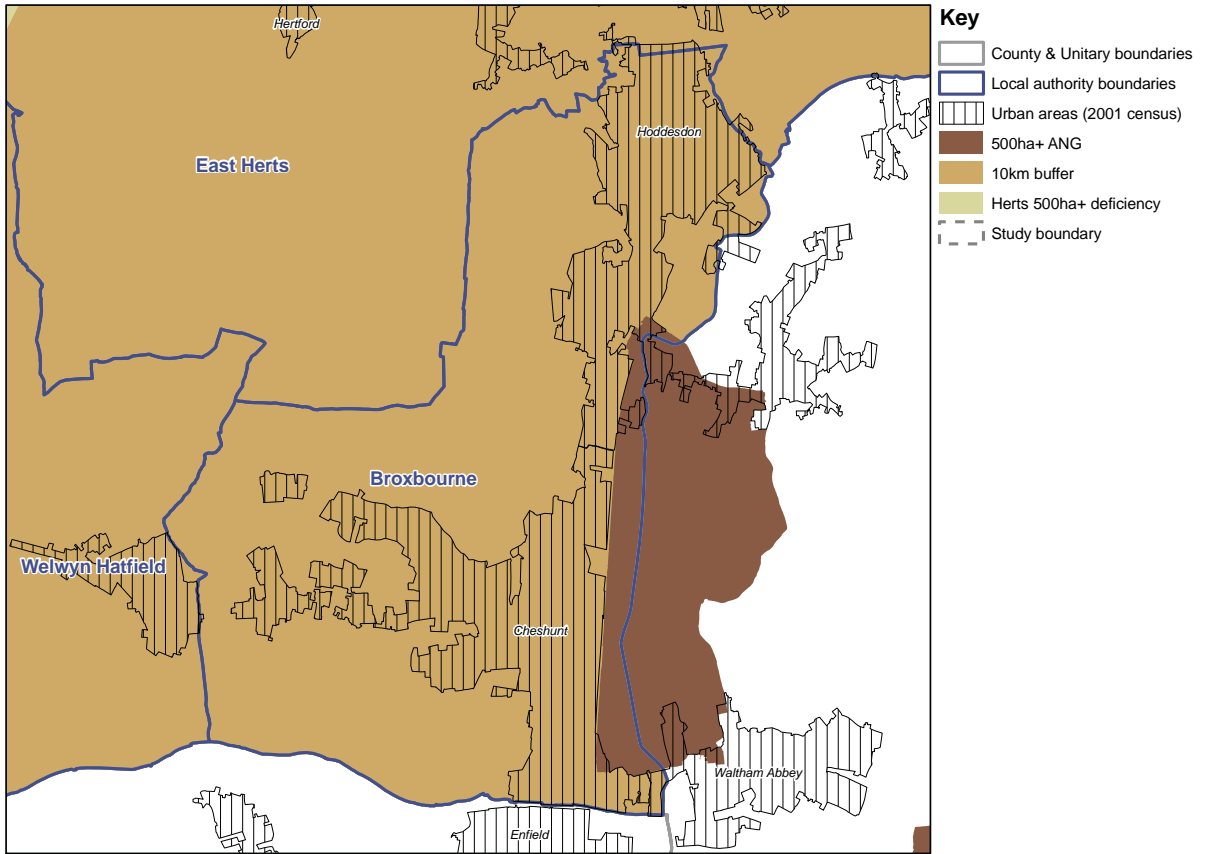
Plan 4b Accessible natural greenspace provision (20ha and above)



Plan 4c Accessible natural greenspace provision (100ha and above)



Plan 4d Accessible natural greenspace provision (500ha and above)



14

Dacorum

Dacorum has a proportionately higher than average amount of its area made up of ANG. At the 2ha+/300m level Dacorum performs above the county average, which can be seen in Table 5. The larger urban areas of Tring, Berkhamsted and Hemel Hempstead are reasonably well served by 2ha+ ANG sites and this is in part due to Dacorum having supplied PPG17 data. The same can be said at the 20ha+/2km level where the provision again serves the more densely populated urban areas well.

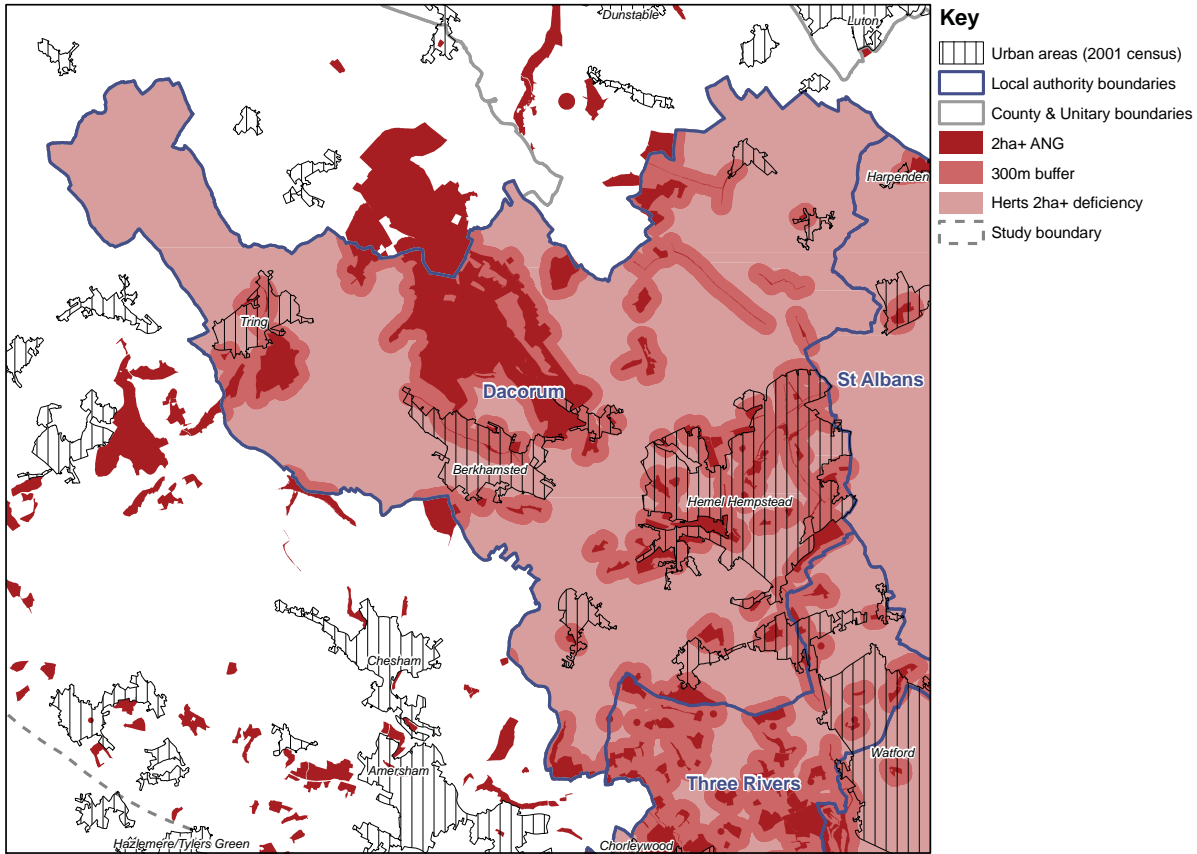
At the 100ha+/5km level Dacorum performs below the county average, this is in part because the eastern half of Hemel Hempstead is unprovisioned. 100% of households in Dacorum meet the 500ha+/10km ANGSt and this can be seen in Plan 5d. Dacorum also has the highest proportion of its households meeting all the ANGSt; at 39.8% it is nearly six times higher than the county average.

Table 5 ANGSt analysis results for Dacorum

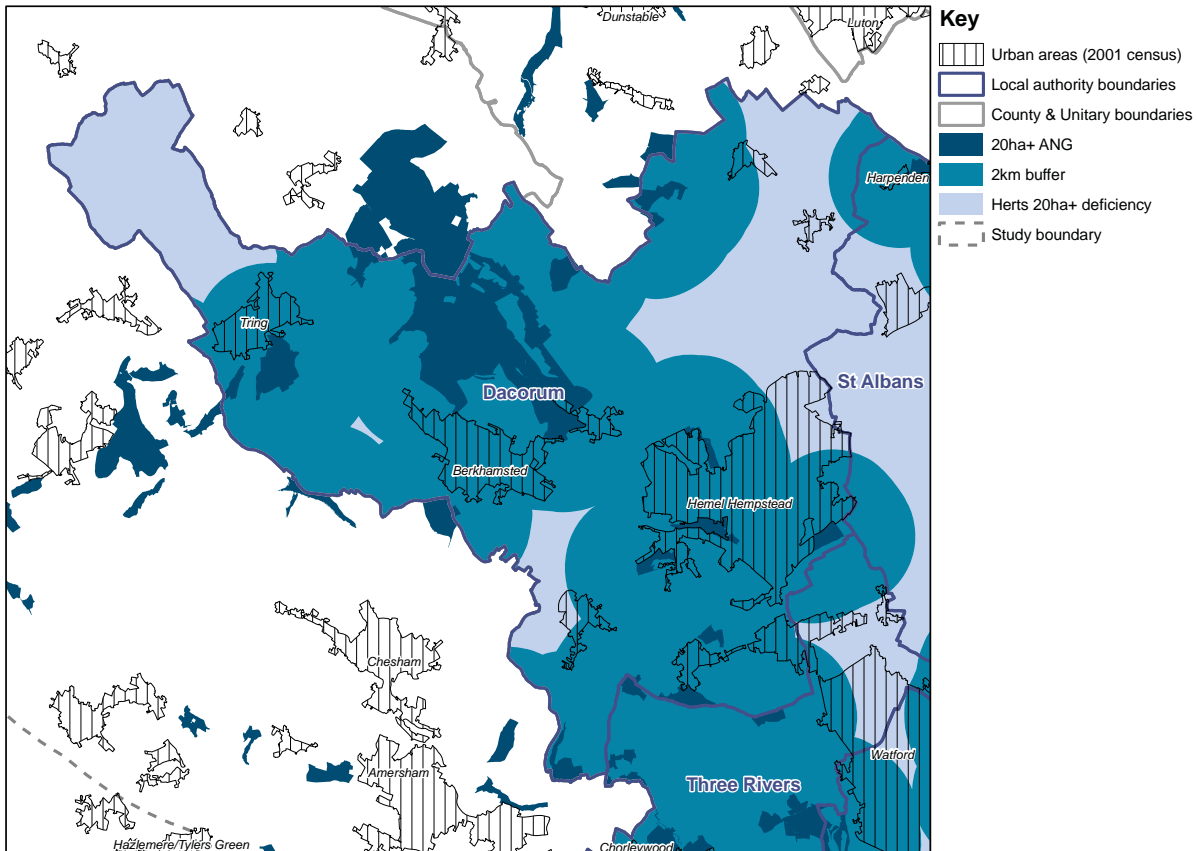
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Dacorum | 63305 | 63.3 | 89.2 | 62.7 | 100.0 | 39.8 | 0.0 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

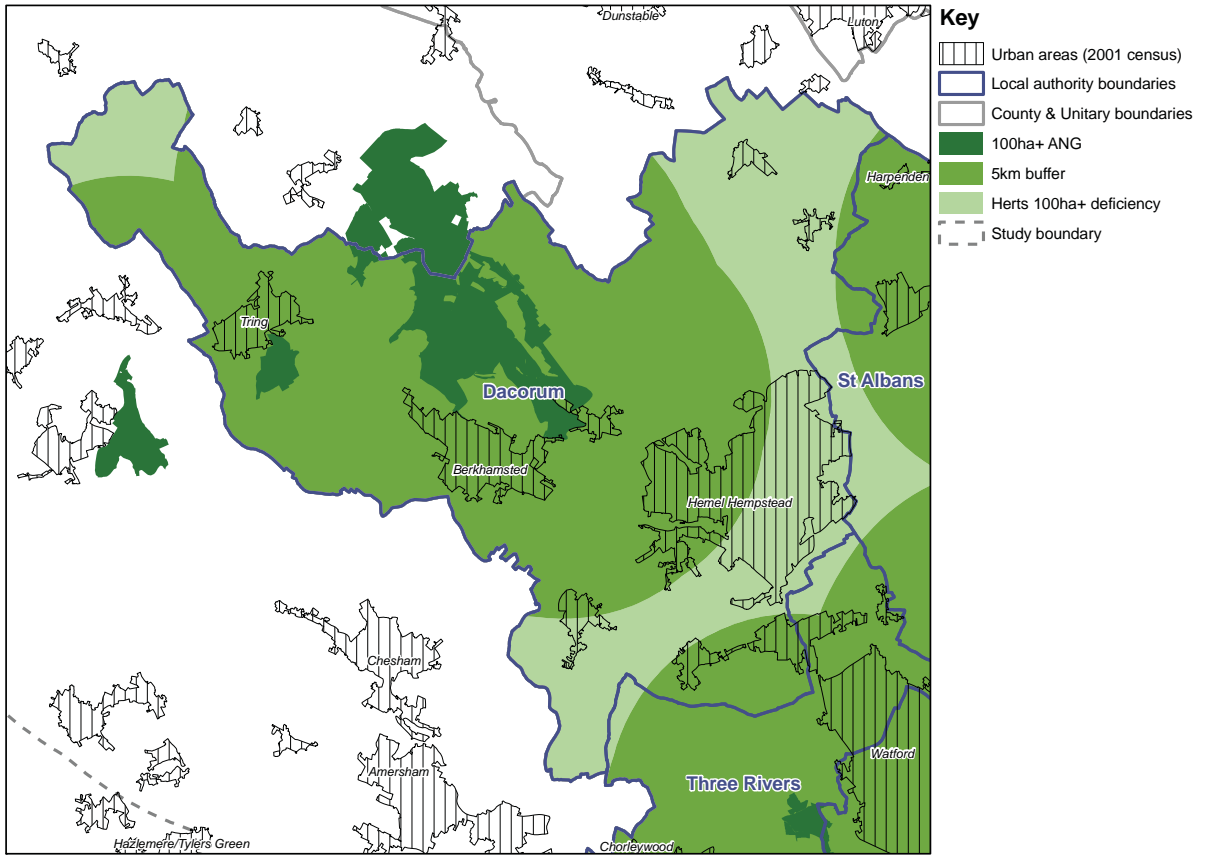
Plan 5a Accessible natural greenspace provision (2ha and above)



Plan 5b Accessible natural greenspace provision (20ha and above)



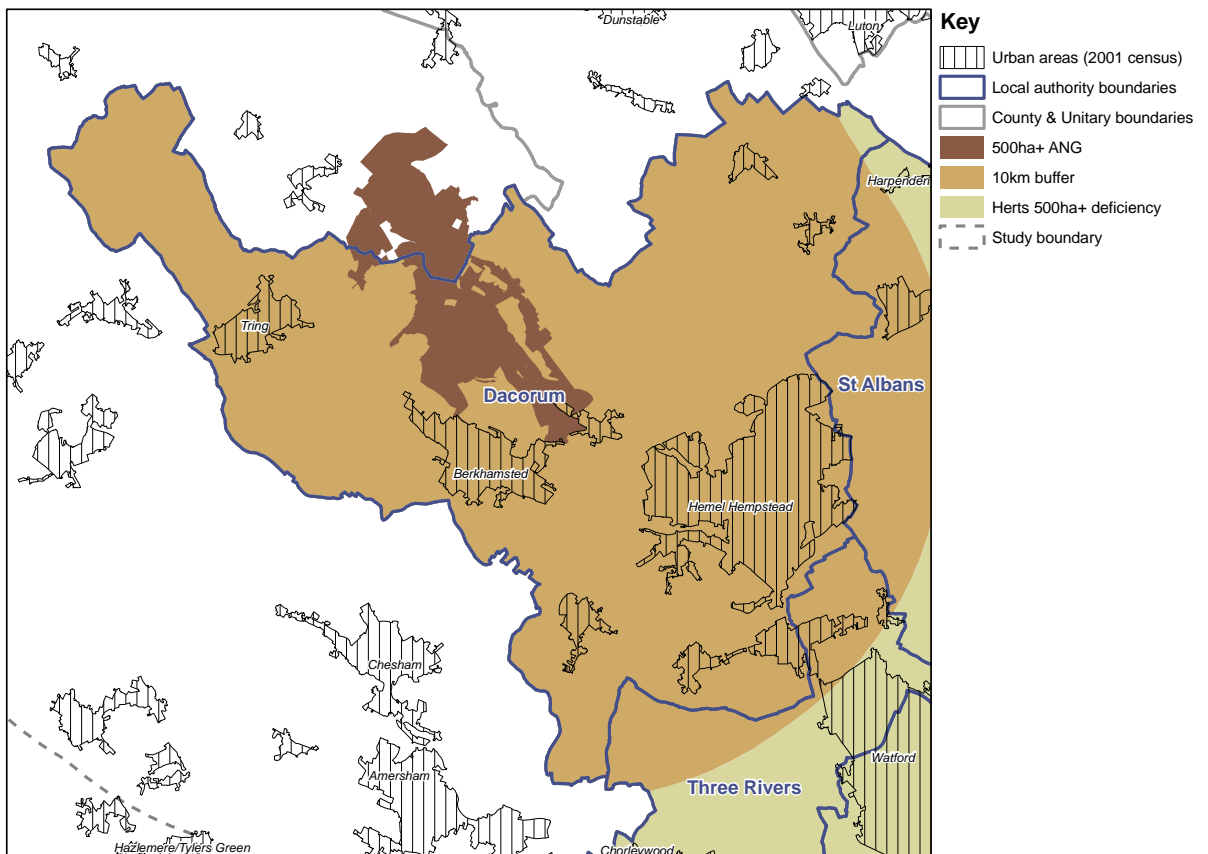
Plan 5c Accessible natural greenspace provision (100ha and above)



16

Analysis of Accessible Natural Greenspace Provision for Hertfordshire

Plan 5d Accessible natural greenspace provision (500ha and above)



East Hertfordshire

East Herts has a proportionately lower than average amount of its area made up of ANG, in fact it is the lowest in the county; likely compounded by the fact that East Herts is the largest local authority in Hertfordshire and is predominantly rural. East Herts did provide some open space data, however it still performed below the county average at the 2ha+/300m level; significant areas of Hertford, Ware and Bishop's Stortford were unprovisioned which contributed to this result. However because the same sites were included at the 20ha+/2km level, the larger catchment area allowed for a result that is comparable to that of the county as a whole.

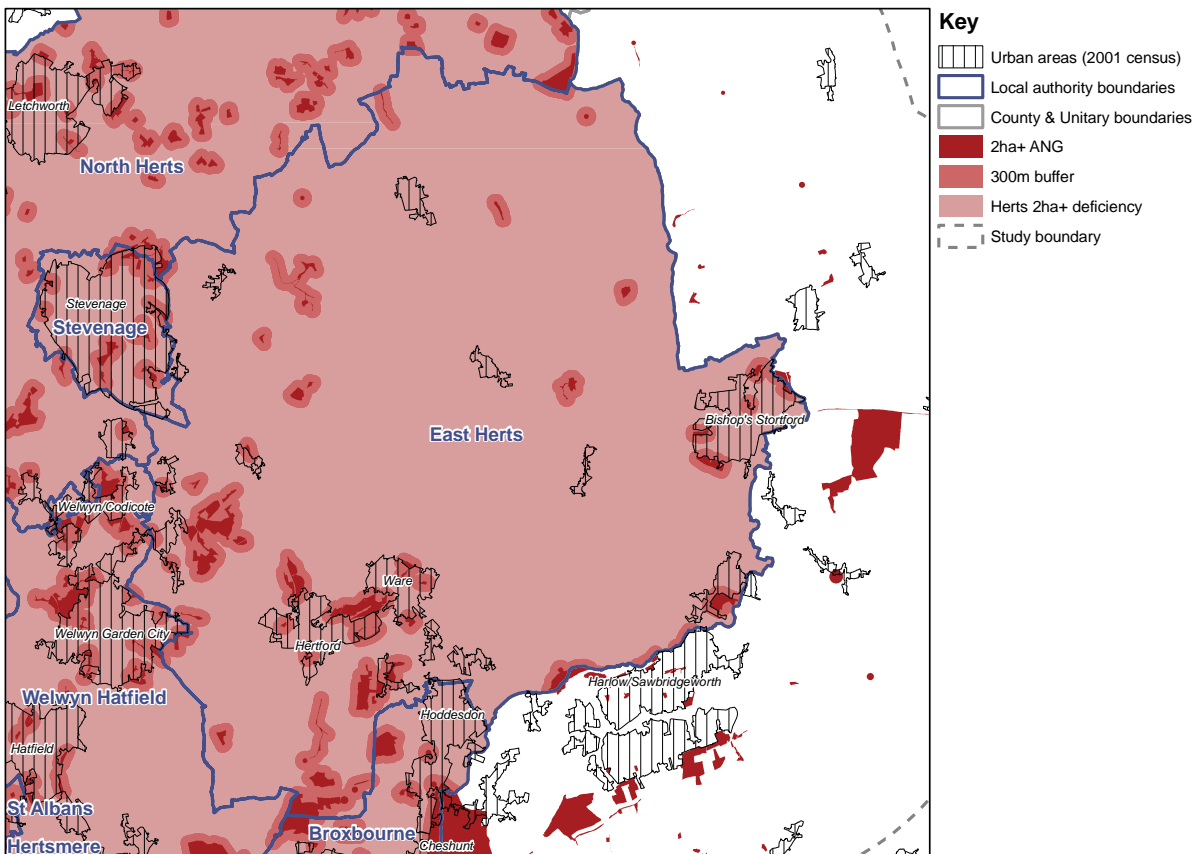
With Ware and a significant proportion of Hertford unprovisioned at the 100ha+/5km level East Herts performs below the county average which can be seen in Table 6. However, with a large 500ha+ ANG site within 10km, both Ware and Hertford are well provisioned at this level when compared to the county average. As can be seen in Plan 3, (page 9), large areas of the district are not served at any of the ANGSt. This reflects itself in Table 6 where it can be seen that East Herts performs above the county average for the proportion of households meeting none of the ANGSt.

Table 6 ANGSt analysis results for East Herts

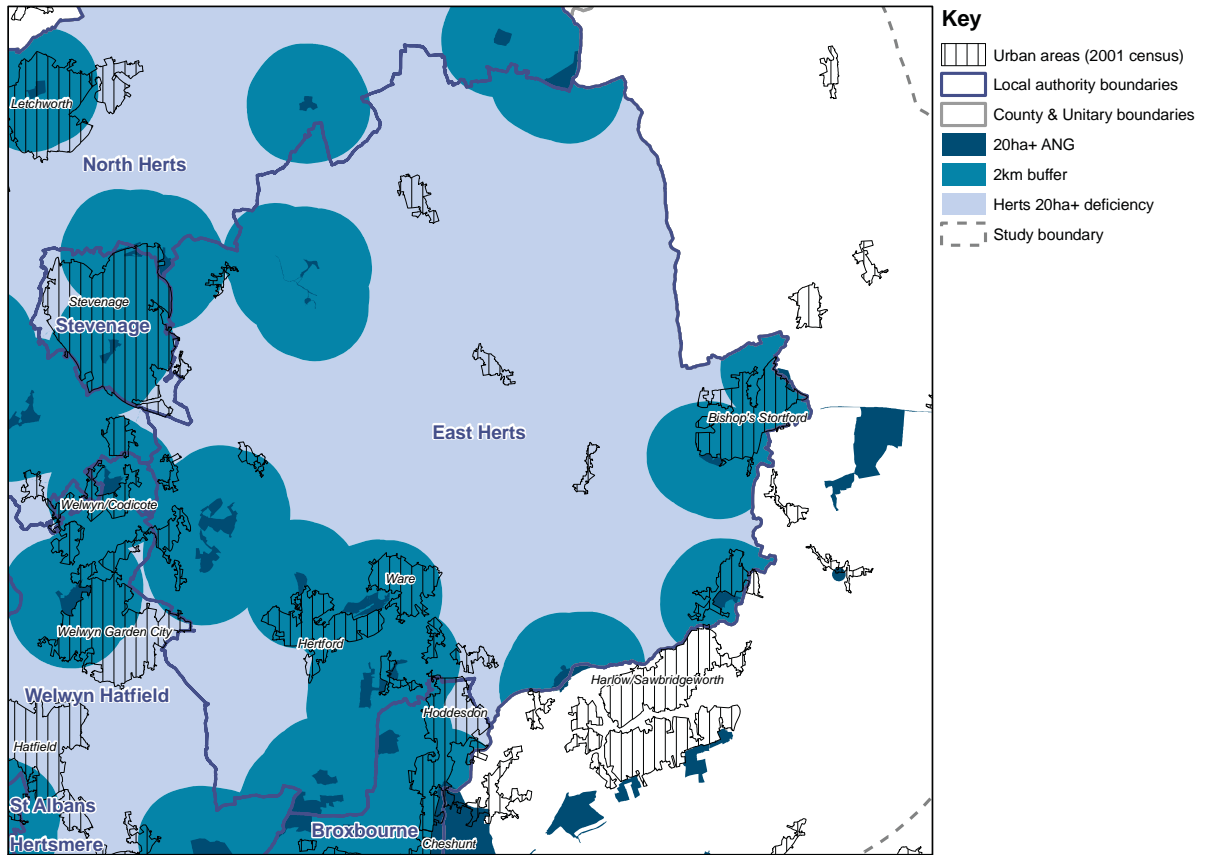
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| East Herts | 60631 | 25.7 | 76.6 | 54.6 | 44.9 | 3.8 | 14.1 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

Plan 6a Accessible natural greenspace provision (2ha and above)



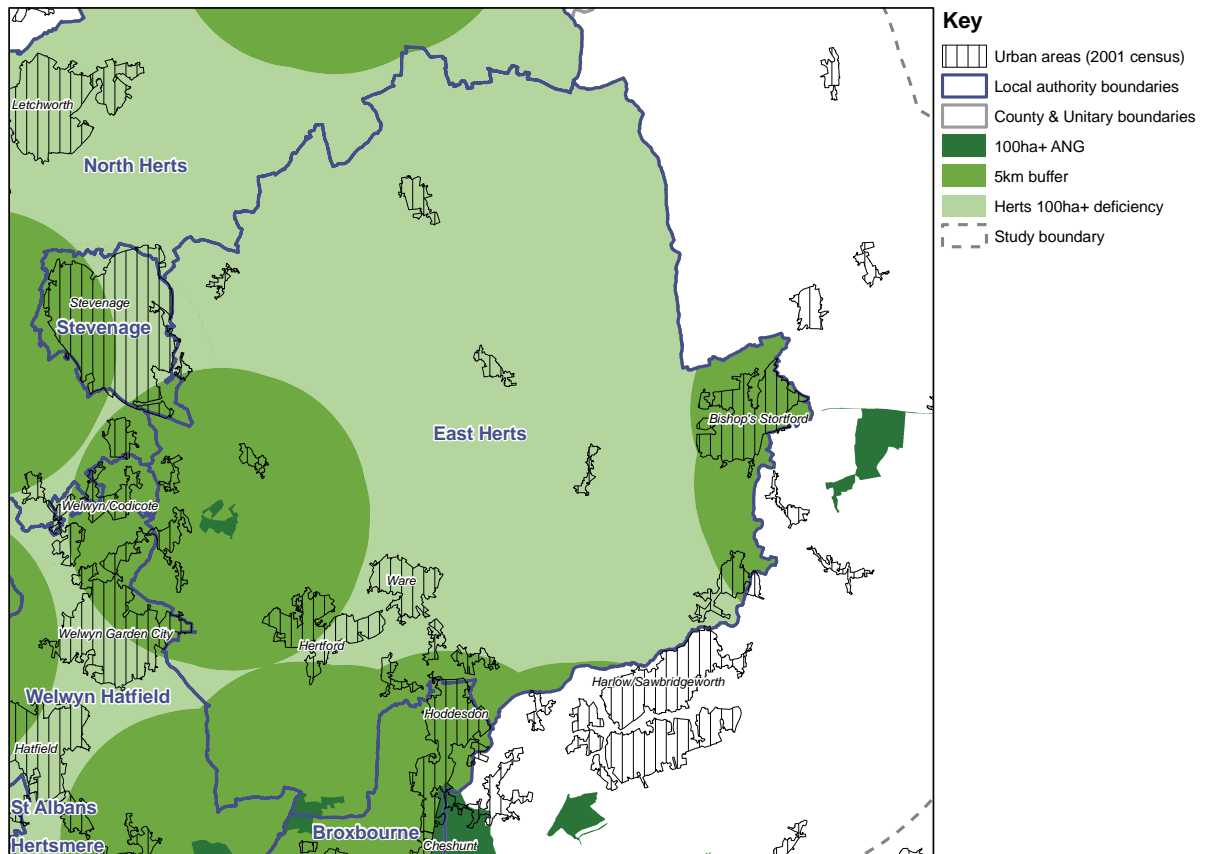
Plan 6b Accessible natural greenspace provision (20ha and above)



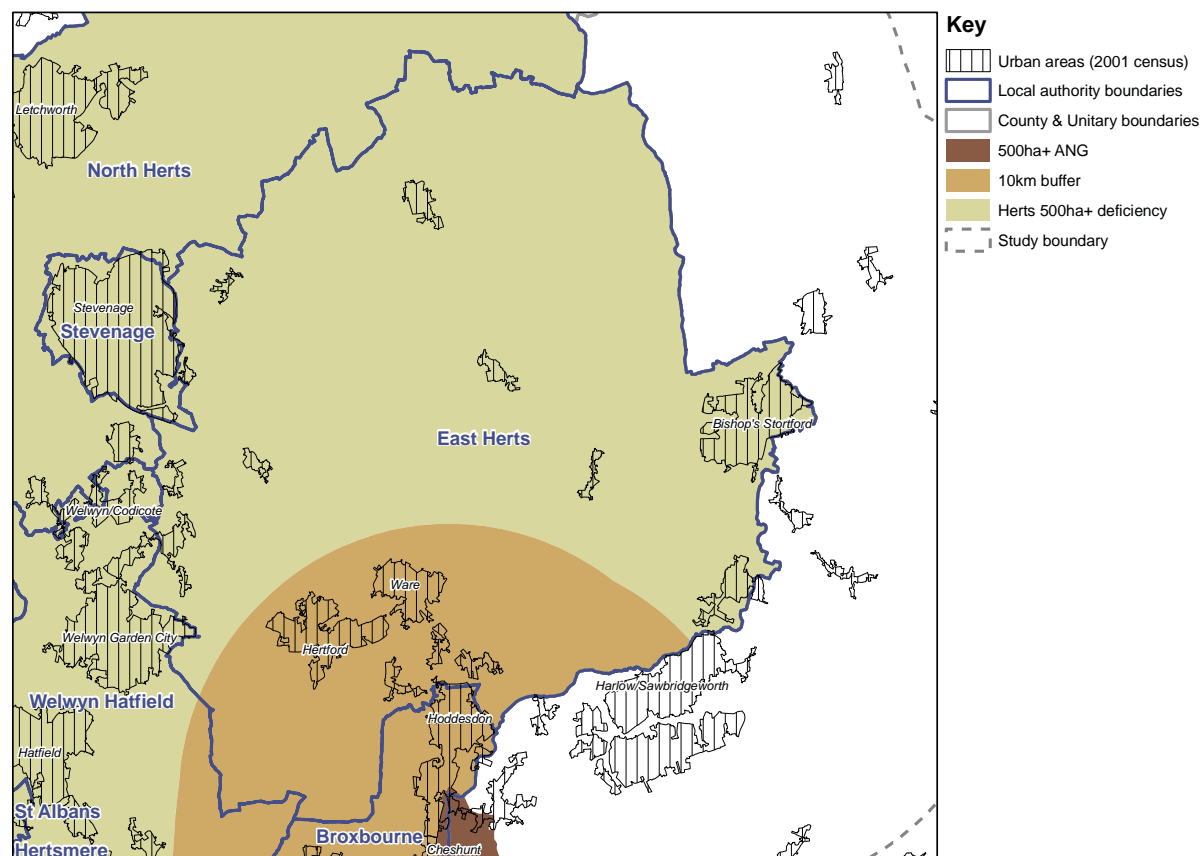
18

Analysis of Accessible Natural Greenspace Provision for Hertfordshire

Plan 6c Accessible natural greenspace provision (100ha and above)



Plan 6d Accessible natural greenspace provision (500ha and above)



Hertsmere

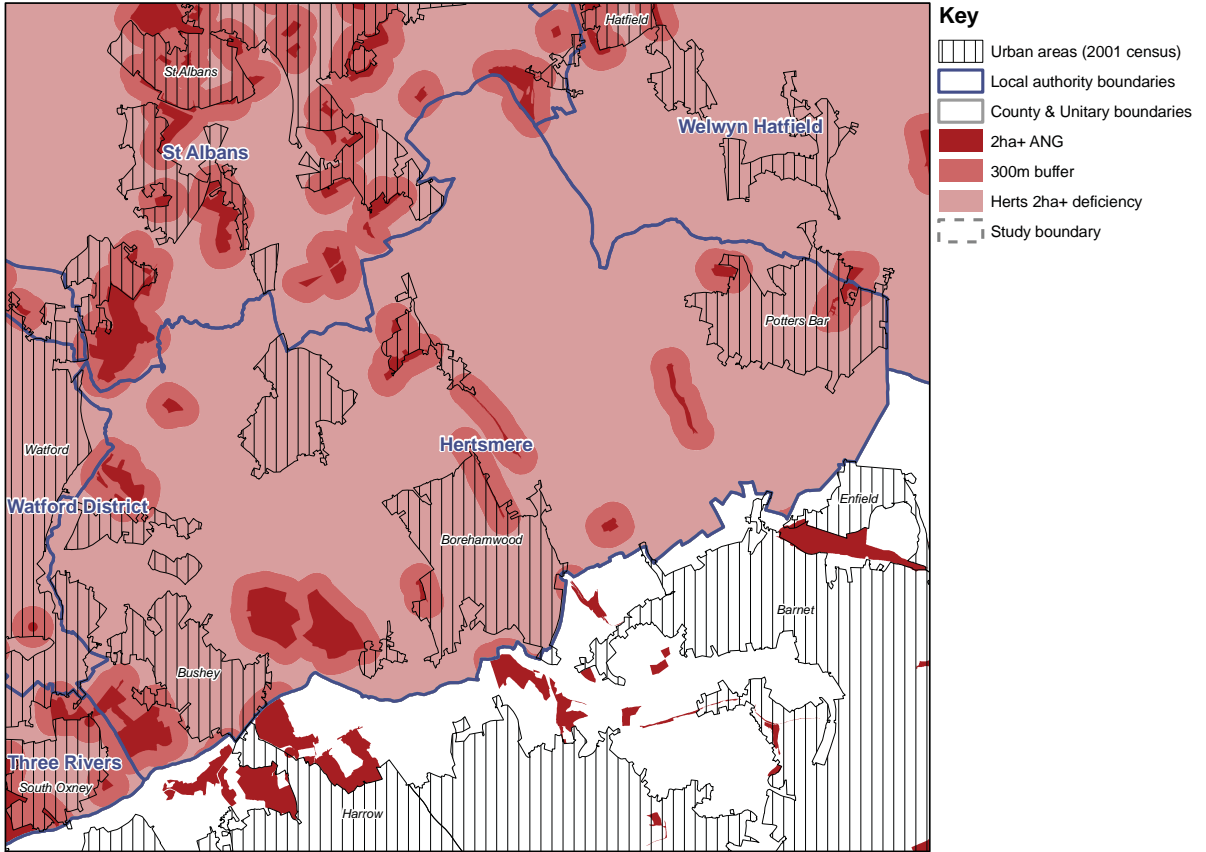
Hertsmere has a proportionately lower than average amount of its area made up of ANG. Hertsmere were unable to provide PPG17 data. This combined with the fact that Borehamwood and Potters Bar are not well provisioned at most levels, means that Hertsmere performs below the county average for all the ANGSt. 0% of households in Hertsmere meet all the ANGSt, while an above average proportion meet none, as can be seen in Table 7.

Table 7 ANGSt analysis results for Hertsmere

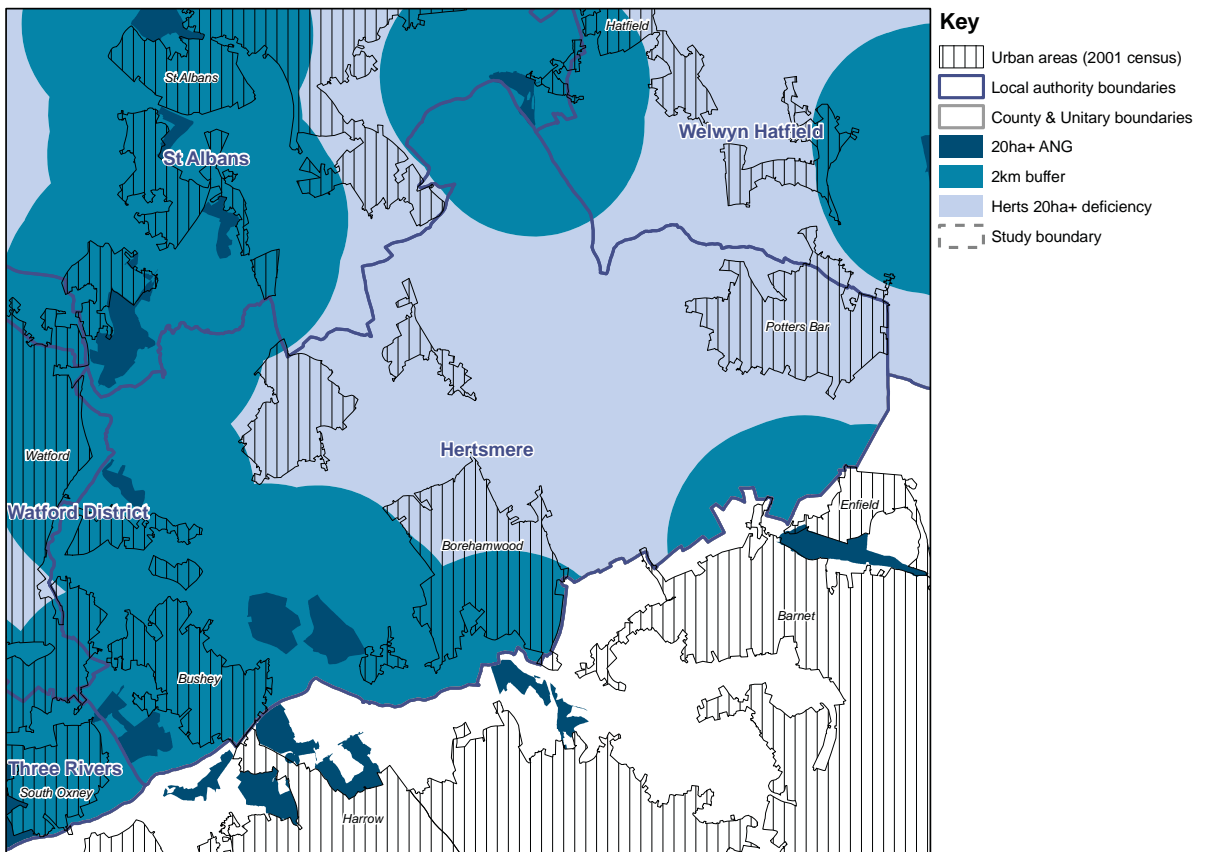
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Hertsmere | 43354 | 12.6 | 47.8 | 60.7 | 2.7 | 0.0 | 15.2 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

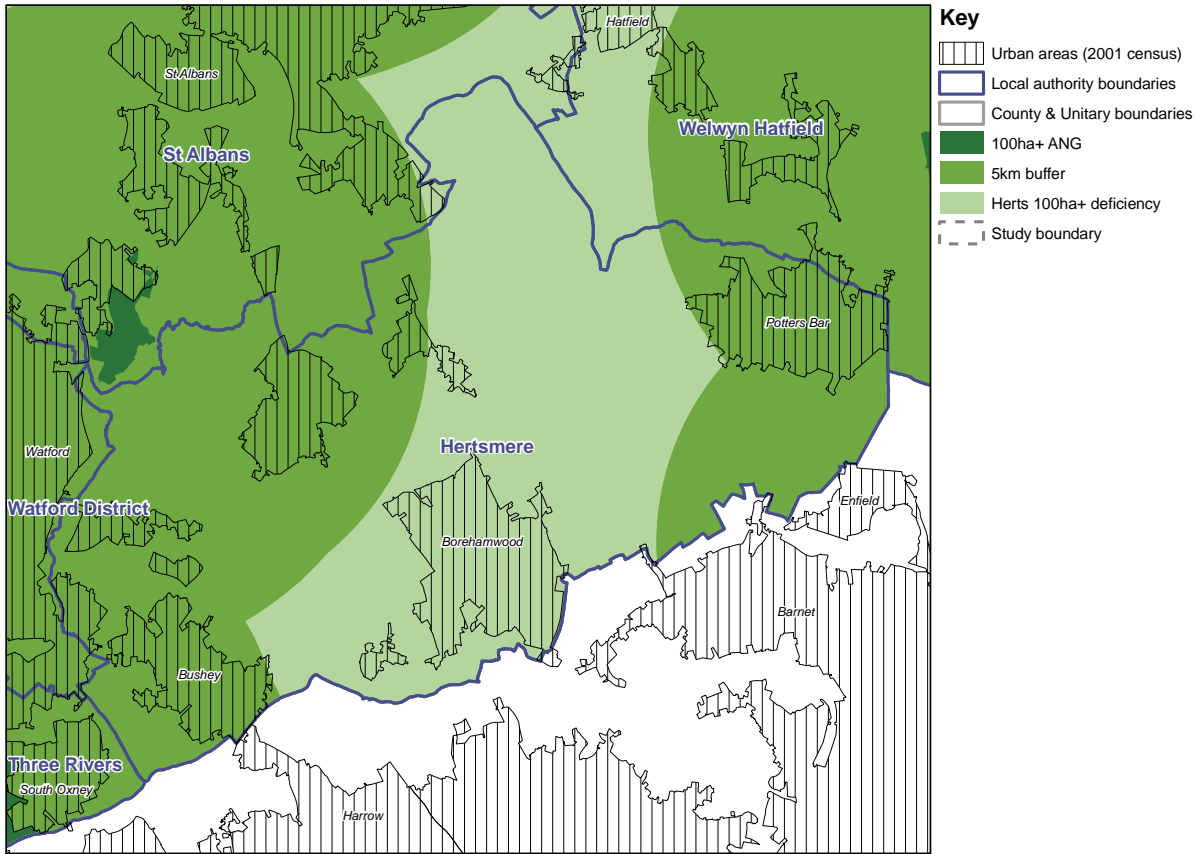
Plan 7a Accessible natural greenspace provision (2ha and above)



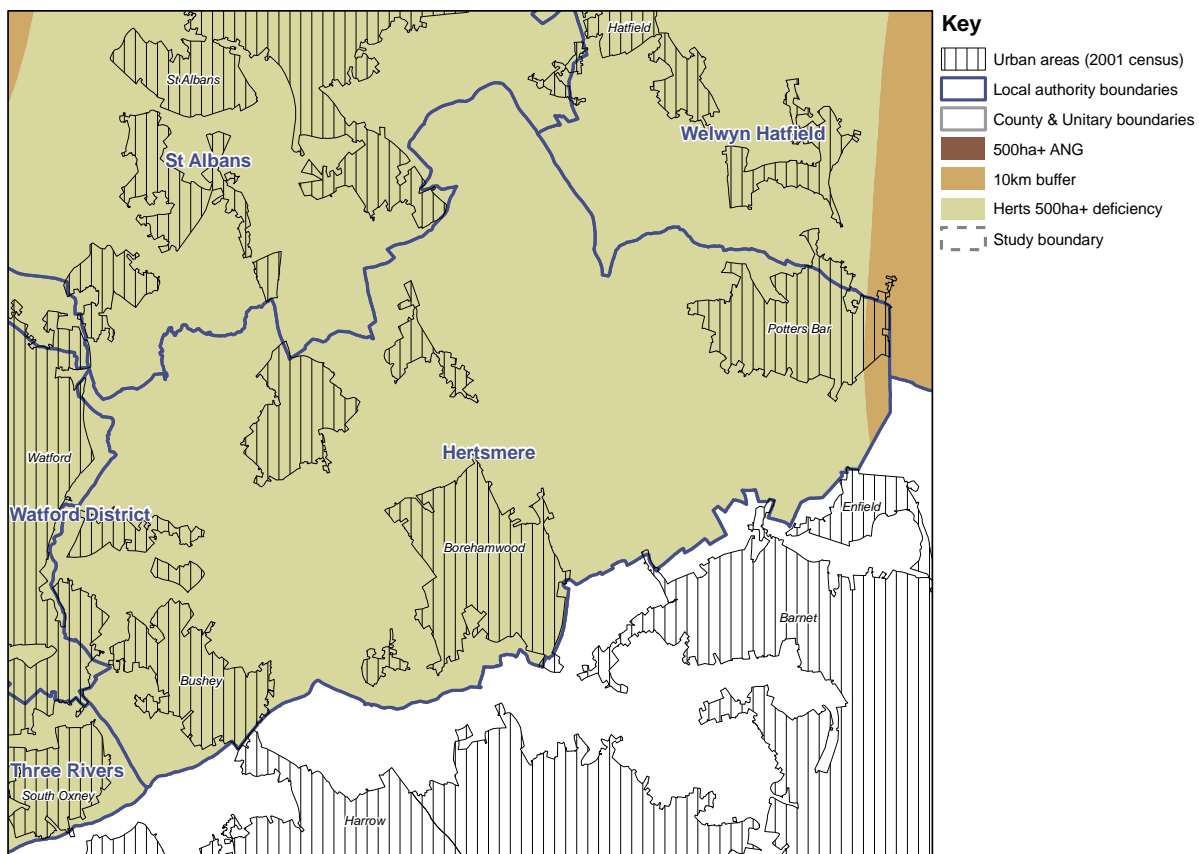
Plan 7b Accessible natural greenspace provision (20ha and above)



Plan 7c Accessible natural greenspace provision (100ha and above)



Plan 7d Accessible natural greenspace provision (500ha and above)



North Hertfordshire

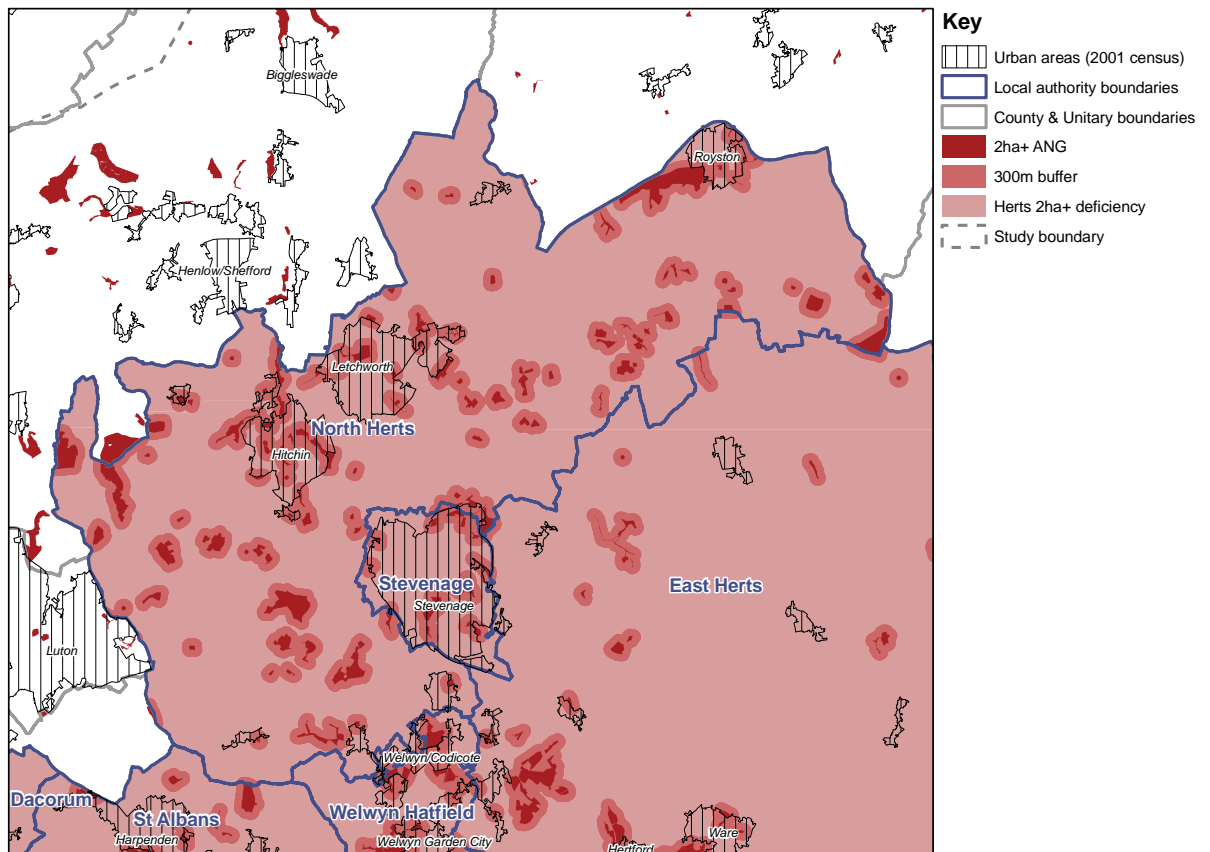
North Herts has a proportionately lower than average amount of its area made up of ANG. However, North Herts did provide some open space data which has undoubtedly contributed to it performing above the county average at the 2ha+/300m level. As the presence of large sites peters out as you go up the ANGSt, the gap between the North Herts result and the county average widens. Leaving the relatively densely populated areas of Hitchin, Letchworth and Royston increasingly under provisioned. In fact North Herts has 0% of households meeting all the ANGSt and a slightly above average proportion meeting none.

Table 8 ANGSt analysis results for North Herts

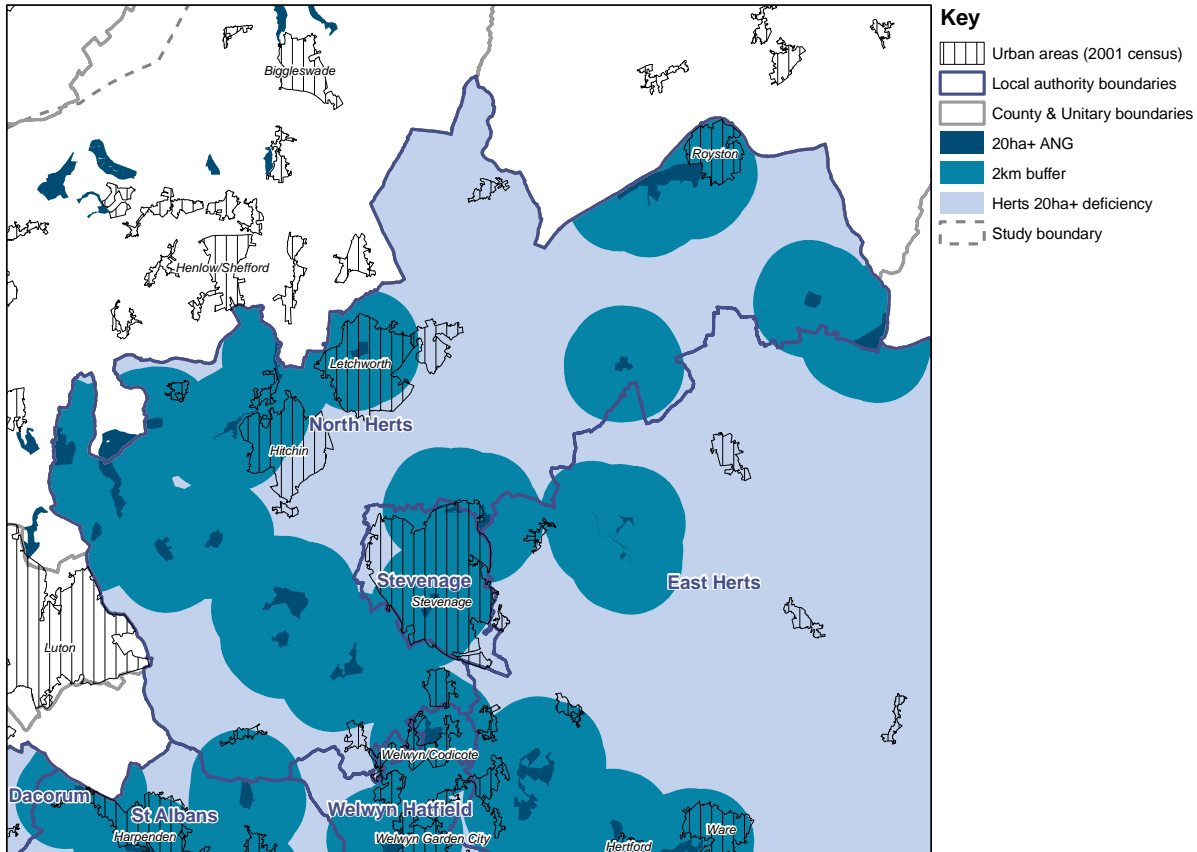
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| North Herts | 57390 | 52.3 | 70.7 | 39.9 | 0.0 | 0.0 | 8.7 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

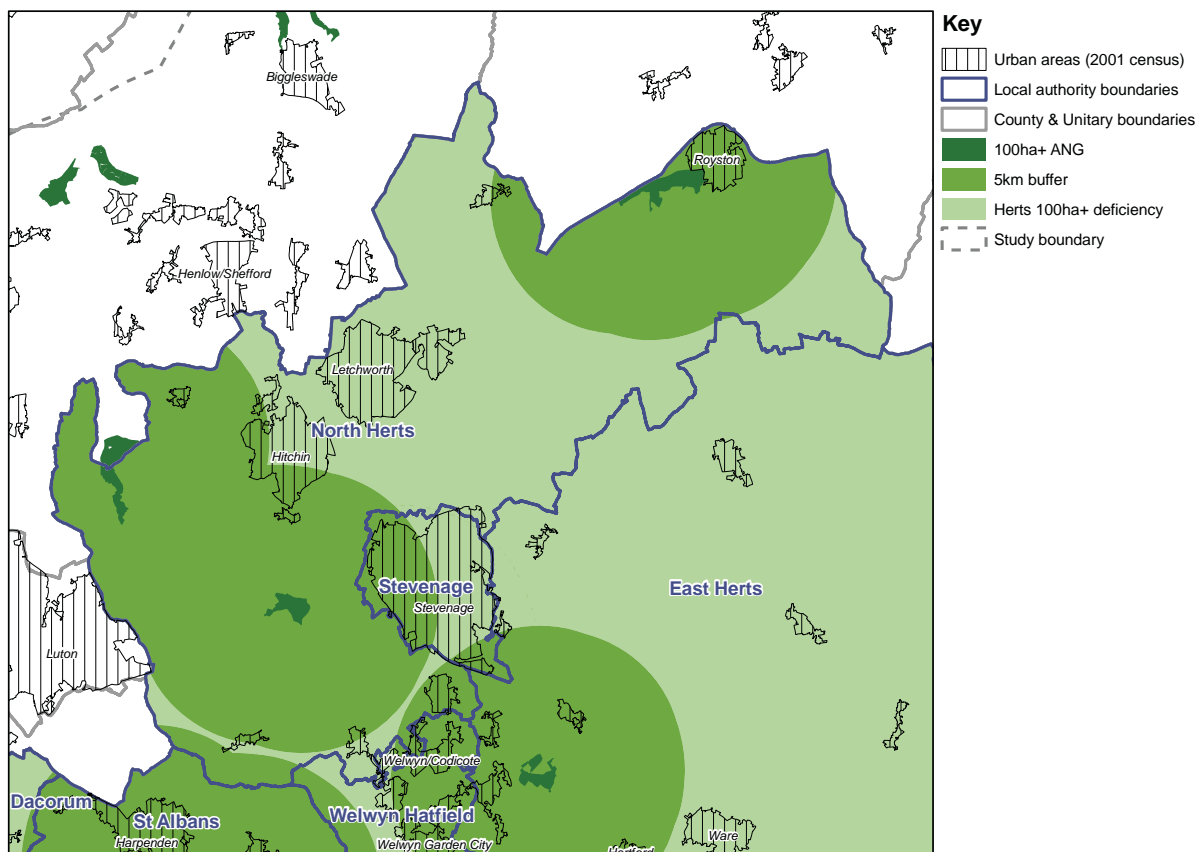
Plan 8a Accessible natural greenspace provision (2ha and above)



Plan 8b Accessible natural greenspace provision (20ha and above)

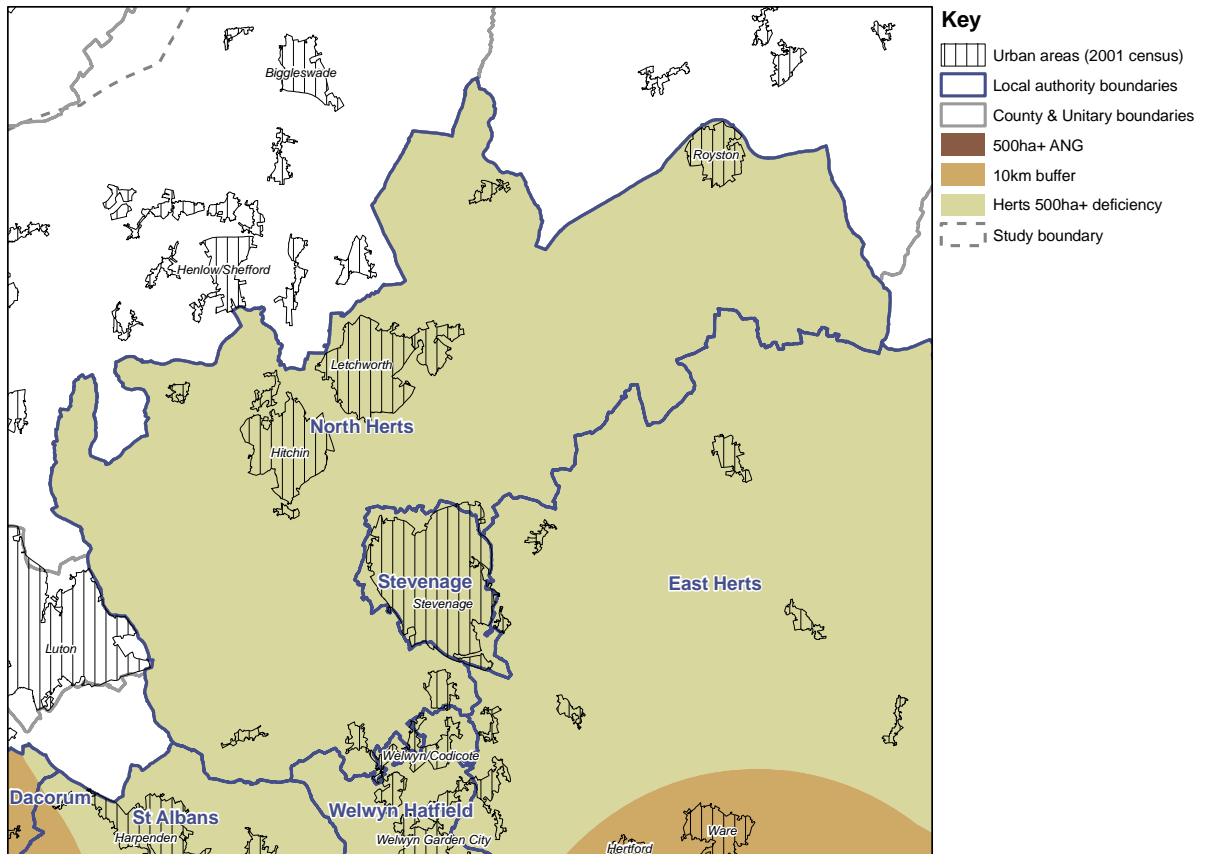


Plan 8c Accessible natural greenspace provision (100ha and above)



Plan 8d Accessible natural greenspace provision (500ha and above)

24



St Albans

The proportion of St Albans' area being made up of ANG is comparable to the county figure. St Albans did provide some open space data and again this undoubtedly benefited both the 2ha+/300m and 20ha+/2km levels because significant areas of Harpenden and St Albans are provisioned with ANG sites. A few suitably located 100ha+/5km sites, covering the main urban areas means a higher than average performance at this level too.

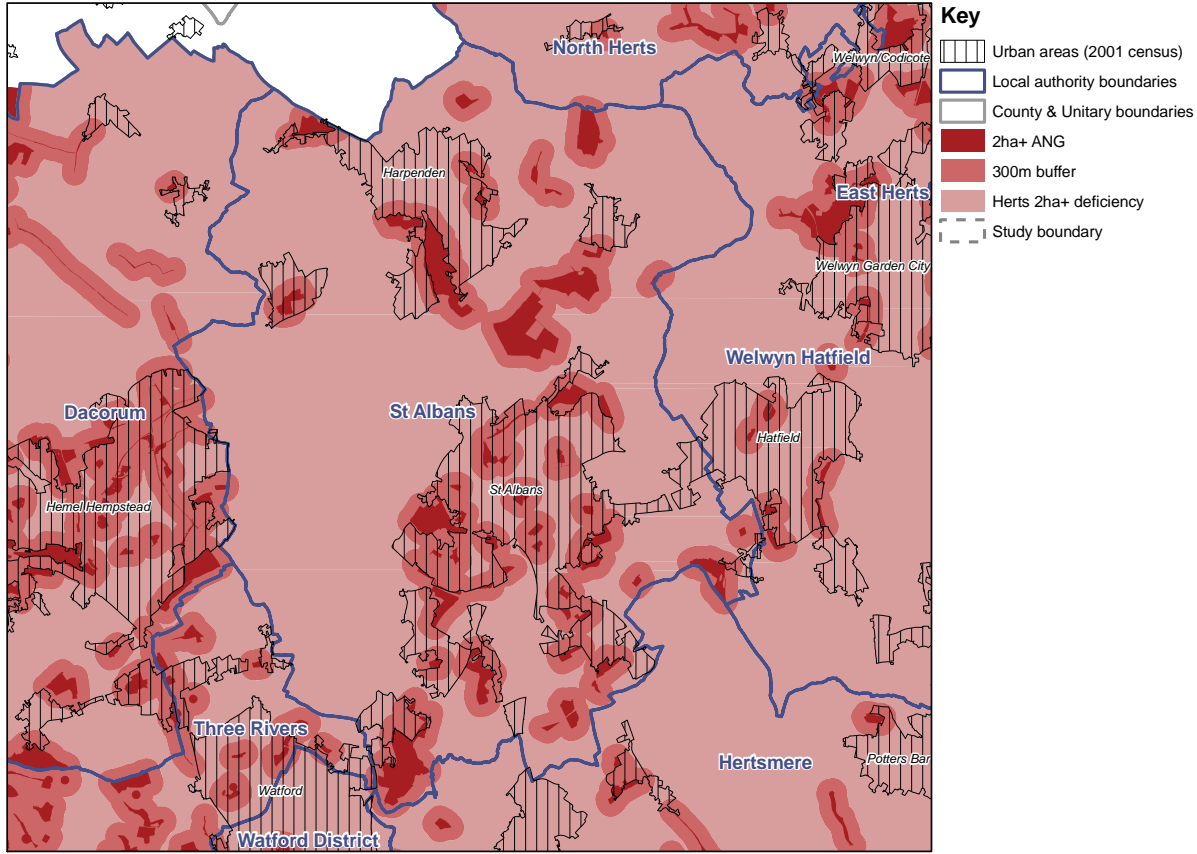
As can be seen in Plan 9d, with only a marginal provision of 500ha+/10km ANG (coming from a large ANG site in Dacorum) St Albans scores below the county average. Below average proportions of households in St Albans meet both all and none of the ANGSt.

Table 9 ANGSt analysis results for St Albans

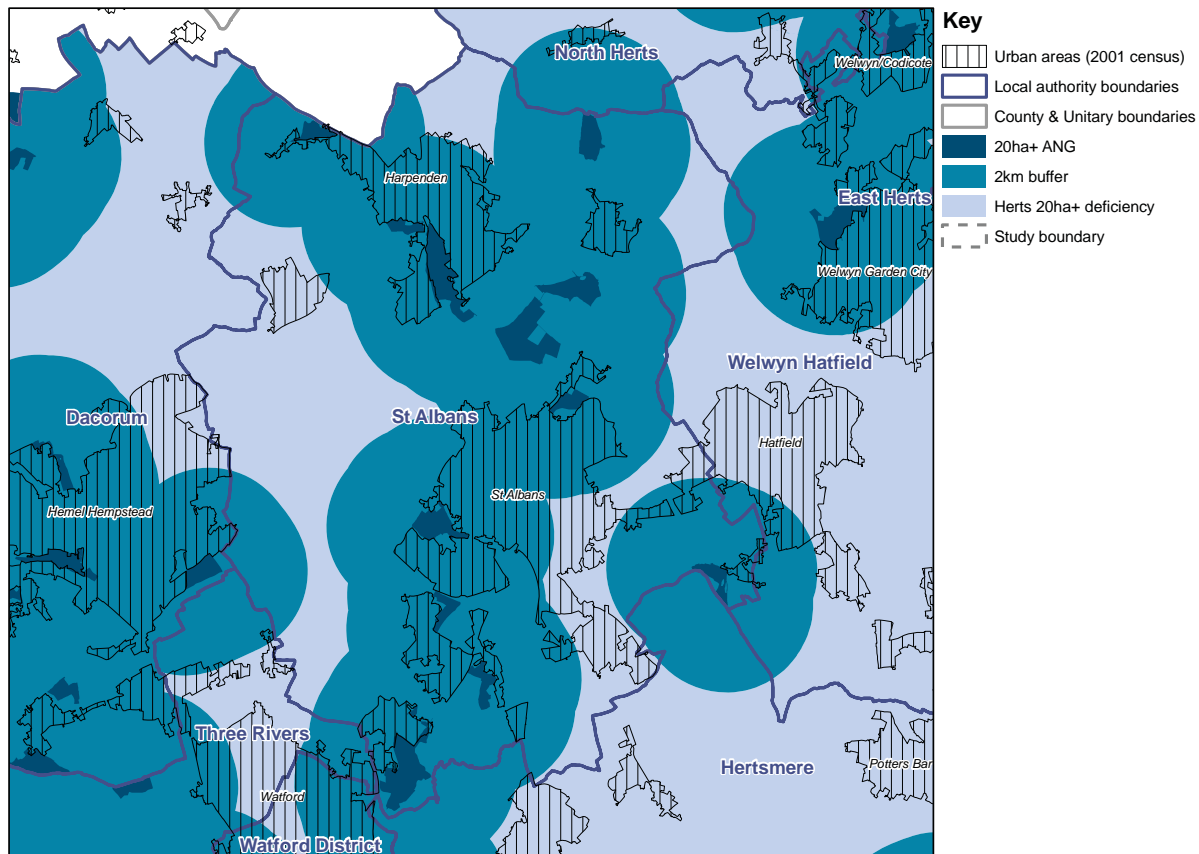
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| St Albans | 60272 | 52.1 | 80.5 | 97.8 | 4.0 | 0.0 | 0.6 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

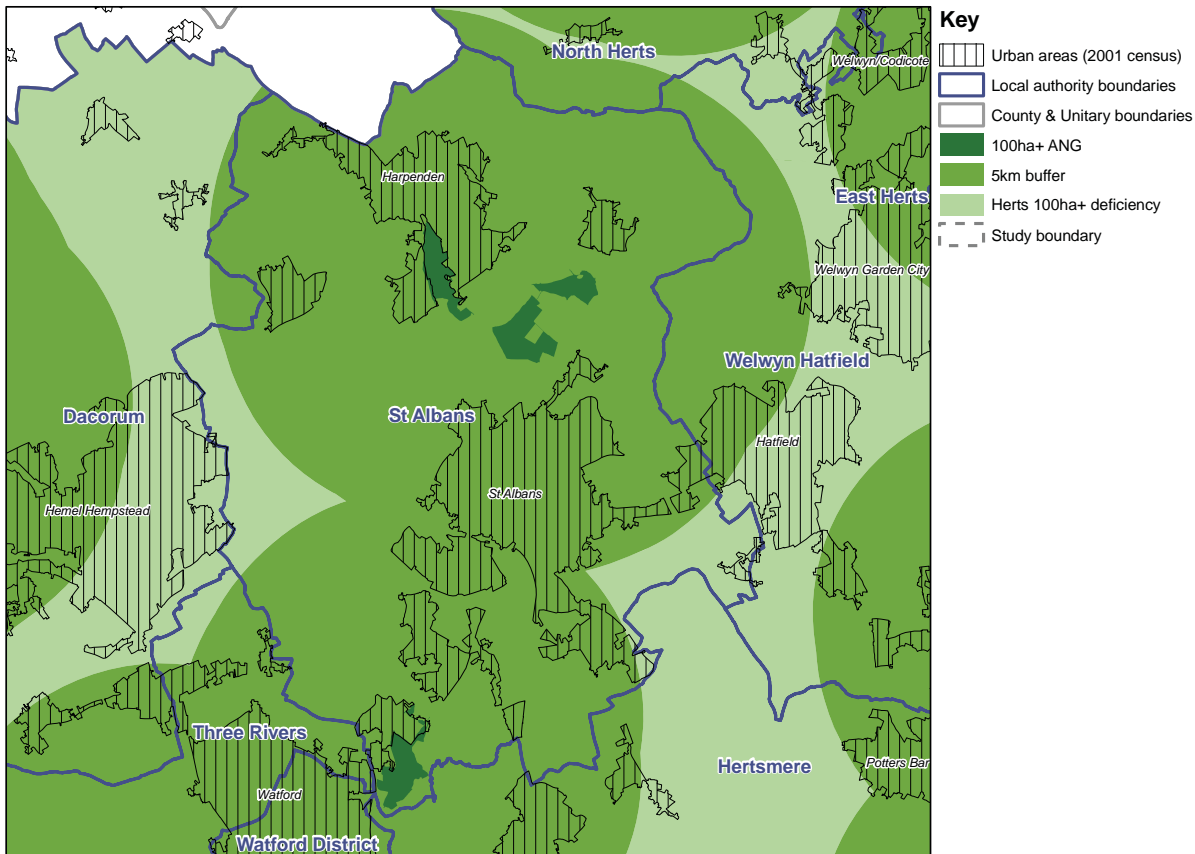
Plan 9a Accessible natural greenspace provision (2ha and above)



Plan 9b Accessible natural greenspace provision (20ha and above)



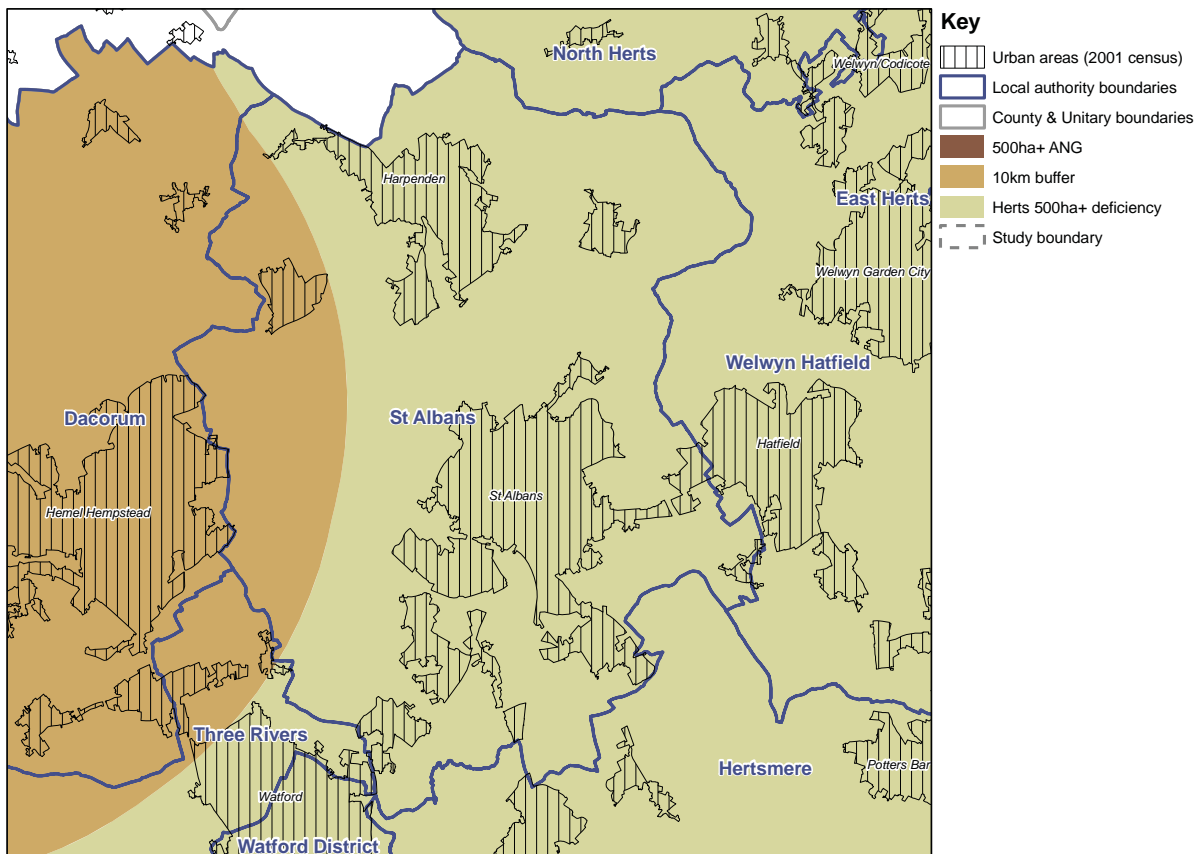
Plan 9c Accessible natural greenspace provision (100ha and above)



26

Analysis of Accessible Natural Greenspace Provision for Hertfordshire

Plan 9d Accessible natural greenspace provision (500ha and above)



Stevenage

Stevenage has a below average proportion of its area made up of ANG and a below average provision at the 2ha+/300m level. This may in part be because Stevenage were unable to provide any PPG17 data. However, because of a combination of one suitably located ANG site within the borough and two ANG sites from outside of the borough to the north and south Stevenage performs above the county average at the 20ha+/2km level.

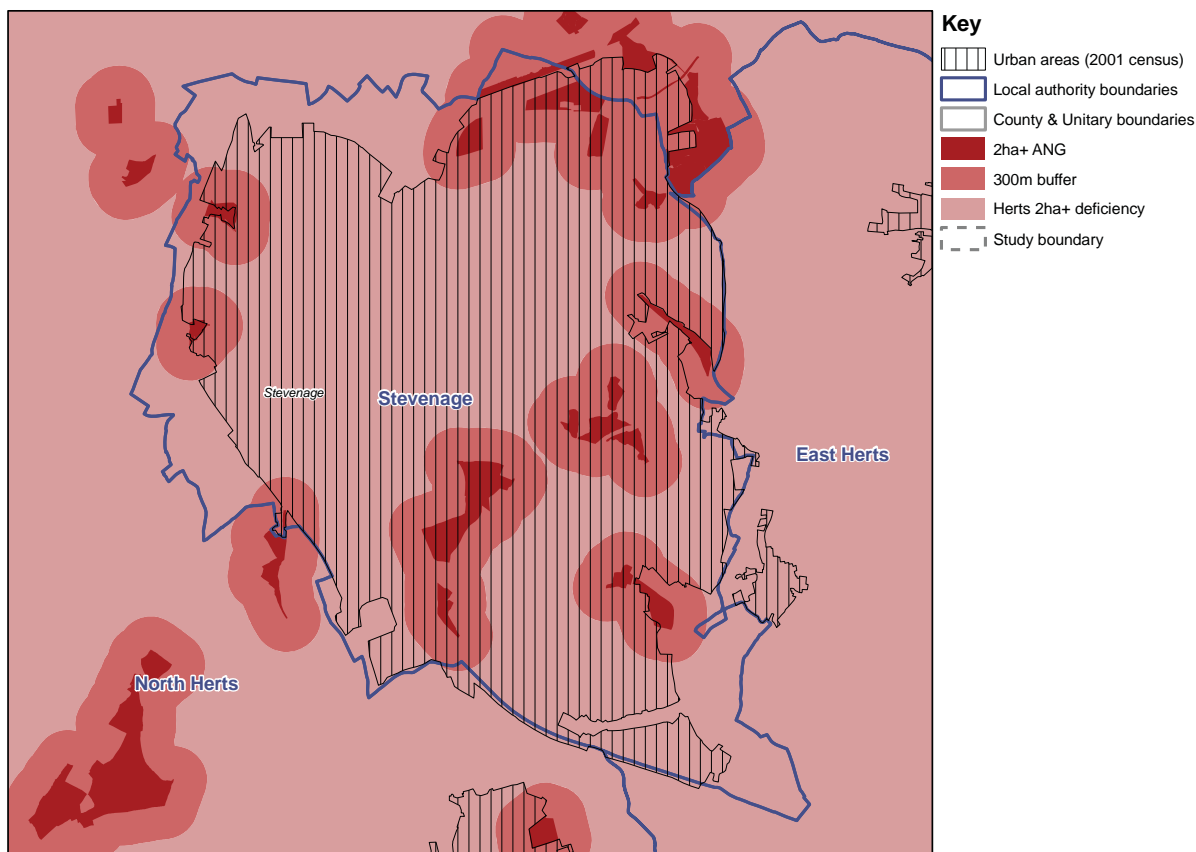
As can be seen in Table 10 Stevenage scores below the county average at the 100ha+/5km and 500ha+/10km levels and has 0% of its households meeting all the ANGSt.

Table 10 ANGSt analysis results for Stevenage

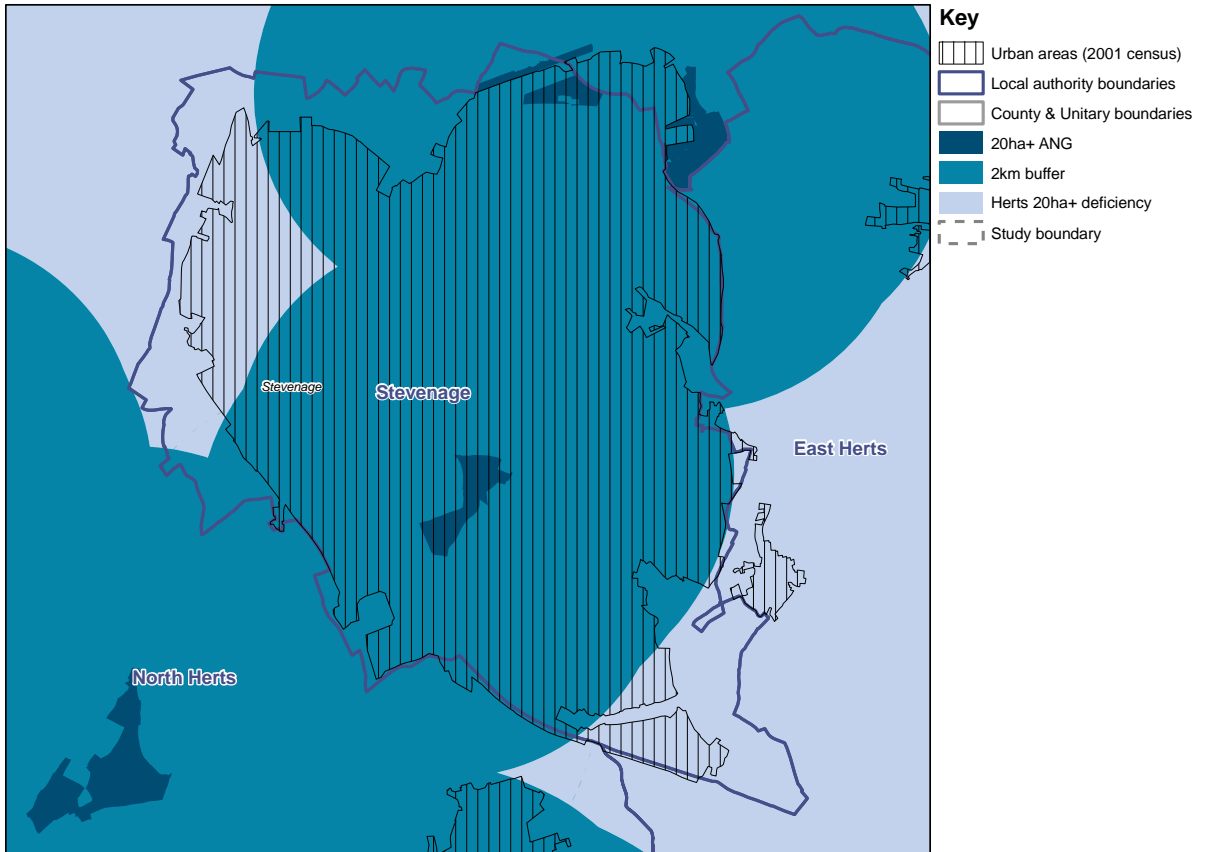
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Stevenage | 36309 | 33.7 | 86.7 | 37.7 | 0.0 | 0.0 | 0.0 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

Plan 10a Accessible natural greenspace provision (2ha and above)

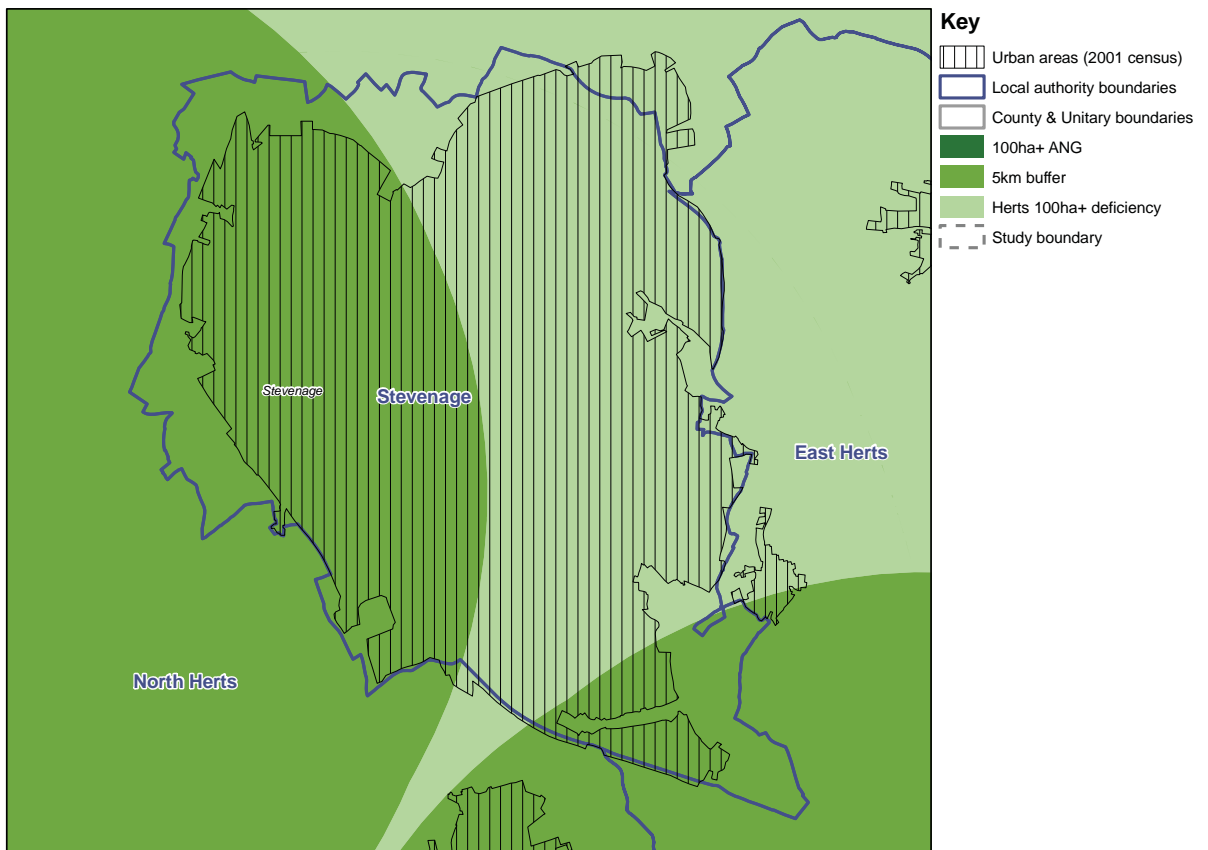


Plan 10b Accessible natural greenspace provision (20ha and above)

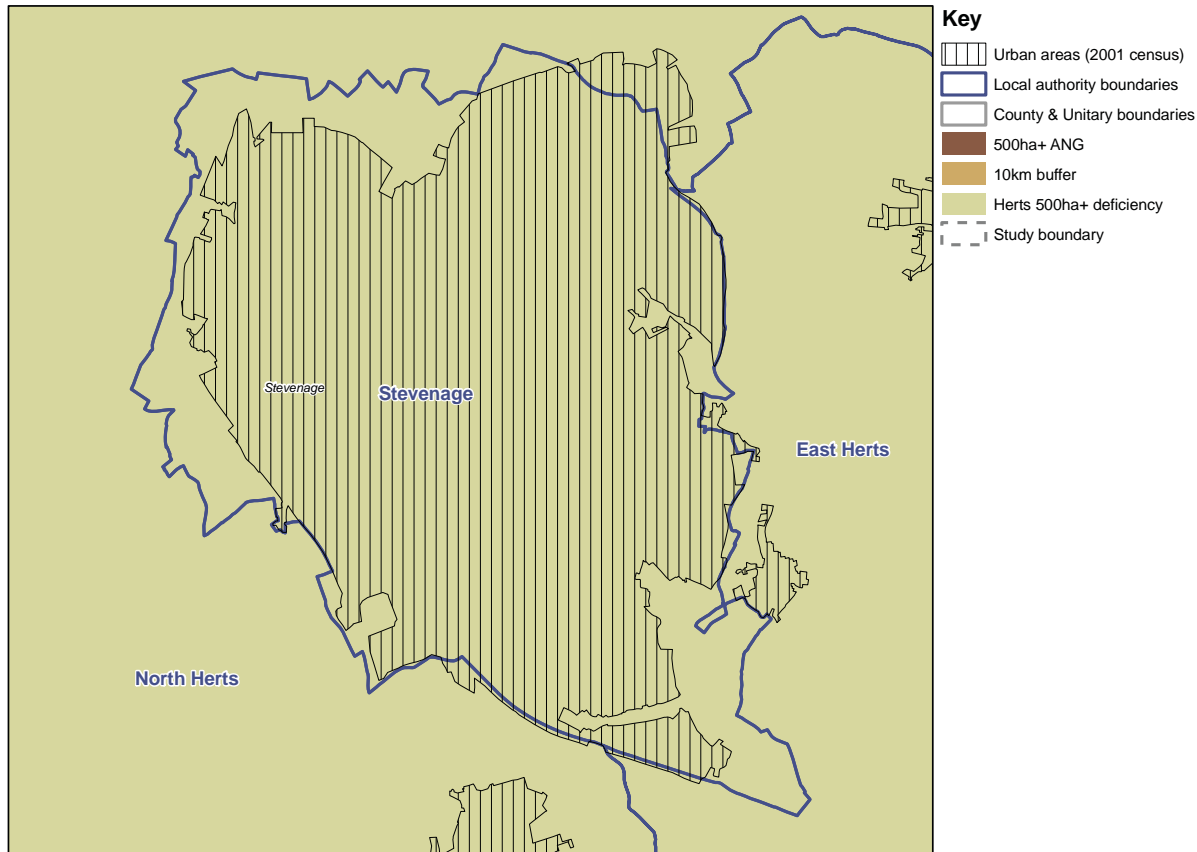


28

Plan 10c Accessible natural greenspace provision (100ha and above)



Plan 10d Accessible natural greenspace provision (500ha and above)



Three Rivers

Three Rivers has the highest proportion of its area made up by ANG in Hertfordshire. Also Three Rivers were able to provide PPG17 data. This has meant that Three Rivers has performed well against the county results at the 2ha+/300m, 20ha+/2km and 100ha+/5km levels, with the three main urban areas of Chorleywood, Rickmansworth and South Oxney being increasingly well provisioned as you move up the ANGSt. However, with no ANG sites above 500ha and only a small proportion of its area catered for by a large ANG site in Dacorum, Three Rivers performs below the county average at this level.

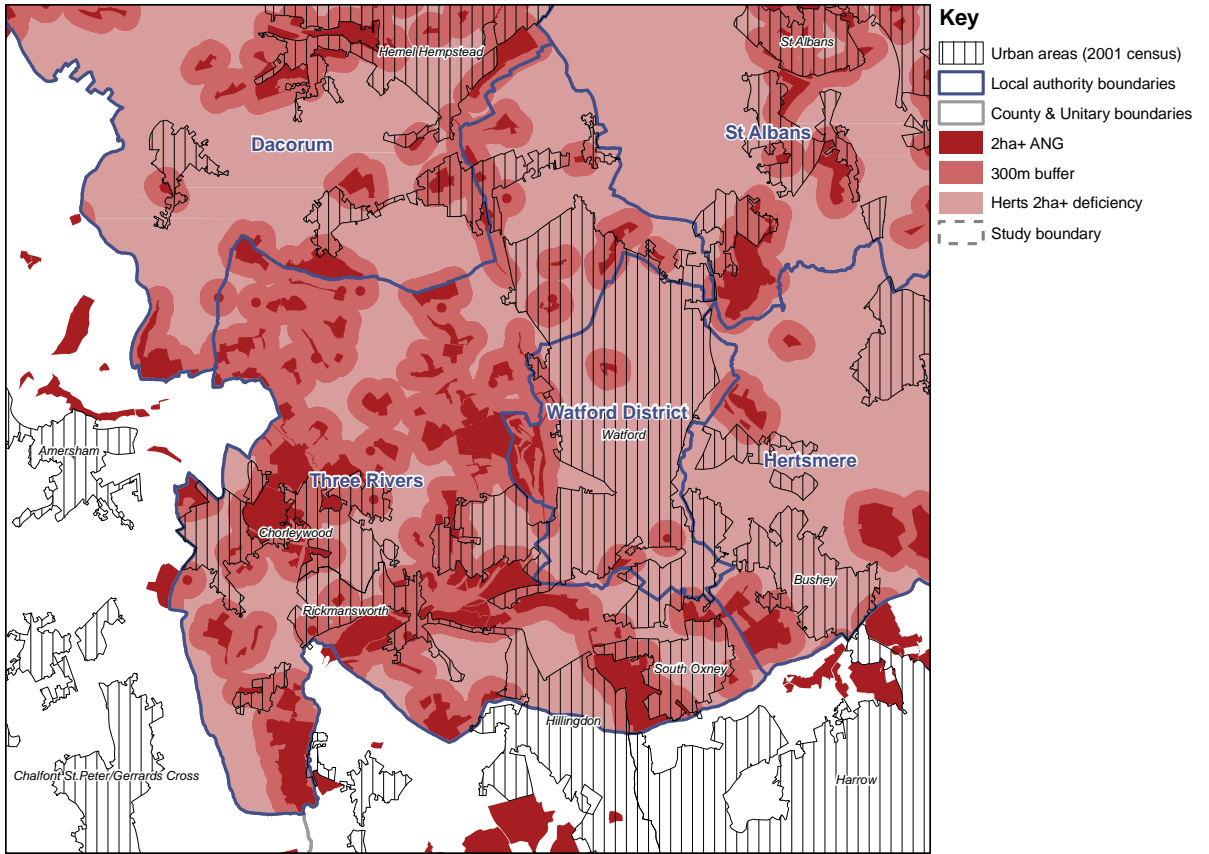
Because none of the main urban areas benefit from this site in Dacorum, the proportion of households meeting all ANGSt is also well below the county average.

Table 11 ANGSt analysis results for Three Rivers

| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Three Rivers | 37247 | 60.5 | 87.9 | 99.6 | 7.0 | 3.6 | 0.0 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

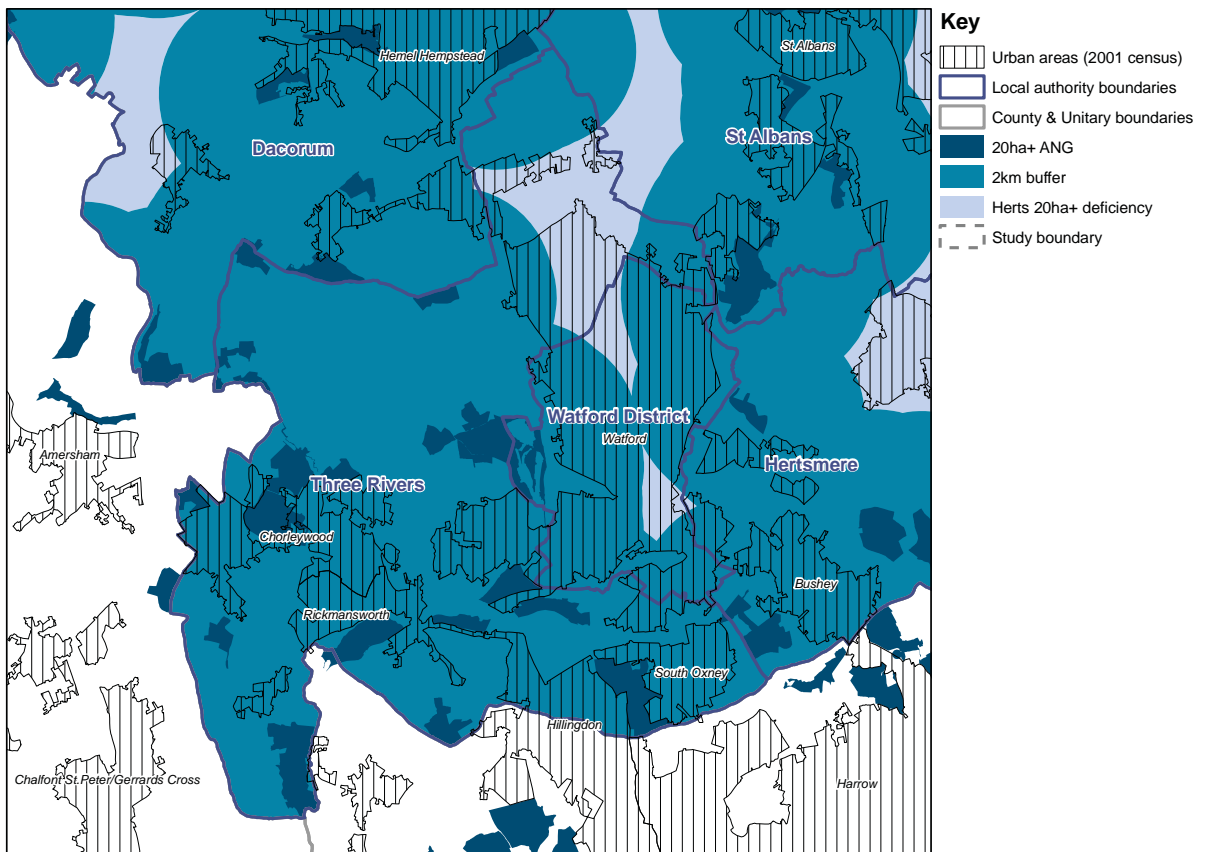
Plan 11a Accessible natural greenspace provision (2ha and above)



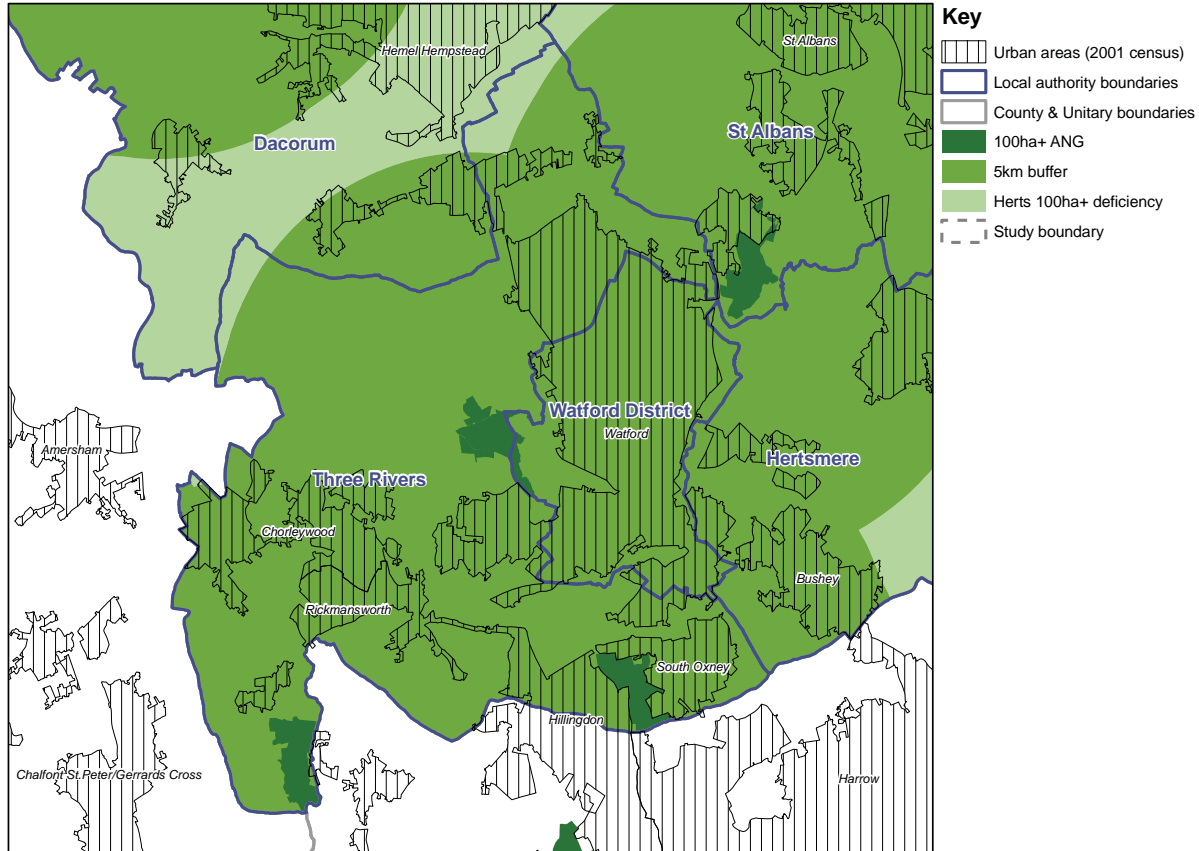
30

Analysis of Accessible Natural Greenspace Provision for Hertfordshire

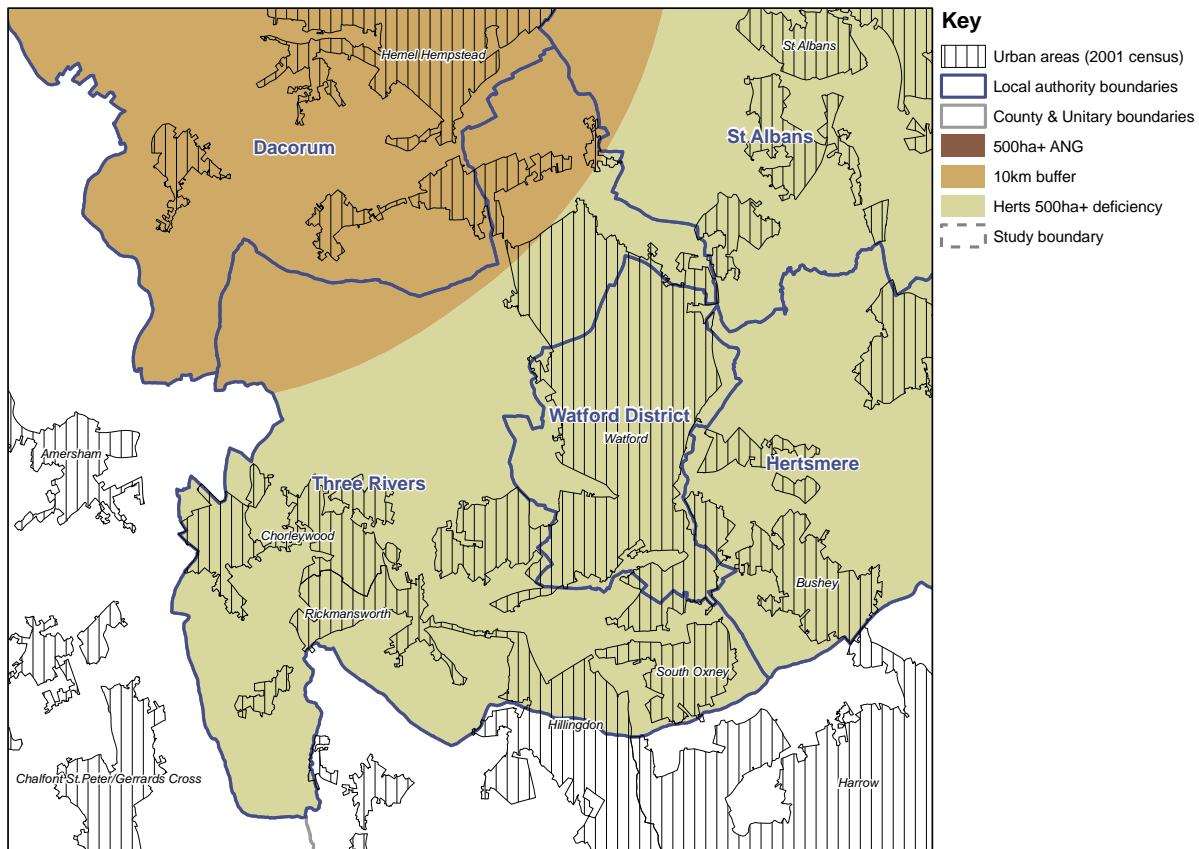
Plan 11b Accessible natural greenspace provision (20ha and above)



Plan 11c Accessible natural greenspace provision (100ha and above)



Plan 11d Accessible natural greenspace provision (500ha and above)



Watford

Watford has a below average proportion of its area made up by ANG and were unable to provide any PPG17 data. This has meant that Watford has performed below the county average and in fact has the lowest result at the 2ha+/300m in Hertfordshire. The results at the 20ha+/2km and 100ha+/5km levels would be similar if it was not for the contribution made by ANG sites from outside of the borough, as can be seen in Plan 12b and 12c respectively. Also, with no ANG sites above 500ha within the borough and only a small proportion of its area catered for by a large ANG site in Dacorum, Watford performs below the county average at the 500ha+/10km level.

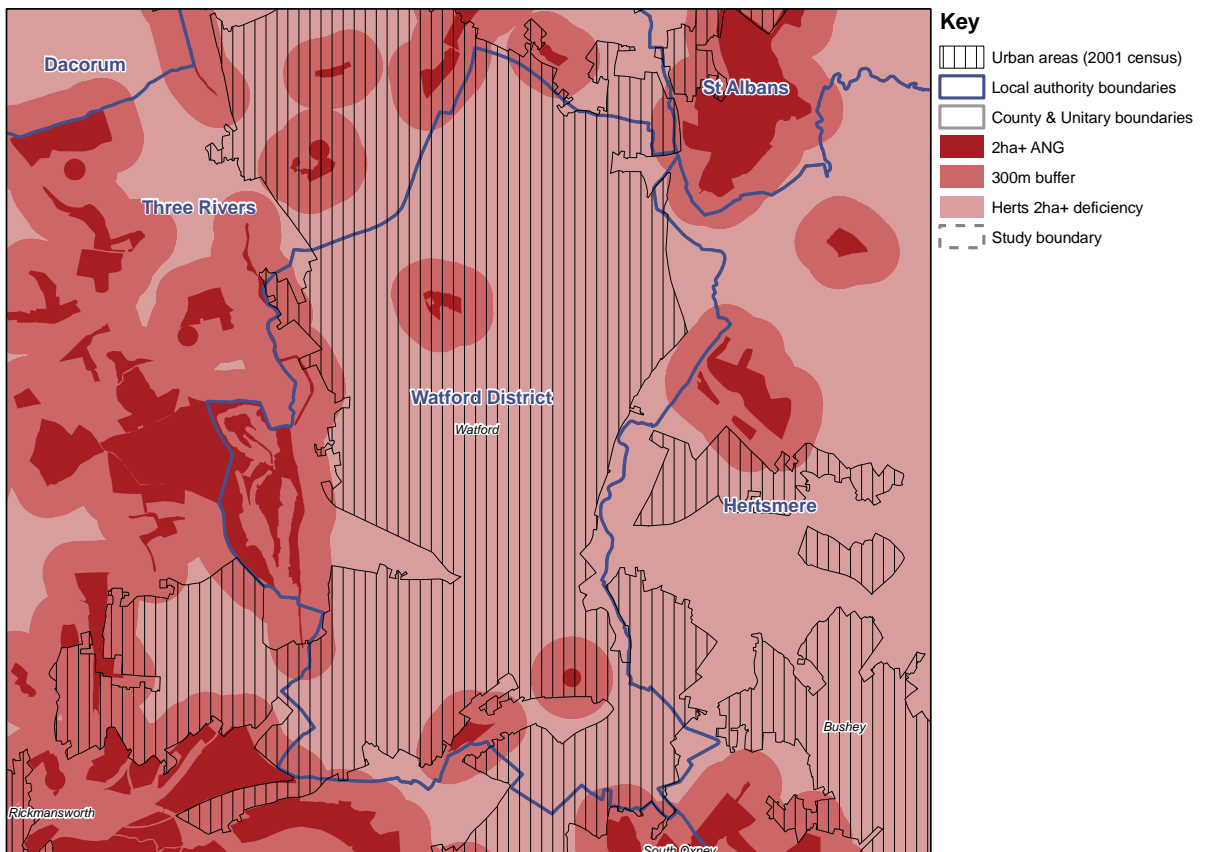
0% of households in Watford meet all the ANGSt, while 0% meet none of them.

Table 12 ANGSt analysis results for Watford

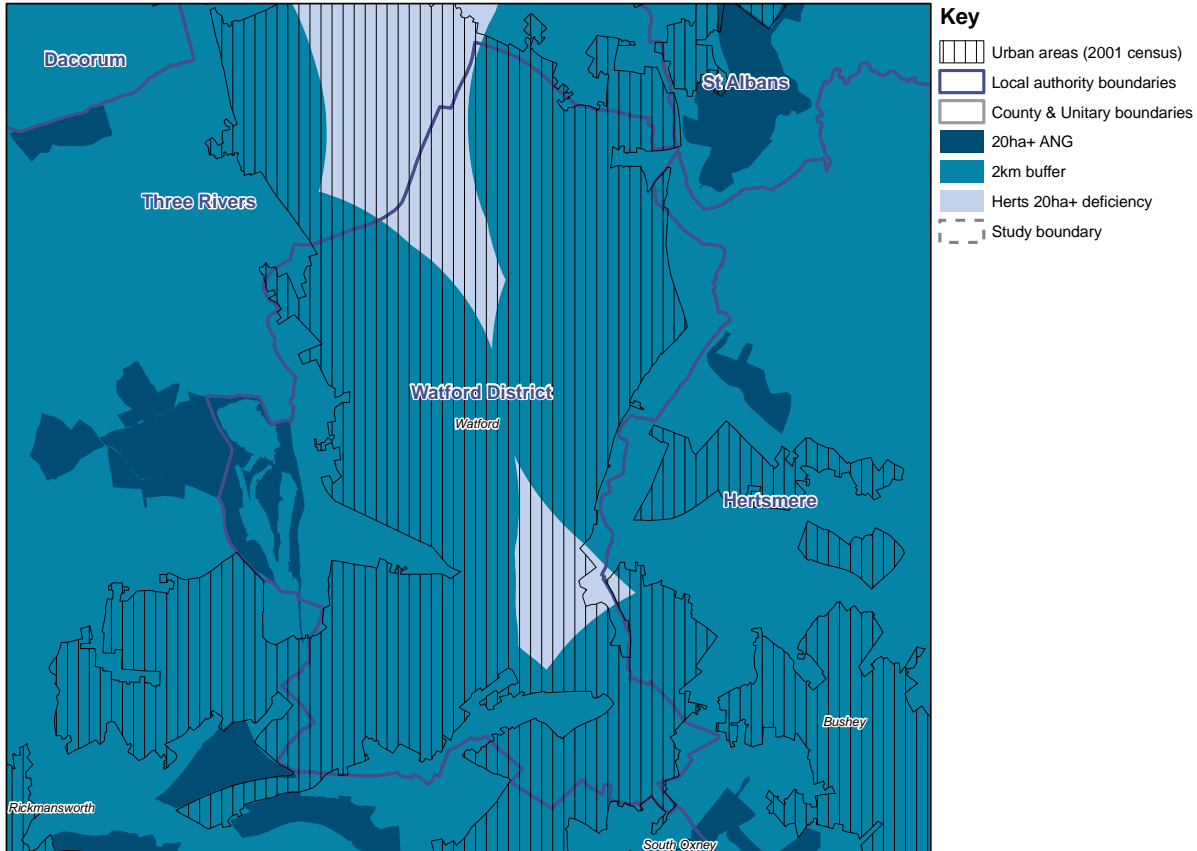
| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGSt (%) | meeting none of the ANGSt (%) |
| Watford | 38249 | 8.7 | 86.8 | 100.0 | 0.0 | 0.0 | 0.0 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

*Estimate from 2005 AddressPoint data checked against 2001 Census data

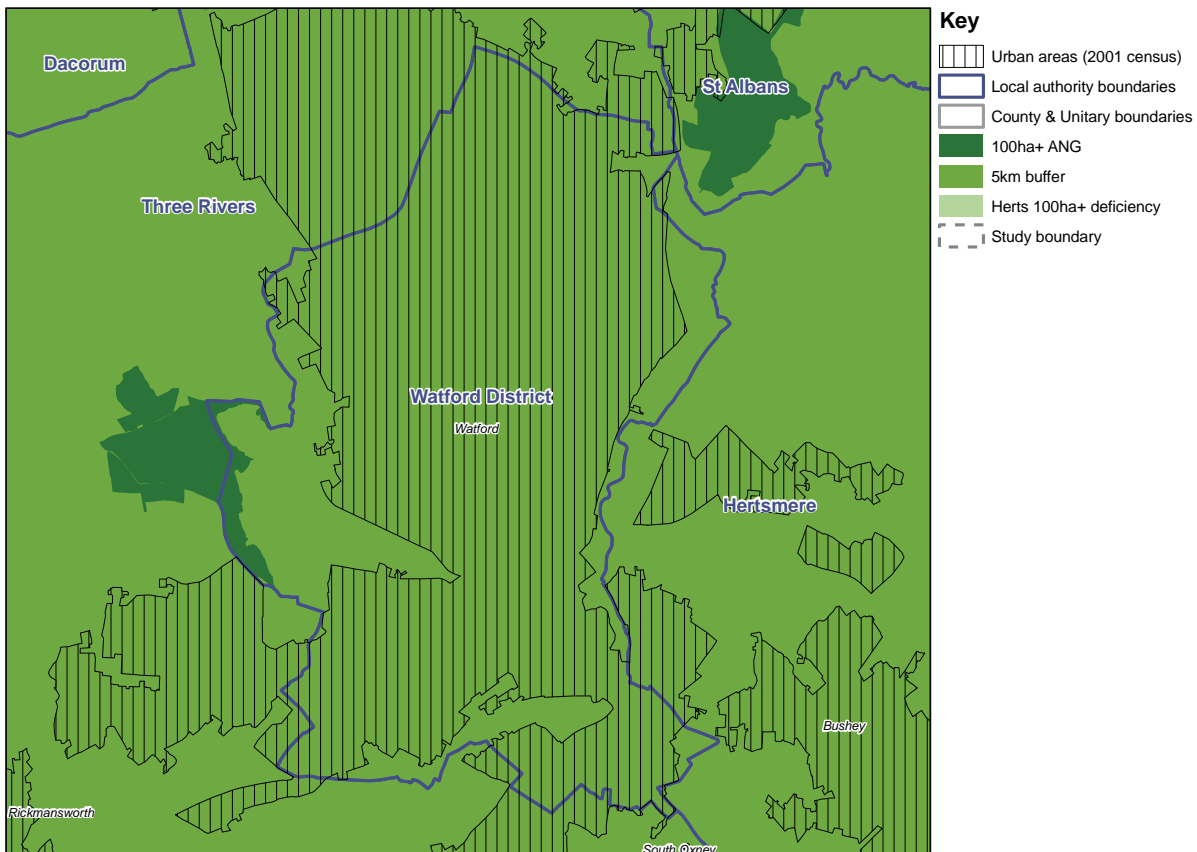
Plan 12a Accessible natural greenspace provision (2ha and above)



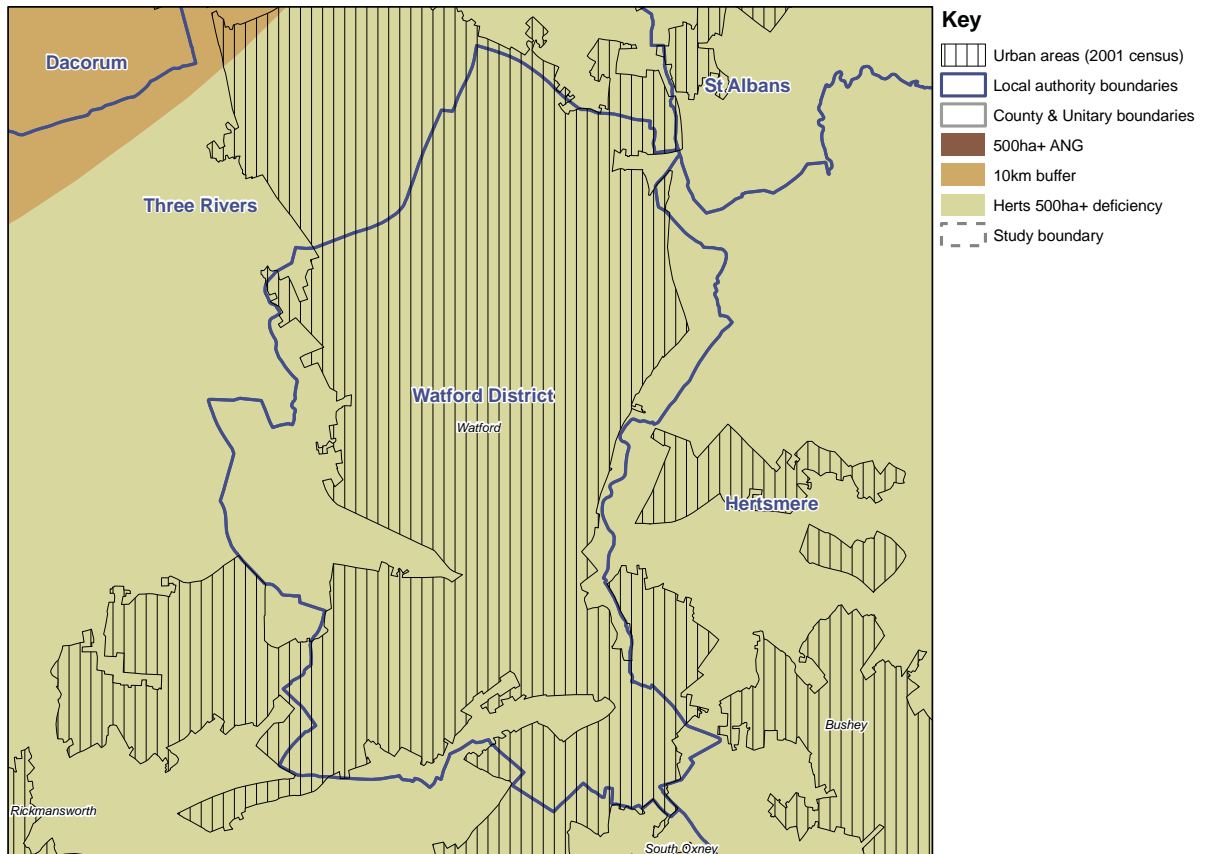
Plan 12b Accessible natural greenspace provision (20ha and above)



Plan 12c Accessible natural greenspace provision (100ha and above)



Plan 12d Accessible natural greenspace provision (500ha and above)



34

Analysis of Accessible Natural Greenspace Provision for Hertfordshire

Welwyn Hatfield

Welwyn Hatfield has a below average proportion of its area made up of ANG. Welwyn Hatfield did however provide some open space data which, as can be seen in Plan 13a, has allowed Welwyn Hatfield to perform just below the county average; without this openspace data it is likely that this result would have been lower. However, when one turns to the 20ha+/2km and 100ha+/5km levels Welwyn Hatfield performs well below the county averages. Especially at the 100ha+/5km level where the provision is nearly entirely contributed by ANG sites from outside the area.

At the 500ha+/10km level Welwyn Hatfield performs below the county average, with the 5.9% of households provisioned by a large ANG site on the eastern boundary of Broxbourne.

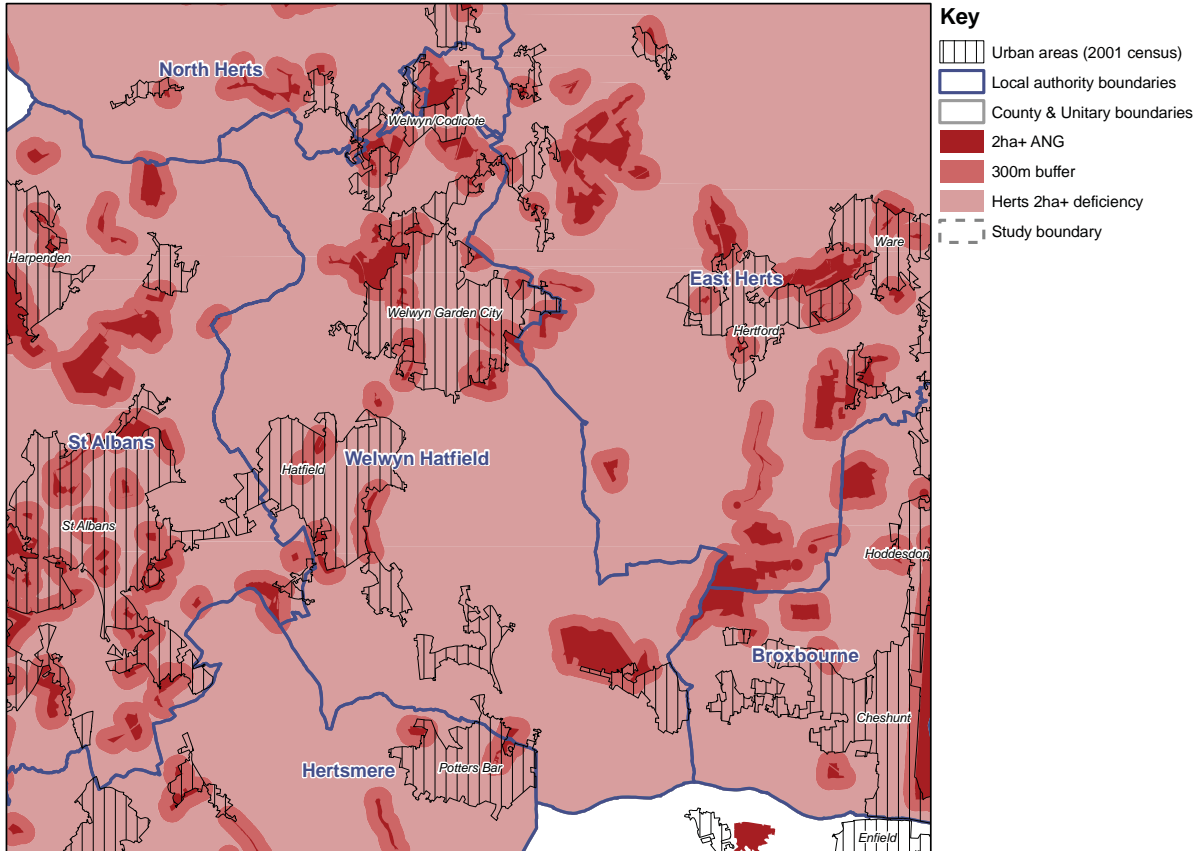
Because the urban areas of Hatfield and Welwyn Garden City are under provisioned at all levels (according to the data provided), Welwyn Hatfield has a below average proportion of its households meeting all the ANGst and a particularly high proportion meeting none.

Table 13 ANGst analysis results for Welwyn Hatfield

| Local Planning Authority | Number of households* | % of households | | | | | |
|-------------------------------|-----------------------|----------------------------|----------------------------|-----------------------------|------------------------------|---------------------------|-------------------------------|
| | | within 300m of a 2ha+ site | within 2km of a 20ha+ site | within 5km of a 100ha+ site | within 10km of a 500ha+ site | meeting all the ANGst (%) | meeting none of the ANGst (%) |
| Welwyn Hatfield | 47078 | 33.9 | 42.8 | 44.4 | 5.9 | 0.8 | 25.6 |
| Hertfordshire averages | 484287.0 | 36.2 | 75.4 | 69.7 | 26.5 | 6.7 | 6.4 |

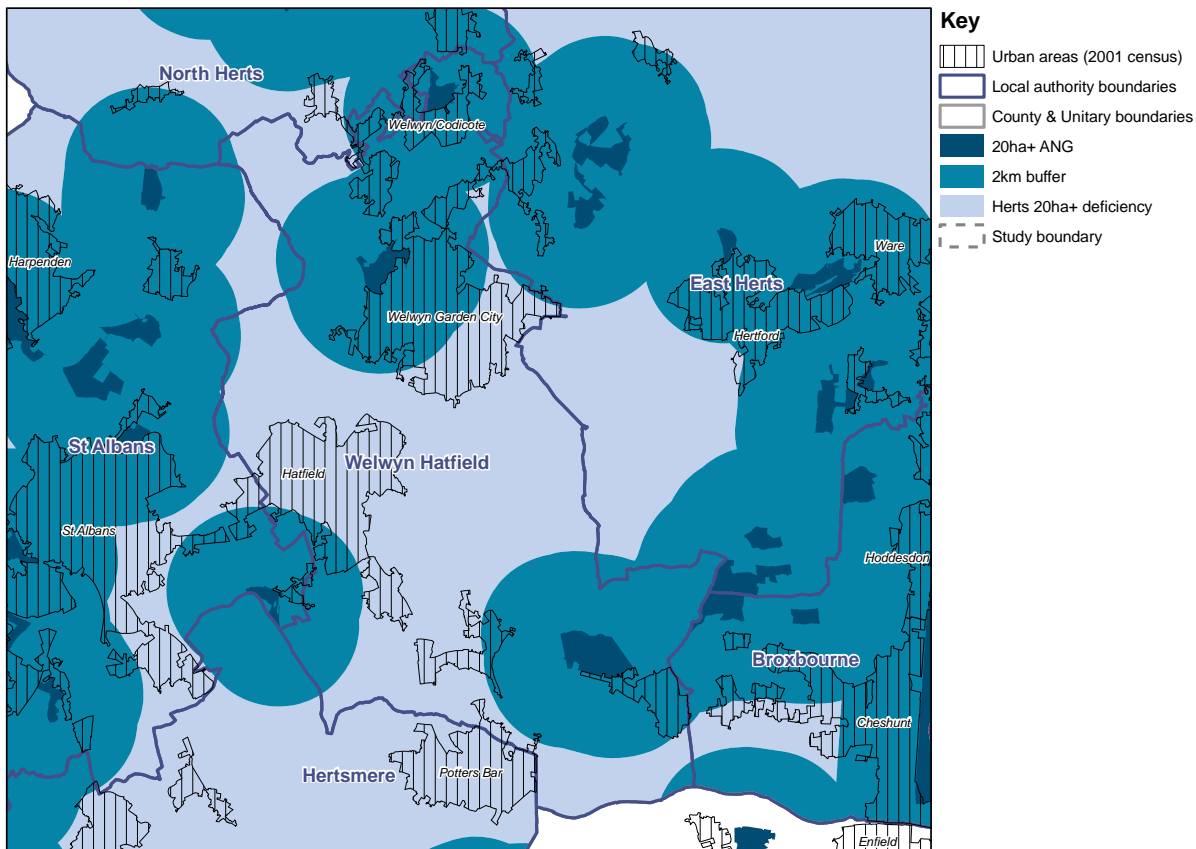
*Estimate from 2005 AddressPoint data checked against 2001 Census data

Plan 13a Accessible natural greenspace provision (2ha and above)

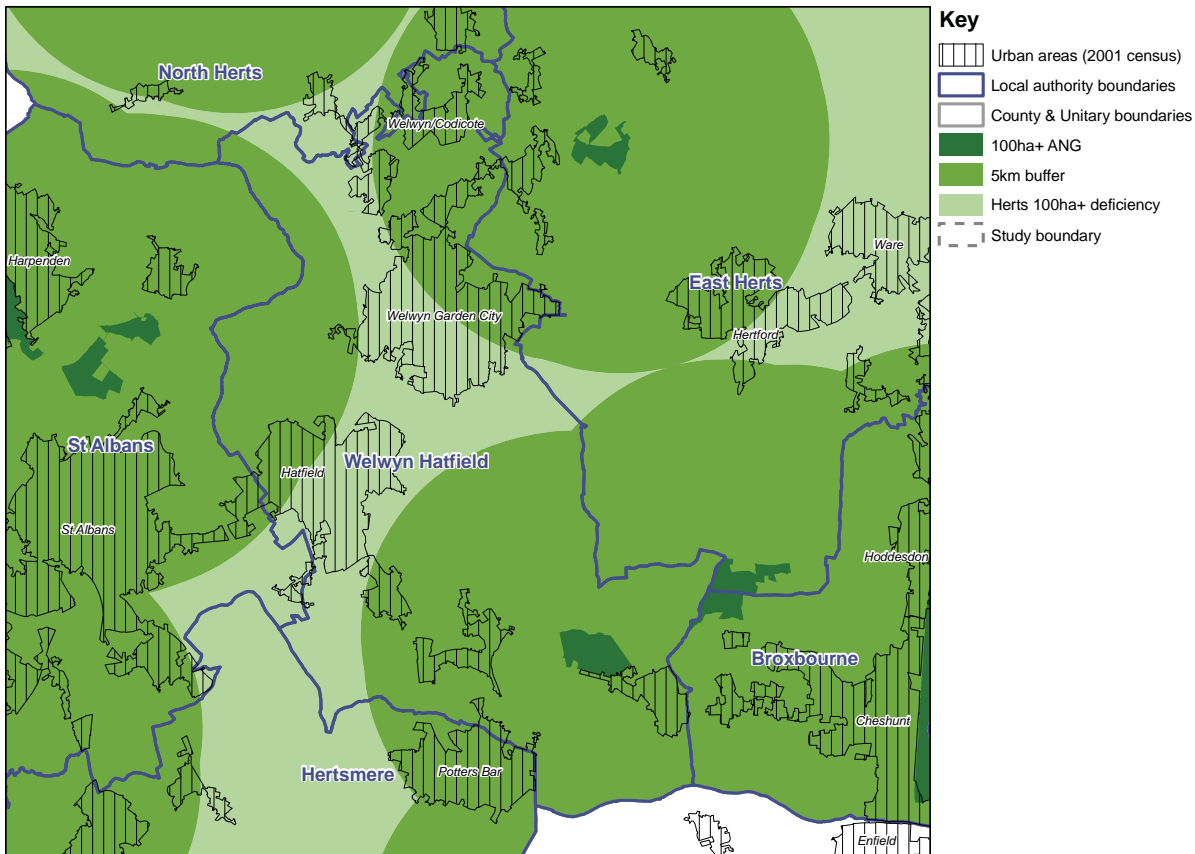


35

Plan 13b Accessible natural greenspace provision (20ha and above)



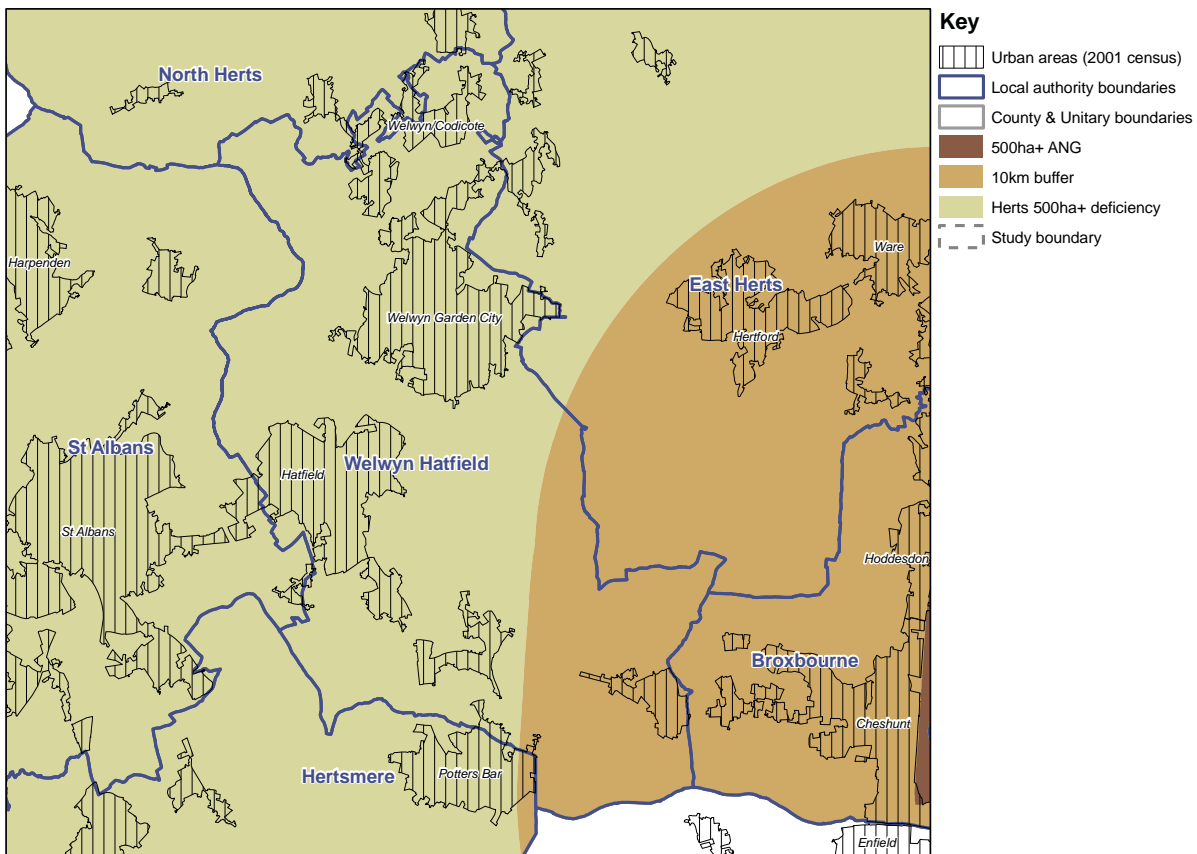
Plan 13c Accessible natural greenspace provision (100ha and above)



36

Analysis of Accessible Natural Greenspace Provision for Hertfordshire

Plan 13d Accessible natural greenspace provision (500ha and above)



Conclusions

This analysis highlights the provision of accessible natural greenspace within Hertfordshire, according to the Accessible Natural Greenspace Standard. The key findings of the Hertfordshire ANGSt analysis are summarised as follows:

Summary of key findings

36.2% of households have access to an accessible natural greenspace of at least 2 hectares within 300 metres

75.4% of households have access to an accessible natural greenspace of at least 20 hectares within 2 kilometres

69.7% of households have access to an accessible natural greenspace of at least 100 hectares within 5 kilometres

26.5% of households have access to an accessible natural greenspace of at least 500 hectares within 10 kilometres

6.7% of households have access to all the areas of accessible natural greenspace within the standard

6.4% do not have access to any of the accessible natural greenspace within the standard

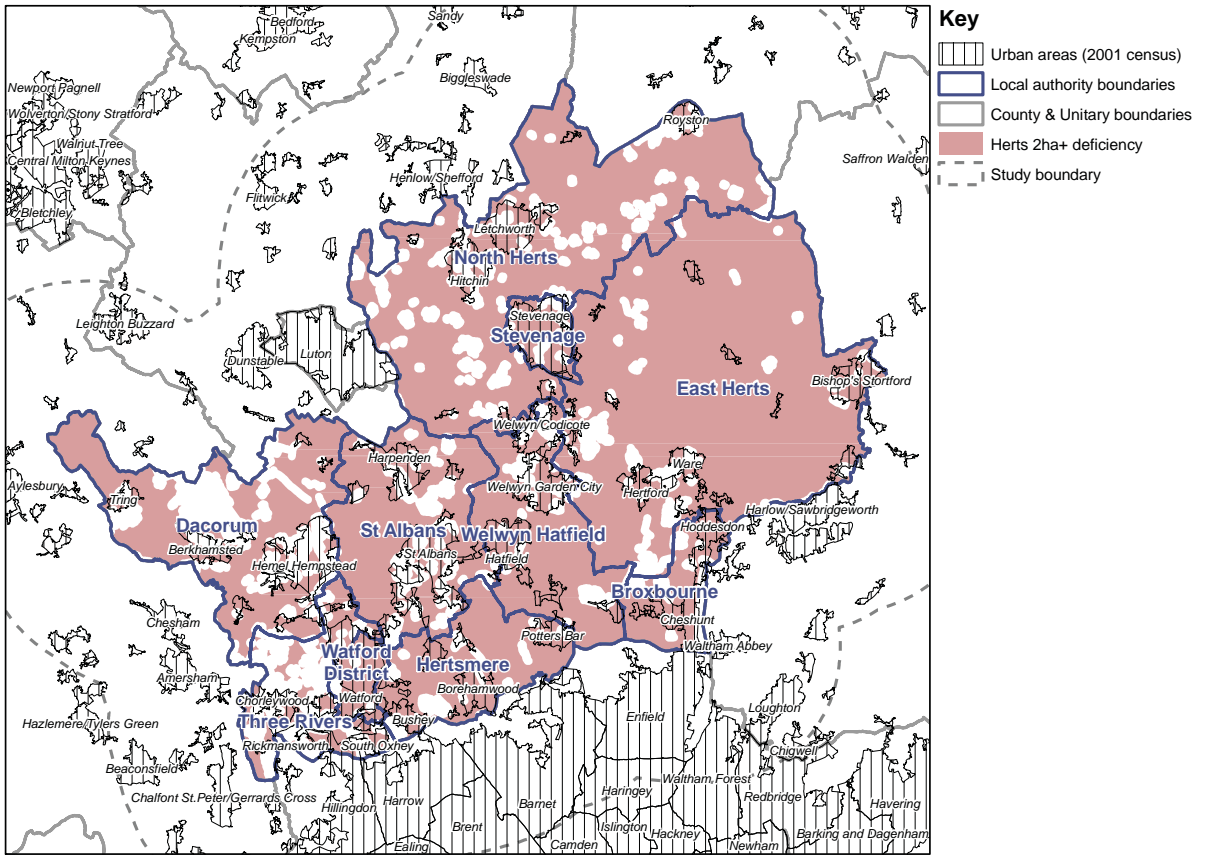
In Table 2 the results for Hertfordshire are higher than those from the analysis undertaken for Norfolk and Suffolk and also for Essex (the pilot area). 6.7% of households in Hertfordshire have all of their ANGSt met in comparison to 3.2% for Norfolk, 3.4% for Suffolk and 7% for Essex. 6.4% of households have none of their ANGSt met, which is significantly low in comparison to the other counties. The average proportion of households meeting the lowest ANGSt (2ha+/300m) in Hertfordshire is 36.2%. Six of the ten local authorities in Hertfordshire are below this figure, with Watford and Hertsmere performing below average. At the 20ha+/2km, 100ha+/5km and 500ha+/10km levels the proportions of households meeting the ANGSt compare favourably with the other counties.

At the 500 hectare level both Broxbourne and Dacorum meet 100% of the ANGSt and this is contributed to by one large ANG site on the boundary of each district. 39.8% of households in Dacorum meet all the ANGSt; the remaining districts range from 19% to 0%.

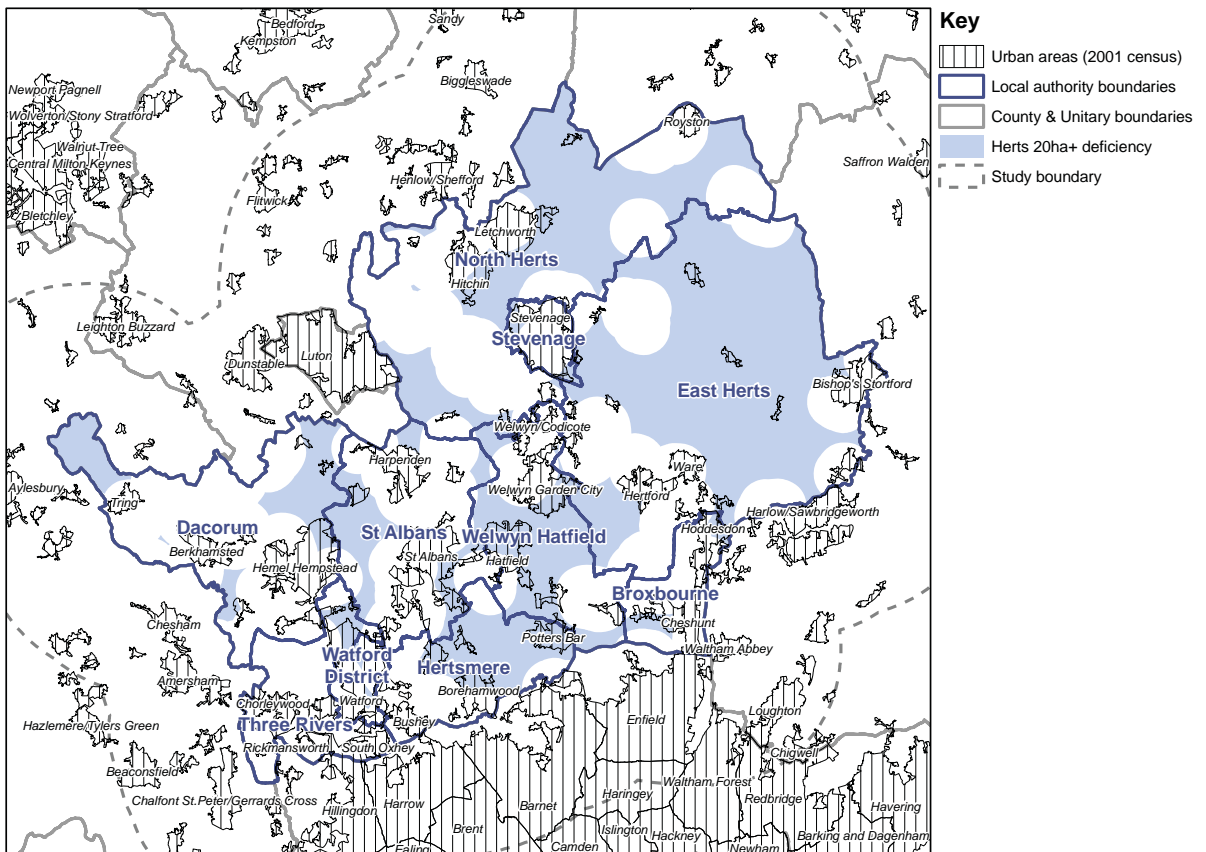
This ANGSt analysis shows that the first priorities are to address ANG provision in the areas of deficiency highlighted in plans 14a-14d and in particular:

- the provision of 2 hectare sites and above in locations where they will be most effective in meeting the accessible natural greenspace needs of existing populations
- provision of 500 hectare sites within the 'corridor' of deficiency (see Plan 14d) that runs through the centre of the study area from south to north covering large areas of Watford, Three Rivers, Hertsmere, St Albans, Welwyn Hatfield, Stevenage, North Herts and East Herts.

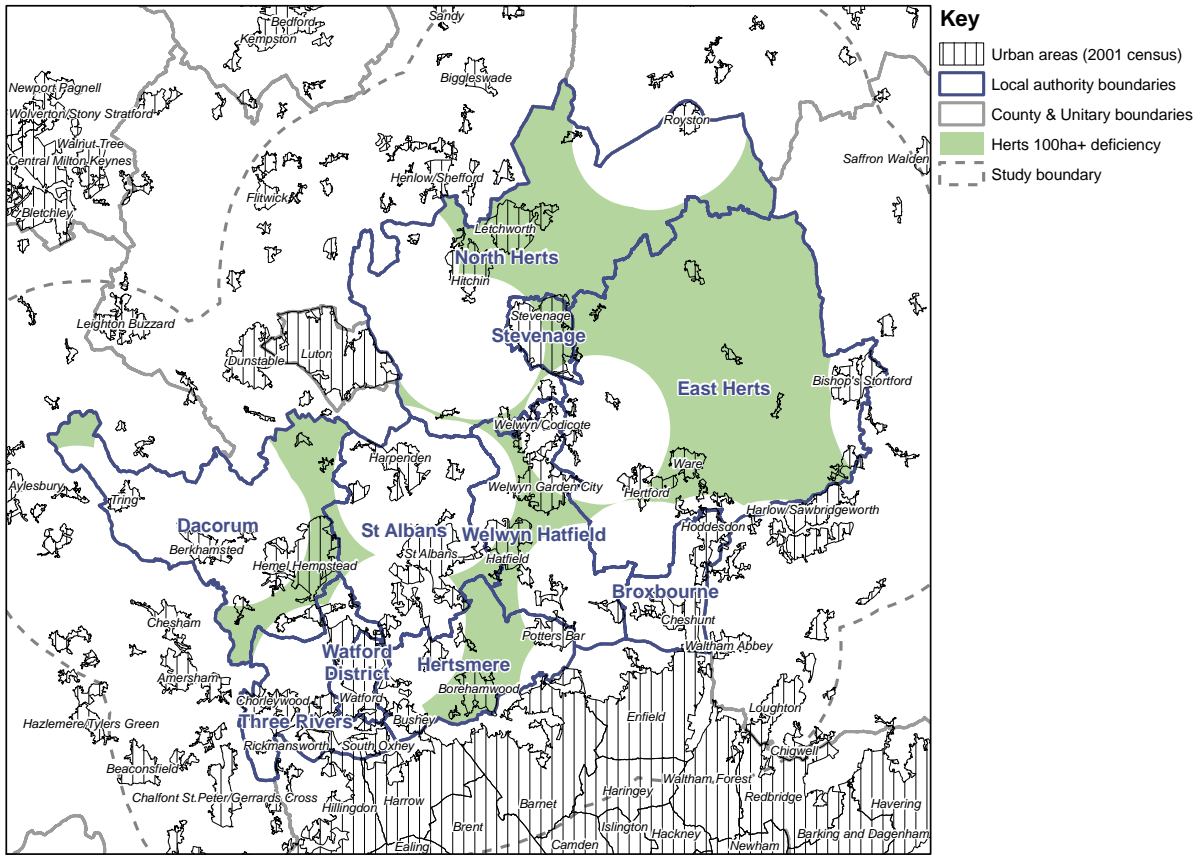
Plan 14a Highlights those areas with no accessible natural greenspace provision at the 2ha level of ANGSt analysis



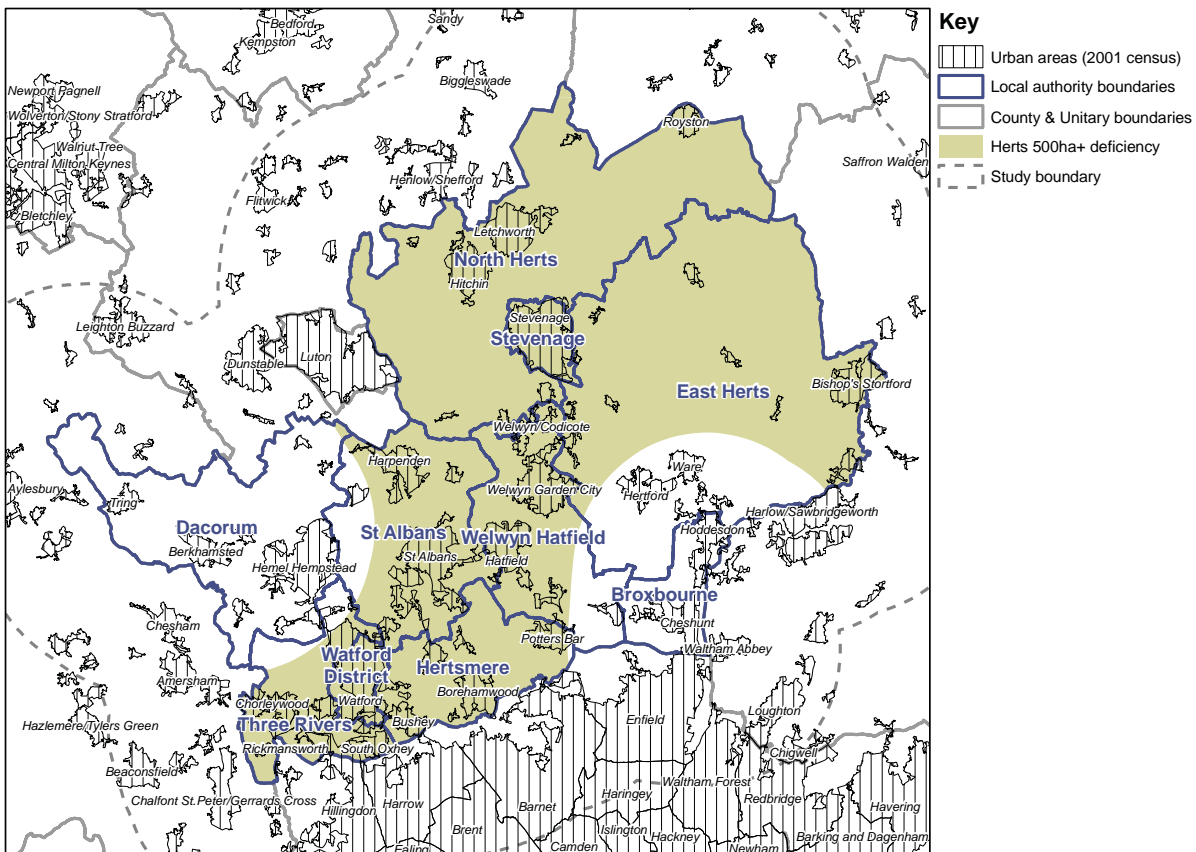
Plan 14b Highlights those areas with no accessible natural greenspace provision at the 20ha level of ANGSt analysis



Plan 14c Highlights those areas with no accessible natural greenspace provision at the 100ha level of ANGSt analysis



Plan 14d Highlights those areas with no accessible natural greenspace provision at the 500ha level of ANGSt analysis



Bibliography

- East of England Biodiversity Forum (2008) East of England Biodiversity Delivery Plan 2008-2015. Cambridge
- Handley, J. et al (2003a) English Nature Research Report 526: Accessible Natural Green Space Standards in Towns and Cities: A Review and Toolkit for their Implementation. Peterborough
- Handley, J. et al (2003b) Providing Accessible Natural Greenspace in Towns and Cities: A Practical Guide to Assessing the Resource and Implementing Local Standards for Provision. English Nature. Peterborough
- McKernan, P. & Grose, M. (2007) An analysis of accessible natural greenspace provision in the South East. Accessed from www.forestry.gov.uk/forestry/inf-d-7d4mgd
- ODPM [now CLG] (2002a) Planning Policy Guidance 17: Planning for open space, sport and recreation. London
- ODPM [now CLG] (2002b) Assessing needs and opportunities a companion guide to PPG17. London
- Natural England (2010) Nature Nearby – Accessible Natural Greenspace Guidance. Accessed from www.naturalengland.org.uk/publications

Contact us

If you would like to know more about Natural England, please contact us at:

Eastbrook
Shaftesbury Road
Cambridge
CB2 8DR

or visit our website
www.naturalengland.org.uk

Natural England is here to conserve and enhance the natural environment, for its intrinsic value, the wellbeing and enjoyment of people and the economic prosperity that it brings.

www.naturalengland.org.uk

© Natural England June 2010

