HERTFORDSHIRE COUNTY COUNCIL RESPONSE TO

NORTH HERTFORDSHIRE EDUCATION STUDY FINAL REPORT BY REGENERIS CONSULTING

JUNE 2017

Executive Summary

This paper provides the response of Hertfordshire County Council to the North Hertfordshire Education Study Final Report produced by Regeneris Consulting.

Hertfordshire County Council (HCC), as a local education authority, has a statutory duty to secure sufficient school places for every child in its area.

Its education planning function is informed by forecasts of pupil demand based on actual data of pre-school and school-aged children living in the area as well as on historic migration patterns.

The County Council works with the ten District Councils within its area in their role as Local Planning Authorities to ensure sufficient education infrastructure is planned for the longer term in line with Local Plan strategic housing growth proposals.

The Regeneris critique does not fully consider the way that HCC deals with development at both the local plan and detailed planning application stages and reaches conclusions which are not fully evidenced or explained.

1. INTRODUCTION

1.1 The purpose of this paper is to respond to the North Hertfordshire Education Study Final Report produced by Regeneris Consulting on behalf of North Herts District Council (hereafter referred to as the Regeneris Report).

1.2 It is noted that although the Regeneris document is named 'Final Report', the report is watermarked 'Draft'.

1.3 This response is presented in four sections:

- Section 1: Introduction
- Section 2: HCC's general approach towards education planning
- Section 3: Response of HCC Demographer
- Section 4: Summary Comments on the Regeneris Report
- Section 5: Conclusion

1.4 Appendix A at the end provides detailed comments in relation to the Regeneris education report.

2. HCC'S GENERAL APPROACH TOWARDS EDUCATION PLANNING

2.1. Hertfordshire County Council (HCC), as Education Authority, has a statutory duty to secure sufficient school places for every child living in the county. In terms of plan making, under the Duty-to-Cooperate, Local Planning Authorities (LPAs) are expected to engage positively with each other to make sure sufficient school places will be in place to support new housing allocations.

2.2. It is standard practice for HCC to engage with LPAs from an early stage of plan-making. HCC provides baseline information and necessary updates to LPAs which feed into their emerging spatial options.

2.3. Whilst HCC acknowledges that it is for each LPA to determine the most appropriate development strategy for its local plan, HCC's legal responsibility is to respond to ensure that sufficient school places, as well as other infrastructure, are secured for the level of local growth planned.

2.4. In its engagement with all LPAs in Hertfordshire including North Hertfordshire District Council (NHDC), HCC applies the following steps:

- When district local planning authorities (LPA) start the plan making process, they engage with the County Council around proposed housing targets, and potential spatial distribution.

- The LPA will usually set out different scenarios (growth options) across the district and, as part of the plan preparation process, will seek HCC (Property) advice on the County Council service requirements necessary to support the proposed growth.

- In relation to education, the County Council, in its role as a commissioner of school places, seeks to ensure sufficient education infrastructure is planned to meet the long term needs arising from the proposed housing growth.

- The County Council will assess the proposed scale and location of the LPA growth proposals in relation to education infrastructure requirements by looking at the following:

    - Location of existing schools (at all tiers)
    - Size of existing schools
    - Existing surplus/deficit of places
    - Latest forecast of pupil demand
    - Other known local committed developments
    - The potential for schools to expand in relation to town planning and site size constraints (this may involve commissioning property feasibility work e.g. highways advice)
    - Whether schools might be expanded or relocated, or if new schools are required

- At the Local Plan stage, HCC calculates anticipated pupil yield from proposed new housing based on 500 dwellings equating to 1 form of entry of pupils in order not to underestimate the impact of proposed future development within the plan period. This yield calculation is applied consistently across the County when strategically planning for the long term as part of the plan making process. This pupil yield approach has been through a number of Local Plan and CIL examinations and those plans have been adopted, including Local Plans/Core Strategies produced by Hertsmere Borough Council, Three Rivers District Council and Dacorum Borough Council. No issues have been raised in relation to this approach.

- The pupil yield calculation was established following the *Primary and Secondary Pupil Yields in New Housing Developments in Hertfordshire* report (February 2015) prepared by the Community Information and Intelligence Unit (CIIU) of HCC which set out an analysis of pupil yield data arising from housing developments undertaken by the HCC Demographer. This research project was an extension of an original body of work, funded by the Royal Statistical Society, which examined the accuracy of several beliefs relating to temporal variation in the age profile of residents on new developments in Hertfordshire. Primary and Secondary pupil yield data was sourced from the Schools Census following geo-coding and matching to identified and completed housing development sites of an urban, semi-urban and rural setting type. HCC's demographer determined that the sample size was statistically robust at county level. Overall, findings from the research conducted supported the original yield results, which had concluded a range of 500 to 850 dwellings per one Form of Entry at primary level, would provide 97.5% confidence of not underestimating child yield, and demonstrated this range is still applicable.

- The County Council applies the upper end of the range, 1FE per 500 dwellings, in the first instance to ensure prudent planning

- When considering actual proposals or planning applications, the County Council uses specific development forecasting models to ascertain more tailored demographic profiles, including pupil yields. This information is contained in Appendix A of the representations submitted to NHDC on Regulation 19 Proposed Local Plan consultation document (on behalf of HCC services).

- This methodology is therefore widely used, robust, yet simple and assists the LPAs in producing local plans in a methodical manner and within a reasonable timeframe.

2.5. In the responses submitted by HCC to NHDC during their Regulation 18 and Regulation 19 Local Plan consultations, HCC has clearly and

consistently stated the requirements for education and other infrastructure based upon the above approach and in relation to the amount of new housing proposed in the respective consultation documents.

2.6. So, at the master planning or outline planning application stages HCC will also use the 1:500 ratio until more detailed information is available on type, tenure and number of dwellings. At that point HCC will use a detailed, census based model to predict the demand for places required. HCC's approach to dealing with development at a detailed level is explained in the paragraphs above. Figure 3 on page 14 offers an indication of how the HCC approach is further supported by census information.

3. RESPONSE OF HCC DEMOGRAPHER TO REGENERIS REPORT

3.1 The following section is the response of the HCC Demographer to the North Hertfordshire Education Study produced by Regeneris Consulting.

3.2 Populations are dynamic and constantly changing with time due to many influencing factors such as natural growth, or shrinkage, through births, deaths, migration, socio-economic conditions, housing development and policy changes. Whilst a large area, such as a local authority, may experience growth in its overall population this may not be evenly distributed throughout its age structure or within sub-geographical areas. There are a plethora of different techniques for the estimation of overall population numbers and their age specific constructs where required. Broadly speaking where age specific population projections are required then the cohort survival method tends to be employed in the majority of instances and is the method by which the Office for National Statistics (ONS) produces the Sub-National Population Predictions (SNPP) at local authority level every two years.

3.3 This demographic prediction method takes into account five year weighted trends of natural components of change (births and deaths) and migration factors. Whilst the objective of the SNPP is to estimate the future size and age structure of the population of local authorities in England in a consistent way, they do not however account for the effects of local policy changes nor do they take account of future government policies or changing economic circumstances. It is important to note that the SNPP represent projections and not forecasts of population (although the terms are frequently used interchangeably and are normally stated as so in publication) to which there is an important definitional difference:

- A projection is a numerical outcome of an accepted set of assumptions (commonly concerning births, deaths, migration and other factors which influence the demographic equation) and unless a calculation error occurs then a projection is never wrong should the assumed conditions exist within the period under consideration.

- A forecast is an unconditional statement as it is a conclusion of the most likely outcome of population size in the future without the stipulation of assumptions, although these may well be involved in the forecast process itself, and as such may prove to be right or wrong.

3.4 The ONS therefore **do not forecast the population most likely to occur in the future** but rather the population which would arise if their underlying assumptions in births, deaths and migration (based on current trends) should prove to be correct throughout the projection horizon. This appears to have been misinterpreted in the report with regards to the Regeneris Report Table 1.1 footnote denoted as "**" where the SNPP are referred to as forecasts.

3.5 Reference is often made to the *Principle Projection* as the single source of the ONS projections data however there are also high and low variants with regard to birth, death and migration assumptions. HCC assumes the Regeneris report applies the principle projection as opposed to the variants although (page 2 of their document) the fact there may be differences between population projections and actual yields realised from new developments is also noted in the report (page 2). Consideration should be given to high and low variants as they form a range within which it is likely that the projected population will lie, in essence they are the confidence intervals.

3.6 The ONS projections are not infallible, for example at the United Kingdom level ONS research has determined a mean absolute error of 2.7% over a 20 year projection horizon, this equates to approximately 2.0 million people in error. Projection errors at a much smaller geography such as Local Area District (LAD) are, based on published literature, likely to be higher.

3.7 Whilst the SNPP projected population is provided by single year of age breakdown this is for illustrative purposes only, the publication or application of any statistics based on the SNPP should use 5 year aggregations. The cohort survival methodology applied by the ONS differs from the HCC pupil forecast model in that the latter utilises GP registrations and Schools Census data, in conjunction with LAD housing development information, in order to assess future individual school place uptake at a much smaller projection horizon and geography.

The 2014 Sub-National Population Projections (SNPP)

3.8 HCC is in agreement with Regeneris that the ONS SNPP 2014 indicates that the population of North Hertfordshire is expected to exhibit growth over the period 2014 to 2039. In particular the primary age population is predicted to exhibit a peak 17% growth during this time (Figure 1) whilst in consideration of the NHDC plan period 2011 to 2031 the overall projected growth in cohort size will be 28% (10,492 in 2011 versus 13,435 in 2031).

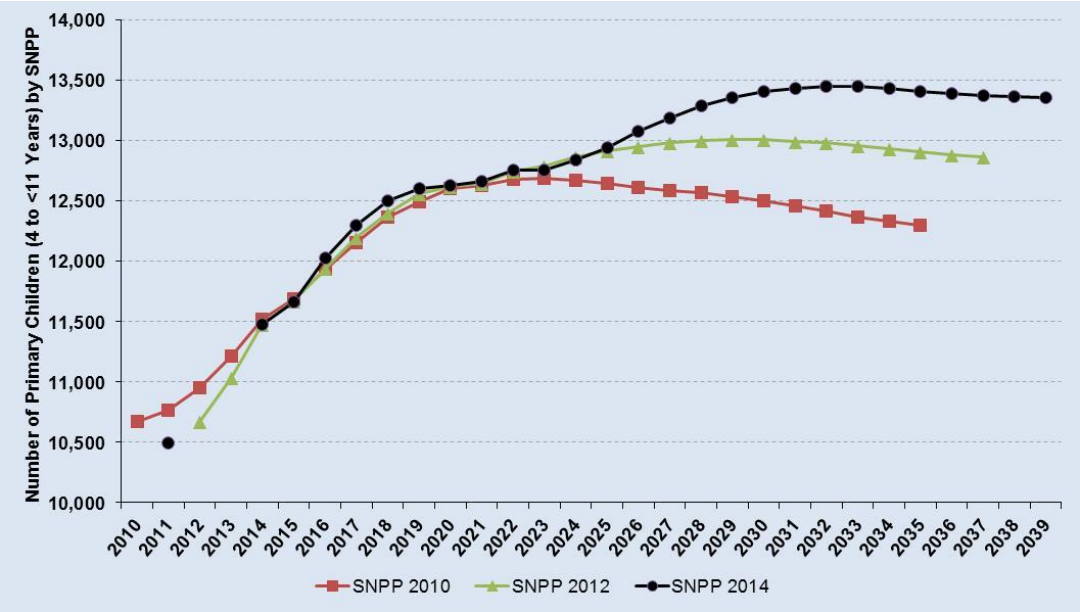

Figure 1. SNPP 2010 to 2014 projected growth in primary cohort size for NHDC.

3.9 It is interesting to note from Figure 1 that subsequent ONS releases since 2010 have shown an uplift in the size of the projected primary age population in North Hertfordshire, for example in 2035 the SNPP 2014 cohort is 1,116 persons higher than that projected for this date using the SNPP 2010. As such, over the relatively short period 2010 to 2014, ONS SNPP revisions have resulted in an additional 9% rise in primary age children in 2035 alone.

3.10 Whilst the overall 28% rise in primary age cohort size projected over the NHDC plan period is substantial, it is also important to consider the drivers behind this growth. The ONS release as part of the SNPP 2014 supporting data to LAD level on the "components of change", relevant to the total population, and essentially purporting to Natural Change (births and deaths) and Migration. It can be observed from Figure 2 that the main driver to population growth in North Hertfordshire results from the influx of people into the district positive net migration (note that percentage contributions by year may not sum to 100% due to effects of rounding to 1000 person rates). Toward the end of the projection horizon the dominance of the net migration driver is 90% of total population growth and considerably higher than the 51% reported by the ONS for the United Kingdom (although this increases to 68% when considering the indirect contribution of future migration to population change through its effect on births and deaths).

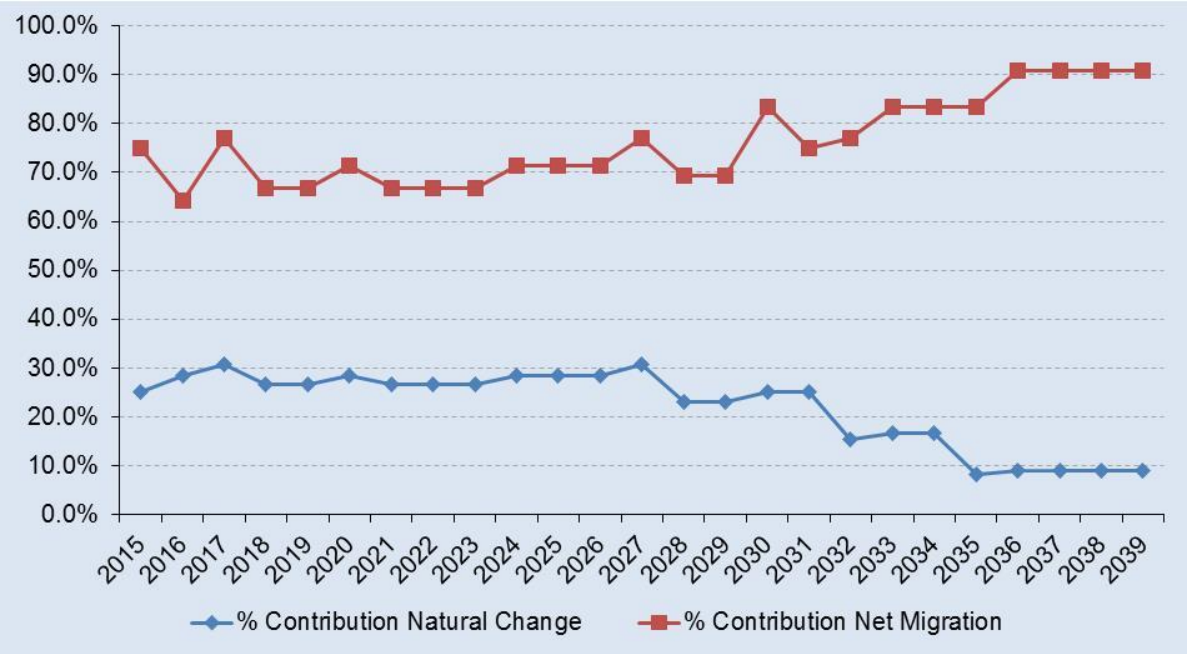

Figure 2. The percentage (%) contribution of Net Migration and Natural Change (births and deaths) to population growth in North Hertfordshire District (Source: ONS SNPP 2014 – Components of Change).

3.11 The significance of North Hertfordshire population growth being dominated by net migration should not be under-estimated. The ONS state : "*Migration tends to be concentrated at young adult ages… future net migration has a much greater effect on the projected number of women of childbearing age and hence the projected number of births, than on projected deaths* (ONS SNPP 2014 – 29th October 2015)".

3.12 The demographic characteristics of migrant populations (those that move into dwellings within an area) are generally sufficiently different to that of the population as a whole that they are considered by the ONS as a separate group, much the same way that Special Populations are in the creation of their mid-year estimates.

3.13 As NHDC is aware since the mid-2000's HCC has developed bespoke pupil yield models in order to project likely numbers of children arising from detailed proposed developments such as the Toolkit model and Large Development Model (LDM). Whilst these models are based on 2001 census customised table outputs, the equivalent updated information from the more recent 2011 Census relating to "All Households" and "Migrant Households" at county level has been obtained and also modelled by the authority. The models used to assess the yield from new residential development are generally applied where specific development information is available and are considered by HCC to be more precise than the strategic overview of 1FE arising from 500 dwellings.

The 1 Form of Entry (FE, 210 Primary Age Pupils) From 500 Dwellings Guide

3.14 Page 3 of the Regeneris report reflects the points already made within the HCC CIIU document that dwelling type, tenure and bed size data

was not collected by the then county demographer during the pupil yield survey. The research was initiated over concerns as to potential primary yield increasing as a result of the 22% rise in live births and 18% rise in the general fertility rate between 2002 and 2011 within the authority. The HCC adjusted yield rate therefore arose from consideration of unspecified "dwellings", a fact which has been made clear to NHDC in a recent meeting.

3.15 The purpose of the 1FE per 500 dwelling guideline is precisely to accommodate situations where proposed developments have a known total dwelling number but no Bed Size, Type or Trajectory data is available. This can arise when LPA's are working on emergent local plans in determining education need and contact is made with HCC early in the process once their dwelling target is known but little other information may be available. The high level approach minimises the risk to the citizens of Hertfordshire as only in a very small proportion of instances (<2.5%) will the child yield be higher, therefore allowing for prudent strategic planning of future service requirements.

3.16 HCC recognised that the 1FE per 500 dwellings yield resulted from a survey which has now become somewhat dated (2008) and is currently in process of implementing an update which will be available later this year. However, it should be noted that this yield level is also supported by the HCC Pupil Yield model which is based on four customised table outputs from the 2011 census relating to All Households and Migrant Households (these are publicly available for download on the ONS website):

- CT0173 - Tenure of household by accommodation type by number of bedrooms – All Households - *All occupied households in unshared dwellings (excluding caravans and other mobile or temporary structures).*
- CT0174 - Tenure of household by age by accommodation type by number of bedrooms – All Households - *All usual residents living in households in unshared dwellings (excluding caravans and other mobile or temporary structures).*
- CT0478 - Tenure by bespoke accommodation type by number of bedrooms – Migrant Households - *Wholly moving households (excluding caravans/temporary structures) in unshared dwellings.*
- CT0479 - Age by tenure by bespoke accommodation type by number of bedrooms – Migrant Households - *All usual residents living in wholly moving households (excluding caravans/temporary structures) in unshared dwellings.*

3.17 Subsequent to the 2011 census, and on the basis of the customised table outputs, HCC has developed further models to demonstrate the likely yield from new housing developments, each being able to accommodate a different level of information as summarised below:

3.18 The customised table outputs applied above have passed ONS Statistical Disclosure Controls (SDC). The background and

circumstances of application of these models has previously been made to clear to NHDC.

- **"Hertfordshire" –** akin to the 2001 LDM for developments of >=300 dwellings represents the projected yield where the least amount of data is known e.g. total number of dwellings only, although consideration can also be given to a specific bed size mix.
- **"Type" –** This level has the same basis as the Hertfordshire option above although consideration can also be given to type of proposed dwelling (house or flat) by bed size.
- **"Type and Tenure"** – This level represents the projected child yield wherein the most detailed level of information is available with regard to dwelling bed size, type and tenure.

3.19 Combination of tables CTO173 and CTO174 for All Households determined that there were 451,608 households in total within Hertfordshire of which 12.3% were 1 bedroom dwellings, 24.7% were 2 bedroom, 40.1% were 3 bedroom and 22.9% were 4 and above bedroom dwellings The relevant usual resident population totals by bed size are as shown in Table 1 below; however, within the model these are applied by single year of age.

Table 1. The number of "All Households" residents and dwellings by bed size for the "Hertfordshire" and "Type" modelled levels and the respective percentage (%) dwelling representation by bed size relative to all dwellings.

		Bed Size			
Hertfordshire		*1*	*2*	*3*	*4+*
Persons	1,097,683	74,947	220,330	473,749	328,657
Dwellings	451,608	55,571	111,715	181,086	103,236
% dwelling mix by size		12.3%	24.7%	40.1%	22.9%

		Bed Size			
Type - Houses		*1*	*2*	*3*	*4+*
Persons	930,773	14,258	130,285	460,547	325,683
Dwellings	353,351	9,778	65,318	175,921	102,334
% dwelling mix by size		2.2%	14.5%	39.0%	22.7%
Type - Flats		*1*	*2*	*3*	*4+*
Persons	166,910	60,689	90,045	13,202	2,974
Dwellings	98,257	45,793	46,397	5,165	902
% dwelling mix by size		10.1%	10.3%	1.1%	0.2%

3.20 Combination of CTO478 and CTO479 similarly determined that there were 32,846 migrant households in total within Hertfordshire of which 25.1% were 1 bedroom dwellings, 35.0% were 2 bedroom, 26.5% were 3 bedroom and 13.3% were 4 and above bedroom dwellings. The relevant resident population totals by bed size are as shown in Table 2 however within the model these are applied by single year of age. A migrant household is defined by the ONS as being a wholly moving household in the year prior to the 2011 census taking place. On the basis of the census dwelling mix it can be observed that 60.1% of migrant households moved into 1 or 2 bed dwellings.

Table 2. The number of "Migrant Households" residents and dwellings by bed size for the "Hertfordshire" and "Type" modelled level and the respective percentage (%) dwelling representation by bed size relative to all dwellings.

		Bed Size			
Hertfordshire l		*1*	*2*	*3*	*4+*
Persons	71,334	10,753	21,918	24,111	14,552
Dwellings	32,846	8,254	11,497	8,714	4,381
% dwelling mix by size		25.1%	35.0%	26.5%	13.3%

		Bed Size			
Type - Houses		*1*	*2*	*3*	*4+*
Persons	48,036	1,423	9,610	22,707	14,296
Dwellings	18,252	1,030	4,813	8,130	4,279
% dwelling mix by size		3.1%	14.7%	24.8%	13.0%
Type – Flats		*1*	*2*	*3*	*4+*
Persons	23,298	9,330	12,308	1,404	256
Dwellings	14,594	7,224	6,684	584	102
% dwelling mix by size		22.0%	20.3%	1.8%	0.3%

3.21 Detailed information pertaining to HCC's pupil yield modelling processes is not given herein, the Hertfordshire models are protected under Intellectual Property Rights. A hypothetical development of 1000 dwellings with a seven year build trajectory (150 per annum years 1 to 6 and 100 in year 7) was entered into the Hertfordshire Model, to which the county level 2011 census migrant bed size mix was applied. This determined a peak primary pupil yield of 426 pupils (Figure 3). The 2011 census base data therefore gives rise to 2 Forms of Entry (FE) of primary pupils arising from 1000 dwellings or 1FE resulting from 500 dwellings. Where more specific information is available with regards to a potential development then the yield is likely to change dependent upon Type and Bed Size of the dwellings comprising a development.

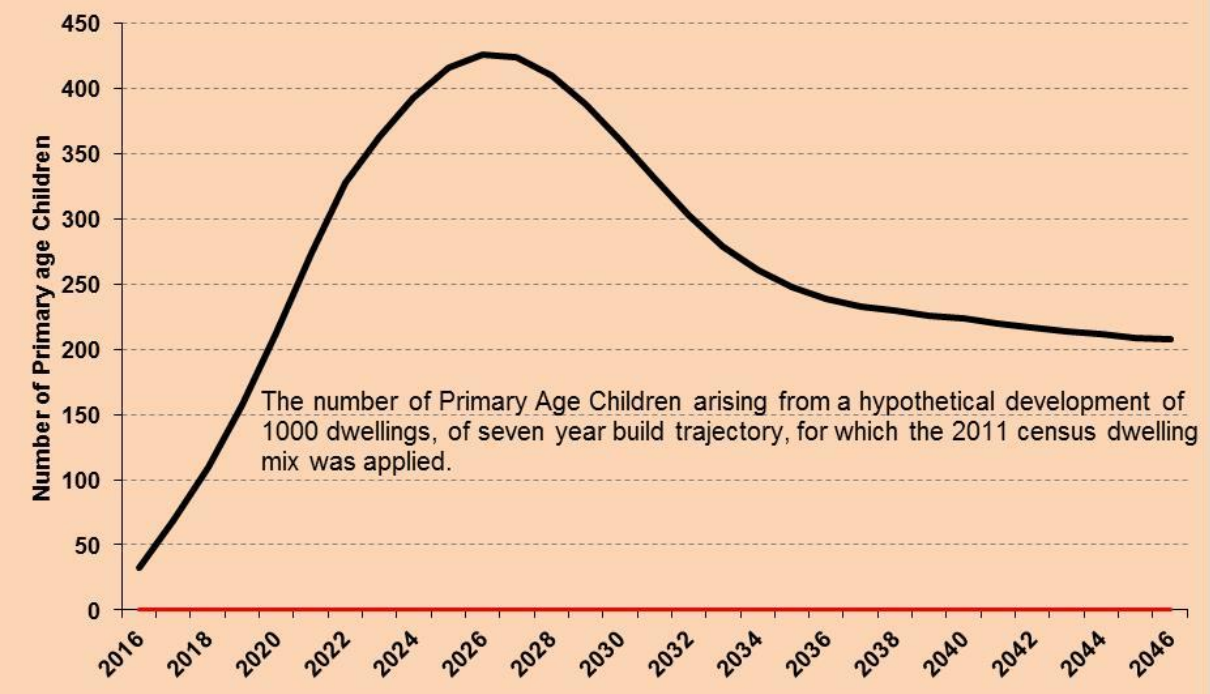

Figure 3. The number of primary age children projected to arise from the Hertfordshire model for an example development of 1000 dwellings of Migrant Household 2011 census bed size mix with 7 year trajectory.

Application of Flat Rate Yields in Other Authorities and the Regeneris Model

3.22 The Regeneris report details how, for North Hertfordshire and Stevenage Districts, a simulated detailed housing trajectory by Bed Size and Type has been applied in order to calculate primary and secondary yield arising from new development on the basis of several methods including their own in-house model (page 8 and 9). These yields, based on assumed detailed information, were then compared to the HCC strategic value of 1FE per 500 dwellings despite the fact it is acknowledged that the HCC ratio is applied wherein detailed development information is not available. Should NHDC provide to the authority a detailed breakdown by Bed Size, Type and Trajectory then HCC can produce a more precise modelled yield however the resulting projection would be **specific** to those parameters. Given the NHDC projection horizon to 2031, and that the purpose of their plan is to provide dwellings for a growing population, which by its nature is likely to fluctuate both in size and age/sex construct over time, then the application of a specific detailed mix is inherently rigid and questionable. Should any variation to such a modelled mix occur in actual build then it would be prudent for the citizens of Hertfordshire that NHDC sign a legally binding agreement that they are responsible, financially or otherwise, for any increased population yield as a result of such amendments.

3.23 The variation in projected yields (whether an increase or decrease) following consideration of more detailed development information can be

evidenced using the Hertfordshire model. Figure 4 displays application of the 2011 census projected yield arising from the same 1000 dwellings and trajectory as previously used however in this instance the Type (house or flat) is taken into account and is based on the census specific Migrant Household underlying census proportional splits by bed size (Table 2). It can be observed that the yield arising from consideration of Type (house or flat) is in this instance lower (peak yield of 224 primary pupils) than that arising from consideration of an unspecified dwelling due to more precise data being available for modelling.

3.24 The difference in yield between the Hertfordshire (Dwellings) and the Type (House or Flat) Models is specific to the 2011 census Migrant Household bed size mix and does not indicate that consideration of a developments dwelling type will always result in a lower primary yield. Figure 5 displays the modelled output of an actual proposed development received by HCC wherein it can be clearly observed that the primary yield arising from consideration of the bed size proportional representation of houses and flats, relative to the total number of proposed dwellings, is in this instance higher than that arising when Type is not considered. It is therefore clear that dependent on the characteristics of proposed development then fluctuation can occur in modelled yield either above or below that of the most basic information of dwelling numbers only such as utilised in the HCC strategic overview approach.

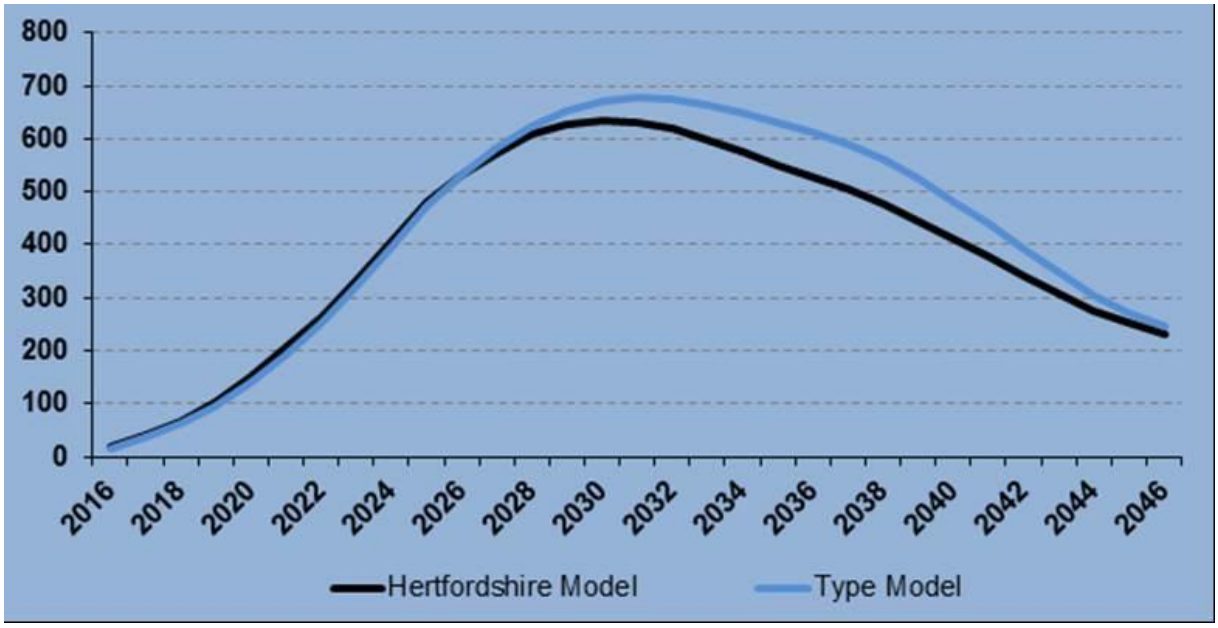

Figure 4. The number of primary age children projected to arise from the Type model for an example development of 1000 dwellings of Migrant Household 2011 census bed size mix with 7 year trajectory

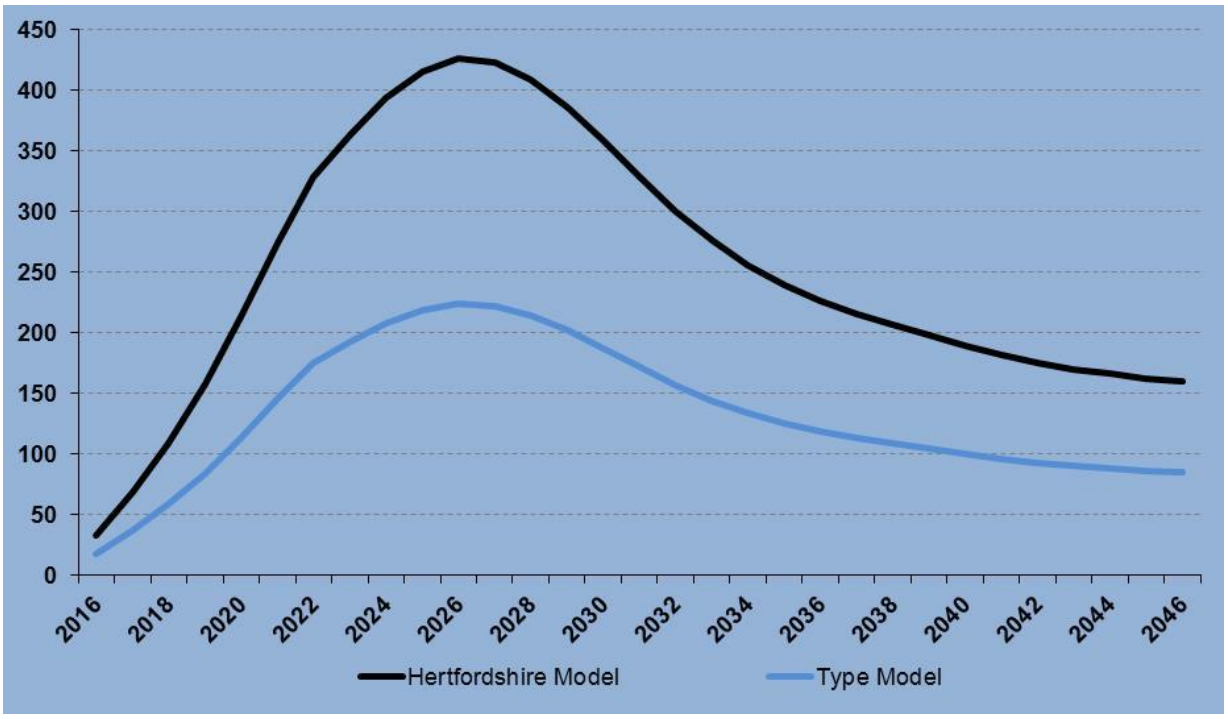

Figure 5. The number of primary aged children arising from a proposed development wherein consideration of detailed dwelling Type information gives rise to a higher yield than considering "number of dwellings" only

3.25 It was indicated on page 9 that the Regeneris model utilised "*mean household sizes for different house types*" as sourced from the DCLG in order to derive an estimated total population. The SNPP 2014 is then applied in order to determine the number of children by single year of age. The resulting yield arising within NHDC was therefore 2,324 primary and 1,560 secondary pupils. The "average household sizes" reflect the size of the usually resident population by dwelling Type and Bed Mix. Regeneris do not state that these "average" values are derived from new build dwellings only and they therefore must represent the area as a whole, this position is also commonly referred to as "All Households". However, it is clear from 2011 census data that the demographic characteristics of wholly moving households, or "Migrant Households", differs markedly from that of "All Households" and it is by definition these moving, or migrant, households which will occupy the new dwellings constructed within North Hertfordshire District. This is of particular importance for NHDC given that ONS SNPP 2014 components of change data indicate the driver for population growth within the district is net migration (Figure 2).

3.26 The difference between All Household and Migrant Household yield per 100 dwellings can be investigated on the basis of the example given previously for the Hertfordshire Model (1000 dwellings, 7 year trajectory, 2011 census Migrant Household bed size mix – Table 2).

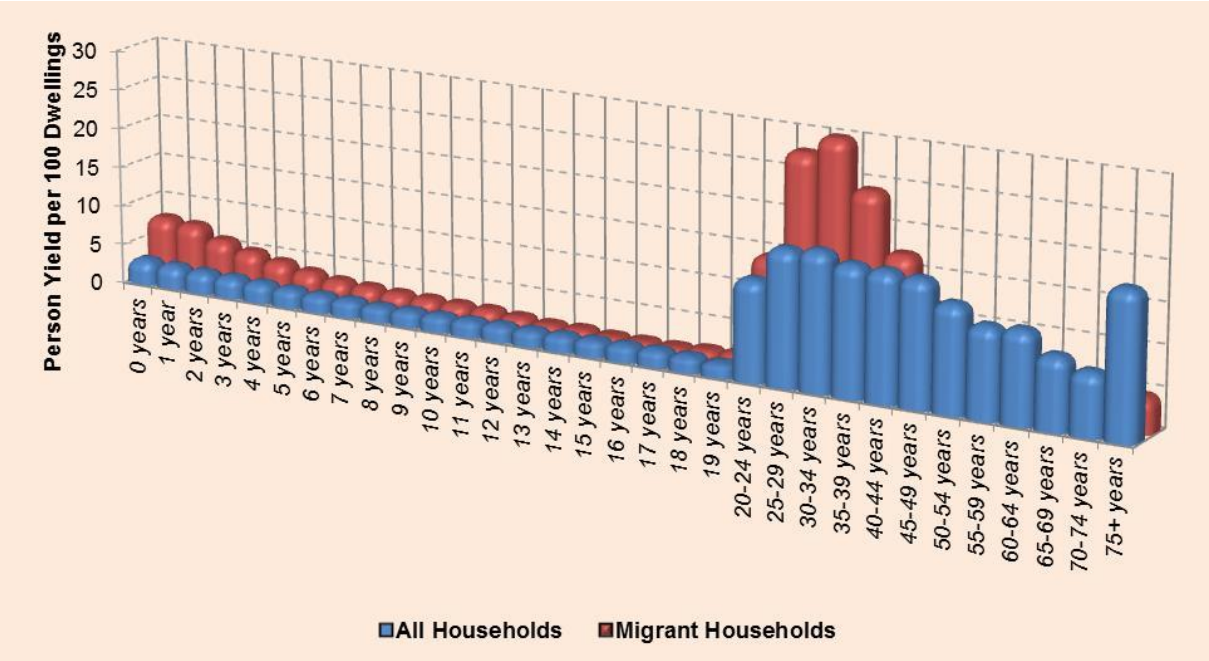

Figure 6. The yield per 100 dwellings for Migrant Households and All Households based on the 2011 census data tables for Hertfordshire in consideration of All Dwellings (Bed size mix reflects that of Migrant Households)

3.27 Figure 6 displays the observably higher yield per 100 dwellings of the younger age cohorts predominantly from 25 through to 39 years which relates to those cohorts whom are of reproductive age. It is also of note that the Migrant Household yields are twice those of All Households in

the Age 0, 1, 2 and 3 cohorts. Whilst the primary age yields are higher for the Migrant Households this is predominantly in the age 4 to 6 cohorts with a tapering to an equivalent yield of All Households beyond this point. It is therefore observable that it is not necessarily a higher yield in primary age cohorts arising from Migrant Households which determines the yield arising from a new development but the ageing of the early years into the primary sector and beyond. The long term effects would be of particular relevance for a development with an extended trajectory.

3.28 Figure 7 displays this difference in yield per 100 dwellings by age between Migrant Households and All Households for the Hertfordshire model example given above wherein positive values indicate a higher Migrant Household yield. For the specified development mix it can be observed that the age 7 to 11 yield is only marginally higher than that of All Households whilst, for the secondary sector, this position is reversed.

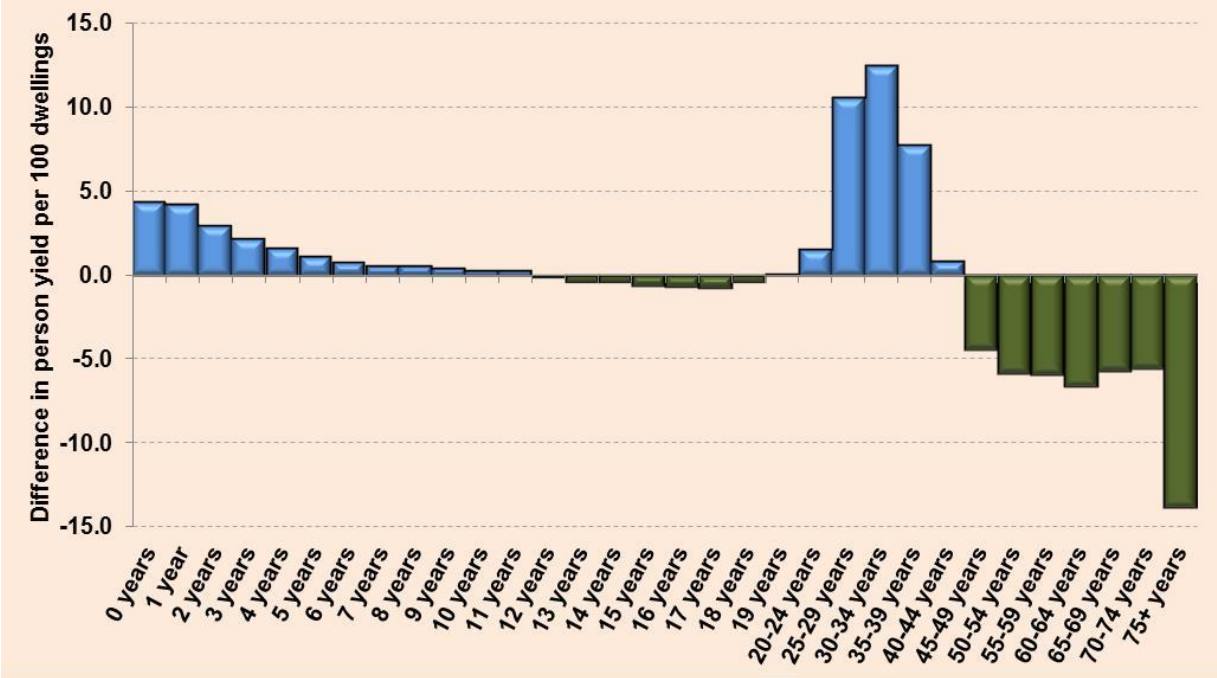

Figure 7. The difference in yield per 100 dwellings between Migrant Households and All Households based on the Hertfordshire model example (Bed size mix for both reflects that of the 2011 census Migrant Households – Table 2 – Positive values are a higher yield in Migrant Households).

3.29 Whilst the differences in yield per 100 dwellings are observable context can be provided by dividing the Migrant Household yields by the All Households. On this basis the age 0, 1, 2, 3, 4, 5 and 6 year old Migrant Households yields per 100 dwellings for the specified development mix are 234%, 238%, 203%, 180%, 162%, 147% and 134% higher than that of the All Households respectively. However, it is not just the migrant yields arising immediately from the completed dwellings which have an impact on projected early years and primary child numbers. As a development progresses and dwellings become occupied they will, over

time, transition into a yield per 100 dwellings rate that reflects that of All Households i.e. a development over time is expected to reflect the demographic characteristics of Hertfordshire overall.

3.30 As such the number of births that arise from a development, which age into early years and beyond, will reduce to that expected of All Households although this is a transitionary period over a number of years within which the births arising for dwellings completed will still exceed that of All Households. For the Hertfordshire level model example the expected age 0 cohorts which will transition into completed dwellings over time is as shown in Figure 8, it should be noted that these values are specific to the development mix. It can be observed from the specified development mix that not only is the Age 0 (or effective birth) yield per 100 dwellings twice that of All Households but over a number of years, whilst the development transitions to a yield rate of Hertfordshire overall, that the number of modelled births will be higher. This position is supported by the observably higher per 100 dwelling yields occurring within the reproductive age cohorts (Figure 6).

3.31 Regeneris have calculated likely primary and secondary yields predominantly on the basis of flat rates per 100 dwellings. In the 1000 dwelling example for the Hertfordshire model given herein the projected peak primary yield was 426 pupils, however the summary primary yield per 100 dwellings within the underlying Migrant Households data set was 21.5 pupils. This equates to a projected primary yield difference of 211 (426 – 215) pupils and occurs as the application of flat rates does not allow for the cumulative transition of the higher yield per 100 dwellings age 0 to 3 cohorts into the primary sector over time. Account is also not given to the higher “birth rates” within a new development as it ages and transitions to a rate equivalent to All Households of an identical dwelling mix.

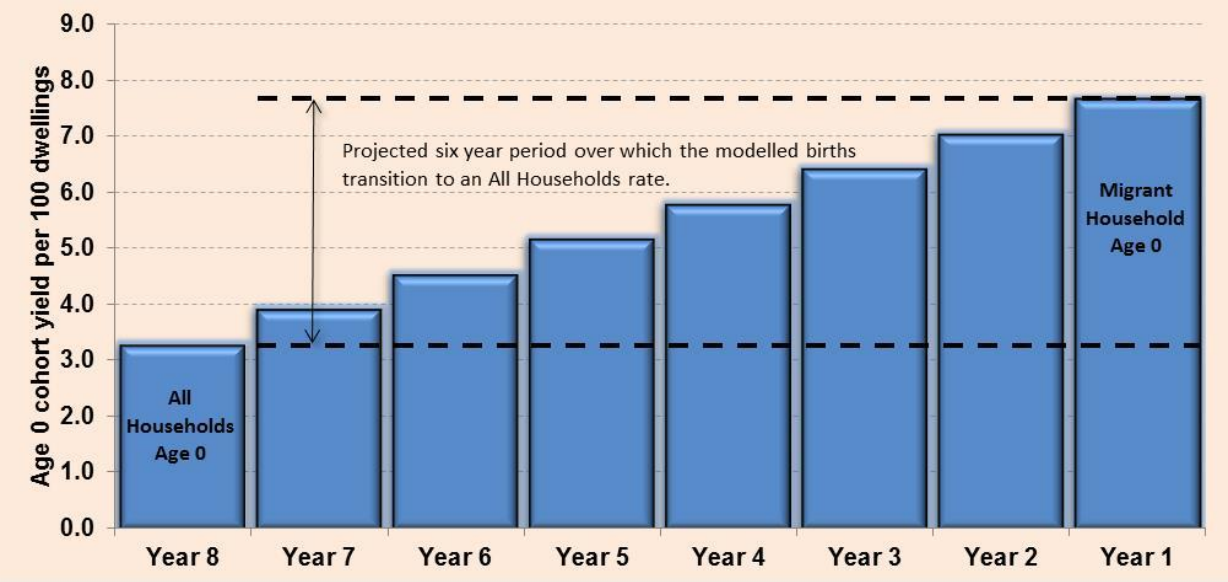

Figure 8. The transition of the Age 0 yield per 100 dwellings from Migrant Households (Year 1) for per annum completed dwellings in a development to that of the All Households yield (Year 8). The data displayed is representative of the Hertfordshire Model example specific development mix.

3.32 In considering the 1000 dwelling Type model example given herein the peak primary yield was 224 pupils and resulting from a 55.5% representation of houses and 44.4% flats by respective census migrant household bed size mix (Table 2). The average primary pupil yield per 100 dwellings from the census base data was 18.3 for houses and 3.1 for flats. Taking into account their proportional representation relative to the development size the calculated average yield would be 102 and 14 pupils respectively, or in summary 116 pupils. The effect of discounting the transition of the younger cohorts into the primary sector is in this example a significant under representation of 108 pupils (224 – 116). On the combination of these factors it is HCC's position that the Regeneris calculations of projected yield are at best a long term average representation and do not deal with the likely peak yields to arise from the NHDC dwelling number proposals within their plan. It is of note that the transition from a peak yield following a development completion to that expected from Hertfordshire overall can take many years as evidenced from Figure 4, consideration cannot be given to the long term average in isolation.

Conclusion

3.33 In consideration of the factors discussed above the following summary conclusions can be drawn:

- The emphasis of the Regeneris report is suggestive that discussions previously held with HCC in regards to the authority's methodical approach to assessing pupil yield flowing from its strategic overview to specific development modelling and the detailed reasons therein have been discounted. HCC uses an informed, evidenced and transparent approach to pupil yield projection which is fair and reasonable.

- NHDC primary sector population growth, relative to the NHDC plan period base of 2011, is projected by the ONS to increase by 28% as at 2031. However since 2010, with each subsequent two-year release of the ONS SNPP, the size of the primary cohorts over time has been projected to increase albeit at different growth rates. Whilst three ONS SNPP releases is not sufficient for trend analysis between release dates it would be prudent for future planning to take consideration of the observed pattern.
- The ONS SNPP 2014 assumptions with regard to net migration are based on trend analysis and ONS panel expert opinion in the few years prior to the projection period release. Given the projection horizon of the NHDC plan to 2031, and the fact that it is widely acknowledged the longer the horizon the greater the projection error (especially by specific age group), particularly in smaller areas such as LAD's, the assumptions therein should be considered with some caution. Additionally the SNPP assume that migration is evenly spread throughout each year which may not reflect reality, for example the release for sale of completed dwellings within a development phase.
- NHDC has made no representation to HCC with regards to its dwelling construction over the 5 year period prior to the 2014 SNPP release, or of the demographic constructs of the occupants of these new dwellings for migrant household occupancy rates, which would form a more appropriate base on which to found future local area projections although a longer period would be preferable. This is relevant given that NHDC population growth has been evidenced by the ONS to be primarily driven by net migration.
- The SNPP do not take into account the detailed characteristics of migrant households specific to Hertfordshire as determined from the 2011 census migrant households data sets.
- The range of yields calculated by Regeneris, using their own model and from other authorities, whilst at best being indicative of long term average yield, should be discounted on the basis that:

    - No reference is made to the statistical closeness of the authorities used in the comparison of yield calculations to that of Hertfordshire County Council. Application of flat rate yield projections (whether from demographic, census or survey means) applied from authorities which do not exhibit both the historic and likely future population growth by person age of Hertfordshire, and other attendant socio-economic drivers, is questionable.
    - Flat rate yields in themselves are likely to under-predict child yield arising from a proposed number of dwellings as evidenced herein. This is irrespective of whether these yield assumptions are derived from survey or demographic means. In both circumstances little or no consideration is taken of the age 0 to 3 cohort sizes which transition into the primary sector. In the Regeneris report there is a dependency on DCLG All Households data as opposed to

Migrant Households which are acknowledged by the ONS, as demonstrated herein specific to Hertfordshire, to have substantially different demographic characteristics. Regeneris therefore project pupil yield on the basis of a resident population which does not reflect the characteristics of NHDC proposals and is fundamentally flawed.

- The projections simulated by Regeneris are for a specific dwelling type and bed size mix, given the inherent fluctuations in population structure (particularly where net migration is the driver behind population growth) and corresponding dwelling requirements such a rigid approach is unlikely to reflect actual requirements in the future, and therefore child yield, across the projection period.
- The majority of the "similar" local authority methods used by Regeneris in their comparison to the HCC strategic yield exclude any children arising from 1 bed dwellings. This is erroneous as comparison of 2001 and 2011 census Migrant Households data has demonstrated a considerable increase in early year's children within these sized dwellings (1 and 2 bed dwellings form 60.1% of the household bed size within Hertfordshire's migrant household data – Table 2). These children will naturally age into the primary sector and their exclusion therefore artificially reduces any calculated yield. This would be particularly relevant to the Cambridgeshire County Council yield which extends this to 2 bed dwellings (with the exception of social rented).
- The HCC survey and 2011 census data supported yield of 1FE per 500 dwellings is a strategic overview to ensure that prudent local district planning is in place to cope with likely future education demands. As particular developments transition into the planning phase, and more detailed information with regards to Type and Bed Size is available, then the authority can apply its bespoke models in order to calculate more precise yields.

4. SUMMARY COMMENTS ON THE REGENERIS REPORT

4.1 The Regeneris report has raised a number of questions in terms of HCC's assumptions for pupil yield and future needs for school places in North Hertfordshire District. These questions are outlined in the section below with HCC's comment on the respective concerns. More detailed comments on the Regeneris report can be found in **Appendix A**.

IN RELATION TO PUPIL YIELD		
Paragraph no.	**Point raised in the Regeneris Report**	**HCC Response**
Paragraph 2.6, 1st bullet point	The yield is based on results from a survey of 45 Hertfordshire developments undertaken by HCC's demographer in 2008 for a separate body of research and was therefore not a purpose built survey.	While the sample size may appear small, collectively they are deemed the most representative group of samples available for the purpose of the CIIU report. Please refer to paragraph 4.1 of the CIIU report which indicates that a total of 44 large scale developments were identified to give a total of 24,346 sampled dwellings. Regardless of whether the survey is purpose built, the data and the analysis have been proved to be robust. The resulting assumptions i.e. 500 dwellings to 1FE has been found to be a sound approach after being tested at Local Plan examinations.
Paragraph 2.6, 2nd bullet point; Paragraph 5.3	The information is somewhat out-of-date	While it is acknowledged that a significant proportion of the development included in the survey were completed more than 10 years ago, given the low number of large scale development (average 500+) it is only reasonable for any survey of this kind to include as many sample as possible to maximise its sample size, even if the developments have been delivered some time ago. While the Regeneris report seems to be concerned about this particular approach, it does not appear to have provided any evidence to suggest this approach is inappropriate or to have provided any alternatives.
Paragraph 2.6, 3rd bullet point	The sample size was considered to be statistically robust at County level but it was noted there were	The Regeneris report seems to have accepted that HCC's approach is for 'high level school planning'. As an education authority it is prudent for HCC to apply a consistent approach across

	significant variations in pupil yields across the districts within Hertfordshire, predominantly as a result of the small number of developments included within the study in some districts. A total of three (6.6%) developments were surveyed in North Hertfordshire.)	the entire county at the Local Plan stage. In fact, it would not be appropriate to have different sets of 'high level' requirements for each individual LPA. HCC is aware that the CIIU report concluded that a range of 500 to 850 dwellings per 1 FE at primary level would be statistically robust. Bearing in mind HCC's legal duty to make provision for sufficient school place for all pupils, it is prudent to apply the higher end of the range i.e. 500 dwelling per 1FE to minimise the risk of underestimation.
Paragraph 2.6, 4th bullet point	The developments were "reported to be mixed in terms of dwelling type, tenure and size although data relating to these parameters was not collected". The resulting pupil yields are therefore not variable by dwelling size.	Most local plans will have relevant policies seeking to achieve a certain dwelling mix. However, at the local plan stage this cannot be treated as what will actually be delivered. As suggested above, given the importance to secure sufficient education provision from development there is an obvious case for applying HCC's 500 dwelling per 1FE approach to minimise the risk of underestimation. Again, HCC will assess education requirements for individual planning applications when more detailed information becomes available.
Paragraph 2.6, 5th bullet point; Paragraph 2.8	There is no apparent distinction between primary and secondary school yields.	Primary children age and work their way through the primary education system and into the secondary. Accordingly the overall yield will be very similar albeit with a time lag. In fact, legislation requires all young people to stay in a designated learning environment until the age of 18 from 2015 onwards.
Paragraph 2.6, 6th bullet point	These **yields are then adjusted** using standard deviation to ensure a 97.5% confidence level of not under-estimating the yield of pupils arising from new developments. Or, in other words, the adjusted yield would only be exceeded by 2.5% of the observed distribution. This	It is accepted that the confidence level used in the CIIU report may be on the high side in comparison with other authorities. However, since details of developments are unknown at the local plan stage, this approach is a prudent response to need. In addition, not all the statistical neighbours of HCC are included for comparison i.e. Surrey, Buckinghamshire, Berkshire, etc.

	results in a near doubling of the above ratios, with the **adjusted primary school** pupil yield ranging from **40.8 to 42.8 pupils per 100 dwellings** and the adjusted **secondary school pupil** yield ranging from **24 to 34.8 pupils per 100 dwellings**. In practice, if 10 new primary schools were built to accommodate the additional demand arising from 10,000 new dwellings the schools could be under-subscribed by around 55%.	It is noticeable that there is a range within the other example authorities. In that scenario, one authority must be at the top end, whilst another will be at the bottom. Given the complexity in the planning system and the development industry, it would be far more difficult to increase the requirement at a later stage where pupil yields have been underestimated. In contrast, it would be relatively easy for LPAs to reduce the education requirement at the planning application stage and use the residual land/finance to achieve other local plan objectives.
Paragraph 3.1 – 3.3	Baseline data used to calculate Primary and Secondary school capacity (current and forecast)	The conclusions round surplus/deficit places are flawed. The tables use net capacity and number on roll to calculate surplus/deficit of places rather than the number of places available in each year group. Pupils are taught in year groups based on age. A surplus of places in one year group is irrelevant if demand exceeds the number of places available in another year group. To conclude the level of surplus places across an area based on the calculation applied is too simplistic. Assessing availability of places against demand in this way would risk HCC failing in its statutory duty to ensure a place for every child in its area. The Report also fails to address school organisation structures based on 0.5fe or 1fe groupings to meet KS1 class size legislation and operational requirements.
Table 3.2	HCC Pupil Planning data	Some of the data referred to in the Regeneris report is incorrect. For instance, the capacity data for Royston Upper School and Hitchin[1] Primary are both incorrect (Year 9 figures).
Paragraph 4.2, 1st	Regeneris Housing Impact Model	a. No reference is made to the statistical closeness of the authorities used in

[1] HCC increased the number of places in Hitchin by 1fe in 2014 (temp), 0.83fe places in 2016 (perm) and a further 1fe (temp). The change in number of places available is not taken account of in the Regeneris calculations.

bullet point		the comparison of yield calculations to that of HCC. Application of flat rate yield projections (whether from demographic, census or survey means) applied from authorities who do not exhibit both the historic and likely future population growth (both overall and by relevant age band) and other attendant socio-economic drivers, is questionable. b. Flat rate yields in themselves may under-predict child yield arising from a proposed number of dwellings as evidenced herein. This is irrespective of whether these yield assumptions are derived from survey or demographic means. In both circumstances little or no consideration is taken of the age 0 to 3 cohort sizes which transition into the primary sector. c. There is a dependency on DCLG All Households data as opposed to Migrant Households which are acknowledged by the ONS, as specific to Hertfordshire, to have substantially different demographic characteristics. Regeneris therefore project pupil yield on the basis of a resident population which does not reflect the characteristics of NHDC proposals. d. The projections simulated are for a specific dwelling type and bed size mix. Given the inherent fluctuations in population structure (particularly where net migration is the driver behind population growth) and corresponding dwelling requirements such a rigid approach is unlikely to reflect actual requirements in the future, and therefore child yield, across the projection period. e. The majority of the “similar” local authority methods used by Regeneris in their comparison to the HCC strategic yield exclude any children arising from 1 bed dwellings. This is erroneous as comparison of 2001 and 2011 census Migrant Households data has demonstrated a

		considerable increase in early year's children within these sized dwellings (1 and 2 bed dwellings form 60.1% of the household bed size within Hertfordshire's migrant household data – Table 2). These children will naturally age into the primary sector and their exclusion therefore artificially reduces any calculated yield. This would be particularly relevant to the Cambridgeshire County Council yield which extends this to 2 bed dwellings (with the exception of social rented). f. It is not clear why Regeneris has excluded the Luton East Allocations which form a major part of NHDC's housing trajectory. Even if the site is self-contained it would require additional education provision.
Paragraph 4.2, 2nd bullet point	Alternative Pupil Yield Calculator	There is no description or explanation regarding the alternative pupil yield calculators Regeneris have selected. Therefore it is not clear how comparable they are, or whether they are based on specific local information. The primary school places vary from 3,622 to 7,403 with the alternative pupil yield calculations used by Cambridgeshire County Council and Bracknell Forest Unitary Authority respectively. In this case, it is not clear which alternative pupil yield calculator is considered to be the reliable one. HCC believes that each county has its own geographical character/settlement pattern/ demographic distribution etc. A multiplier that works for one county may not work for another. HCC applies a different approach to detailed schemes depending on the scale, specific mix and nature of the development. However, the Regeneris report has failed to consider this when comparing the pupil yield to other counties.
Paragraph 4.2, 3rd bullet point	Sub-National Population Projections (SNPP) 2014-based	The NHDC Proposed Submission Local Plan 2011-2031 has used the findings of the Stevenage and North Hertfordshire

		SHMA Update 2015 as part of its evidence base. The SHMA identified the OAN (Objectively Assessed Need) figure for North Herts and Stevenage between 2011 and 2031. However, SNPP figures are used as one of the methodologies in the Regeneris report, not the SHMA. This appears to contradict the approach used in the Local Plan.

5. CONCLUSION

5.1 This paper provides the County Council's response to the Regeneris report prepared for NHDC.

5.2 HCC consider that the Regeneris Report does not fully consider the methods used by County Council to assess development at both the local plan and detailed planning application stages with regard to school place planning. It reaches conclusions which are not fully evidenced or explained.

5.3 Hertfordshire County Council (HCC), as a local education authority, has a statutory duty to secure sufficient school places for every child in its area. Its education planning function is informed by forecasts of pupil demand based on actual data of pre-school and school-aged children living in the area as well as on historic migration patterns.

5.4 HCC works with all ten District Councils in the County in their roles as Local Planning Authorities to ensure sufficient education infrastructure is planned for the longer term in line with Local Plan strategic housing growth proposals.

5.5 HCC would welcome the opportunity to discuss their response to the Regeneris Report with NHDC officers.

Appendix A – Detailed Comments to the Regeneris Report

Paragraph no.	Regeneris Report	HCC Response
Executive Summary Background v.	In summary, HCC's objections rely on a statistically adjusted yield derived from a small number of developments across Hertfordshire based on a study that was originally undertaken for a different purpose. There is no apparent distinction made between primary and secondary school yields, despite a significant difference in the ranges between the two.	The focus of this section is simply the 1:500 dwelling/pupil yield calculation. It ignores the fact other HCC Census based planning obligation tools (normally used during the planning application stage) can support this assessment. It also comments that no distinction is made between primary and secondary schools. This may indeed be the case with the high level work; however, it is important to point out that the children in the younger primary cohort do age through the system as opposed to disappearing. It would appear more likely that the higher birth rates simply have not impacted at secondary level yet so there will be a lag as opposed to a disappearance. In fact, legislation requires all young people to stay in a designated learning environment until the age of 17 from 2013 and the age of 18 from 2015 onwards under the Education and Skills Act.
Executive Summary Future Growth (bullet point 2)	Pupil yield calculators from elsewhere – we apply pupil yield ratios from neighbouring and similar authorities to the housing trajectories and compare the outputs with HCC's own pupil yield ratio.	The pupil yield calculators from other local authorities do not seem to be directly comparable with HCC's high level pupil yield ratio. The multipliers included in the report are more specific and should be more akin to one of HCC's detailed developed models. The child yield multipliers indicate a distinct variance across authorities. This does not by implication mean that HCCs ratio is incorrect; merely that it seems to be high or at the higher end of the range. HCC believes that each county has its own geographical character/settlement pattern/ demographic distribution, etc. A multiplier that works for one county may not work for another. No attempt to explain those differences is made by Regeneris.
Table 1.1	Comparison of pupils yield for North Hertfordshire and Stevenage based on different methodologies	There is no mention in the Regeneris Report of how the authorities used as comparators for pupil yield were selected.

		With the model HCC used, the pupil yields vary from 500 to 850 depending on the different mix of each independent scheme. The yield generated by a general rule and some other more sophisticated methods used by other Local Authorities at the planning application stage, are not comparable. There is a risk in making assumptions without knowing the development details of each site or the timing of delivery in the plan period.
Para 2.3	…"When undertaking high level school place planning related to new residential development, HCC determines child yield based on a ratio of 1 Form (FE) PER 500 dwellings to be 97.5% confident of not underestimating yield".	The consultants seem to be aware that the 500 = 1fe is used when undertaking "high level school place planning" but do not appear to take this into account in their comparisons or interpretation in the rest of the study. They focus only on the general rule of 1:500 dwelling/pupil yield calculation and ignore the fact that other HCC Census based planning obligation tools (normally used during the planning application stage) could refine the calculation at a later stage.
Para 2.4	Taking Site BA1 as an example, Policy SP14 refers to additional 6FE primary-age and secondary-age school provision as part of an overall masterplan to be prepared for the site. However, HCC object to this level of provision and instead suggest that the 3,600 homes proposed in Baldock would yield demand for 7.2 FE of school places (3,600/500) and on this basis a pattern of new primary school sites to accommodate 8FE in total and a new 8FE secondary school site should be provided.	It is important to remember the context here is the local plan level, where new housing growth is being considered in the absence of any certainty regarding for example, the sizes of dwellings. HCC has a duty to ensure sufficient places are available for the children who need them. Accordingly HCC has to be careful not to underestimate what might be required at this stage. The practical implication of this is that if demand turns out to be overestimated at an early stage decisions can be made regarding the design of a site. If however, demand is underestimated this will be difficult to rectify later since additional land for schools will need to be found. This may result in HCC failing in its statutory duty to ensure sufficient school places in its area as well as questioning the soundness of a Local Plan. When details of the scheme are known, more specific modelling can be undertaken to confirm or amend the quantum required.

Para 2.5	NHDC consider the emerging local plan contains sufficient actual and contingent requirements to meet HCCs purported requirements	The HCC Property (Development Services) dated 29/11/2016 dispute this point.
Para 2.6 (1st bullet point)	• The yield is based on results from a survey of 45 Hertfordshire developments undertaken by HCC's demographer in 2008 for a separate body of research and was therefore not a purpose built survey.	The information collected by the HCC demographer was to create statistical models of the age profile of residents on new developments. Using the information collected from the survey as a baseline is considered appropriate; the information serves its purpose at high level. While the sample size may appear small, collectively they are deemed the most representative group of samples available for the purpose of the CIIU report. Please refer to paragraph 4.1 of the CIIU report which indicates that a total of 44 large scale developments were identified to give a total of 24,346 sampled dwellings. Regardless of whether the survey is purpose built, the data and the analysis has been proved to be robust enough and the resulting assumptions, i.e. 500 dwellings for 1FE, has served Hertfordshire well and have been found to be a sound approach after being tested at Local Plan examinations.
Para 2.6 (2nd bullet point)	• According to the CIIU report, which was produced in 2015, "greater than sixty percent of the developments included in the survey were completed more than ten years ago (prior to 2005) and thirty percent were more than twenty years ago (prior to 1995) – some as much as fifty years ago.	While it is acknowledged that a significant proportion of the development included in the survey were completed more than 10 years ago, given the low number of large scale developments (average 500+) it is only reasonable for any survey of this kind to include as many samples as possible to maximise its sample size, even if the developments have been delivered some time in the past. The Regeneris report appears to be concerned about this particular approach. However, it does not appear to have provided any evidence to suggest this approach is inappropriate, or provided any alternatives.
Para 2.6 (3rd bullet point)	• The sample size was considered to be statistically robust at County level but it was noted there	The Regeneris report seems to have accepted the fact that HCC's approach is for 'high level school planning'. As the education authority for Hertfordshire, it is

	were significant variations in pupil yields across the districts within Hertfordshire, predominantly as a result of the small number of developments included within the study in some districts. A total of three (6.6%) developments were surveyed in North Hertfordshire.	prudent for HCC to apply a consistent approach across the entire county at the Local Plan stage. In fact, it would not be appropriate to have different sets of 'high level' requirements for each individual LPA. HCC is well aware of the fact the CIIU report concluded that a range of 500 to 850 dwellings per 1 FE at primary level would be statistically robust. Bearing in mind HCC's legal duty to make provision for sufficient school place for all pupils, it is prudent to apply the higher end of the range i.e. 500 dwelling per 1FE to minimise the risk of underestimation. That being said, HCC considers more detailed proposals or planning applications with specific development forecasting model(s) to forecast pupil yield/education contributions e.g. at the planning application stage. Broadly speaking, education contributions are calculated using a HCC developed census-based model which forecasts the number of children likely to emerge from different types, sizes and tenures of dwellings. The expected number of children is then multiplied by the cost of a pupil place resulting in a contribution figure.
Para 2.6 (4th bullet point)	• The developments were "*reported to be mixed in terms of dwelling type, tenure and size although data relating to these parameters was not collected*". The resulting pupil yields are therefore not variable by dwelling size.	While most local plans will have relevant policies seeking to achieve a certain dwelling mix, this cannot be treated as what will actually be delivered on the ground. As suggested above, given the importance to secure sufficient education provision through development there is an obvious case for applying the HCC's 500 dwelling per 1FE approach to minimise the risk of underestimation. Again, HCC will access education requirements for individual planning applications where more details become available.
Para 2.6 (5th bullet point)	• Primary and secondary pupil yields were calculated for all developments as well as separately for those completed within the last	If a development generates 1FE of primary pupils, at some point in the future these children will age and work their way through the primary education system and into the secondary. Accordingly the overall

	ten years (of which there were fifteen), as follows: □ The average countywide **primary** pupil yield resulting from all 45 developments was 23.8 pupils per 100 dwellings, and 23.2 pupils per 100 dwellings for <10 year developments □ The average countywide **secondary** pupil yield resulting from all 45 developments was 17 pupils per 100 dwellings, and 11.8 pupils per 100 dwellings for <10 year developments (this includes a post 16 component).	yield will be very similar albeit with a time lag. In fact, legislation requires all young people to stay in a designated learning environment until the age of 17 from 2013 and the age of 18 from 2015 onwards under the Education and Skills Act.
Para 2.6 (6th bullet point)	• These **yields are then adjusted** using standard deviation to ensure a 97.5% confidence level of not under-estimating the yield of pupils arising from new developments. Or, in other words, the adjusted yield would only be exceeded by 2.5% of the observed distribution. This results in a near doubling of the above ratios, with the **adjusted primary school** pupil yield ranging from **40.8 to 42.8 pupils per 100 dwellings** and the adjusted **secondary school pupil** yield ranging from **24 to 34.8 pupils per 100 dwellings**. In practice, if 10 new primary schools were built to accommodate the additional demand arising from 10,000 new dwellings the schools could be under-subscribed by around 55%.	As outlined above, since details of developments are unknown at the local plan stage this approach comprises a prudent response to need. Given the complexity in the planning system and the development industry, it would be far more difficult to increase the requirement at a later stage where pupil yield has been underestimated. In contrast, reducing the education requirement if appropriate at the planning application stage would offer the LPA the opportunity to use the residual land/finance to achieve other local plan objectives.
Para 2.6	• These **yields are then adjusted** using standard	Some of the data referred to in the Regeneris report seems to be incorrect.

(7th and 8th bullet point)	deviation to ensure a 97.5% confidence level of not under-estimating the yield of pupils arising from new developments. Or, in other words, the adjusted yield would only be exceeded by 2.5% of the observed distribution. This results in a near doubling of the above ratios, with the **adjusted primary school** pupil yield ranging from **40.8 to 42.8 pupils per 100 dwellings** and the adjusted **secondary school pupil** yield ranging from **24 to 34.8 pupils per 100 dwellings**. In practice, if 10 new primary schools were built to accommodate the additional demand arising from 10,000 new dwellings, the schools could be under-subscribed by around 55%. • The CIIU report goes on to state that, on average, one FE at primary stage (210 pupils) would be generated from between 880 dwellings (based on the unadjusted yield from all 45 developments of 23.8 pupils) and 490 dwellings (based on the adjusted yield of 42.8 pupils from <10 years old developments). The report notes that "*applying a one Form of Entry arising from the latter number of dwellings minimises the risk to the authority of under predicting pupil yield arising from new developments*".	For instance, the capacity data for Royston Upper School and Hitchin[2] Primary are both incorrect (Year 9 figures). Notwithstanding any possible errors in the Regeneris calculations HCC must ensure that all children requiring a school place are provided with one. School expansions are usually by whole (30 places) of half form (15 places) of entry.
Para 2.8	In HCC's Objections to NHDC's emerging local plan	The younger age groups will age and work their way through the primary education

[2] HCC increased the number of places in Hitchin by 1fe in 2014 (temp), 0.83fe places in 2016 (perm) and a further 1fe (temp). The change in number of places available is not taken account of in the Regeneris calculations.

	they rely on the upper end of this range (1 FE per 500 dwellings based on the adjusted yield derived from the fifteen developments completed in the last ten years). There is no clear distinction made between primary and secondary school yields, despite the difference in ranges we have highlighted.	system and into the secondary. Accordingly the numbers will be similar albeit with a time lag and a possible drop before sixth form depending on stay on rates at that time.
Section 3	Regeneris has assessed the level of surplus/deficit school places across the North Herts area by comparing the number on roll with capacity.	This approach is flawed as it fails to take account of the changes in number of places available year on year across the area.
Table 3.1	School Roll and Capacity 2015 (Source DfES 2014/15)	It is short sighted to focus on surplus/deficit in one particular year. The demand for school places fluctuates and could be very different in two continuous years. HCC has a statutory duty to provide sufficient places for every child in Hertfordshire; to comply with KS1 class size legislation, primary schools cannot accommodate reception or KS1 classes of over 30 due to teacher ratios and resource distribution and therefore in fulfilling its statutory duty, the County Council normally looks to increase capacity by whole forms of entry to support school organisation structures. In addition, a surplus of places in one area could turn into a deficit in one or two years; unpicking numbers from one particular year does not give a meaningful picture of the school place position across the area.
Para 3.6	…In nearly all cases the planning areas were left with a surplus of places for both Year R and Year & pupils.	This is too simplistic in approach. Notwithstanding any errors in the Regeneris calculations, if actual figures of pupils showed a deficit, HCC would not be fulfilling its statutory duty. It must ensure all children requiring a school place are able to access one and therefore works to increase capacity where demand is expected to exceed the number of places available. As outlined above, the creation of additional places is normally in whole forms of entry to support school organisation structures (with the exception

		of some rural primary schools). In addition, other factors such as faith criteria and parental choice may impact on pupil demand.
Para 3.7	… Table 3.3 and 3.4 below summarises the information and suggest that by 2019/20 there will be an anticipated surplus of 104 primary school places in Stevenage. There is also a projected surplus in primary school places in North Hertfordshire ranging from 14 in Baldock to 64 in Letchworth.	Fluctuations in demand year on year are inevitable. As primary forecasts as based on actual pre-school aged children from GP registration data, they only project demand for Reception places four years ahead. Beyond this, children are not yet born. As such, Reception demand does not take account of the impact of strategic housing growth proposals. In the longer term, the County Council plans to ensure the right number of school places in the right location to meet future demand. This requires strategic planning over the long term to ensure sufficient education infrastructure is planned to meet both potential rising demand from the existing community as well as the needs of those new communities which will arise from proposed housing growth.
Para 4.4	North Hertfordshire and Stevenage Housing Trajectories	The two methodologies used are based on a list of assumptions, including the use of desired breakdown identified by the Local Authorities, the exclusion of a total of 2,400 dwellings which serves the East of Luton area, and the housing mix figures from past completions set out in the North Herts AMR, etc.
Para 4.4 (8th bullet point)	This method was repeated for each school place planning area. Any un-allocated (i.e. windfall) sites in Stevenage were attributed 100% to the Stevenage School Place Planning Area. Any un-allocated sites in North Hertfordshire were allocated to the different School Place Planning Areas based on the proportion of dwellings proposed for each site.	It is considered that the housing mix which informs the two models is heavily based on assumptions which do not reflect the variation seen in practice.
Para 4.8	The final two lines in the table show totals in the North Hertfordshire and Stevenage school planning areas based	Legislation requires all young people to stay in a designated learning environment until the age of 17 from 2013 and the age of 18 from 2015 onwards under the

	on primary and secondary school age (but excludes post-16 students	Education and Skills Bill. The 1FE= 500 dwellings general rule used by HCC includes post-16 students. These approaches are therefore not directly comparable.
Table 4.1	Pupil yields based on Regeneris Housing Impact Model	Planning years are being grouped into every five years in the table; however, school planning should be scrutinized every year as one year's deficit could not be balanced out by a surplus from another year. Figures do not seem to be comparable.
Table 4.3	Pupil yield assumptions table	The table looks at several authorities with different dynamics, such as adjacency to London, transport links, commuter belts etc. However, the reasons for differences are not considered. The multipliers included in this table are used to calculate the number of children when a detailed development mix is known (e.g. size and tenure of dwellings available). When detailed information is unknown then other county councils would also use general multipliers to inform districts' local plans preparation. Insufficient attention is given to area differences e.g. regarding the census base used, whether peak and long term yields are accounted for, or the efficacy of the ratios in each area.
Para 4.11	Table 4.4 below outlines primary and secondary school pupil yields for the North Hertfordshire (only) school areas and the North Hertfordshire school areas plus Stevenage. It shows that based on the same North Hertfordshire and Stevenage housing trajectories listed above, but different assumptions for pupil yield, the number of primary school places required could vary from 3,622 places (based on Cambridgeshire County Council assumptions) to 7,403 places (Bracknell Forest assumptions) by 2031.	There is no description or explanation regarding the alternative pupil yield calculators selected. Are they in fact comparable? Are they based on specific local information? The primary school places vary from 3,622 to 7,403 with the alternative pupil yield calculations used by Cambridgeshire County Council and Bracknell Forest Unitary Authority respectively. In this case, which alternative pupil yield calculator is the reliable one? HCC believes that each county has its own geographical character/settlement pattern/ demographic distribution, etc. A multiplier that works for one county may not work for another.

	In addition, the number of secondary school places could vary from 2,436 (Cambridgeshire County Council) to 4,958 places (Hampshire County Council) between 2011 and 2031.	HCC applies different models to different schemes depending on the scale, specific mix and nature of the development. However, this report has omitted these models when comparing the pupil yield to other counties.
Para 4.14	This method is based purely on population change. Notwithstanding this, the government's household projections (which are based on the 2014-based SNPP) align very closely to the dwelling targets in reasonable proxy for planned growth.	This method should be taken out completely as there are too many variants that would affect the result of the dwelling targets as well as the population projections. The SHMA has identified the OAN (Objectively Assessed Need) figure for North Herts and Stevenage between 2011 and 2031. No other scenario should be used as the OAN number for the two districts have been agreed and concurrently included in their Local Plans as set out in the SHMA. The 2014-based SNPP has played its part to inform the SHMA update 2015 and should not be looked at separately.