

Appendix G

An explanation of the methodology for Pupil Based Planning projections

A. The process starts with pupil numbers in schools taken from the most current school census. Then the following steps are followed

1. Firstly look at birth trends and numbers on roll in reception each year.

Birth Data Trend and Forecast (Birth Data and NOR 2016.xls)

- We take actual birth data for the last 10 years (2005/06 to 2014/15) and calculate the percentage change in births year-on-year. We then calculate the average percentage change in births (year-on-year over the last 5 years (2010/11 to 2014/15) which is -0.1%.
- We then look at the actual number of children starting in reception (last 6 years) and compare this to the birth rate for that year.
- We then calculate the average difference per year over the last 4 years (4 rather than 5 is a professional judgement due to change in trends). This tells us that, on average there are 91 more children starting in reception than we would expect based purely on the numbers born in Rutland for the corresponding year. This is an average uplift of 29.6% (last 4 years).
- We then apply the birth forecast (-0.1% per year) to the most recent years actual no. of recorded births for each forecasted year (cumulative).
- We then apply the average uplift figure (29.6% - described above) to produce projected total number of primary school pupils over the next 5 years.
- We then need to break this down by school. We do this by calculating the average percentage split, based on actual data for the previous 5 years, to produce a forecast of pupils for each primary school over the next 10 years.
- We then conduct a 'sense check' of these figures by comparing our projection for 2016/17 with the actual number on role for 2016/17 (from the January School Census). If our forecast figure for this year differs considerably from the actual figure we check with the school whether there are any local factors (e.g. change in admission policy at local secondary school) which indicate we need to adjust the projected figure. (In reality these rarely result in changes and when they do they are small adjustments.)

2. Once we have calculated the population change based on birth rates and adjusted for uplift in those born outside of Rutland and professional judgement of schools, we then apply a further adjustment based on housing developments and the projected pupil yield

- For the projections based on annual build we use a ratio for the 3 different clusters (provided by the Planning Department) which is: 70% of new housing in Oakham and Uppingham, of which 80% is in Oakham and 20% in Uppingham 30% split between service centres, of which one is in Uppingham, one is in Oakham and five are in Casterton
- For the annual build of 175 this gives a split of 106 for Oakham; 38 for Casterton and 33 for Uppingham (due to rounding this actually total 177).
- For the annual build of 225 this gives us split of 136 for Oakham; 48 for Casterton and 41 for Uppingham.

- We then apply a pupil yield ratio (calculation of this described below) to the projected number of new house builds for each cluster area and for each year.

3. We add the projected number of additional pupils according to the calculation of birth trends (no.1 above) to the projected increase in pupils according to housing developments (described in no. 2 above) to produce the projections for the next 15 years.

B. Pupil Yield Ratio

In order to increase the scenarios considered by have looked at a Low and High pupil yield for developments based on pupils per 100 households

Low – Primary 21.8% and Secondary 12%

High – Primary 24% and Secondary 18%

This allows some sensitivity analysis based on growth rates and pupil yields whilst other factors remain constant.

The pupil yield ratio is calculated by looking at the number of properties occupied as at March 2016 in new housing developments in Rutland (excluding North Luffenham) and comparing this with the number of resident primary and secondary school children – as shown in **Table 1**.

Table 1

	Properties Occupied as at March 2016	No. of resident Primary school pupils	No. of resident Secondary school pupils	Pupil yield primary	Pupil yield secondary
Barleythorpe, Hawkesmead	363	87	39	0.240	0.107
Branston Road, Uppingham	37	9	6	0.243	0.162
Vale of Catmose, Oakham	125	24	14	0.192	0.112
Huntsman Drive, Oakham	56	11	6	0.196	0.107
Timber Yard, North Luffenham	25	1	0	0.040	0
Total	606	132	65	0.218	0.12

Table 2 shows a selection of comparative yield ratios for other local authorities. These were drawn from an informal practice group who share information on pupil projections/methodologies etc. As this shows, the figures are relatively low, particularly for secondary; however they are within a similar range to other areas.

Table 2 - * Lincolnshire is based on ratio for 3bed houses

Area	primary	secondary
Hampshire	0.3	0.21
Devon	0.25	0.15
Leicestershire	0.24	0.17
Rutland	0.218	0.12
Lincolnshire*	0.17	0.17
Cornwall	0.15	0.15
North Somerset	0.10	0.10
