Appendix

Table 1: Summary	
	Coventry population
Census 2001	300848
Census 2011	316960
ONS MYE2018	366,785
Admin data best estimate – dwellings based methodology	**335,587**

Table 2: Brownfield with permission in the HMA, plus on target delivery					
LA	Total Brownfield hectares	With Permission (ha)	Pending (ha)	latest 2019 MHCLG delivery of 3yr target	date of register
Warwick	72.1	5.5	1.48	129%	Dec 19
Coventry	252.0	156.7	0.15	108%	Sep 17
Rugby	16.4	15.3	na	110%	Dec 17
Nuneaton and Bedworth	21.6	12.9	na	98%	Mar 18
North Warwickshire	35.9	15.6	0.26	156%	Mar 20
Stratford on Avon	600.8	600.8	0	271%	Jan 20

Administrative Data Methodologies: Forecast of Population

1.   Looking for traces of hyperpopulation growth. A very wide range of current administrative data, shows that population growth in Coventry is NOT outstripping it's neighbours, as the SNPP claim. For example, consider the growth of domestic waste, shown in the graph below. There is no sign of an uplift in domestic waste which you would expect from an explosive surge in population.   See our slide show, previously supplied, for a very similar story about births, deaths, jobs created, GVA, house prices, house starts and completions, electors, pensions and benefits claimed, gas and electricity usage, car registration, and school admissions. If there are hordes of people coming to Coventry, they are ghosts or vampires, who cast no shadow and leave no trace.
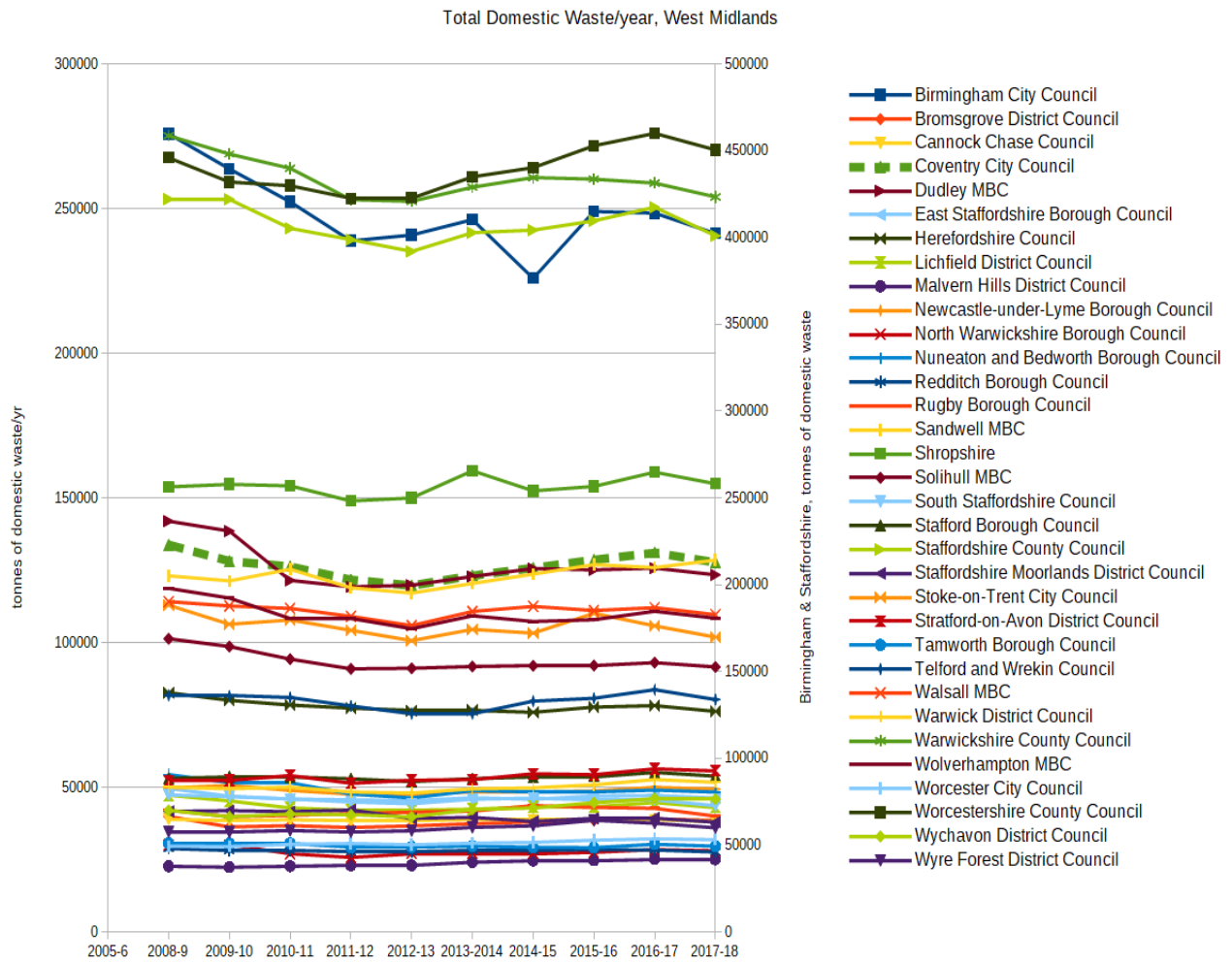
Figure 1, Domestic Waste in the West Midlands

2. <u>Dwellings Based Forecast</u>. This method very accurately predicted the outcome of the 2011 census.

Method: assume the national average household size in the period 2001-2011 applies to Coventry (source ONS FandH, **Table 5: Households by size) = 2.37**. Over the period 2001-2011, there were 6806 net dwelling completions in Coventry. Implied population increase = 2.37 x 6806 =16130. We understand that this is a rough and ready method which needs further testing. Nonetheless, it works strikingly well for a recent period in Coventry and across the West Midlands (see Figure 2)

Table 3 – Dwellings Based forecast of the 2011 Coventry census.		
:		
Avg national household ratio	2.37	
2001 Coventry census	300848	
Net Dwellings completed (source Coventry AMR 16/17)	6806	
Implied population increase	16,130	'=net dwellings completed x household ratio
Calculated 2011 population, from net dwellings delivered in the census decade	**316,978**	
Actual 2011 census	**316,960**	

Table 4, Estimating the mid 2018 Coventry Population		
Net dwellings delivered 2011/12-2017/18 (source Coventry AMR and Housing_Delivery_Test_2019_Measurement)	7852	
avg household ratio	2.37	
Implied Population increase from census 2011 to mid 2018	18,627	
Calculated mid 2018 Coventry population, dwellings based.	**335,587**	
ONS MYE estimate of mid 2018 Coventry population.	366,785	

Across the West Midlands Government Region, the Dwellings Based Methodology Produced a good estimate of the actual 2011 Census figures. See Figure 2 below

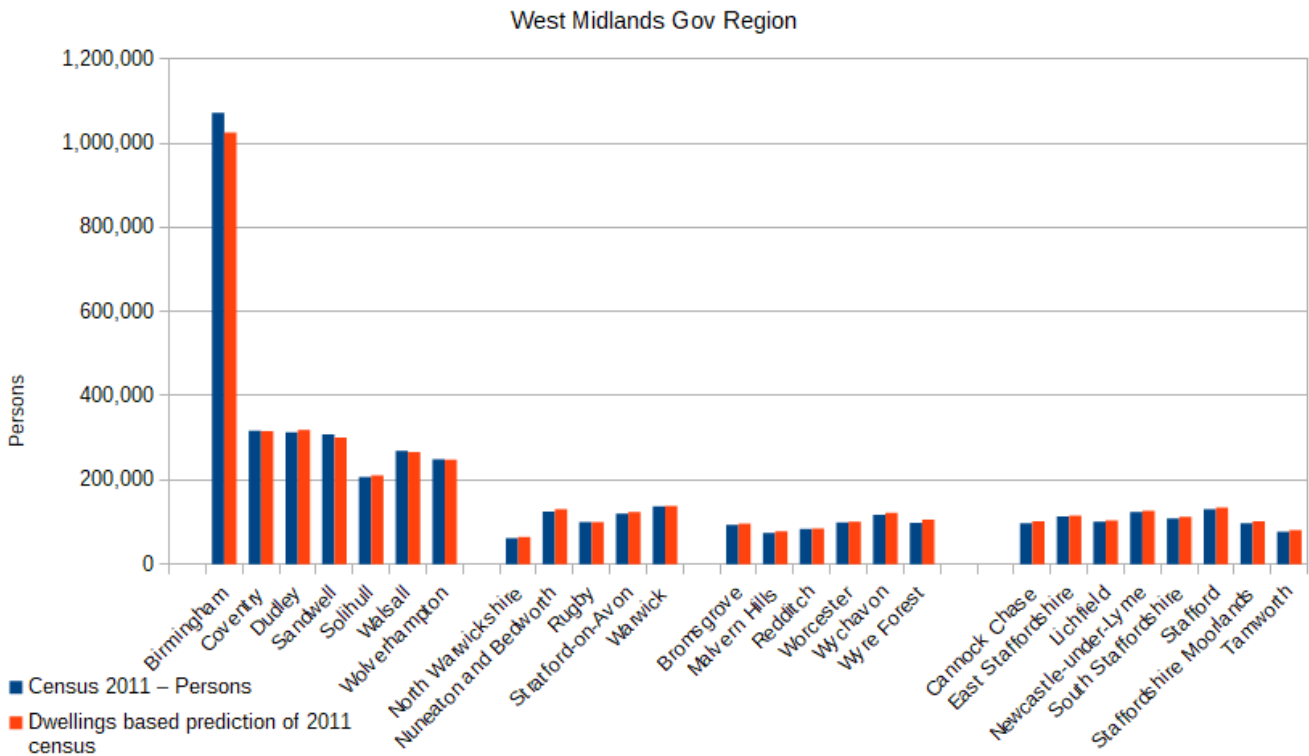Dwelling Based forecast of the 2011 Census, starting from Census 2001

West Midlands Gov Region

Figure 2

2.   Averaging: All of the previously supplied administrative data indicate that Coventry Population growth is very like every other town in the region ie, it is just average.

This method applies to Coventry the average population growth for the West Midlands Government Office Region (taken from SNPP2014)

Basis: Over the census decade 2001-2011, Coventry growth (5.4%) was slightly less than the GOR West Midlands actual regional average (6.35%). We assume that regional projections will be more reliable than local authority projections. To make an estimate of the 2018 Coventry population, we take
regional average growth (2011-2021) =0.678%/yr. (annual growth factor = 1.00678)
2018 population = $(1.00678)^7$ x 316,960 = 332,332

Check against 2001 and 2011 Census

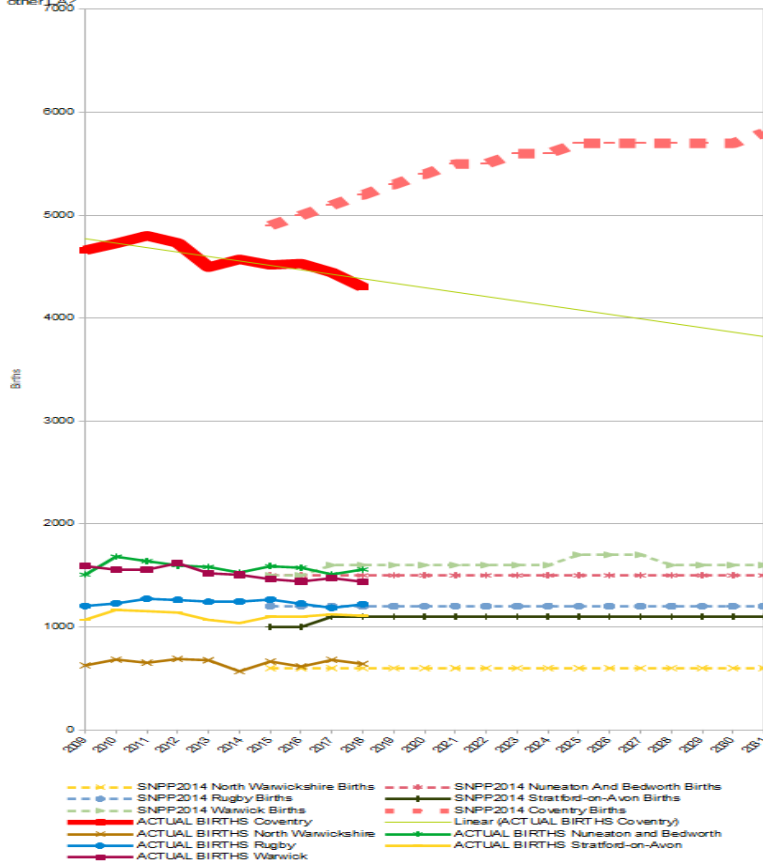| Table 5. Applying the Regional Growth Rate to predict the 2011 Coventry population starting with the 2001 Census					
Period to b e forecast	Base Year	Regional Average growth rate/10yrs	Source of 10 yr Regional average	Forecast, by avg reg growth	
2001-2011	300848	5.51%	SNPP2006	317,430	
2001-2011		6.35%	Census 2001 & Census 2011	319,956	
2001-2011 ACTUAL				316,960	

In this table, which forecasts the 2011 Coventry population, we have taken the regional average from two sources – from the actual Census figures and alternatively from the SNPP in the middle of the decade, SNPP2006. Both produce results quite close to the actual census figure

The result of this methodology [332332] aligns well with our dwellings based forecast [335, 587]

Re-running SNPP2014, with actual birth,death, and international emigration figures (derived from HESA destinations data and Home Office Exit Checks Data).

This produces a mid 2018 population of 344,500, not too far from our other estimates.

Actual v SNPP2014 Projected Births, West Midlands & HMA

Why are projected Coventry births rising rapidly when actual births have actually been falling, faster than any other LA?

Legend:
- SNPP2014 North Warwickshire Births
- SNPP2014 Rugby Births
- SNPP2014 Warwick Births
- ACTUAL BIRTHS Coventry
- ACTUAL BIRTHS North Warwickshire
- ACTUAL BIRTHS Rugby
- ACTUAL BIRTHS Warwick
- SNPP2014 Nuneaton And Bedworth Births
- SNPP2014 Stratford-on-Avon Births
- SNPP2014 Coventry Births
- Linear (ACTUAL BIRTHS Coventry)
- ACTUAL BIRTHS Nuneaton and Bedworth
- ACTUAL BIRTHS Stratford-on-Avon

Chart 3: Actual births are falling far below the levels forecast in SNPP2014

Comments:

This chart compares the predictions made by ONS in the SNPP 2014, with the latest actual births reported.   There is a gross discrepancy.

Actual births are falling heavily, while the projections rise sharply, more rapidly than any other town in the HMA. All of which argues that the plans and policies based on the SNPP2014 are seriously out of date and urgently need revision.

6

Why the Coventry population estimates need an independent examination and the ONS projections and MYE should not be taken on faith

- The rolled forward Mid Year Estimates were badly wrong in 2011. They had over estimated population growth in Coventry by nearly 15000. Our dwellings based methodology predicted t he 2011 population very accurately
- Drawing on actual NHS birth and death data, natural increase in Coventry has been much exaggerated See the chart below.
- HESA destinations data , and home office exit checks data, show that the true number of international emigrants is circa 6000/yr far more than the circa 3000 in 2012-2018 SNPP . Most of t he 6500 non EU international students, at the 2 Coventry universities leave the city & the UK after graduating. See our slide show.
- if you rerun SNPP 2014 with actual birth & death data, and a more accurate international emigration figure, you come up with the figure of 344,500 for mid 2018,
- We know that the international emigration figure in the SNPP is based on the International Passenger Survey, which has been widely discredited. ?
- Over the decade 2001-2011, our method forecast the outcome of the 2011 census much more accurately than the Mid Year Estimates. . The rolled forward Mid Year Estimates were out by nearly 15,000

Summary

Summary of estimates		
Methodology	Mid 2018 estimate	
Dwelling based estimate	335,587	We prefer this method because it accurately predicted the 2011 Census
Same as regional average growth in SNPP2014; 7% over 10 years	332,332	Assume that the regional projections are more reliable
Rerun SNPP2014 with accurate birth, death, and migration figures	344500	
ONS2014 Estimates	361,000	
ONS MYE 2018	366785	