

## APPENDIX 3

### Methodology for Producing Electoral Populations at 2021 for Hampshire County Council, as part of the 2015 Electoral Review

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The 2021 electoral population estimates are based on the 2014 based Small Area Population Forecasts (SAPF), and assumes the same level of voter registration. The SAPF model has been developed within Hampshire County Council's Research and Intelligence team. Whilst the origins of this dwelling led small area model date back to the early 1970s, it is constantly evolving in order to help capture an ever-changing population, as well as its likely future make-up. It is used throughout the county for various service planning roles including school place planning. Analysis of our forecasts against the 2011 Census figures showed that our totals were within 1.2% of the 2011 Census estimate.

Figure 1 overleaf provides a basic graphical view of the SAPF model. The cohort component model incorporates both nationally available data on the base population, births, deaths and migration from the Office for National Statistics (ONS), as well as locally sourced information including child health data detailing the number of children aged 0-4 for our base year and data on dwelling applications and planned developments at site level. The SAPF model also takes into account how people live within dwellings, including shared and vacant dwellings and household formation rates.

The model runs at output area level to allow for aggregation up to any number of geographies and bespoke areas with a good degree of accuracy and robustness and produces forecasts to seven years beyond the base year.

The ratio of electorate to population is calculated for 2014 using our SAPF 18+ population and the 2014 registered electoral data (as at December 2014) provided by the Hampshire District and Borough Councils. These ratios have then been applied to our 2021 forecasts of the 18+ population at electoral ward level in order to get estimates of the registered electoral population for 2021.

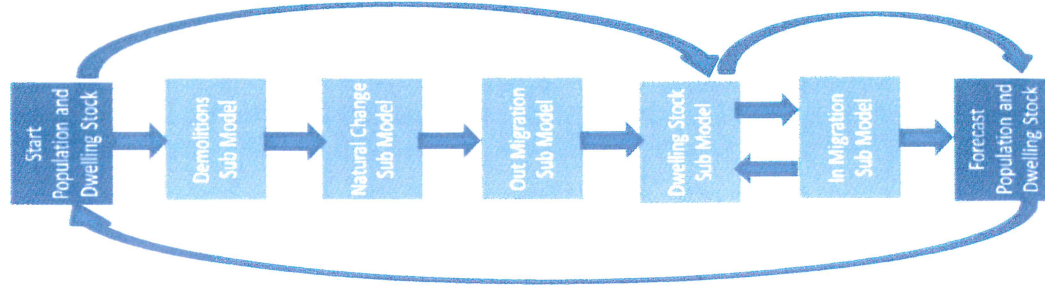
In order to provide the polling district level electorate forecasts the following additional methodology has been followed. Using the 2014 actual electorate data, the proportion of each electoral ward's electorate that lies within each polling district is calculated. These proportions are then applied to the 2021 electoral ward forecasts of the registered electoral population to give an estimate at this very low geographic level.

#### Note on data:

Housing supply and phasing data is published at [http://www3.hants.gov.uk/factsandfigures/land-supply/housing\\_land\\_supply\\_in\\_hampshire.htm](http://www3.hants.gov.uk/factsandfigures/land-supply/housing_land_supply_in_hampshire.htm). Phasing information is located under the second tab on the page and consists of the site-by-site schedule together with a methodology note that explains first the categories of sites which are included

and second outlines the phasing process, assumed completion rates, involving county and district council officers. Other data sources are listed overleaf.

Figure 1: Basic SAPF Model Outline



Data used	Data source	Notes
2011 Census; known dwelling stock	ONS; District councils	2011 Census is the most accurate and detailed Start population
Number of dwellings demolished	District councils	
Births and deaths (numbers) Fertility and Mortality rates Child Health data	ONS; NHS Trusts	Births, Deaths and Child Health data are at local level, Fertility and Mortality rates at National level
Migration rates	ONS (Sub National Population Projections (SNPP) / 2011 Census)	Currently District level SNPP rates, to be updated to lower level 2011 Census rates
New housing supply including type, phasing etc.	District Councils/HCC Land Availability Monitoring System (LAMS)	Districts supply data; HCC verifies and stores in LAMS system
Migration rates	ONS (Sub National Population Projections / 2011 Census)	Currently District level SNPP rates, to be updated to lower level 2011 Census rates
Forecast of population by single year of age and gender down to OA level for next 7 years		Output used to inform local authority planning e.g. school places