North East Cambridge Area Action Plan

Proposed Submission

Demographic Briefing Paper

Greater Cambridge Planning Service

November 2021

Methodology Note, Demography, Revised Trajectory July 2021

Produced by Cambridgeshire County Council, 9th August 2021

North East Cambridge (NEC) is a new urban district to the north of Cambridge on brownfield land currently occupied by a number of industrial type uses. The site was identified as a major development site in the Cambridge and South Cambridgeshire 2018 Local Plans. The councils consulted on the draft North East Cambridge Area Action plan (AAP) in July to October 2020. Once adopted the AAP will set out the development framework for the site. NEC will comprise a mix of housing, workplaces and associated infrastructure and community uses.

This note sets out Cambridgeshire County Council's (CCC) methodology for the production of its population forecasts for North East Cambridge. The population forecasts have been produced based on revised information provided to CCC by Greater Cambridge Shared Planning (GCSP) on the total number of dwellings and dwelling mix at North East Cambridge, as shown in the Table below. CCC was asked by GCSP to produce the forecasts based on 40% of the housing being affordable, spread evenly across the dwelling types. At this stage, the trajectory, in terms of dwelling completions by type over time is not available.

Dwelling mix and total (revised July 2021)

Dwelling type	1 Bed	2 Bed	3 Bed	4 Bed	Total
Total dwellings	2,673	4,914	716	47	8,350
% of total	32%	59%	9%	1%	100%
Of which Affordable	1,069	1,966	286	19	3,340
Of which Market	1,604	2,948	430	28	5,010

Based on data provided by Greater Cambridge Shared Planning, July 2021

This methodology note consists of three sections:

- the forecast for the school-aged population (0 to 15 years), using CCC's school pupil forecast methodology,
- the forecast for the population aged 16 years and over, and
- a summary of the overall population forecast.

Forecast for 0-15 years population

School pupil forecast methodology

This section sets out CCC's methodology for the production of its forecast for the population aged 0-15 years for North East Cambridge. It sets out the education requirements identified to meet the education needs of the site based on the proposed dwelling numbers at this stage of planning. The assumptions used by the County Council within its pupil forecasting model are updated on a regular basis in line with government guidance, keeping evidence up to date. The main sources of this information are new development surveys and pupil level data.

The multipliers are broken into two categories. Where the housing mix is unknown a general multiplier is applied. Where a detailed mix is known a detailed multiplier is used. The 2017 review of data saw a change in the general pupil multipliers for the primary age range to 30 to 40 pupils per 100 dwellings (up from 25– 35). These are expected to remain in place.

The general multipliers used are:

- Early Years Aged Children = 20-30 per 100 dwellings
- Primary Aged Children = 30-40 per 100 dwellings
- Secondary Aged Children = 18-25 per 100 dwellings.

The general multipliers above are applied where details of housing mix are not known, or at the early stages of a development and likely to change. Where a detailed intended housing mix of a new development is known in full, it is possible to forecast the number of children that might be expected in individual properties based on the number of bedrooms and whether they are market or social rented properties. The full set of child yield multipliers revised and agreed by Cabinet are set out in the two tables below. These were based on a specially commissioned table from the 2011 Census which gave the age of 'wholly moving households' as well as continuous recording of lettings and sales in social housing in England (CORE).

Numbers of bedrooms-Market and Intermediate housing

Age Group	2 bedrooms	3 bedrooms	4+ bedrooms
0-3	10	20	35
4-10	5	20	40
11-15	0	15	30

Numbers of bedrooms- Social Rent

Age Group	2 bedrooms	3 bedrooms	4+ bedrooms
0-3	40	60	70
4-10	15	80	120
11-15	0	40	90

Forecast results

The defining characteristic of NEC is the high proportion of 1 and 2 bedroom dwellings, predominately flats.

For Education Planning and S106 Purposes

House type	Number of Market Housing	% of total housing	Early Years - Number of 0-3 year olds	Primary – Number of 4-10 year olds	Secondary - Number of 11-15 year olds
1 bed	1,604	19	0.0	0.0	0.0
2 bed	2,948	35	294.8	146.5	0.0
3 bed	430	5	86.0	86.1	64.5
4 bed +	28	0	9.8	11.2	8.4
All	Total of all = 5,010	-	Total of all = 390.6	Total of all = 243.8	Total of all = 72.9

House type	Number of Social Housing	% of total housing	Early Years - Number of 0-3 year olds	Primary – Number of 4-10 year olds	Secondary - Number of 11-15 year olds
1 bed	1,069	13	0.0	0.0	0.0
2 bed	1,966	24	786.4	294.5	0.0
3 bed	286	3	171.6	228.8	114.4
4 bed +	19	0	13.3	22.8	17.1
All	Total of all = 3,340	-	Total of all = 971.3	Total of all = 546.1	Total of all = 131.5

Total (Market)	Total (Social)	Grand Total	% of total housing (ALL)	Early Years - Number of 0-3 year olds	Primary – Number of 4-10 year olds	Secondary - Number of 11-15 year olds
5,010	3,340	8,350	100	1,362	790	205

The multipliers currently indicate:

- 4 to 10s; 3.76 FE required
- 11-15s; 1.36 FE required.

This is based on the assumption that the NEC development will contain a significant number of one and two bedroom properties.

Forecast for 16 years and over population

This section sets out CCC's methodology for the production of its forecast for the 16 years and over population for North East Cambridge.

The forecast for the population aged 16 years and over has been produced by applying population multipliers by dwelling size and tenure to the provided housing mix for North East Cambridge. The population multipliers have been derived from data[1] collected from a programme of surveys of households living in new developments within Cambridge undertaken by CCC. This includes data from the following household surveys:

- in 2011-12 of Cromwell Road, George Nuttall Close and the NIAB frontage;
- in 2017-18 of the Cambridge Southern Fringe developments of Clay Farm, Glebe Farm, Ninewells and Trumpington Meadows; and
- in 2019 of Eddington.

As well as using the findings from the surveys listed above, the population multipliers collected from a programme of new development surveys in Peterborough (The Hamptons, Cardea and Paston) during 2020 have been considered (the final report will be published on Cambridgeshire Insight).

As overall response rates, as well as response rates by tenure and dwelling size, vary in, and between, the new developments surveys, Census 2011 data on household occupancy by tenure for Cambridge has also been considered in the production of the population multipliers for North East Cambridge.

The aggregated data from the surveys, along with consideration of Census 2011 data for Cambridge, on occupancy by dwelling size (by number of bedrooms) and tenure was used to derive the set of population multipliers for the 16 years and over population forecast for North East Cambridge, shown in the Table.

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[1] Cambridgeshire County Council: Data for new homes and communities

Population (16 years and over) multipliers by dwelling size and tenure (persons per dwelling)

Dwelling tenure and size	1 bed	2 bed	3 bed	4 bed
Affordable	1.47	1.83	2.09	2.67
Market	1.27	1.79	1.88	2.07

The population multipliers have been applied to the dwelling mix by tenure and size for North East Cambridge and produce an overall population forecast for those aged 16 years and over of 14,000, as outlined in the Table below.

16 years and over population forecast (revised housing trajectory, July 2021)

Dwelling tenure and size	1 Bed	2 Bed	3 Bed	4 Bed	Total
Affordable	1,575	3,605	600	50	5,830
Market	2,035	5,265	810	60	8,170
Total	3,610	8,870	1,410	110	14,000

Data rounded to nearest 5

The forecast age structure of the adult population is based on the findings of the new development surveys. The age structure from each of the surveys was analysed. The range of results was used to derive the forecast age structure, taking into account the dwelling mix proposed for North East Cambridge.

The overall population (16 years and over) forecast for North East Cambridge is shown in the Table below.

16 years and over population forecast by age group

Age group	% of total	Population
16-24 years	7	930
25-29 years	20	2,745
30-44 years	55	7,670
45-59 years	11	1,555
60-74 years	5	690
75 years and over	3	410
Total	100	14,000

Population data rounded to nearest 5

Summary of the overall population forecast.

Overall population forecast for North East Cambridge

The forecast population by age group is provided in the Table below. This is based on the housing trajectory provided in July 2021 and using the methodologies outlined in the Sections above.

Overall population forecast for North East Cambridge

Age group	Population
0-3 years	1,360
4-10 years	790
11-15 years	205
16-24 years	930
25-29 years	2,745
30-44 years	7,670
45-59 years	1,555
60-74 years	690
75 years and over	410
Total	16,355

Data rounded to nearest 5