## **Ward Electorate Projections for 2024: Methodology**

- The latest (mid-2017) mid-year population estimates from ONS were used to produce figures for those aged 18+ in each ward.
- The proportion of the total Cardiff population aged 18+ living in each ward was calculated.
- The projected population aged 18+ for Cardiff for 2024 was calculated using the latest (2014-based) Welsh Government projections.
- The mid-2017 ward breakdown proportions were applied to the 2024 projection to estimate the number of residents aged 18+ in each ward in 2024. This was then adjusted based on the housing developments information.
- Information was downloaded from <a href="www.nomisweb.co.uk">www.nomisweb.co.uk</a> on the number of 'household spaces with at least usual resident' from the latest Census (2011, Table QS417EW) for each of the Output Areas in Cardiff.
- An ONS best-fit Output Area to Ward lookup table was used to assign the output areas
  to the latest ward boundaries and calculate ward figures for 2011.
  <a href="https://data.gov.uk/dataset/4c627241-9fc7-47bd-92f2-2c581277be99/output-area-to-ward-to-local-authority-district-december-2018-lookup-in-england-and-wales">https://data.gov.uk/dataset/4c627241-9fc7-47bd-92f2-2c581277be99/output-area-to-ward-to-local-authority-district-december-2018-lookup-in-england-and-wales</a>
- Information provided by Cardiff Council's Planning department was used to estimate the additional number of households in each ward from 2011 to 2024 by summing the:
  - o Annual completions by ward for 2011/12 to 2017/18 [number of units]
  - Forecasted future developments (10+ sites) by ward for 2019 to 2024 (sites with planning permission or in adopted plan) [number of units]
  - Student developments under construction by ward [number of bedspaces]
     (NB. An estimate has also been produced that excludes student developments from the calculations)
- These additional household estimates for 2011 to 2024 were then added to the 2011 Census figures to forecast the number of households in each ward in 2024.
- For each ward, its share of the total number of households at the start (2011) and end (2024) of the period was calculated.
- The ratio between these two figures was then calculated to see if a ward had taken on a larger or smaller share of total households over the period (the wards with additional households would have a figure over 1, while the other wards would have a figure below 1).
- This ratio was then used to adjust the projected ward populations aged 18+ for 2024 (by multiplying the estimate by the ratio).
- The sum of these adjusted ward figures were subsequently constrained to the Welsh Government population (aged 18+) projection for Cardiff for 2024 (i.e. they were scaled back, while maintaining the same proportional make-up, to ensure that they totalled the Welsh Government population (aged 18+) projection for Cardiff for 2024). This gave the final estimated population eligible to vote in each of the wards in 2024.
- The latest (mid-2017) ward population estimates (aged 18+) and the electoral roll figures for June 2017 were then used to calculate the proportion of the total population aged 18+ that were on the electoral roll at that time. These proportions were applied to

the estimated populations eligible to vote to produce final projected electorate numbers for 2024. (NB. For some wards the size of the electorate exceeded the population estimate. In these cases the proportion was capped at 100%)