



Water Resources Forum, 18 July 2017

Forecasting future growth

Summary

Understanding population growth and property development levels are critical factors for planning future water and wastewater services. Given the levels of growth forecast for the South-East of England and the complexities introduced by Brexit, housing delivery etc., we are undertaking work to forecast growth and manage the short, medium and long-term uncertainties relating to these issues. This note provides a summary of the work underway to help us understand future growth. This work will be presented at the July Water Resources Forum.

Local Authority Forecasts to 2045

The Environment Agency's Water Resources Planning Guideline states *"For companies supplying customers wholly or mainly in England you will need to base your forecast population and property figures on **local plans** published by the local council or unitary authority."*

We appointed Edge Analytics to collate and analyse the Local Plans of the 94 Local Authorities across our water and wastewater area to produce population and property forecasts to 2045. Edge Analytics' outputs include:

- A 'top-down' analysis of the scale, location and timing of new development
- A 'bottom-up' analysis of the housing growth site allocations with forecasts of the number of planned units and likely timing of delivery
- Housing-led population projections at Census Output Area (COA) scale including analysis on number of households, population not in households and average household size.

Providing forecasts at the COA level enables us to tailor projections for each of our specific geographic needs – Water Resource Zone, Flow Monitoring Zone, District Metering Area etc.

Edge Analytics forecast significant growth in each Water Resource Zone and across the wastewater area, with in excess of 2 million more people across the whole Thames Water region by 2045.

Population Growth to 2100

Because Local Plans do not look beyond a 25-year time period and we need to forecast population growth over a longer time horizon, we have appointed a consortium led by Professor Rees of the University of Leeds (UoL) to develop long-term population forecasts to 2100. The forecasts include analyses of population by age, gender, ethnicity, household type and occupancy and consider the possible impacts of 'hard' and 'soft' Brexit. The forecasting uses a different approach to the Edge Analytics' work and is intentionally designed to contrast with the Local Authority Plan-led approach. The UoL projections forecast significantly higher population growth than the Edge Analytics forecasts after 2031.

Property Forecasts to 2031.

We are aware that Local Authority Local Plans present an ambitious projection for house building that is not currently being delivered by the market. Whilst we believe that Local Plan forecasts are the right approach for long-term water resource planning (and is required by government), for PR19 we need shorter-term forecasts that do not conflict with Local Plans but are sympathetic to market realities. We therefore appointed Experian to produce probabilistic forecasts of housing delivery for our water and wastewater areas. The work is currently underway, and will provide property projections for the water and wastewater areas to 2031.