Feb 2020 Waterwise newsletter

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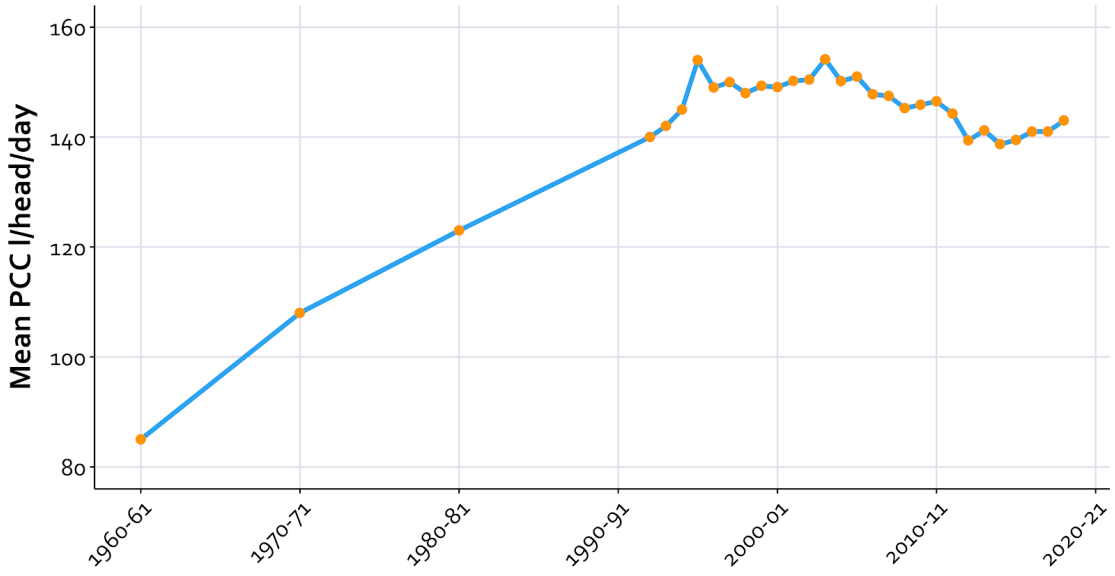
1 Introduction

This month Artesia take a look at the long-term trend in household consumption, and its apparent change in direction of travel in the last few years, as illustrated in this graph. What are the drivers for the changes in reported household water use? Could it be the weather, leaky loos, metering or our water using values? Understanding these drivers and the trends in water use is critical if we are to develop clear strategies for water efficiency.



The graph shows the long-term trend in average per capita consumption since 1960. The data points up until about 1992 are taken from Herrington's report on household demand from the mid-90s. Since 1992, PCC data has been reported annually by Ofwat and the Environment Agency and more lately through www.discoverwater.co.uk.

Household consumption rose steadily from the 1980s due to changes in water practices, such as the change from weekly bathing to daily showering. PCC peaked in 1995/96, largely due to the hot dry summer of 1995. Consumption then flattened off, with a further peak during the hot dry summer of 2003, after which PCC steadily fell until around 2012/13 (which was also the wettest summer in recent history). This trend can be attributed to the steady increase in metering since the mid-90s, along with a growing focus on water efficiency, coincidentally (or not!) since Waterwise was founded in 2005.

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The increase in reported average PCC since 2014/15 is interesting. We know that household consumption is driven by factors including property type, water fittings present, occupants, socio-demographic factors, values towards water use, whether the household pays via a meter, and weather. The increasing trend in PCC over the last five years could be due to a number of these factors. For example, 4 out of the last 6 years have been relatively warm and dry, since 2000 there has been an increase in the number of WCs fitted in homes that have the propensity to leak, since 2012 the UK has been coming out of the infamous 2008 recession, and there has been a rapid increase in house building, which may result in changes in occupancy.

Understanding these trends is important if we are to develop clear strategies for water efficiency. Recently Artesia has been looking at how we can use sub-daily data to:

1. Separate out internal and outside water use to better understand the differences between summer and winter consumption

2. Separate continuous use and variable use to investigate how much water is unnecessarily wasted in households, and

3. Model explanatory factors at household level.

This will ultimately give us much more insight into the trends in consumption and help to provide data driven solutions for reducing consumption in the future.

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