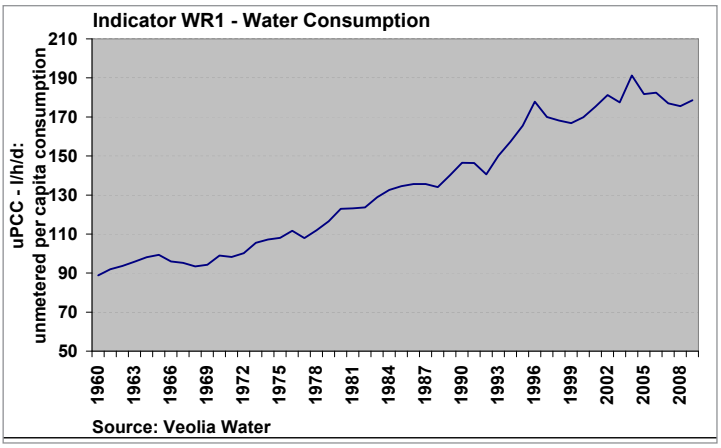
water

Water efficiency promoted to reduce high consumption in Hertfordshire

The most recent drought (2005/06), with groundwater levels falling to below average and little change in domestic consumption levels, has shown that we must all make a contribution towards the more efficient use of water. This is vital to cope with Hertfordshire's expected population growth and the effects of climate change on water sources.

Indicator WR1 – Water Consumption

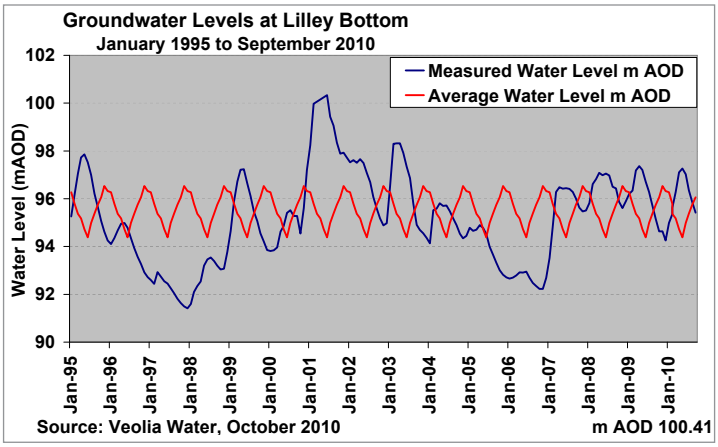
Veolia Water's domestic, non-metered customers increased their water usage last year to an average consumption of 179 litres per person per day in 2009/10. Metered customers used less, at 147 litres per person per day. This compares to a UK non-metered average of 150 litres per person per day[1].



Groundwater Levels

Most of Hertfordshire's water comes from sources below ground level called aquifers, from which water is extracted through boreholes. Groundwater levels vary throughout the year as a result of the amount of rainfall penetrating through to the aquifer to "recharge" it. Most recharge is in the autumn and winter months, giving rise to the highest groundwater levels around April, and lowest levels usually in October.

After the extremely dry winters of 2004/05 and 2005/06, (with over 20% less rainfall than average), good winter recharge in 2006/07 (around 20% above average) and the following very wet summer allowed groundwater levels to rise and remain above average throughout 2007, 2008 and most of 2009. The dry September and October of 2009 delayed the onset of recharge, and groundwater levels dropped slightly below average for the time of year. However, the winter of 2009/10 was wet, with rainfall in November 2009 and February 2010 reaching over 70% more than long term average. This resulted in rapid recharge, which retained water levels above average in 2010.



Veolia Water Activities 2009/10

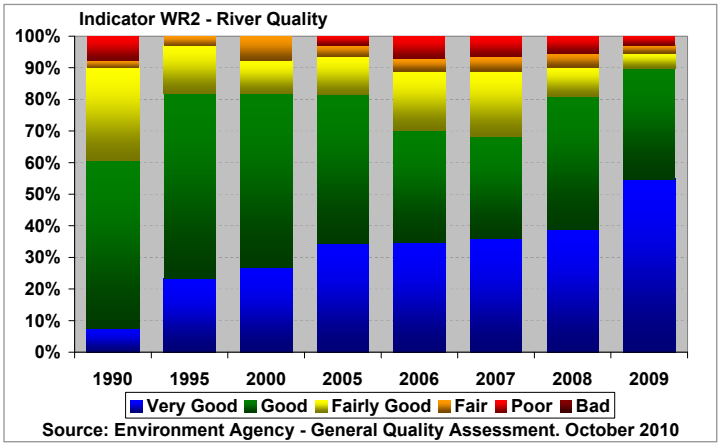
- Veolia Water carries out over 400,000 water quality tests a year. Of those measured against the Drinking Water Inspectorate's standards, 99.98% were compliant.
- The company has invested in world-leading treatment processes, monitoring systems (such as leak detection) and network maintenance to help sustain the quality and supply of water
- Veolia Water works with the Environment Agency, DEFRA and others to manage Hertfordshire's water sources in the face of a growing population and the effects of climate change
- The company promotes ways to save water and launched its 'Save Water, Save Energy, Save Money' campaign in April to encourage customers to reduce their water consumption
- Through the company's education programme, more than 18,000 school children, many from Hertfordshire, learnt to become more water efficient
- Veolia Water donated £60,000 to local charities and community organisations. In 2010 its Community Investment Fund awarded grants to 19 good causes in Hertfordshire.
- The company continued to maintain conservation areas on its land, such as Stocker's Lake Nature Reserve near Rickmansworth.

Indicator WR2 – River Quality

Hertfordshire's rivers had 90% of their designated length classified as 'very good or good' chemical quality in 2009. This is an improvement from 81% in 2008.

The length of 'very good' quality river in Hertfordshire has improved from 8% in 1990 to 55% in 2009. The percentage of 'good' quality has reduced as more rivers achieve 'very good' chemical quality including some parts of the upper River Lee, River Quinn and River Rib. At the same time the length of river described as 'poor' chemical quality has reduced from 8% to 3% (despite an increase in 2006).

In 2009, a further 7% is achieving 'fairly good or fair' chemical quality, which is a reduction from 14% in 2008. This change is the result of more river length achieving 'good' quality. No river length in Hertfordshire is classified as having 'bad' chemical quality.



The percentage of river length within each classification differs slightly from that used in the previous report. This is because the river lengths have now been clipped to the Hertfordshire boundary, and no longer include part of the river stretch that flows outside of the boundary.

Top notch river restoration improves fish passage on the River Ash

Fish passage and river habitats have been improved at Easeneye weir on the River Ash in Hertfordshire. The collaborative project which cut a notch in the old weir was the culmination of several years of planning and survey work conducted by the Environment Agency.

From its source near Brent Pelham, the River Ash flows south for about 26km through predominantly rural settings before its confluence with the River Lee near Stanstead Abbots. Throughout history the river has been modified for milling and dredged for land drainage, but is still considered one of the better quality rivers in East Hertfordshire. Relic native crayfish, brown trout and water vole populations are present in small localised, pockets.

Ecological and geomorphological surveys identified that Easeneye weir posed a significant obstruction to fish migration and caused deposition of sediment upstream of the structure which compromised brown trout spawning habitat.

The weir was considered redundant and it was agreed with the owners that options for its removal could be discussed. It was shown that notching the weir would allow free fish passage, improve in stream habitat diversity and be cost effective. Installation of flow deflectors downstream of the weir protected spawning sites from sediment released by the work.

Only a couple of months after the weir was notched, the upstream habitat has improved significantly, with sightings of brown trout swimming upstream through the notch. The project would not have been possible without the continued enthusiasm and support of the riparian owner.

[1] *www.waterwise.org.uk/reducing_water_wastage_in_the_uk/the_facts/the_facts_about_saving_water.html*