

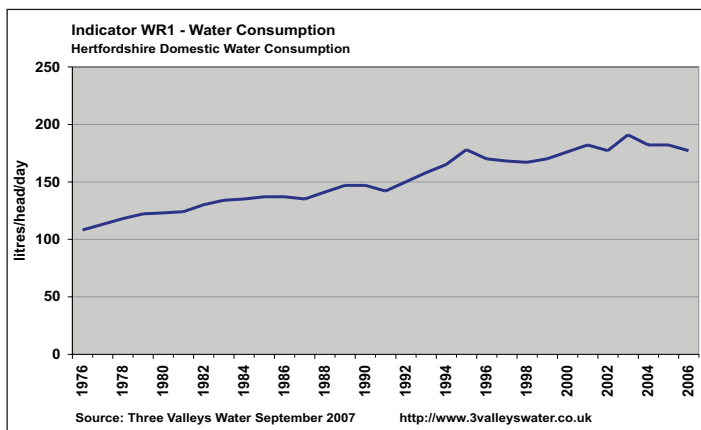


Wet weather eases Hertfordshire's water demand but long-term pressures remain

The weather in 2007 reduced the county's demand for water and gave groundwater levels a chance to recharge. However, bigger adjustments will have to be made to provide for a rising population and the changing climate.

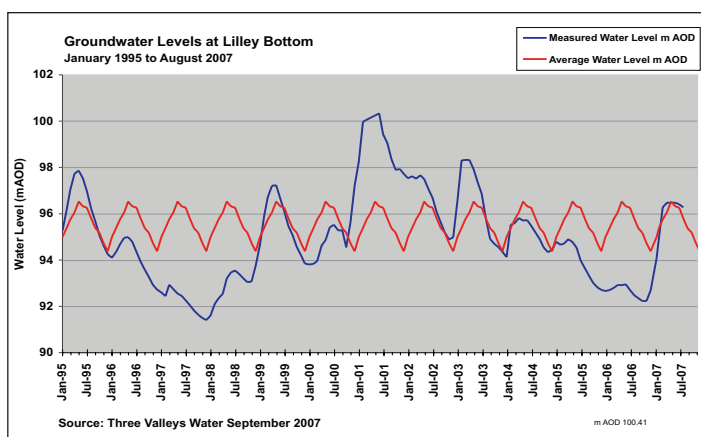
Indicator WR1 - Water consumption

Following the hosepipe ban introduced in April 2006, Three Valleys Water's customers reduced their water use from 182 litres of water per person per day to 177 litres. Metered customers reduced their usage further, from 158 litres to 143 litres. Whilst the ban was lifted on 18 January 2007, figures for water consumption remained low. This is likely to be linked to the wet summer weather conditions of 2007.



Groundwater Levels

Water supplies for most of Hertfordshire comes from groundwater sources. These wells take water from aquifers many hundreds of feet below ground level. Historically the level of groundwater varies throughout the year as a result of the amount of rainfall recharge reaching the aquifer.



After the extremely hot, dry, weather in the summer of 2006, Hertfordshire received steady rainfall during Autumn and Winter 2006/07. An unusually hot spell in April 2007 was quickly followed by a period of very wet weather from May through to August when the highest levels of rainfall since records began were recorded. This exceptional rainfall delayed the normal recession of groundwater levels, leaving them just above average in September 2007.

Three Valleys Water¹ Activities in 2007

- Three Valleys Water relaunched its jointly-run website www.waterinthesoutheast.com with 8 other water companies and 4 other bodies. It provides information on the actions water companies are taking to tackle the effects of climate change, droughts and floods.
- Work continued with schools, local authorities and businesses to encourage students, residents and employees in the county to become more water efficient. Part of this work included supporting the University of Hertfordshire Carbon Management Programme.
- Work progressed on the £140 million investment scheme to reduce interruptions to water supplies and bursts. The scheme includes refurbishing water mains in Potters Bar, Bushey, St Albans, Harpenden, Borehamwood, London Colney and Stevenage.
- A new water main is being constructed to transfer water from Harpenden to Welwyn Garden City. The company continued to develop new sources where possible, or expand existing ones, within its current licence, to meet demand.
- Met its leakage target and working to reduce further.
- 36% of customers had a water meter installed and an average of 800 water meters were installed per week. It is estimated that if the 43% of domestic properties targeted can be installed by 2010 it will save nearly 14,000 Ml (or 14 billion litres) of water.
- Three Valleys Water Resources Management Plan was completed and will soon be available for viewing. The Plan sets out the processes it intends to undertake to meet anticipated water demands and will be subject to consultation with Local Authorities and other interested parties, as well as DEFRA and the Environment Agency.

How will water efficiencies be incorporated into the new Code for Sustainable Homes?

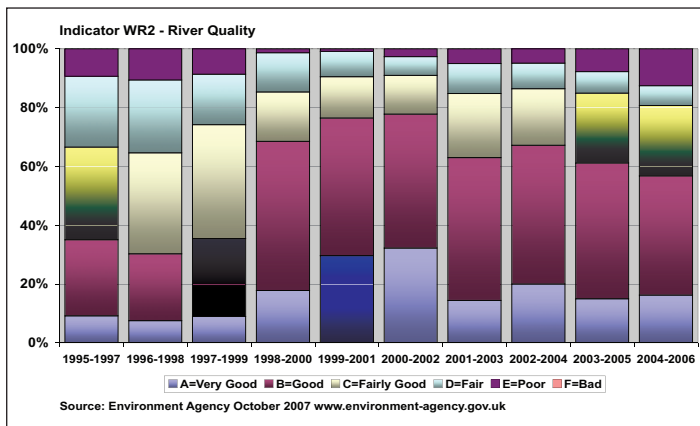
See page 30



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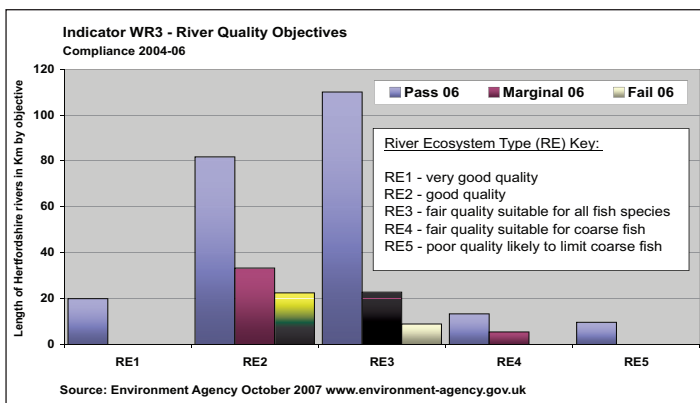
Indicator WR2 - River Quality

In 2006 the chemical quality of Hertfordshire's rivers again deteriorated; from 61.2% to 56.77% in the 'very good or good' (A or B) category. Meanwhile, England and Wales' improved for the third successive year with 69.5%. A further 30.72% of river length achieved a 'fairly good' or 'fair' quality which was a slight fall on the previous year's 31.01% and a total of 87.49% of river length was found to be of "good or fair quality" in the county. This again was a decline from 92.21% in 2003-5 compared to 95.1% in the previous period and 12.52% of river length was classified as 'poor'. Whilst this was an increase of 4.72%, no river lengths were classified as 'bad'.



Indicator WR3 - River Quality Objectives

9.57% of Hertfordshire river lengths failed to achieve their River Quality Objectives in 2006 which was 7% more than last year. The majority of these failures were again on stretches of the Grand Union Canal where its slow-running nature can worsen water its quality problems. Turbulent, fast-flowing rivers are able to mix pollutants more quickly and absorb oxygen from the water surface. This oxygen then helps to self-purify' the river by breaking down organic material. In addition, a high level of nutrients in a



slow moving channel can encourage the rapid growth of algae which can potentially lead to severe night-time oxygen depletion in the water. This is a common problem in South East of England rivers and canals.

Water Efficiency In The Home

The county's population is forecast to grow by 91,400 between 2006 and 2021. With a water consumption rate already twice that of our grandparents and the added pressures of climate change, it is now vital for all new homes to be fitted with efficiency measures. This requirement is supported by the new Sustainable Homes Code, where new properties will be rated for efficiencies. Hertfordshire's guide to sustainable construction, Building Futures², explains how water can be sustainably managed using these 4 principles:

1. Minimise water consumption
2. Collect and reuse rainwater
3. Manage waste water
4. Drainage

These reduce:

- water bills
- the need for infrastructure investment (e.g. stormwater drainage)
- water treatment costs and transportation
- contribution to flood risk
- the need for water control (hosepipe bans)
- pressure on natural habitats
- energy and chemicals to treat and transport water

Water efficient methods explained in the Guide:

- Taps, Toilets and Urinals
- Water-saving showers
- Selection of appliances (e.g. washing machines)
- Landscaping and Irrigation
- Rainwater, greywater and blackwater harvesting
- Sustainable drainage

Using all of these technologies could save the typical Hertfordshire household about 210 litres a day. This may not be practical for every situation, however, even fitting an ordinary shower would offer the facility to save two thirds of the water a bath would use.

1 Three Valleys Water supplies most of the water in Hertfordshire. It works with the eight other water companies in South East of England; the Environment Agency, Consumer Council for Water, Water UK and Waterwise under the banner of Water in the South East and launched a joint website in 2007. More information on the company can be obtained via links on our website or directly at www.3valleys.co.uk

2 Building Futures Guide www.hertslink.org/buildingfutures