



Indicator WR1 - Water Consumption

The average volume of water Three Valleys Water pumped into their supply area* during 2002/3 totalled 860 million litres per day, compared with 870 million litres per day for 2001/2.

This marginal reduction in supply figures was caused by a combination of leakage savings, together with a reduction in unmeasured per capita consumption (water used by customers who do not have a water meter). Three Valleys Water is committed to reducing leakage and through increased investment in leakage activity, five million litres of water per day were saved during 2002/3.

Overall demand followed historic patterns with the summer peak occurring around the end of July. Around 8 of the previous 10 peaks have occurred during this time, suggesting that the traditional British holiday fortnight is not always wet.

The average household per capita consumption of water in Hertfordshire reduced during 2002/3 from 181 litres per head to 178 litres per head. However, local consumption remains above the national average, which is 153 litres per head. Although average demand reduced slightly demand during the peak week remained consistent with historic recorded levels. Despite this, for the tenth consecutive year customers have not experienced any water use restrictions.

Three Valleys Water continued its support of low flow river schemes on some selected Hertfordshire Rivers identified by the Environment Agency throughout 2002/3.

*Three Valleys Water supply area covers 3,700 square kilometres and takes in parts of Beds, Bucks, Essex, Herts, Surrey and the London Boroughs of Barnet, Brent, Ealing, Harrow, Hillingdon and Enfield.

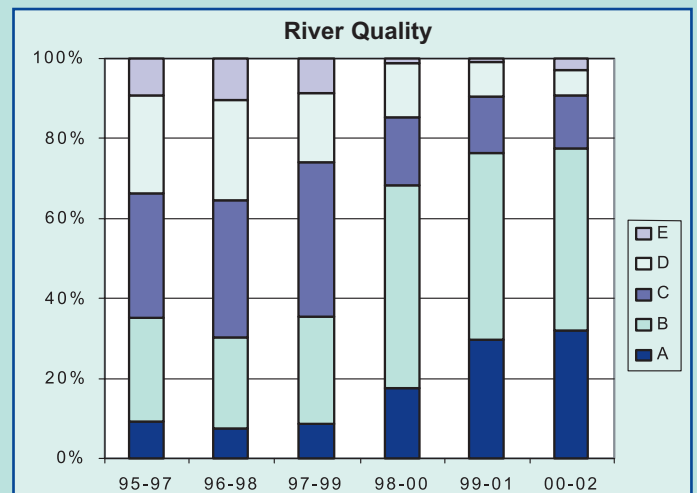
Indicator WR2 - River Quality

The Environment Agency (www.environment-agency.gov.uk) assesses the quality of rivers using four aspects of river quality - biology, chemistry, nutrients and aesthetic quality. This General

Quality Assessment (GQA) system grades quality between A and F: A - Very Good, B - Good, C - Fairly Good, D - Fair, E - Poor, F - Bad. The latest chemistry river quality results for Hertfordshire covering the period 2000-2002 are included in the graph opposite.

The 2002 results show that river quality in Hertfordshire, like that in the rest of the Thames region, has slowed in its rate of improvement. 77.8% of river length in Hertfordshire is now achieving very good or good quality. This compares favourably to the average for England and Wales (68%). These results indicate a slight improvement over the previous year. In 1998, only 33% of river length achieved very good or good status.

A further 19.5% of river length is achieving fairly good or fair quality, a decrease for the previous year's value of 25.7%. A total of 97.3% of river length in Hertfordshire is of good or fair quality, slightly down from 99% of last period. 2.7% of river length is classified as poor and no rivers are classified as bad



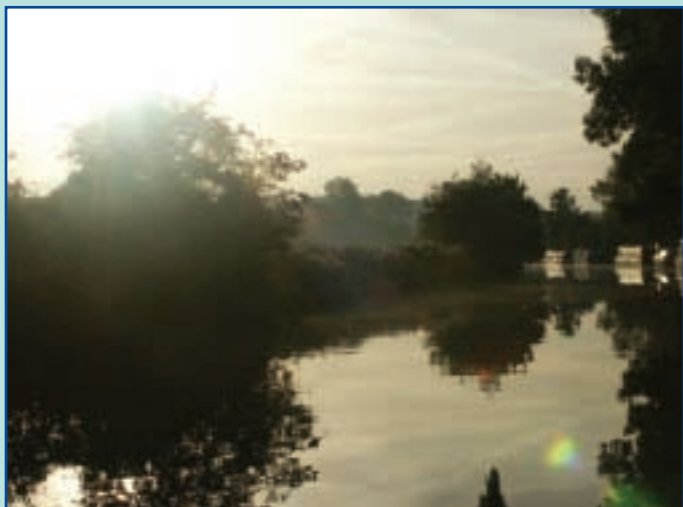
Indicator WR3 - River Quality Objectives

River reaches that are monitored for their water quality also have River Quality Objectives (RQOs). The RQO scheme is based on the recognised uses of a river. At present, objectives are only based on the river ecosystem (RE). These address the chemical quality requirements of different types of aquatic ecosystems as outlined opposite:



Class RE1:	water of very good quality suitable for all fish species
Class RE2:	water of good quality suitable for all fish species
Class RE3:	water of fair quality suitable for all fish species
Class RE4:	water of fair quality suitable for coarse fish populations
Class RE5:	water of poor water quality that is likely to limit coarse fish populations

7.1% of river length in Hertfordshire failed to achieve its RQO in 2002, bring to an end the trend of continuing improvement over the past few years. These figures now replace the low of 1995 when 1.8% of river length failed to achieve its objective.



The majority of RQO failures in Hertfordshire again occur on stretches of the Grand Union Canal. The slow-running nature of canals can exacerbate water quality problems. A turbulent, fast flowing river will mix pollutants quickly and absorb oxygen from the water surface. This oxygen helps breakdown organic material in the river. This self-purification is not as rapid in sluggish canals. Also, if nutrient levels are high in a slow moving channel, conditions can be ideal for encouraging the growth of algae, potentially leading to severe oxygen

depletion in the water at night-time. This is a common problem in the rivers and canals of East Anglia and the South East of England.



Ultrafiltration Membrane Water Treatment Plant, Three Valleys Water

Hertfordshire RQO Compliance

The graph below shows the length of Hertfordshire rivers in Km, listed by their river quality objective and whether it was achieved.

