

# WATER

## Introduction

River quality in the period 1995-97 was lower than in previous years due to recent drought conditions. Rainfall has been very variable but there has been some recharge of underground water storage. In 1997-98 the average water demand for the people and industries of Hertfordshire was 301 million litres per day which was 3% lower than the previous year, with a peak demand of 351 million litres per day

### Indicator 1: Water Consumption

- **The average household per capita consumption of water in Hertfordshire for 1997/98 was 170 litres per head per day. This represents a 1.3% reduction from last year.**

Reductions in leakage were better than the target for 1997/8 with total losses reduced from 171 to 148 million litres per day, an improvement of 13%. The volume saved would be sufficient to supply a population of 80,000, or a town approximately the size of Stevenage.

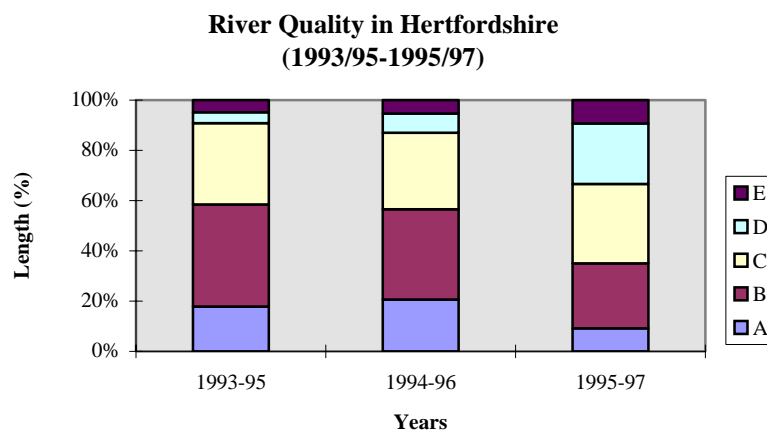
### Indicator 2: River Quality

The Environment Agency monitors the chemical and biological quality of our rivers using a system that classifies river quality from A to F:

A - Very Good   B - Good   C - Fairly Good   D - Fair   E - Poor   F - Bad

#### RIVER QUALITY MAP

The chemical quality of the rivers in Hertfordshire is shown on the map. The graph below shows the proportion of river in each class between 1993 and 1997, quality is averaged over a three year period.



- 315km of river in Hertfordshire are classified under this system;
- 35%, or 110km, of the rivers in Hertfordshire were of Very Good or Good quality (A and B) in 1995-7 compared to 57% in 1994-96, a decline of 22%;
- 9%, or 30km, of the rivers in Hertfordshire were of Poor quality (E) in 1995-97 compared to 5% in 1994-96, an increase of 4%.

The decline in water quality is thought to be due to drought conditions in recent years, which have led to low flows and pooling of water. In turn, this has led to reductions in dissolved oxygen and reduced dilution of effluents. Underground water has not been replenished, further lowering river levels.

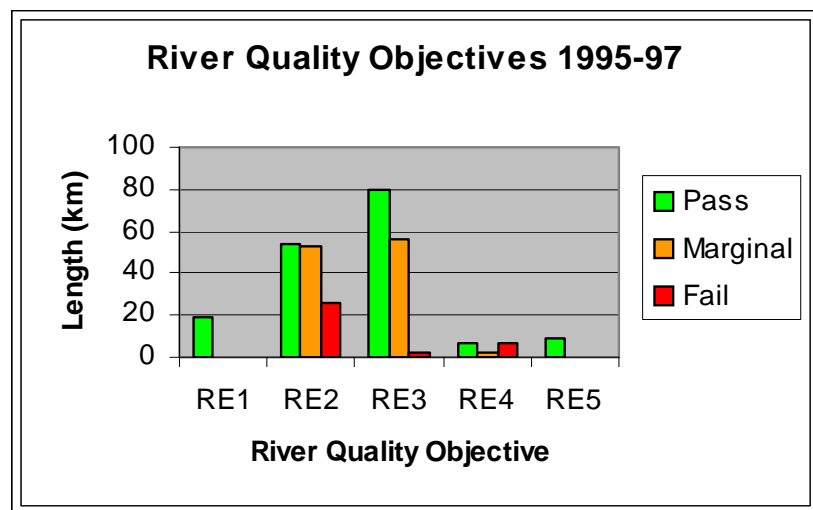
### Indicator 3: River Quality Objectives

The river reaches that are monitored for their water quality also have River Quality Objectives (RQOs). The RQO scheme is based upon the recognised uses of a river. At present, objectives are only based on the River Ecosystem (RE) as outlined below:

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 which is likely to limit coarse fish populations

Compliance with these objectives is recorded as pass, marginal or fail. Objectives based on biological monitoring are to be introduced in the year 2000.

The length of river in Hertfordshire in each class in 1995-97 and the compliance with the RQO are shown in this graph:



- 315km of river in Hertfordshire have a River Quality Objective;
- 51% of the rivers passed their River Quality Objective in 1995-97, compared to 100% passing in 1994-96, a decline of 49%.

Again, this decline is thought to be due to drought conditions in recent years.

### Water Resource

By the end of winter 1997/98 catchments in West Hertfordshire on the Chilterns had received on average 97% of normal rainfall but only 61% of normal recharge which is where rainfall percolates through the surface soils to the water naturally stored underground.

Exceptionally heavy rainfall in April brought several flood warnings and property floods but the heavy rain did produce significant recharge, with some areas having more recharge in April than the whole of the winter period combined.

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