

## HHP water is cleaner than some bottled water!

Hockerton Housing Project captures and treats water for drinking and other use. But is it really safe to drink?

## Visit <u>www.hockertonhousingproject.org.uk</u> to find out more.



HHP has two completely separate autonomous rainwater harvesting systems – potable and nonpotable. Since the completion of the houses in 1998, water from both systems has been tested regularly.

Our results in September 2011 indicate that our drinking water is perhaps cleaner than most branded bottled water! Could it really be that our filtered rainwater can be just as clean as the commercial products that line our supermarket shelves?

Broadly speaking there are two general categories of analysis: metals and bacteriological. In our case, the former remained consistently low with the exception of aluminium. Although previous years' test results showed zero aluminium, September 2011 sample showed levels of 0.109mg/l. This figure is acceptable within the limits for small water systems (0.2 per mg/l) but larger water treatment plants are limited to 0.1 mg/l. Whatever limit we choose, we still feel this is unaccountably high and are looking for a reason for the presence of this contaminant.

The bacteriological analysis proved to be both interesting and reassuring. Of all these, the Total Viable Count result (TVC) was of most interest. The test estimates the total amount of living organisms in a set volume of water at two separate temperatures; 22°C (TVC 22C) and 37°C (TVC 37C). The samples are left at that those temperatures for a period of 2 days and 3 days respectively, allowing any organisms present to populate the sample. These **tests** have been carried out on bottled waters with levels ranging between 42/ml and 32,659/ml for TVC 22C and between 3/ml to 1,950/ml for TVC 37C. Our drinking water, by comparison, showed 0/ml and 20/ml respectively. Even our aquaculture lake, which is full of fish, and receives liquid effluent from the reed bed, still manages to produce low results at 166/ml for TVC 22C!

The irony is that even though we residents at Hockerton Housing Project consume approximately 2000 litres each per year of our harvested rainwater, we still have to provide paying visitors with bottled water. This is because, to comply with current health and safety guidelines, we would have to test our water on a monthly basis, currently around £1200 per year. Compare this with our visitors' consumption of around 50 bottles of branded water per year, around £50. Whilst the waste involved is frustrating, as we often say, economics are an important part of sustainability.