

Decommissioned water sources

Why has the need for additional water arisen? When the water industry was privatised, the new companies naturally focused on profit in order to encourage shareholders and investment. The quickest and easiest way to improve the profit margin was to rid the company of what they perceived were insufficiently profitable supplies because of maintenance costs. Severn Trent Water (STW) provide 70% of their supply from 5 large treatment works which has allowed a reduced output from around 20 of the more expensive and decommissioning or mothballing the smallest. Since privatisation, STW have decommissioned numerous reservoirs and water supplies including:

Linacre reservoir - 1,125,000,000 litres

Barbrook reservoir - 310,000,000 litres

Stanley Moor reservoir - 244,000,000 litres

Lightwood reservoir - 100,000,000 litres

Ramsley reservoir - 77,000,000 litres

Peakshole and Bradwell Brook supplied 23,000,000 litres per day

Whispering Well and Hunger Hill boreholes 2,700,000 litres per day

Recommissioning these mothballed sources would be less- / non-intrusive and more environmentally friendly

Alternatives

Leaks - In 2020/21, STW lost 151,329,000,000 litres of water. That is over 3x the total combined capacity of Ladybower, Derwent and Howden.

Most water in England is derived from rivers/reservoirs. It is treated, used by homes and businesses then forwarded to treatment plants as waste water before being discharged back into rivers which eventually lead to the sea. In some areas of England ground water is obtained from wells/bore holes. It is treated, used, treated again and discharged into rivers. So, ground water does not complete a cycle because it is not returned to its source. Unlike river/reservoir water, that obtained from the ground cannot be replenished every winter. Furthermore, increased numbers of homes, buildings for businesses and roads mean that water which would have soaked in now goes down land drains into rivers.

The Environment Agency would like a reduction in the use of ground water. Within the East Midlands, most ground water used by STW is in east Nottinghamshire but levels could be replenished by river water. In addition, STW only obtain 25% of their supplies from ground water compared with 30-40% in south east England which is where supply might be most affected by climate change

The slow replenishment of ground water has been long recognised abroad. In some drier parts of the world such as Mediterranean countries, South Africa and Australia, thoroughly treated waste water recharging of underground sources has become routine and successful. Typically, ground water reservoirs have retention times in tens of years.