

Ms Anne McIntosh MP  
Chair, Environment, Food & Rural Affairs  
Select Committee  
House of Commons  
London  
SW1A 0AA

Name Richard Aylard  
Phone 0118 373 8945  
Fax 0118 373 8402  
E-Mail [richard.aylard@thameswater.co.uk](mailto:richard.aylard@thameswater.co.uk)

22 May 2012

Dear Anne

As I am sure you are aware, GMB, the union which represents some workers in the water industry, called on the EFRA Committee earlier this month to investigate the closure of water storage sites in the south east. The union argued that these closures “leave rainfall running off to the sea while the region is subject to drought orders”. (I have enclosed the full GMB press release as an appendix).

Building on our immediate response to media enquiries which we provided your office on the day of the GMB’s statement, I wanted to give you a detailed rebuttal.

The current water shortage and Temporary Use Ban follow the driest two-year period on record, which has left groundwater sources in parts of our region at their lowest ever levels. The recent heavy rainfall has had a positive but limited impact, taking away the need for further restrictions on use this year but restoring only part of the deficit.

The GMB’s claim that “less than 1% of the UK rainfall is diverted to be collected and stored to be used for human purposes” also suggests that companies are failing to make the most of the water in the environment for public use. This simply is not the case. Around half of the effective rainfall within the River Thames catchment is licensed for use, making it very intensively used in comparison to other areas.

The closure of redundant water treatment works and associated storage reservoirs is a process that has been taking place across London for the last 400 years, as new works are commissioned or other works upgraded.

Many of the raw water reservoirs listed by GMB were closed either by the Metropolitan Water Board or Thames Water Authority. Some were planned for closure by Thames Water Authority prior to privatisation, reflecting the plans for the London Ring Main, constructed to transfer large volumes of water around the capital. The Ring Main was eventually commissioned after privatisation in 1989.

Thames Water Utilities Limited  
Clearwater Court, 2<sup>nd</sup> Floor  
East, Vastern Road, Reading  
RG1 8DB  
T 0118 373 8945  
F 0118 373 8402  
I [www.thameswater.co.uk](http://www.thameswater.co.uk)

Registered in England and Wales  
No. 2366661 Registered office  
Clearwater Court, Vastern Road,  
Reading, Berkshire, RG1 8DB

The Ring Main provided additional capacity of 1,300 Mld, around two-thirds of the capital's daily total water usage. Subsequently, many small reservoirs providing only local storage became redundant and were decommissioned.

Reservoirs made redundant by the commissioning of the Ring Main include:

- **Barn Elms reservoirs.** Constructed in 1896/7, the four reservoirs provided a storage capacity of 1354 mega litres (Ml). To put this and the figures which follow into context, our total supply to London is around 2,000 Ml every 24 hours. The site is now an award winning nature reserve, the London Wetland Centre, after the reservoirs were taken out of use in 1997.
- **Molesey (Chelsea) reservoirs** were constructed in 1877, with a total capacity of 785 Ml. **Molesey (Lambeth) reservoirs** were constructed between 1874 and 1903, with a total capacity of 1850 Ml. The original treatment works were small and only for local supply. During the 1990s these reservoirs were noted in inspection reports as old and in need of structural repairs to ensure their safe continued use. Water levels were continuously low, requiring uplifting pumps to transfer the water into the treatment works. This was uneconomical, and water quality poor due to algae. All the Moseley reservoirs were taken out of use in 2000, and the sites subsequently developed for gravel extraction.
- **Stoke Newington reservoirs** consists of two (East and West) raw water reservoirs built in 1831 to 1893, with a total capacity of 409 Ml. The East reservoir has been retained as balancing storage for the New River before it transfers water from Hertfordshire to Coppermills Water Treatment Works. The West reservoir was transferred to the Local Authority after the closure of the Stoke Newington Water Treatment Works around 1990 and is used for recreation.
- **Kempton storage reservoirs** (East and West) had a combined capacity of 1364 Ml and were constructed in 1906. Both reservoirs were found to be leaking through corroded pipework in the embankment and hence deemed structurally unsafe, and emptied. The repairs needed were major and considered uneconomical (prior to privatisation), therefore the unstable embankments were removed around 1996. Since this time, the East reservoir has been a nature reserve and a Site of Special Scientific Interest (SSSI), attracting a wide range of birds.

As most of these reservoirs were converted to support wildlife and community recreational facilities, it is impossible to put a monetary value on the sites. Where parts or all of our sites are sold, the proceeds are shared with customers through lower prices, in line with arrangements set by Ofwat.

Beyond those reservoirs made redundant by the Ring Main, we have since privatisation taken out of service some very small raw water storage reservoirs, mainly as a result of concerns for public safety and water quality. Other factors that have led to closures include the high cost of repair and maintenance, which has in some cases made it uneconomic to continue to operate sites. The sites include:

- **Cheshunt (Brookfield Lane)** included two raw water reservoirs with a combined capacity of 177 MI. Only the South reservoir is owned by Thames Water, while the North reservoir is owned by the Environment Agency. The South reservoir was constructed around 1837, but has always leaked. It was never used for water supply, and only for temporary flood storage. The last Statutory Report under the Reservoirs Act in 2006 recommended it should be discontinued to ensure public safety. The site was sold and subsequently used for housing development.
- **Bath Road** reservoir was a service reservoir (storing treated water) and had a capacity of 13.64 MI. It was made redundant when a new pumping main from Fobney Water Treatment Works to Tilehurst Reservoir was commissioned. Tilehurst Reservoir has a total capacity of 120.9 MI, more than four days storage and well in excess of the capacity of Bath Road reservoir.
- **Lonsdale Road** was also a service reservoir, constructed in 1957 with a capacity of 47.7 MI. It was retained as a balancing tank after the ownership was transferred to London Borough of Richmond in the 1970s. The site was then developed by St Paul's school, but we retain three operational service reservoirs beneath the playing fields.
- **Holtwhites Hill Reservoir** was another service reservoir, with a capacity of 7.95 MI. It was closed due to its poor structural condition and water quality issues. As an alternative method of supply, Sewardstone Reservoir provides adequate storage to serve the Sewardstone area in North London, which Holtwhites Hill originally supplied.
- **Lea Bridge Water Treatment Works** had no storage capacity and was made redundant by the new Coppermills Water Treatment Works in 1969.
- **Middlesex Filter Beds** was a small local treatment works with no storage capacity that was inherited prior to Thames Water's ownership. It was made redundant by improvements at nearby Kempton and was taken out of use in the early 1980s.
- **Buckhurst Hill reservoir** was a service reservoir with a capacity of 3.6 MI, constructed in 1896. The reservoir structure was in poor condition and became redundant following an extension to Chigwell Reservoir, which had a greater capacity of 45.9 MI.
- **Hornsey Water Treatment Works.** We still use a reservoir (which has a capacity of 102.3 MI) at this site to hold water that arrives from springs in Hertfordshire via the New River. An upgrade at the site released some land which was sold off for development

The GMB go on to argue that Thames Water should have put in place a scheme to transfer water from the River Severn to the River Thames and boost water resources for abstraction to existing reservoirs.

A Severn-Thames transfer is among several long-term options we are assessing to determine how to ensure water supplies in our region meet projected demand, at the

lowest total cost to customers and the environment, but none could be delivered in time to alleviate the current water shortage.

The Cotswold Canal, which GMB envisage could be used for the transfer, is for significant parts of its length no more than a dry ditch and in places virtually undistinguishable from the adjoining fields. The Sapperton canal tunnel, which forms part of its route, is in a poor state of repair to the extent that part of it has collapsed. It is clear that it does not at present provide the infrastructure that would be needed to make a transfer scheme possible.

We completed a Scoping Report on the Severn-Thames transfer scheme for our Water Resources Management Plan, most recently in January 2012. It is available to review online at [www.thameswater.co.uk/cps/rde/xbcr/corp/wrmp-severn-thames-appropriate-assessment-scoping-report-January-2012.pdf](http://www.thameswater.co.uk/cps/rde/xbcr/corp/wrmp-severn-thames-appropriate-assessment-scoping-report-January-2012.pdf) and will be further considered as part of our future water resources planning process.

In conclusion, it is clear that the redundant sites would have had little or no material impact on our ability to store water during periods of shortage. Neither the closure of redundant facilities, nor the absence of a Severn-Thames transfer are the cause of the water use restrictions, which are a result of below average rainfall over a sustained period.

I trust this information is helpful but please do let me know if you would like any further information on this or any other issue.

Yours sincerely

Richard Aylard CVO  
External Affairs and Sustainability Director

## **Appendix: GMB press release**

**Tuesday 1st May 2012**

### **CLOSING RESERVOIRS IN SOUTH EAST WHILE NOT DIVERTING WATER FROM SEVERN AS RAINFALL RUNS INTO SEA IS SERIOUS MISMANAGEMENT SAYS GMB**

The Environment, Food and Rural Affairs Select Committee must call on Thames Water, the other private water companies, The Environment Agency and Ofwat to account for allowing parts of this nation to run short of water says GMB

GMB, the union for water workers, is asking MPs on the Environment, Food and Rural Affairs Select Committee to call Thames Water and the regulatory bodies to account for the closure of 25 bulk water storage facilities in the South East before implementing plans to divert water from Severn. This leaves rainfall running off to the sea while the region is subject to drought orders.

Less than 1% of the UK rainfall is diverted to be collected and stored to be used for human purposes. See list of water storage facilities closed in notes to editors below. Maps are attached as pdfs.

GMB has previously complained that Thames Water has not developed the disused Severn Thames canal course to divert water into the region from water in the Severn running off to the sea. *See table in notes to editors below for average water usage per day by area in 2005. GMB is updating this table. See also map of course of Severn Thames canal as pdf.*

Gary Smith, GMB National Secretary for Water, said "The mission of a water undertaking is to deliver the water needed for human purposes and for industry. That requires proper direction and management. Both have been sadly missing in Britain for the past twenty years.

Storage and transfer are two of the main elements of water resource management: one to move water from times of plenty to times of shortage; the other to convey water from places where it is plentiful to areas where it is in short supply. The third basic element is treatment to regulate water quality.

It cannot be repeated often enough that there is no shortage of water in Britain. We divert only a small fraction of the throughput of our water cycle for human purposes. We use less than 1% of total UK rainfall and less than 10% in the South East.

The best guide to theory is practice. Closing 25 water storage facilities in the south

east before diverting water into the region from the Severn has left the region short of water twice in the space of six years.

Water is a natural monopoly. Yet the recent White Paper looks to introduce "competition", a nonsense policy to further mis-directing managers on top of privatisation. Since 1990 Thames Water has paid out £5 billion as dividends to shareholders, raised from households, that should have been used to divert water into South East and Eastern England.

The Environment, Food and Rural Affairs Select Committee must call Thames Water, the other private water companies, The Environment Agency and Ofwat to account for needlessly allowing parts of this nation to run short of water."

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