

## SPEAKER ON 20<sup>TH</sup> SEPTEMBER 2017 - MR ROB CASEY

The first lecture of the 2017/18 season was on 'The History of Thames Water' which was given by Rob Casey, the Director of Water Strategy Management at Thames Water. Rob gave a clear and interesting overview of the water needs and services in London from Roman times until the present day. He showed that while the Romans were experts in water supply via their many aqueducts these were not needed in London because of the plentiful supply of wells, though it was only in 2001 that the Museum of London discovered how water was pumped up from these wells. In 1245 a Great Conduit of lead and earthenware pipes was developed in Stratford Place just outside London's boundary at the time. Then in 1582, the London Bridge Waterworks began pumping water directly from the River Thames, but with the rapid growth in the population and the inevitable rise in raw sewage, a solution was needed to separate fresh water from the sewage. This was found by building a 40 mile long 10 feet wide channel from Ware in Hertfordshire into London. In 1609 Sir Hugh Myddleton got royal approval from King James 1st to develop this channel, thus providing a water supply into London for the next 300 years.

By the beginning of the nineteenth century the issue of water quality was becoming acute and between 1830 and 1860 40,000 Londoners died of cholera caused by polluted water. In 1829 the first sand filtration plant was established as a means of removing much of the bacteria affecting the water supply. This system is still in use today. During this period a Dr John Snow showed that cholera was linked to the water supply, which was still essentially drawn from the Thames, and when in the 1850s Michael Faraday argued that something must be done to improve the quality of drinking water and in 1858 such was 'the Great Stink' that MPs could not sit in Parliament, it was then, and only then, that they decided to pass legislation to deal with the issue. This resulted in the passing of the 1858 Sewer Act. Even so because of the many different water companies at the time it proved difficult to police them all. It was not until the creation of the Metropolitan Water Board in 1903 that this was sorted out, though it was only fully completed when the 1974 Water Act brought water supply, sewage treatment and waste disposal under one overarching body. In 1984, under privatisation legislation, Thames Water Utilities was created, thereby bringing in much needed investment. In 1994 the 54 mile ring main tunnel around London was built for a cost of £250 million. In 2010 the huge desalinisation plant was begun and in 2015/16 the massive sewage disposal tunnel was begun.

Rob conceded that Thames Water does suffer from a poor image but he pointed out that it was not always fair. One of the reasons for burst pipes, for example, is that there are so many miles of Victorian pipes that are not easy to locate and replace; another is because of the increase in heavy traffic and high rise apartment blocks, another is because of the public flushing wet wipes and disposable nappies down the toilets and restaurants flushing down oils and fats, with the result that enormous fat balls build up and block the pipes. One interesting point that was made during questions is that tap water is far cleaner and healthier than bottled water, which is 15 %more environmentally wasteful, because it is so much better regulated. On the whole a very interesting and worthwhile evening.