



A new Thames landmark – the large borehole rig opposite the Houses of Parliament

PHOTOS BY THAMES WATER

Bazalgette's vision is alive and well

Phil Stride, Head of London Tideway Tunnels, describes how Thames Water's historic new project – so vital for the capital's future – is now starting to get noticed

Thames Water is currently planning to build two tunnels which will substantially reduce the amount of untreated sewage which overflows from London's Victorian sewers into the Thames and the River Lee. The proposed tunnels – the Lee Tunnel (four miles long) and the Thames Tunnel (20 miles long) – will capture the most polluting overflows and transfer them to Beckton Sewage Treatment Works in east London. This landmark engineering scheme will compliment the capital's 'combined sewerage system' which was so brilliantly masterminded by Sir Joseph Bazalgette more than 150 years ago.

Championed by Brunel, Bazalgette was one of the great civil engineers of the 19th century. His career began on railway projects and land drainage schemes, but following cholera epidemics and the Great Stink of 1858 he supervised the construction of 83 miles of underground sewers in London. He came with great foresight and doubled the diameters of his pipes, telling colleagues: "We're only going to do this once and there's always the unforeseen!"

Today though, the discharges happen more frequently, and on average more than once a week. This results in 32 million cubic metres of untreated sewage being annually discharged into the river – that's enough to fill the O2 Arena 15 times over. In 2007, the Government instructed Thames Water to develop the Tideway Tunnels, and once complete they will make the river cleaner and healthier for people and wildlife.

The Lee Tunnel

The Lee Tunnel is the first of two we're proposing and, subject to Section 106 negotiations, the key local planning authorities have now resolved to grant planning permission. The Lee Tunnel will be the largest ever construction contract awarded in the UK's water industry, and an extensive shortlisting has whittled the bidders down to just two. We are on track to appoint a preferred bidder before the end of the year and plan to start work on site early in 2010.

The Thames Tunnel


Meanwhile, detailed technical surveys for the longer and even more technically challenging Thames Tunnel are rapidly

gathering pace. Our team developing the design is now working out how it will connect to the 34 most polluting 'combined sewer overflows' – these are the points which the great Bazalgette designed into the sewerage system to allow waste to flow into the river during and after periods of heavy rainfall, thereby preventing sewage from backing up and flooding streets and buildings.

Our initial engineering challenge is to ensure we fully understand the ground conditions we'll need to negotiate during the construction, due to begin in 2012. That's the reason why a large borehole rig has appeared in the river opposite the Houses of Parliament. During the next few months a trio of rigs will be helping us understand the ground conditions deep beneath the river bed, and to ensure we have a complete picture, it's an exercise we are going to repeat at more than 100 sites adjacent to the river too.

Another recent important milestone has been the publication of our Site Selection Methodology, following extensive consultation throughout the last year with the local authorities and other organisations potentially affected by construction of the Thames Tunnel. Key consultees have also helped us develop our Stakeholder Engagement Strategy, which we will continue to refine in line with Government guidance relating to nationally significant infrastructure projects.

Desperately needed

Severe summer downpours, the increasing regularity of which are a key driver for the tunnels, have also served to remind us and the public at large just why these projects are so desperately needed. It's totally unacceptable that 32 million tonnes of sewage overflows into the nation's number one river each year. There's a long way to go, but at last, after years of debate, we are now well on the way to getting an effective solution in place. 

Down by the riverside – Phil Stride, Head of London Tideway Tunnels

