A significant part of London’s sewerage system dates from the 19th Century and was designed as a combined system. This means that a single pipe carries both foul water (from homes and businesses) and rainwater run-off (from streets, roofs and parks) to sewage treatment works for processing before being discharged into the tidal River Thames.

Combined sewers

Increasingly, when it rains in London there is not enough capacity in the sewerage network to convey all the rainwater as well as foul flows.

The system was designed to overflow into the River Thames so that people’s homes and streets are not flooded with untreated sewage. The system does this through the CSOs on the banks of the River Thames.

When Sir Joseph Bazalgette designed London’s sewerage system, the CSOs operated once in a while – only when there were major storms. However, the growth of London’s population, as well as an increase in building developments and paved surfaces has meant that overflows from the CSOs happen more and more frequently.

Some CSOs discharge untreated sewage into the River Thames on average more than once a week, and after only 2mm of rainfall.

Overflow

In a typical year, 39 million cubic metres of untreated sewage overflows into the River Thames through London’s combined sewer overflows (CSOs).

It’s time to update the capital’s sewer network

The existing sewerage system is virtually full to capacity, with simply nowhere for excess flows to go, apart from into the River Thames.

As the population increases and further absorptive surfaces are lost, CSO discharges will continue to rise. In the future, if nothing is done, we could also see sewage discharges during dry weather conditions.

Doing nothing will simply result in:

• more frequent overflows
• more frequent environmental damage
• continued increased health risks to recreational and business users
• worse litter blight
• an adverse impact on the attractiveness of the water frontage
• the risk of heavy fines being imposed on the UK Government.

Thames Tunnel

Creating a cleaner, healthier River Thames
Updating London’s sewerage system

The volume and frequency of untreated sewage overflowing into the tidal River Thames is clearly unacceptable and also contravenes the European Urban Wastewater Treatment Directive.

We have worked with the Environment Agency to identify the most polluting CSOs – the ones that cause unacceptable environmental impacts because of the frequency or volume of the overflow, or because they discharge into an environmentally sensitive part of the river.

The Thames Tunnel project will address the sewage overflows from these CSOs, either by directly connecting them to the tunnel, or by making other alterations to the sewerage system which will utilise the existing capacity more effectively. The flows diverted into the tunnel will be stored and pumped out for treatment at Beckton Sewage Treatment Works.

The CSOs will still be needed after the Thames Tunnel has been built to direct flows to the river, in exceptional circumstances when the new tunnel system is full. This is only expected to occur very occasionally.

For further information see our website: www.thamestunnelconsultation.co.uk or call us on 0800 0721 086.

Phase two consultation (Autumn 2011)