



Lichfield Science & Engineering Society

LICHFIELD **GARRICK**
Theatre & Studio

CHAIRMAN

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Dr Zsuzsanna Nagy

MD, MA, DPhil

8:00 pm on Wednesday 13th April 2016
in the Studio Theatre of the Lichfield Garrick, Castle Dyke, Lichfield

LONDON TIDEWAY TUNNELS

David Crawford
Chief Engineer,
System design and operations.
Thames Tideway Tunnel

David Crawford graduated from Queen's University Belfast (Bsc Hons) and University of Alberta (MSc), both degrees in Civil Engineering with specialisation in hydraulics and hydrology. He has worked in the profession for over 35 years, mostly in the United States and Canada, on projects ranging from raising dams and related spillways by 30m, analysis of flood risk from levee breaches and numerous combined storm and foul sewer overflow systems. David is a Member of the Institute of Civil Engineers and a Professional Engineer in the USA and Canada. For the past eight years he has been part of the CH2M team developing the Thames Tideway Tunnel, serving as Chief Engineer for the system design and operations.

The presentation will focus on the £4.2billion Thames Tideway Tunnel project, the largest water infrastructure project in Europe and the final piece of the London Tideway Improvement Programme. The talk will provide a brief history of sewerage in London and the development of the scheme from early concept, through detailed catchment and hydraulic structure modelling using the latest tools, including Computational Fluid Dynamic methods and physical modelling, to how the tunnel scheme integrates with the London sewer network and how it is operated to control the Combined Sewer Overflows that currently pollute the tidal River Thames. This work led to a reference design that was competitively bid and procured with the selection of three main works consortia. One of the unique aspects of the project is the formation of a new water utility that will finance the project's construction, Bazalgette Tunnel Limited, named appropriately after the Victorian engineer of London's original sewerage system. Main construction of the Thames Tideway Tunnel will start in 2017 and it will be operational in 2022.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.

Visitors £5.00. Tickets are not issued in advance, please pay at the door.

Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.

This lecture is expected to finish by 10.00 pm.