Lee Tunnel

Project Description

Morgan Sindall Infrastructure, as part of the MVB joint venture with VINCI Construction Grands Projets and Bachy Soletanche, delivered the Lee Tunnel, Britain’s largest water engineering project for 20 years.

The £635 million project (worth more than £208 million to Morgan Sindall Infrastructure) involved the construction of a four-mile length of tunnel to prevent sewage discharges into the River Lee from the largest sewer overflow point at Abbey Mills Pumping Station in Stratford, East London. The seven-metre-diameter tunnel, the width of three London buses, prevents more than 16 million tonnes of sewage mixed with rainwater overflowing into the river from the Victorian sewer network when it becomes overloaded. The tunnel stores and then transfers sewage to Beckton Sewage Treatment Works, which has been expanded to deal with the increased treatment volumes.

The Lee Tunnel, the first of two planned tunnels, marks a massive step forward in improving the quality of London’s rivers and is an essential part of providing the capital with a 21st century sewerage system.

The project includes five shafts, which are up to 75 metres deep.

Responsible business

Improving the environment

The MVB joint venture has strived to deliver a sustainable project, saving approximately 40,000 tonnes of carbon through design optimisation and achieving a waste diversion rate of 98 per cent. The team has offset disturbance in the estuary by constructing an intertidal habitat on Barking Creek - this 2,000 m² area provides a breeding site for fish and invertebrates.

Many other measures such as environmental training, waste segregation, charity fundraising and habitat improvement have underpinned the sustainability objectives set out by the MVB joint venture.

The reduction of Combined Sewer Overflows (CSOs) discharging into the River Lee will ultimately improve water quality for wildlife, recreational users and residents of London.
**Location**
- London

**Project key facts**

The tunnel was driven largely through chalk, using a slurry Tunnel Boring Machine (TBM) excavating at 8.85 metres diameter.

The tunnel’s primary lining is formed of segments from our Ridham precast factory.

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**Partners**

Joint venture: Morgan Sindall, VINCI Construction Grands Projets, Bachy Soletanche