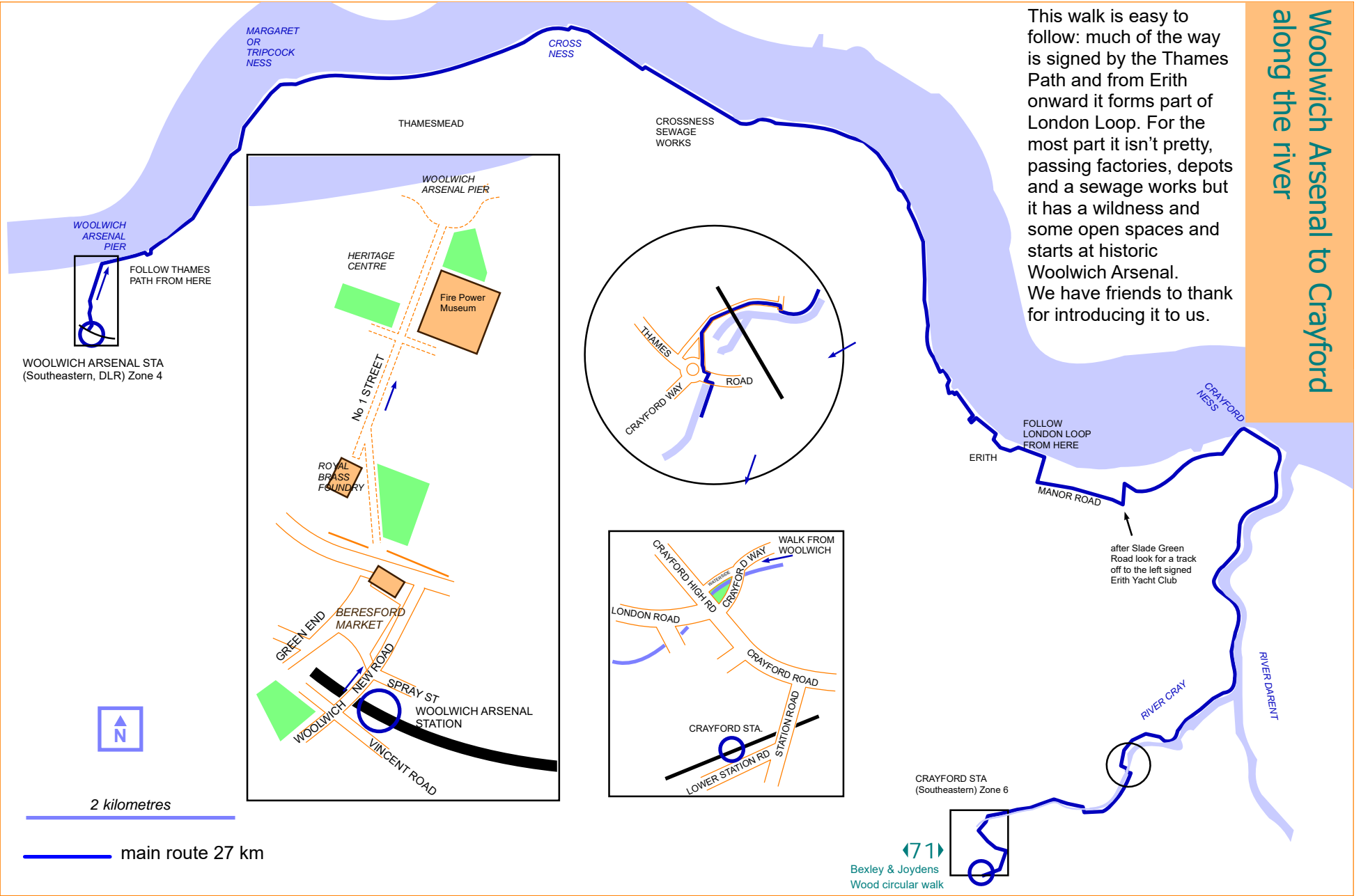


# Woolwich Arsenal to Crayford along the river

This walk is easy to follow: much of the way is signed by the Thames Path and from Erith onward it forms part of London Loop. For the most part isn't pretty, passing factories, depots and a sewage works but it has a wildness and some open spaces and starts at historic Woolwich Arsenal. We have friends to thank for introducing it to us.



71 Bexley & Joydens Wood circular walk

## **Woolwich Arsenal to Crayford**

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### **Woolwich Arsenal**

The navy has had several separate but large sites in Woolwich – the Dockyard to the west since Henry VIII's time, the Artillery Barracks on Woolwich Common (1776) and the Arsenal (1805), also the site of the Laboratory (1695) at the warren.

In 1805 the Royal Arsenal was officially established and no expense was spared to make this the world's foremost munitions works.

The Royal Military Academy moved to the east side of Woolwich Common in 1808. The academy taught every branch of military science, as well as French and Latin, writing, fencing and drawing. Among the magnificent military buildings on the common is the Rotunda, designed by John Nash for an exhibition in St James's Park in 1814 and moved here six years later, when it became the first military museum.

The dockyard was extended in 1833 and again in the 1840s, when modern docks were built, however it closed in 1869, when the site was handed over to the War Department for use as an annexe of the Royal Arsenal.

By the early 20th century the Royal Arsenal covered 1,285 acres. Including its testing ranges, the site measured three miles long by one mile wide, and had three separate internal railway systems. At the outbreak of the First World War the Royal Arsenal employed over 70,000 workers.

The Royal Military Academy closed in 1939 and moved to Sandhurst. After WWII the arsenal diversified into manufacturing for civilian purposes, from railway trucks to automated equipment for the silk-weaving industry.

The Royal Ordnance factory closed in 1967, although many of the buildings continued to be used for testing and storage. Much of the new town of Thamesmead covers the arsenal's eastern testing ranges.

Military use of the Royal Arsenal site ceased altogether in 1994. The arsenal's buildings were taken over by English Partnerships for the development of housing, light industry and leisure facilities.

A new Greenwich Heritage Centre opened at Royal Arsenal West's Building 41 in 2003.

### **The Princess Alice Disaster**

On Tuesday September 3rd 1878 a pleasure cruiser left London Bridge Pier for a day trip down the river with 900 on board. On the return trip shortly before reaching Woolwich it was struck by a collier, the Bywell Castle. 700 perished in agonising circumstances. These are related in detail at <http://www.eastlondonhistory.co.uk/sinking-princess-alice/>

### **Crossness Sewage Pumping Station**

In the 18th century, a new invention, the flush toilet became popular. These discharged into the old cess-pits, which then overflowed into the surface water sewers. These had been earlier designed to collect rainwater only, and to discharge into the rivers and ditches directly to the Thames, causing pollution.

Following an outbreak of cholera in 1853, Joseph Bazalgette, Chief Engineer to the Metropolitan Commission for Sewers prepared a report recommending two great intercepting sewers flanking the Thames, to drain eastwards to treatment plants, where "deodorized water" would

be discharged into the river. Bazalgette was empowered to design and execute his proposals. On each side, of the Thames three intercepting sewers at different levels divert sewage away from the river and lead it, by gravity where possible, or by pumping where necessary, towards the outfalls at Beckton on the north and Crossness on the south. At each outfall, covered reservoirs enabled the sewage to be stored until high tide, and then discharged into the river on the ebb tide. The major pumping station on the south bank was at Crossness.

The Southern Outfall Works, as the complex was originally called, was opened in 1865, by HRH The Prince of Wales attended by dignitaries of rank. After an address by Joseph Bazalgette, the Royal party toured the works, the Prince then turned the wheel which started the engines and following that, in the true Victorian spirit, the "Prince and five hundred guests sat down to an excellent lunch, in one of the ancillary sheds, beside the Engine House".

At Crossness, the incoming liquid was raised some 30-40 feet by the application of four large steam driven pumps. The engines were of enormous size and power. They were built by James Watt & Co. to Joseph Bazalgette's designs and specification, and were named "Victoria", "Prince Consort", "Albert Edward" (the Prince of Wales) and "Alexandra" (the Princess of Wales). As originally built, they were single cylinder rotative beam engines - that is, with a flywheel - the piston being of 9'0" stroke and of 4'0" diameter, developing 125 horse power. Work commenced in 1985 to restore the Engine House and the engines to their 1899 condition, (the year in which the engines were upgraded). In 1988 the Crossness Engines Trust replaced the original Preservation Group in order to put the enterprise on a sound business and legal basis.