

18th Century

London has a small enough population to cope with water supplied by springs and rivers

WATER

It can cope with its human waste through cess pits and the nightsoil

Growth in population puts pressure on water supply and removal of human waste with much being dumped in the Thames where the tide does not wash it out to sea



1829 James Simpson, engineer, works with the Chelsea Waterworks who become the first company to introduce slow sand filtration in order to purify their river water. The filter was designed by Simpson and consisted of successive beds of loose brick, gravel and sand.

Timeline

19th Century

20th Century



Cholera first emerges in 1817 from the Sunderbund Swamps in North East India and strikes fear across continents

CHOLERA

King William IV opens new session of Parliament in June 1801 saying, 'It is with deep concern that I have to announce to you the continued progress of this formidable disease in Eastern Europe.'



October 1801 Cholera is identified in a forty year old seaman in Sunderland. Cholera has come to Great Britain

Seething Wells was a small area just outside Surbiton. There was not much there before 1848 except the main road from Kingston to Portsmouth, a few houses, pubs, a wharf and cinder beds. This would be typical of what you would expect to see in a rural 18th century setting. Early maps call the area 'Siden fields' and show fields and farms.

SEETHING WELLS

There are some references to there being springs in the area. From at least the 18th century the spring had become 'enclosed within a very old ivy covered well house containing a well and spring'. The spring itself yielded 'an abundant supply of water, whose hot waters were exploited medicinally, especially for ophthalmia'

1807 Sir Francis Burrell, MP petitioned the House of Commons and alleged that 'the water taken from the River Thames at Chelsea, for the use of the inhabitants of the western part of the metropolis, being charged with the contents of the great common sewers, the drainage from dung-hills, and privies; the refuse of hospitals, slaughter houses, public food and soap works, distilleries and manufactories, and with all sorts of decomposed animal and vegetable substances.'



James Simpson

Cholera struck Britain again in 1849-9. Dr John Snow was personally involved in an outbreak at Milton Terrace, Wandsworth Road, where he discovered that the drains had been designed so as to let all sewage water seep into the drinking water he publishes, at his own cost, a short book 'On the Mode of Communication of Cholera' in which he proposes slow water as being the agent for cholera.



The vast majority of scientists and doctors believe that Cholera is 'caught' by breathing it in, but it was the medical orthodoxy that many infectious diseases emanated in a 'miasma' from accumulated filth.



After lengthy negotiations, the Lambeth Waterworks Company bought land from the Earl of Lovelace at the end of 1845. Eviction notices were sent to those living by the Thames at Long Ditton. The fate of the tenants is unknown. In all, as many as 250 people may have been cleared to make way for the new works.



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On the night of August 31st 1854 an outbreak of cholera occurred in Broad Street, Golden Square, and the adjoining streets. Within two hundred and fifty meters there were upwards of five hundred fatal attacks of cholera in just ten days. Dr John Snow suspends his work to investigate the cause

1852, cholera invades the shores of Britain again. Dr John Snow sees in the actions of the Lambeth Water Company a golden scientific opportunity. The relatively clean water from Seething Wells was 'on stream' from 1852. Snow could now compare households that were able in every respect except that some took their water from Seething Wells, and the others from the Battersea (The Lambeth & Vauxhall Water Company)



The Construction of the Lambeth filter beds can from 1850 to 1862 when the site opened. This was closely followed by the Chelsea Water Company which started construction in 1854 and opened in 1856. 'The change' in the area was momentous, from a quiet, rural environment to a major construction site. A description of it in the Survey Comet describes the scene as confining and chaotic, with up to 600 men working there

In 1852 the Lambeth Waterworks at Seething Wells is officially opened and water begins to be pumped back into London



John Snow mapped the addresses of the sick, and noted that they were mostly people whose nearest access to water was from a pump in Broad Street (now known as 'The Broad Way'). Snow worked with the local Vestry (the people responsible for the poor of the Parish), first convincing them to disable the pump at Broad Street that he was convinced was in the line of causation. Then working, with a local curate, Henry Whitehead, to show that, indeed, the water in that pump was infected from a cess pit into which the happen of a cholera infected baby had been thrown.



Henry Whitehead

There were no machines to do the excavation, it was by manual labour. The people that carried this out were migrant labourers, who worked in gangs on projects such as building canals and railways. Looking in the 1851 census for Kingston we find 61 locals who were classed as 'Excavator at Water Works'. They lived close to the water works in groups, such as in Thomas Barrow's household. He lived in Brighton Terrace with his wife Sarah and two daughters, Sarah Ann (age 5) and Phoebe (age 3). Along with them were 10 lodgers of whom were excavators at the waterworks.

Chelsea Waterworks move to Seething Wells in 1855 securing the last water company to move their plants above the polluted tidal water zone

The Metropolitan Water Act of 1852 prohibits the extraction of water for household purposes from the River Thames below Teddington Lock

Lambeth, Chelsea and other water companies are brought together in 1902 as The Metropolitan Water Board



In 1855 John Snow publishes a second edition of his book, completing the 'Grand Experiment' comparing the two sources of water (the clean from Seething Wells). For him, it was convincing proof that cholera was water borne. But the world did not abandon its inflexible prejudice for miasmas so easily as that. There was a much bigger study, conducted officially, which proved more convincing evidence. (The author of this study, John Simon, failed to acknowledge Snow's prior work, which caused a great furore.) It was not until a further epidemic - 1866 - that people really came round to the view that Snow had held true. Sadly, Snow had died by then, in 1858, at the age of 45.



21st Century

Today many of the buildings from both the Lambeth and Chelsea waterworks exist. In addition the massive filter beds still dominate the Portsmouth Road. These have become home to a wide variety of wildlife including a number of species of bats



At a Seething Wells address, there are 10 men lodging, along with the head of the household, Thomas Beal. His family, wife and 5 children, and two servants. Thomas Beal's occupation is a 'Builder', and Jane Hyle, one of his servants is a 'Washer'. This is obviously one of the pubs along the Portsmouth Road. 309-800 leaves in the area, new pubs and buildings spring up changing the area for ever