

“The Supply of Water in the Metropolis,”
Lancet 1 (22 January 1848): 103-04. [editorial]

At the present time the Metropolis is supplied from numerous sources. That civilization which has blocked up the I a primitive streams and springs has stretched out in different directions to bring this daily necessity in abundance to every nook and corner. The New River Company obtain supplies by Myddleton’s Aqueduct, from the New River, near Ware, and from the river Lea, near Hertford. This Company supplies 100,000.houses, including manufactories, with about 240 gallons each, daily. The East London Company have their principal station at Old Ford, near Bow. Their reservoirs are supplied by a canal which conveys the waters of the river Lea from Lea Bridge. This Company supply about 70,000 houses, including manufactories, with an average quantity of about 120 gallons per diem each house. The West Middlesex Company have their works at Hammersmith, on the banks of the Thames, with reservoirs at Barnes. They supply 25,000 houses with an average of 185 gallons a day. The Grand Junction Company at present obtain their supply of water from the Thames at Brentford, which they distribute to about 14,000 houses, at the rate of 350 gallons a day each. The Chelsea Company have their works on the banks of the Thames, at Chelsea. This Company supply 20,000 houses with as average daily quantity of 135 gallons each per diem. The Hampstead Water Works Company formerly depended for a supply upon small springs and collections of water between Highgate and Hampstead. In 1833 this Company constructed a well at the bottom of Hampstead Heath, which did not prove a very successful undertaking, and they are now occupied in the construction of another—the rills of water supplying the original reservoirs having, from the extension of building, become common sewers, and an attempt to restrict parties from passing foul drainage into them, by an

Snow, MCC (1849) [selections, not in order presented]

Although there are a great number of pumps, supplied by wells, in this metropolis, yet by far the greater part of the water used for drinking and for culinary purposes is furnished by the various Water Companies. On the south side of the Thames the water works all obtain their supply from that river, at parts where it is much polluted by the sewers; none of them obtaining their water higher up the stream than Vauxhall Bridge, –the position of the South London Water Works.

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That division of London called the East District in the registration reports, is supplied with water entirely by the East London Water Company. In the Cholera of 1832 and 1833 the reservoirs of the company at Old Ford were entirely filled from the river Lea when the water flowed up with the rising tide from the Thames, in the neighbourhood of Blackwall; and the river Lea itself receives some large sewers. The Company have since obtained water from near Lea Bridge, above the reach of the tide; but whether they still supply themselves in part from the river at Old Ford, where their chief works and reservoirs are still situated, and if so, to what parts of their district the water so obtained is sent, cannot be here stated, for want of exact information.

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The North districts have suffered very little from cholera as yet. St. Pancras and Islington, which comprise a great portion of this division, are supplied with the New River water, which is brought from Hertfordshire. Hackney is supplied by the East London Water Works; Hampstead by sources of its own; and Marylebone, which will again be alluded to, chiefly by the West Middlesex

action at law, having failed. The Lambeth Company possess extensive reservoirs at Streatham and Brixton, with a pumping establishment on the Thames, at Lambeth. They supply 22,000 houses with an average of 185 gallons each daily. The Southwark and Vauxhall Company derived their supplies from the river Effra, at Kennington, until the foul drainage rendered it desirable to relinquish this source; their present supply is from the Thames at Battersea-fields. Their works have recently been enlarged, and they supply about 25,000 houses with, on average, 150 gallons of water per day. Of the Kent Water Works, little is known; they obtain their supplies from the river Ravens-bourne, near the Broadway, Deptford. Thus the sources whence water is supplied to the Metropolis are diversified, and some of them extend to considerable distances. Two motor powers—propulsion by steam, and the law of hydraulics, that water finds its own Level, irrespectively of curves and undulations--are sufficient to distribute this element in all situations in which it may be required, whether to the housetop, the manufactory, or the kitchen.

But the exigencies of the present day require that the sources of supply should be again extended, if health, comfort, and the necessities of the suburban populations are to be properly provided for. We must make a new migration in search of purer water, just as our ancestors did when they left the wells and streams of former times for the water-service which we now possess, but which has at length become impure or inadequate. We must either delve deeper, or draw a larger circle. It will be seen that not less than five of the London water companies obtain the principal part of their supplies from the Thames—the highest point at which water is obtained being near Brentford. When obtained in a state of tolerable purity, towards the last of the ebb tide, the qualities of Thames water are so excellent, that it has always been preferred by mariners for long voyages—a sure test of its superiority. But in the vicinity of

Water Works.

The whole of the Central Districts are likewise supplied from the New River, and this part of the town has suffered much less from cholera, hitherto, than the south and east divisions; although many portions of it are quite on a par with the worst parts on the south of the Thames as regards overcrowding and bad smells.

The West Districts, together with Marylebone, are supplied with Thames water by the West Middlesex, Grand Junction, and Chelsea Water Works. The West Middlesex Company obtain their water above Hammersmith, and the Grand Junction at Brentford; both these places, and especially the latter, are, by the meandering course of the river, several miles above London; and unless, perhaps, at certain parts of the tide, are free from sewage water, except that of certain towns, —as Richmond, Barnes, &c.—in which the cholera has not yet been prevalent. The Chelsea Company, which supply Chelsea, Pimlico, Westminster, and part of Brompton, get their water at Chelsea, only one or two miles above Vauxhall; but they take great pains to filter it carefully. It will perhaps be remarked that the dilution of the cholera poison in the Thames would most likely render it innocuous; but as far as can be judged from analogy, the poison consists probably of organized particles, extremely small no doubt, but not capable of indefinite division, so long as they retain their properties.

London, various causes, such as the tide-way, the constant turbidity produced by the numerous river steamers, and the immense increase of the London and suburban drainage on the banks of the Thames, are rapidly doing for the river what the extension of building and drainage did for the streamlets and bournes of the ancient City many centuries ago. There is a growing conviction that the waters of the Thames, near London, notwithstanding the improved modes of filtering, are becoming far too impure to be tolerated under a good sanitary code. The Lambeth Company have been the first to mature a noble plan for supplying water to an extensive district, from the River Thames, at a point so high as to be altogether free from the evils of tide-way, the steamers above bridge, and the metropolitan drainage. They propose, at an estimated expense of £123,000, to obtain water from the Thames at Ditton, that being the highest point to which they can ascend with the permission of the conservators of the river, who are bound to see that water is not abstracted from the bed of the river where there would be any danger of impeding the barge and other navigation. This project is, undoubtedly, of great value in itself, but if approved of by the legislature, it would be the signal for the removal of all the other waterworks from Lambeth, Chelsea, Battersea, Hammersmith, &c., further up the river, out of the sphere of the impurities of these places; this would be an incalculable gain to the community in a sanitary point of view, and we cannot imagine that any opposition to such a measure would be permitted to succeed. It is one which alike commends itself to the protection, or at least the impartiality, of the Sanitary Commission and the Government. It proposes, not only to commence the revolution of the present water-service, but to supply an important district not yet approached by water companies, thus infusing a circulation into a new limb of the metropolis.