

Lancaster Civic Vision

Celebrating our Heritage – Enhancing our Environment – Shaping our Future

LANCASTER'S SEWERS

Lancaster Civic Vision Guide 97

Guide 76 in this series described the development of Lancaster's water-supply system. This leaflet follows this up by describing how the liquid wastes from houses and factories have been dealt with.

Until the early nineteenth century liquid wastes and many solids made their way to open drains running down the middle of Lancaster's streets – the norm in many British towns at this time. After 1812 these open drains were progressively replaced by sub-surface sewers along the streets. They were constructed from stone slabs, about 18 by 12 inches in size, and designed for clearing rainwater.

Unhelpfully but understandably, householders began to connect their drains to these street sewers, which then had to deal with bigger volumes of seriously contaminated wastes including solids. Inevitably there were blockages, liquids escaped from the sewers, seeped through the ground and contaminated the town's wells used for drinking water.

This problem was worst in the lower-lying parts of Lancaster. The street sewers eventually emptied into the sluggish Mill Race – the smell was terrible (see Guide 79 for more on the Mill Race).

The impetus for change came from the high death rate in parts of Lancaster and among its poorer citizens. The resistance to change came from the town's ratepayers who did not want to pay for a better sewerage system. This struggle between vested interests and social reformers and between central and local government occupied much of the first half of the nineteenth century in Lancaster.

Statistical confirmation of the persistent scale of the medical problem in Lancaster came from Richard Owen's report in 1845. Memories of the periodic outbreaks of cholera in Lancaster exacerbated the issue. Lancaster Council had tried and failed in 1841 to gain an exemption from being forced to improve the town's sewerage system. Initially they tried to ignore the requirement to act, as established by the Public Health Act of 1848.

A Sanitary Association was formed to lobby the Local Board of Health for action on clean water and better sewerage, spearheaded by local doctors. Their goal started to be achieved in 1852 when

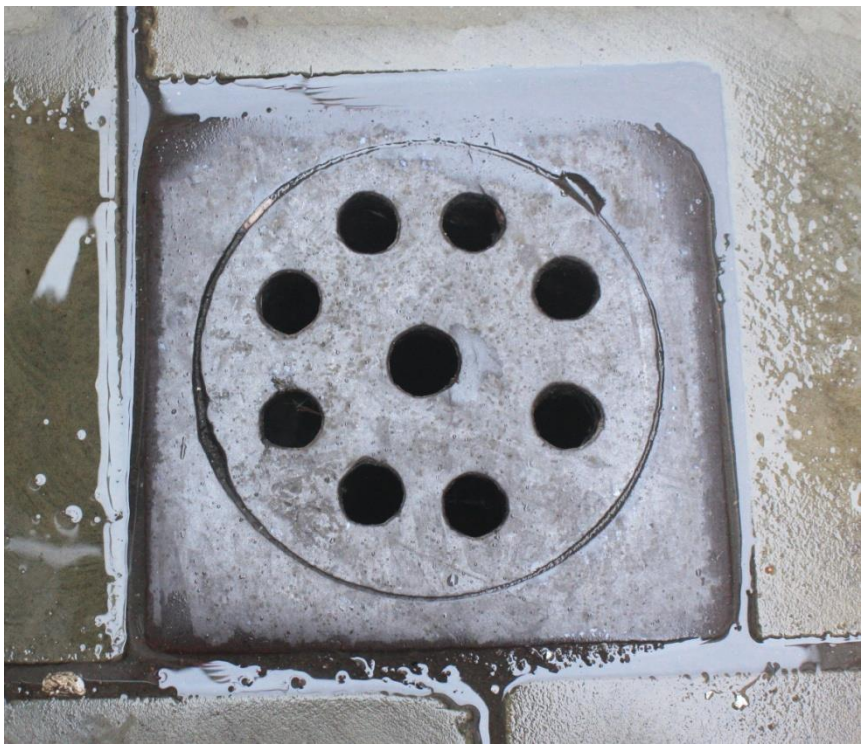
approval was given for a new system, and in 1854 the first houses were connected to a clean water supply and proper sewerage.

It took around 30 years for all the properties in central Lancaster to be connected.

The only above-ground signs of this early system that remain are the three inspection-hatch covers in Ffrances Passage, Sulyard Street and Castle Hill. The original castings included 'LBH' [Local Board of Health] and the year they were installed – 1852, 1853 or 1854. This part of the casting has been worn away by 170 years of traffic.



The inspection-hatch covers in Sulyard Street (left) and Castle Hill (right)
(Source: Author)



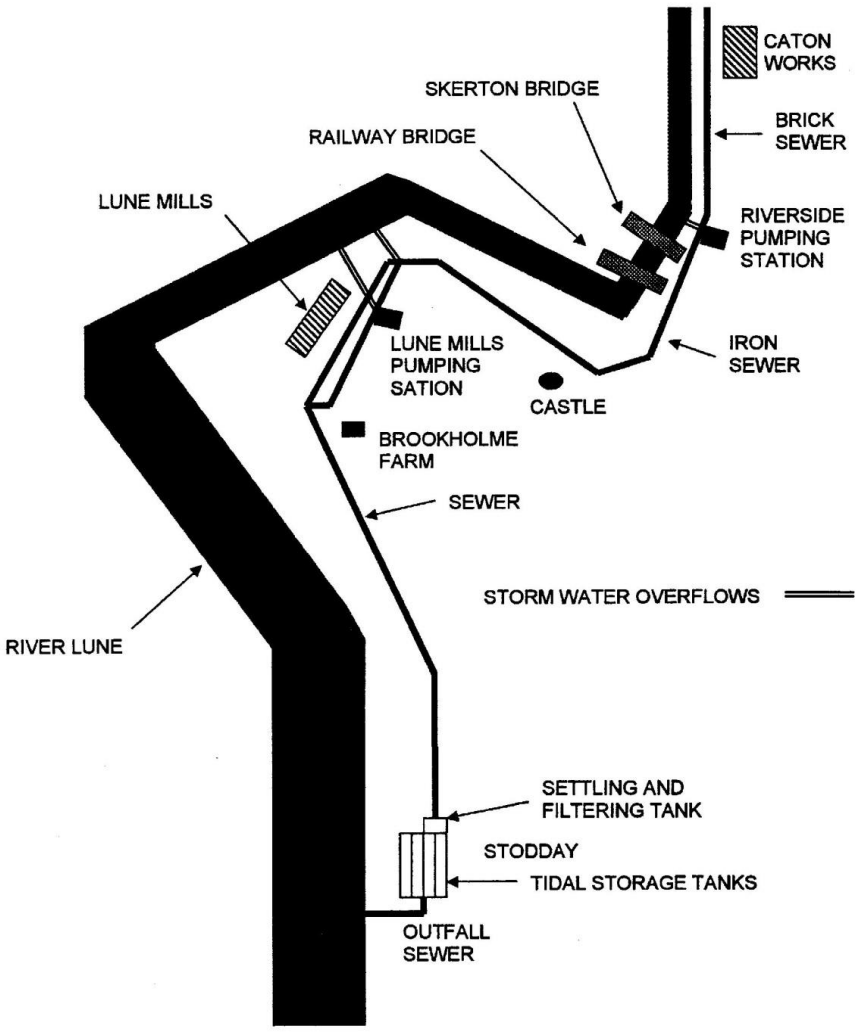
Inspection-hatch cover in Ffrances Passage (Source:Author)

However, there were two problems with this sewerage scheme. The first was that, to save money and contrary to Edmund Sharpe's original plan, a single set of pipes was used for both rainwater and sewage. This meant that during severe downpours, the system became overloaded and there were overspills of sewage. Sharpe had wanted separate pipe networks but this was rejected on cost grounds. His plan to recover costs by selling the sewage to farmers as a fertiliser was lost.

The second problem was that the sewers emptied directly into the River Lune, first where the Mill Race joined the river and later at the Marsh. This polluted the tidal Lune near the town and harmed fishery interests. A petition in 1902 failed to get the quality of the river water improved.

The Lune Board of Conservators and the Ministry of Agriculture and Fisheries began action in 1930 against the Corporation to stop this practice. In 1934 a start was made on building a large interceptor sewer to take all the town's sewage by gravity flow or pumping to a new site at Stodday.

Here solids were removed in settling tanks and, after screening, the untreated waste was discharged into the Lune on the ebb tide.



Lancaster's sewerage system in 1933
(Source: Horsfield 2005–06, gratefully acknowledged)

The Stodday site has been improved in stages since the 1970s to meet increasingly stringent UK and EU laws. Today there are three stages of treatment including UV irradiation to kill harmful bacteria. One result is that some treated solid waste can now be sold to farmers, over a century and a half after Sharpe first proposed this recycling.

What is now discharged into the Lune has a very low bacterial content. The effects of heavy rain have now been mitigated by large storm tanks built recently at Parliament Street and the Bus Station and by other tanks at Stodday.

Today the Stodday site is partly powered by electricity generated from methane produced during the treatment process and by the on-site solar panels visible at the top of the satellite photograph below.

Morecambe has its own sewage facilities at Schola Green pumping station and the treatment works near Middleton.



Lancaster Wastewater Treatment Works, Stodday, 2018
(Source: Google Earth, gratefully acknowledged)

This leaflet draws on material in two papers by Keith Horsfield published in *Contrebis* Volume XXX in 2005-06 – https://lahs.archaeologyuk.org

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