

Public Health and Water Supply in Bridgwater, Somerset

by Tony Woolrich

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Population growth

IN 1377 Bridgwater's population totaled some 858 people and was second town in Somerset after Wells. By the 1440's this had risen to about 1600, but by 1540 more than 200 houses had fallen into decay within living memory and the population was estimated to stand at 2000. A survey of 1563 showed there were only 352 households in the parish. An act was passed in 1694 ordering the listing of people for levying a tax on births, burials and marriages and also bachelors or childless widowers. The record of this census has not survived, but the burial section of St Mary's Parish Register has the following note: *In this year [1695] the people were numbered and in the town the number of men, women and children amounted to 2 thousand 2 hundred odd and the number of men, women and children in the several limits of Haygrove, West Bower, East Bower, Dunwear and Chilton limits amounted to six hundred.*

In the first official census, taken in 1801 the population was 3,634, and in the following century this had risen almost five times to reach 17,981 in 1911. The following table shows the increases at each census.

1801	3,634	1851	10,883	1901	15,168
1811	4,910	1861	12,120	1911	17,981
1821	6,155	1871	12,636	1921	15,962
1831	7,807	1881	12,704	1931	17,139
1841	10,430	1891	12,419	1951	22,221
				1961	23,700

Working from St Mary's Parish Registers, T. Hedley Barry found that in the 120 years from 1680 to 1800 the population increased from about 2200 to 3600. Allowing for the ratio of christenings to marriages, (1:3) calculated from the registers, he concluded there had been a slow drift of immigrants into the town during this time.

Between 1801 and 1861 the picture changed. The population of Bridgwater rose from 3634 to 12,120, an increase of 8587, though the ratio of christenings to marriages was about the same as before. He concluded that even allowing for the creation of St. John's, Eastover, and Holy Trinity parishes and allowing for nonconformist families who do not always appear in the Parish Registers, there must have been a considerable amount of immigration. Where the immigrants came from is another story. The population increased partly because of better health standards, and partly because of increased employment in the docks and manufacturing. The bulk of the townsfolk were not well-off, and a

significant number lived in poverty.

Housing

A full study of the development of C19 housing in Bridgwater needs to be written, but it is possible to describe briefly the succeeding phases of the growth of the town during the early period. Until the end of the C18 the town would have been confined within the medieval boundaries, but at the turn of the century there began a significant expansion outwards. There are few detailed large-scale plans of the town before the publication of the 1:500 scale Ordnance Survey maps in the 1880's, but the growth of the town can readily be seen by a comparison of small-scale maps published earlier.

Day and Masters's map of 1792 shows that on the eastern side the turnpiked Bath Road had properties along it near the town, but these petered out just past the left-hand bend into what is today known as Monmouth Street. The road from Bridgwater to Langport by way of Westonzoyland ran along Salmon Lane - now Salmon Parade - and then veered off through what today is the Colley Lane trading estate. St John Street did not exist. The landscape was otherwise agricultural.

On the western side of the town some development had taken place outside the medieval boundary along the northern and part of the southern side of West Street, and along North Street as far as the present-day Malt Shovel Inn. A few properties were also shown outside the line of the Castle Ditch at Northgate and round towards Chilton Trinity.

The remainder of the town was largely still within the medieval boundary. The Duke of Chandos's development of Castle Street early in the C18 and the later development of King Square is very well documented; likewise the merchants' larger houses such as Binford House by the river and those in Friarn Street. What is not so readily available is information about working class houses such as Gold's Buildings and Brimble's Court, both of which were on the site of the present Police Station and the Magistrates' Court. There were also poorer houses in various places such as Honeysuckle Alley, which ran between Prickett's Lane and Mount Street, and which today is under the Angel Place development. Similar houses were to be found in courts which ran off both sides of Eastover. Outside the medieval boundary Roper's Lane, which ran parallel to West Street, was clearly of some antiquity since the Quaker Burial Ground there had been in existence from the late C17, and in 1793 a small independent

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congregation was established there, probably in Gloucester Court.

Subsequent maps show how the town grew. The first edition of the inch to the mile Ordnance Survey plan published in 1809 shows for the first time the street layout of the complex of properties bounded by West Street, Roper's Lane - now Albert Street - Moat Lane and Halswell Lane. All these properties were demolished by the 1960's when the West Street area was comprehensively redeveloped; only the street layout largely survives, though Moat Lane disappeared when the Broadway was built. A few more properties had been built around Northgate. These properties were in the form of small blocks of cottages, sometimes laid out in the form of an enclosed court whose entry was by way of a passage from a nearby road. There were no gardens and individual houses lacked a water supply and piped drains. They were built as speculative ventures for letting by local builders or other small tradesmen and were usually named after the owner. Hutchings' Buildings, Hellier's Place, Ford's Buildings and others, were all situated along Roper's Lane, for example. The inhabitants were mostly employed at casual labour on the docks and in the brickyards, and in consequence highly susceptible to the variations in the market with periods of employment punctuated by spells of poverty.

Greenwood's map of 1824 shows a Public Bath on the Durleigh Brook near Halswell Lane, more building around Northgate and also in the Hamp area. Little change was shown in Eastover. This increase in building is a reflection of the growth of population in the town and is confirmed by a note in St Mary's register of baptisms and burials January 1800-December 1812. Under the Population Act of 1811 the Churchwardens and Overseers of the Poor were required to make a return of the numbers of houses and other information, and a copy of this is recorded in the last page of the register. In addition there is a table of data for 1800, which had been recorded privately at the time and together they give an indication of the amount of growth which had taken place.

Year of survey	1800	1812
Inhabited Houses	481	857
Occupied by families	520	958
Houses now building	Not Returned	25
Uninhabited houses		34
Families occupied in Trade		570
Families occupied in Agriculture		87
Other families		301
Males	1715	2241
Females	1919	2670
Total	3734	4911

A note in the register stated that the 1812 figure did not include about 200 seamen and about 200 local militia. They were presumably absent from the town at the time the census was taken. These figures indicate that the number of inhabited houses had increased by 367, and the population by 1177 plus 400 who were absent.

The next phase of housing development took place on Eastover. In 1822 an Act was passed to permit the building of a new turnpike from Bridgwater to Pawlett. This commenced about 100 yards from the bend where the Bath Road swung away from the line of Eastover.

St John Street has a more complicated history. It apparently began as a footpath from the East Gate of Bridgwater to Redgate which is near the present railway station. Buildings were constructed at its western end by the middle 1830's, and it is clearly marked on the 1847 tithe map. It is probable that by this date it had replaced Salmon Lane as the route from Bridgwater to Langport.

These new roads allowed the construction of more housing. From 1830 Union Street started to be built. This is a street of terraced houses connecting the Bath and Bristol Roads. At about the same time Barclay Street was built connecting the western end of St John Street with Salmon Lane. Both these streets were built of brick. In Union Street the doorways were surmounted by semi-circular skylights and a brick arch. The upper storey windows had simple brick lintels. The Barclay Street houses were larger and more ornate in finish. In the western side of town Provident Place was built running off Wembdon Road a little distance beyond the Malt Shovel Inn, and from this time the Eastover part of Bridgwater developed during the remainder of the C19 progressively towards the railway line which formed the unofficial eastern boundary of the town until after the second world war.

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Bridgwater's historians have virtually ignored the early working class housing of the town. Even Squibbs's incomparable book of Victorian photographs of Bridgwater contains only one. The handful of topographical drawings by earlier artists such as John Chubb, Buckler and Wheatly concentrated almost totally on the public buildings like St Mary's Church and the Castle remains. In so neglecting such an important part of the town's past, a great disservice has been done to the memory of those whose labour helped create the wealth which enabled Bridgwater to assume such an important place in the economic life of the West Country.

Living conditions

By the late 1840's much concern was being expressed nationally about the problems of bad housing, and in January 1848 the *Bridgwater Times* carried a series of articles and letters by an anonymous correspondent, 'Inquirer', about housing in Bridgwater and the surrounding towns and villages. In the first of these he described the state of six cottages in St Mary Street which backed onto the churchyard. Two descriptions are representative of the others:

*George Burge, who lives in the first house I entered, is an invalid, suffering from sciatica and rheumatism, and totally incapable of working at his trade, that of ship's carpenter. He has a sick wife, and five sick children; the family and dwelling exhibited a complete picture of want and desolation. The parish allows this family 5s. and five loaves per week, equal to about 7s. 6d.; out of this sum is to be deducted 1s. 6d. a week for rent, leaving for the decent subsistence per week of seven individuals just 6s., – less than 1s. per week for each member of the family. In the **workhouse** the average cost per week of each pauper is 2s. 6d.. The house is approached from Mary Street by an entry of about four feet in width, at the end of which is a heap of ashes, and there being no convenience attached to the house, this heap serves the purpose of a water closet, and is exactly opposite the entrance to the house, leaving but a narrow space to enter the doorway. The house contains two bedrooms upstairs, one of which is so out of repair that rain and wind have ingress, and it is consequently uninhabitable. There are also a room and a back place on the ground floor. There is no water on the premises, the inmates being obliged to get it as they can. The premises want light, ventilation, draining and cleansing. The rooms are about twelve feet square, and all the family sleep in*

one room.. .

In the next house I visited live a man and his wife and six children. It contains one room and a small pantry on the ground floor; upstairs there are what are called two bedrooms, the landing of the stairs forming one of them. The room downstairs measured about ten feet by fifteen feet; the pantry is about four feet deep – the two bedrooms are over the lower room. In one of them sleep the eldest daughter who has left her service through ill health and who is about twenty-two years of age – her brother, about sixteen years of age and four other children; in the other the father and mother. The pantry is close to the churchyard and instead of a window has an aperture of about eighteen inches square stuffed up with hay. There is no privy to this house and no water on the premises. The smells of the new-dug graves are frequently very offensive. I use the words of the wife – "On one occasion when a grave was opened, I never smelled such a breath; the flesh of the former body was taken out with the hair on, and the jaw bones were perfect. The coffin had been broken in. I have seen children playing with human bones outside the churchyard walls." There was no back outlet.

A week later Inquirer published an account of housing in the West Street area:

On entering Moat Lane [now on the line of the Broadway] from Roper's lane [later renamed Albert Street], is a row of eight wretchedly filthy houses (Vearncombes), six of which are entirely without a privy; the ground floors of all are about six inches below the level of the lane, and into some of them, when it rains, the water flows. These houses have no outlets behind. Fronting them is a wall on the other side of which are gardens. There is a gutter or drain at the foot of this wall which is now choked up and it now forms a series of stagnant pools and heaps of mud. A few yards out of Roper's Lane is a gateway to the gardens within the wall, but it is not used. The upper part has a portion broken away, and through this aperture are thrown the ashes, slops and ordure of the houses. This heap is half the height of the gate – the heap and the gate present a disgusting mass of filth and smell offensively in the extreme.

Proceeding to the end of this wall is another heap of the same description, immediately contiguous is the well from which the inmates of this row of houses are supplied with water.

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Graveyards

Until the 1840's the main graveyard of the town surrounded St Mary's Church. Small graveyards were to be found at the various nonconformist chapels, and at the Holy Trinity and St. John's churches which were consecrated in 1840 and 1846 respectively. As the population grew these graveyards rapidly became overcrowded.

In 1827 the Vestry Minute Books of St Mary's recorded the expenditure of £134 2 3 for the removal of soil from the graveyard. At that time it was common to find the level of a churchyard had risen several feet above the original soil line as more and more corpses were interred, and the site was levelled. Any bones found were removed and buried elsewhere, usually on non-consecrated ground. In 1831 a letter was published in the local newspaper complaining about the dilapidated state of the churchyard, and the Vestry later resolved to buy some property on the South West flank so that it could be enlarged. In 1842 the Vestry decided to acquire a new graveyard, since St Mary's was now completely full, and in 1844 it agreed to enlarge the one at St John's church to achieve this.

Little seems to have happened since a leader appeared in the *Bridgwater Times* in January 1847 about public health and the state of St Mary's graveyard, and in November of that year the paper printed more leaders about the evils of burials in town churchyards, and mentions the National Society for the Abolition of Burials in Towns.

In January of the next year the *Bridgwater Times* published a horrific series of reports, leaders and letters about the burial practices of the churchyard. These showed that it was the practice to allow bodies to decompose partially and for the remains to be then dug up to release more space for succeeding interments. The gravedigger would ram an iron bar into the ground and by the smell of what came up when he pulled it out, claimed to be able to judge whether decomposition had proceeded enough. If he was happy he would remove the bones to the charnel house under the North Transept, and when that was full it took three cartloads to transport them to a bone pit elsewhere in the churchyard.

A correspondent listed the interments which had taken place there annually since 1840:

Year	Interments
1840	264
1841	183
1842	237
1843	173
1844	156
1845	144
1846	171
1847	167

He also stated that an acre of land could give decent burial to 136 bodies annually. The whole area of St Mary's Churchyard, including the church building the walks and the walls was barely an acre in extent, and the land actually available there for burials was under half an acre.

A correspondent said that the churchyard was surrounded by wells, some within six feet of the boundary wall. A large-scale map of this part of the town, produced in about 1820, shows the churchyard completely surrounded by little houses, with the exception of the present gates and a strip in St Mary Street about the width of the east end of the church.

In November 1848 the Vestry set up a committee to examine the question of creating a new cemetery for the town. In February 1849 the newspaper reported that boys had been caught in the churchyard playing with parts of a partially decomposed body, and the minutes of the Easter and August Vestry meetings recorded the negotiations to find a site for a new cemetery. In the autumn of 1849 cholera reached Bridgwater and about 200 Bridgwater people died in about two months. Most were interred in the town graveyards, though 51 were buried in the graveyard of Chilton Trinity Church, which was opened specially after being unused for almost a century. Later in the year there was newspaper comment about unnecessary delays in getting the clergy to attend funerals at St Mary's church. The newspaper in March 1850 carried a letter about overcrowding in Saint Mary's churchyard and stating that 15 interments had occurred in one small plot in a few weeks, some only 2½' below the ground level, and that graves were kept open to await the next burial.

In February 1851 the Vestry discussed the new cemetery at Wembdon Road, and this was consecrated in September of that year. At the end of the year St Mary's Vestry minutes recorded a vote of censure on the Vicar, the Rev. James, who was refusing to use the new cemetery because of the inconvenience and the loss of fees in which it involved him. Evidently the town as a whole was apathetic about using it. The newspaper for January

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1852 recorded the problems about getting burials carried out at Wembdon Road, through the clergy being late, a leak in the chapel roof and waterlogged graves due to bad drainage. In August 1853 St Mary's Vestry sent a memorial to the Home Secretary, Lord Palmerston, requesting that the town's graveyards be formally closed. Dr Holland, a government-appointed inspector, took evidence about the burial practices, and an order was made closing most of the graveyards from 1 February 1853. St Mary's churchyard was laid out with new paths, trees and shrubs in 1856. During the rest of the century there were continuing problems over bad drainage at Wembdon Road cemetery, with occasional leaders and letters about it in the pages of the newspapers.

Water Supply

Dr F. H. Blaxall in 1871, a government health inspector in his report on the 1874 measles epidemic, identified three means of water contamination:

- 1) Water could percolate into the wells through soil already saturated with leakage from defective pipes or closets;
- 2) Water could also become contaminated by the direct leakage from the drains into the wells;
- 3) A third means of contamination was through the common practice in Bridgwater of siting closets very near to wells in order that the drinking water pump could also be used to pump water directly into the closet for flushing purposes.

On the eastern side of the town, wells were sunk to a depth of from 10-25' or deeper. The deep ones passed through the clay to water-bearing strata, while the shallow ones were excavations in the clay, filled by percolation from the surrounding surface soil. The wells were numerous; wherever a house was built a shallow well was sunk and the sides loosely bricked to permit the percolation of the water. In wet weather they were full, but in drought quickly became dry. The quality of the water depended on the position and character of the well. In deep ones it was sometimes brackish; in those sunk in or near peat it was discoloured and impregnated with the odour of peat; in the surface wells it was affected with the condition of the soil through which it passed and was often befouled by leakage of drains or closets. Dr Blaxall reported that he had had complaints that 'The water stank', that it "was thick" and that on the south side of St John

Street it was unusable.

The wells on the western side of the town were generally better. They were sunk through the gravel to the marl and the conglomerate, but the water was greatly exposed to soil saturation. Some wells were near old sewers or trenches which had been loosely filled in. There was also the risk in this part of town from old unknown cesspools. Dr Blaxall gave several examples of the contamination he had observed. On the Eastern side:

In Bath Road Place a well was near a closet, the drain from which sometimes became choked, causing the contents to back up and overflow at the inlet near the pump; at such times the water was said to be bad.

At Kirk's Court: a pump was within two feet of a brick drain, which was laid on the surface and loosely constructed; the contents of the drain leaked out into the court; the water from the pump often stank and contained 'worms'.

Union Street; Closet belonging to Mrs Slade's house was placed directly over a well, the water from which was so bad it could not be used; the closet was then moved ten feet off, when the water was said to have become better, but was still discoloured and sometimes offensive.

On the Western side:

A gentleman had for some time been out of health and his doctor, suspecting that impure water was the cause, had the well examined when it was found that that the brickwork had given way, and a direct communication was thus made with a drain. Carbolic acid, which had been regularly used in disinfecting a water-closet, found its way into a well, the water of which was strongly contaminated.

Drainage and Sewers

Bridgwater's sewage consisted of rainwater, house slops and the contents of closets. It was removed by drains and sewers, which were varied in their construction. None were laid on properly-prepared beds or were provided with the means of ventilation. Sewer air sometimes found its exit through rainwater pipes. There was insufficient water to flush the drains and sewers, and they frequently became blocked, particularly those on the eastern side of town. Most of the old drains were constructed of bricks or stones closely laid together or cemented but the more modern ones were made of earthenware pipes. Many of the drains from closets

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passed directly under the houses, and gave rise to intolerable nuisance.

Each side of the town had its separate system of sewerage:-

On the eastern side the principal sewers were egg-shaped, and constructed of brick. The main sewer was laid under Eastover, and emptied into the river, with a flap, a few yards below the bridge. There were other sewers and drains which had their outlets along the eastern bank of the river, and some of these outlets were situated above the usual high-water level, so there was a continual trickle of sewage down the river bank. One of these drains carried the sewage of the Bridgwater Infirmary, where patients suffering from typhoid fever were sometimes received.

On the western side the main sewer was square in shape and built of brick. It was laid under the High Street and Fore Street with branches from St Mary Street, West Street, North Street and Clare Street and opened into the river, with a flap, nearly opposite the outlet of the main sewer of the eastern side. In addition to this main sewer on the western side, there were several smaller sewers and drains all of which emptied directly or indirectly into the river, which at the point where the sewers emptied was only 25 yards wide. In consequence in a very small area in the middle of the town the greater part of the sewage of a population of 12,000 by 1860 was discharged by two main sewers and fifteen smaller ones and was there exposed to the atmosphere, creating the most abominable stench, which was materially increased by the tidal water becoming mixed with the sewage.

At high tide, the water being above the openings of the main sewers, the sewage accumulated behind the flap valves, and especially at time of high rainfall when the bulk of the sewage was greatly increased soaked through imperfectly constructed drains and regurgitated through the inlets: the pent-up sewer air was driven out at every available opening. The flap valves occasionally stuck open, and tidal water entered the sewers and flooded cellars situated near the outlets.

At the very end of the century the Corporation was taken to court by the Somerset Drainage Board to prevent them from cutting through the river bank at Salmon Parade to allow a new sewer to discharge into the river. The voluminous evidence and detailed plans shows that by then over thirty sewers discharged into the Parrett between Crowpill on the

North and St Saviour's Clyde on the South. Some of these were public sewers, and others were unauthorised private installations of the property owners on the river bank.

This section of the Parrett was highly charged with silts which were used for making the renowned Bath Bricks. Each cubic foot of water was calculated to contain 6.80 lb of silt, or about 2,873 tons per mile length of water. Charles Major, managing director of the firm of H. & V.C. Major, brick and tile manufacturers, spoke about how the silt was obtained. One method was to allow it to settle in special slime batches, constructed along the river banks. Another was to allow river water to fill old river-side clay pits, through special trunks cut through the river banks and controlled by gates. In both cases once the water had drained off as soon as the water level in the Parrett dropped far enough, workers dug out the semi-liquid slime and transported it to the brickyards, where they were hand-moulded in preparation for firing into the form of Bath Bricks.

This slime also contained a large concentration of the town's sewage, and since it was a handicraft industry it was inevitable that any disease organisms contained in it were very easily transferred back to human beings. There was thus a continuous cycle of disease organisms getting into the sewage, which flowed into the river where it mixed with the silts which were then hand-made into bricks. This was clearly a main cause of the various gastro-intestinal diseases for which Bridgwater was notorious at that time.

Water closets

These were usually situated outside the houses, and though water closets were defective in lacking the means for adequate flushing; the washing down depended on throwing water into the pan, or commonly from a small drain which led from a pump to the trap of the closet, which thus received a mere trickle, or when lengthy pumping was done specially. In consequence excreta accumulated in the pans, traps and drains, and polluted the surrounding atmosphere. In some instances closets were built against the back wall of a house, without a properly constructed drain, so that the wall became saturated with the contents of the closet and the house rendered unfit for human habitation. The very food in the houses was said to become contaminated with the smell. In many parts of the town the closet accommodation was inadequate, with from two to twenty families being compelled to use the same

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Dr Blaxall gave several examples, among which were:

In the "Sailors' Home" there was one closet in the kitchen and two outside against the wall of the house; all were very offensive and combined to render the house unfit for habitation.

In the court at the back of the "Sailors' Home," the closet was not provided with flushing, and the drain leading from it became choked, causing much nuisance, and in consequence the neighbours were obliged to keep their windows closed.

A house in Prickett's Lane was pervaded with obnoxious effluvia caused by three closets built against its outer walls.

Scavenging

There was an organised plan of scavenging in Bridgwater. House refuse was allowed to stay in the vicinity of dwellings, until a large enough amount had accumulated for sale. The residents then took the proceeds in rotation. At the western side of the town was a field where the scavengers deposited the refuse, and which at the time of Dr Blaxall's report had amounted to perhaps 200-300 tons. This heap was surrounded by houses, to the annoyance of the residents. The contents of cesspits was also cleared and sold to neighbouring farmers as manure.

Other nuisances

Pigs were extensively kept in the town by the poorer households, and there were several private slaughter houses in close proximity to the residential areas.

There was no mortuary in the town, and it was the practice to leave the corpses of people who died from infectious diseases in their dwellings until it was time to bury them. The newspapers reported that corpses of people who had died by accident, such as drownings in the river, were left in the nearest shed until the inquest could be held.

Fire Fighting

By 1832 the town's fire engine was housed in St Mary's Church apparently owned by the Corporation. In that year the Vestry minutes recorded that, as usual, the elections for officers ended in violence. The report of the ensuing court case showed that one of the defendants had been in charge of the fire engine and had lost his place! At that time parish appointments were done on party

political lines. The fire engine figured in the Vestry minutes in 1836-1839 and again in 1844. From 1844 the fire engine was discussed in the pages of the *Bridgwater Times*. In 1870 a major fire occurred on Cornhill. In 1874 the newspaper reported there were two volunteer brigades in the town, one owned by the West of England Fire Insurance Company, and the other by the Town Council. Both were held to be generally incompetent. The paper urged the formation of a proper volunteer brigade for the town.