

SECOND ANNUAL REPORT
OF THE
COMMISSIONER OF HEALTH
OF THE
COMMONWEALTH OF PENNSYLVANIA

Presented by the Commissioner, SAMUEL G. DIXON, M. D.

December 12, 1908.

Harrisburg, Pa., August 16th, 1907.

DERRY, WESTMORELAND COUNTY.

This application was made by the borough of Derry, and is for permission to install a sewer system.

It appears that the borough of Derry, Westmoreland County, is on the main line of the Pennsylvania Railroad, about six miles east of Latrobe. It is on the northern slope of the Chestnut Ridge Mountains and drains into McGee Run which empties into Conemaugh River just above Blairsville. At the present time the borough has an approximate population of three thousand within its limits and there are about one thousand more residing in Derry Township on the outskirts of the borough.

It is a railroad town and freight division point of the Pennsylvania system. The yards, engine house and offices of the division are in the borough. The railroad employs about five hundred men, the American Window Glass Company, which has sand works here, employs over one hundred men and the Sevres China Company employs about two hundred men.

The sewage from the sand works plant, which is in the upper part of the borough, and the sewage from the Pennsylvania Railroad properties are discharged into the same natural water course which passes down through the borough.

There are no public sewers in Derry. There are about two hundred small private sewers which empty into the two runs in the borough. Probably two thousand people use privies of the shallower type. These privies are almost universally overflowing. It is estimated that there are thirty-five loose-walled cess-pools in the town, some of which have overflow to the natural water courses. Rain water, and in some cases sink water, discharged by pipe into the privies, frequently washes the contents to a greater or less extent out on the alleys and gutters in the streets. The street gutters are generally in a foul condition and the streams in the borough are badly polluted. From a sanitary standpoint, so far as sewage is concerned, the borough is ripe for an epidemic. The one saving feature is that the water supply comes from mountain streams immediately above the borough on the same drainage slope. The water is impounded in reservoirs which thus cut off the natural flow of the streams, which otherwise would come down and hasten the removal of deposits in the water courses within the borough limits. As it is, when rain falls occur, torrents sweep down the mountain sides and materially aid in cleansing the borough territory. The Pennsylvania Railroad has a twenty-four

inch sewer into the run. This pipe receives the sewage from its own properties, drainage from the round house and also sewage from private sewers. In this manner between three and four hundred people are served.

The employees at the sand washing works use privies which are located on the banks of the stream. In nineteen hundred and six, certain citizens of Derry Borough entered complaint with the State Health Department against Derry Land Company, alleging that said company was discharging sewage into a run above the borough, thereby causing a nuisance to the property owners along the run in the borough, and a menace to the general public health.

The Derry Land Company laid out a certain tract of land adjacent to the northwest corner of the borough in Derry Township, and built thereon over a score of dwellings and a hotel, paved streets, curbed gutters and sewered these streets with pipes designed to remove both sewage and storm water. In this vicinity, outside of the borough, is the Sevres China Company plant which employs two hundred hands. The sewage from this plant goes into a small run which flows down through the borough in a northeasterly direction. About four hundred feet below the point in the run where the sewage from said plant is discharged, the sewage from the Derry Land Company is discharged into the run, not through a pipe, however, but through an open ditch. The point where this sewage enters the run is at or near the borough line. From here, through the municipal territory, the run is an open ditch easterly to Third Street, a distance of about eight hundred feet, where it joins another small open run, whence the course of the stream is out of the highways across private property to the main stream called McGee Run. The whole course of the run, from the borough line, where the said land company's sewage is discharged, to the borough line, at the lower end of the run, is a distance of about two thousand feet. Numerous private sewers empty into this water course in the borough.

In the summer of nineteen hundred and six, there were about two hundred residents on the Derry Land Company's tract and additional houses were under construction. Undoubtedly, this tract and also that occupied by the Sevres China Company will in time be added to the borough territory, and it seemed fitting to the Department that the local authorities should grapple with the problem of sewage disposal for all the territory.

On August twenty-third, nineteen hundred and six, the following communication was sent to the president and members of the borough council:

"This is to notify you that the pollution of the natural water courses within the borough limits of Derry, and near the borough limits in Derry Township, has become a public menace. In compliance with an application and complaint, both of which have been duly made to the Commissioner of Health, I have been obliged to make an investigation, and to take cognizance of the conditions in the stream within the limits of your borough and to consider means for the removal and abatement of the menaces. Because those menaces are so numerous it would work a great hardship and be much more expensive for the individual violators of the law to remedy the evils and to remove the menaces individually than for a co-operative plan to be put in force by the borough under some plan of assessment which would apportion the cost equitably. Therefore, I urge you to give the question of a sewerage system for the borough your early and careful consideration. Because the borough is limited in the amount of money it can borrow and as there are other public needs besides sewerage, economy and efficiency demand that a sanitary sewer system be devised, the sewers of which need be only large enough to remove sewage proper. Such a system can be built and the sewage properly treated at a cost which will leave a considerable sum of money inside of the debt limit for the borough to expend for other purposes. I shall be very glad to co-operate with you in working at the plans of such a sewer system.

I am,

Yours very truly,

SAMUEL G. DIXON."

To the Derry Land Company, Sevres China Company, American Window Glass Company and the Pennsylvania Railroad Company the following communication was sent on even date:

"On complaint and petition duly made to me I have had an investigation made and determined that it has become necessary for you to find some other way of disposal of sewage than the one now used by you into the natural water courses in or adjacent to the borough of Derry, Westmoreland County, Pa.

By this mail I am communicating with the borough council and offering my co-operation towards the adoption of a sewerage system for the entire borough. I shall be glad to render any advice or assistance in my power to the end that the pollution of the natural water courses shall cease and the improved sanitary conditions shall be brought about in the borough.

Yours very truly,

SAMUEL G. DIXON."

The proposed sewer system is to take sewage and roof drainage, and its outlet is to be into McGee Run at a point outside of the borough limits and approximately three-fourths of a mile from the centre of the town. The outlet sewer is to be thirty inches in diameter and the smallest sewer eight inches in diameter. The total length of all of the sewers is about seven miles, to be distributed in different sizes as follows: Six thousand one hundred and fifty feet of eight inch pipe, nine thousand feet of ten inch pipe, twelve thousand one hundred and fifty of twelve inch, three thousand nine hundred of fifteen inch, one thousand one hundred of eighteen inch and three thousand four hundred and fifty of thirty inch. The grades are to be one per cent. or over and in some cases as high as six per cent.

To construct these sewers with proper manholes and appurtenances will cost in the neighborhood of sixty thousand dollars.

The sizes proposed, however, are entirely too big. The future of the town depends entirely upon the railroad. If the Pennsylvania Railroad Company's yards and buildings should be removed, there would be a marked diminution in population in the town. However, for a sewer design it would not be wise to estimate less than a population of eight thousand people, which is double that in the borough and immediate vicinity at the present time. With an outlet of twelve inches in diameter, which is ample on the grade available, and substituting eight inch pipe for the other sizes, the system could be built at the same unit price for a cost of thirty-eight thousand dollars. Therefore, by the substitution of the smaller for the larger sizes, twenty-four thousand dollars would be saved.

It is proposed to discharge the sewage into McGee Run one-quarter of a mile below the borough limits. The drainage area is approximately five square miles and the dry weather flow is in the neighborhood of three hundred thousand gallons, or too little to sufficiently dilute the sewage to prevent a nuisance. Because the drainage area of McGee Run, at the point where it empties into the Conemaugh River, is approximately thirty square miles only and the dry weather yield is probably less than one and one-half million gallons per day, sewage could not be turned into the run at any point between its mouth and the borough without producing a nuisance were the banks of the stream to become occupied at any time, or the waters used for any purpose. McGee Run is eight miles long and is largely through pasture land. The waters do not receive mine drainage. In a county where the majority of the water courses receive the acid drainage of mines, which kills fish and renders the water unpotable, a pure stream of water must be a very material asset in the valuation of farming land, and since this is one of the few streams in this section of Pennsylvania which do not receive mine drainage, very good reasons should be required in support of any plan whereby the purity of the stream is to be destroyed.

The following boroughs and cities take their water supply from the Allegheny river, all of which are within sixty-six miles of Derry, the nearest place being forty-three miles distant only: Freeport borough, with a population of seventeen hundred, forty-three miles below Derry; Tarentum borough, population fifty-five hundred, fifty miles below; Pennsylvania Water Company, population forty thousand, sixty-three miles below; Allegheny City, population one hundred and thirty thousand, sixty-three miles below, and Pittsburg, population three hundred and twenty thousand, sixty-six miles below Derry.

During freshets the sewage from Derry would be carried down by the currents of the streams to these water works intakes in a few hours. At present the sewage constitutes one of the many contributing causes to the high rates of water borne diseases in the Pittsburg district. In the interests of public health, sewage pollution of these waters must cease and the only known way to stop the pollution of these water supplies is by treating the sewage of the towns above before it goes into the waters of the State.

The petitioners do not show wherein public necessity demands that McGee Run shall be turned into an open sewer. The Conemaugh river is an acid stream made so by the mine drainage. It would cost sixty thousand dollars, or thereabouts, to build a sewer from Derry to the river. A sewage disposal plant could be built for less money. The sewer system and disposal plant can be built should the abutters assume say two-thirds of the cost of the sewers so that the total cost of the project to the borough would not exceed thirty thousand dollars.

Derry has not at the present time a bonded indebtedness, so the Department is informed. If the valuation is as reported, about six hundred thousand dollars, then the borough can assume a debt of forty-two thousand dollars without exceeding the constitutional limit.

It has been unanimously agreed that the interests of the public health require that a permit be granted and it is hereby and herein granted to the borough of Derry to install a system of sewers, under the following conditions and stipulations:

FIRST: That the present plans be modified to exclude all roof and surface water.

SECOND: That before approval of the sewer system is given by the State Health Department detail plans and profiled of the sewers to take house drainage only shall be prepared by a competent engineer; also plans for an efficient, up-to-date, sewerage disposal plant for the purification of the sewage of said sewer system, which plans shall be submitted to the State Department of Health for approval.

THIRD: That after the plans for the disposal plant shall have been modified, amended or approved by the State Department of Health, the date on or before which they shall be constructed shall be fixed by the Commissioner of Health, which date shall not be less than two years, or more than five years, from the date when the borough's sewer system, or any part thereof, shall have been built or put in use.

FOURTH: No pathological material from any laboratory shall be permitted to discharge into the system. The proper authorities shall cause these wastes to be incinerated on the premises.