

Philadelphia, January 24, 1934.

ANNUAL REPORT - 1933

The activities of the Bureau of Water have been directed primarily towards a maintenance of the water supply.

During a three day period in August, an unusual precipitation created flood elevations along the Schuylkill River. Serious conditions prevailed at the pumping stations due to the high water and mud deposits.

The average daily consumption of water throughout the City was 302 million gallons with a per capita rate of 151 gallons per day.

The potability of water was of high integrity as indicated by the records at the Bureau Laboratory and its safe character is exemplified by the low rate of typhoid fever, which registered 0.5 deaths per 100,000 inhabitants.

The details of work throughout the Bureau may be observed in sequential order as follows:-

RIVER PATROL

Observations have been continued of effluents from the industrial plants and communities situated on the banks of the Schuylkill River above the intakes of the local water works and a technical scrutiny of the water contributed by tributary streams into both the Schuylkill and Delaware Rivers has been routine duty.

INTAKES

At the Belmont Station dredging of river bottom was carried on from August to the middle of December.

At the Queen Lane Station the revolving screen elevation was far below the flood water surface in the August flood. By good fortune no serious suspension of pumps resulted from the charge of turbid water.

At the Shawmont Station a hose stream under high pressure has been used on frequent occasions to create a channel and permit a sufficient volume of water to pass through the mud accumulation in front of intake. This method of removal of material is unsatisfactory and the outline of shore is rapidly moving towards mid stream due to the growing banks of deposit.

At the Torresdale Station sediment was removed by dredging sufficient yardage to insure a free cross section of channel for water flow from river to pumping station for plant requirements.

PUMPING STATIONS

Due to an attractive night rate on power cost, the electric driven stations have operated on an economical balance of load during the day and all stations have functioned in a satisfactory manner.

At Belmont the improvement of water due to the dredging at intake has reduced the wear upon the pumps and longer periods of operation is maintained.

A new roof has been placed and the engine room floor is approaching completion with tiling to harmonize with area previously paved.

A new brick wall has been built to reinforce the westerly side of the engine house.

At Shawmont a concrete base to receive final tile paving was placed and late in the year the setting of tile was under way.

The improvements effected at these stations has materially changed the interior appearance.

At Lardner's Point benefits to boilers have resulted by adopting different stoker parts and by the installation of new air compressors.

At Torresdale more economic operation has resulted by the addition of a static condenser to station equipment.

The High Service stations, with the exception of Oak Lane, have functioned continuously and satisfactorily. The suspension of service at Oak Lane was due to a severe electrical storm which interruption was over a period of short duration.

FILTERS

Normal and continuous service has been rendered by the filter plants.

At the Belmont Filters an oil heating system was installed in the administration building thereby eliminating the coal fired boilers which functioned for that purpose.

At all plants the chlorine dosing of water is made from the one (1) ton cylinder, the cost of chemical for such application being materially lower than for the smaller 100 lb. cylinders.

The silt application at the Belmont Reservoir has been lessened by the improved character of water pumped from the river but the heavy deposit existing will require early attention in order to preserve the integrity of the filters.

DISTRIBUTION

Due to the continued suspension of building operations, the activities on water main construction shows a low register.

Added to the system during year were 20,549 feet of pipe.

Total of all sizes in City	2,470 miles
The fire hydrants and gate valves were respectively increased by	72 & 206
Total number of fire hydrants	20,341
Total number of gate valves	49,489

Throughout the High Pressure Fire System there are in service:-

Miles of pipe	63.34
Fire hydrants	1070
Gate Valves	1872

The Race Street Station which pumps raw Delaware water for service, drafted during the year 17,366,121 Gallons

METERS

Total number of meters in service 200,122

Maintenance and activities -

Repaired in shop	11,416	
Repaired on premises	<u>3,800</u>	
TOTAL	-	15,216

REVENUE

There has been returned \$6,172,288.40 contributed from the following sources:-

Water Rents:

Flat Rates -

Fixtures - Current	\$2,244,029.29	
" - Delinquent	<u>411,774.91</u>	
		\$2,655,804.20

Meter Rates -

Current	\$2,999,993.10	
Delinquent	<u>427,585.33</u>	
		\$3,427,578.43
Water Pipe Searches		978.00
Frontage		9,275.48
Specials		4,505.30
Meter Repairs		53,240.32
New Services		6,514.00
Miscellaneous		<u>14,392.67</u>
		<u>\$6,172,288.40</u>

DISBURSEMENTS

Salary and Wages	\$ 928,247.57	
Material and Equipment*	<u>1,237,842.07</u>	
GRAND TOTAL	-	\$2,166,089.64

*Includes an amount \$449,709.26, which is a power and light account appearing in the budget of the Electrical Bureau.

CONSTRUCTION WORK

(Stations)

Lardner's Point -

- New Motor driver on two boilers
- New stoker keys on three boilers
- New air compressors

Torresdale -

- New Static condenser

Belmont -

- New roof
- New pavement on station front
- New flooring laid
- Removed old boiler house
- New wall on west side of engine house
- Relief valves placed on discharge mains of two pumping engines

Queen Lane -

- New cold water feed lines for boiler protection.