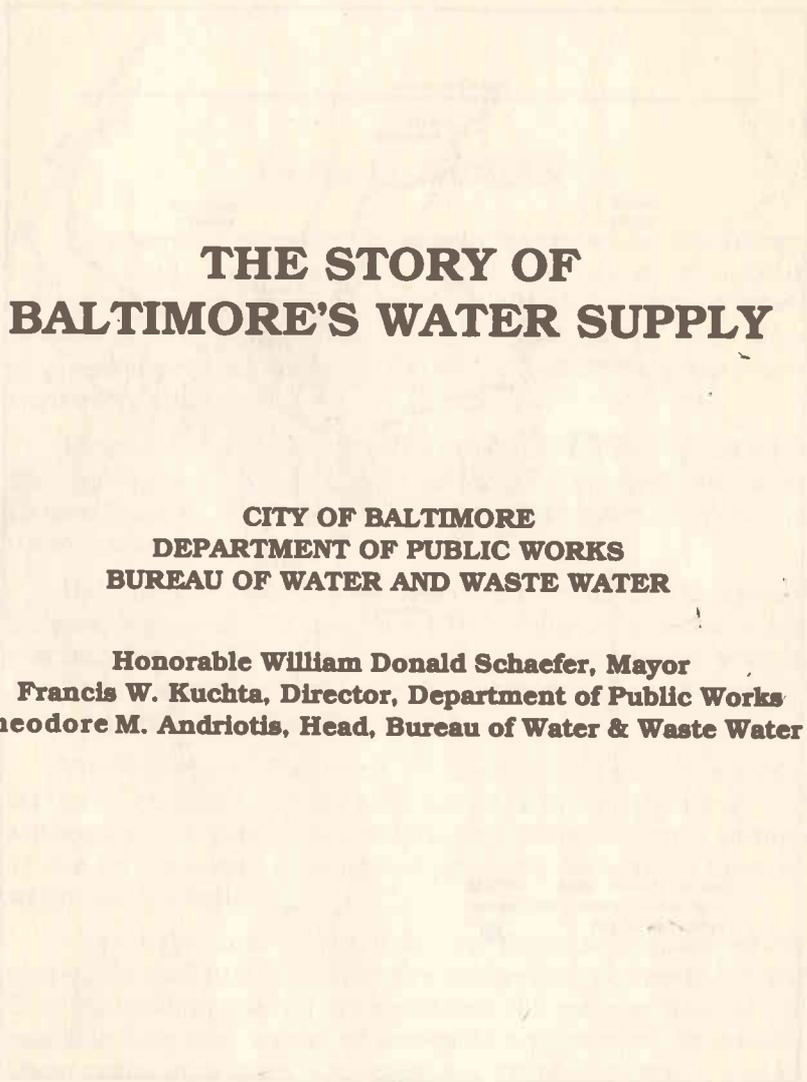


**THE STORY OF
BALTIMORE'S
WATER SUPPLY**

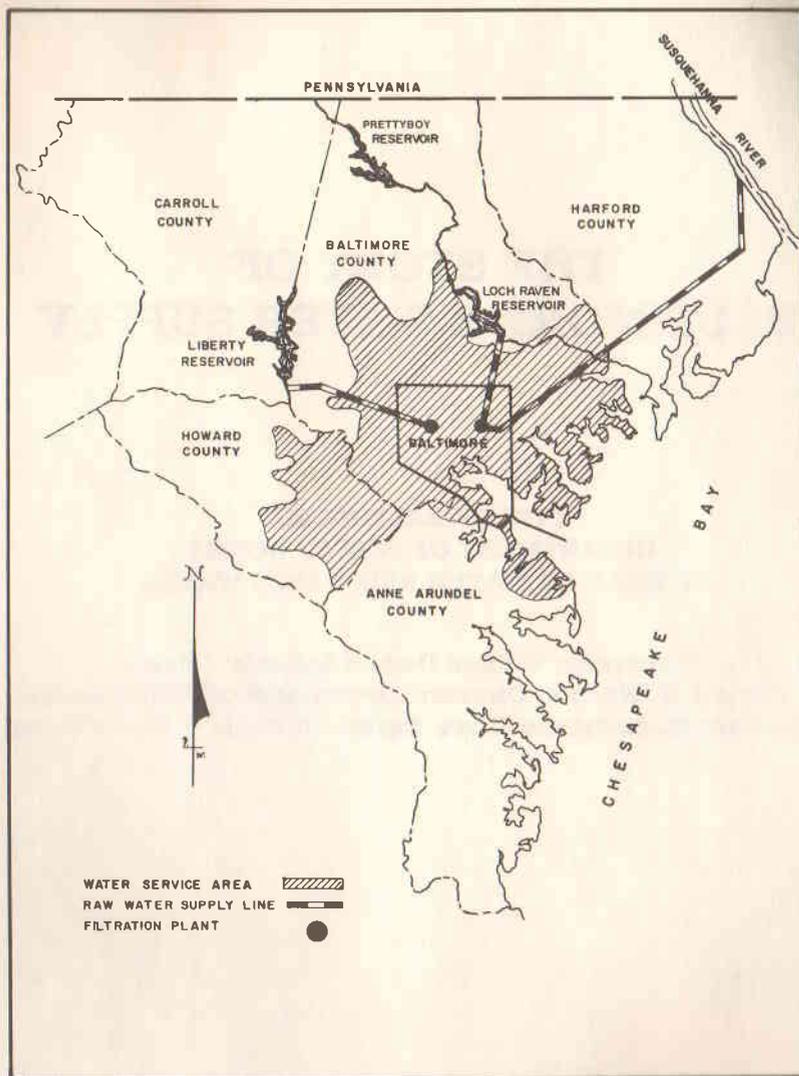
**CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF WATER AND WASTE WATER**



THE STORY OF BALTIMORE'S WATER SUPPLY

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**Honorable William Donald Schaefer, Mayor
Francis W. Kuchta, Director, Department of Public Works
Theodore M. Andriotis, Head, Bureau of Water & Waste Water**



Map shows how raw water is gathered from three outlying sources, then flows to three filtration plants in Baltimore City, and is delivered through water mains to customers in the large water service area.

HOW IT BEGAN

An adequate supply of pure, wholesome water has always been a most important factor in the life of mankind. Primitive man obtained water for his needs by dipping crude vessels into streams, lakes and pot-holes. Later, wells were dug and the water was distributed in goatskins, gourds and earthen containers.

Methods of collecting and distributing progressed with the development of machinery to pump the water and pipes to distribute it. The present efficient systems are the result of many improvements over the years.

Baltimore City was created by an act of the Maryland General Assembly in the year 1797. Prior to that time the community was governed by special commissioners who in 1787 were entrusted with the enforcement of a law setting forth a means of extinguishing fires.

The law required each householder to provide two leathern buckets for the sole purpose of fire fighting and authorized the commissioners to sink wells and erect pumps at the request and expense of property owners to provide water for fire fighting.

One of the laws of the first City Council transferred the supervision of this means of fire control to the newly created City Commissioners and provided the sum of \$1,000 for maintenance and repair of the wells and pumps. Eventually these wells became an important source of domestic water for the inhabitants. An annual appropriation for their maintenance was continued until the last of the wells was filled in about 1915.

The City's first effort toward the development of a community water system resulted from a report of a City Council committee submitted in January of 1799. This committee recommended the laying of pipes by the City for the distribution of water from Carroll Run.

Work was stopped in June 1799 by property owners who disapproved the laying of pipes across or near their properties. The City petitioned the General Assembly of Maryland for authority to introduce water into the community and in December 1800, this power was granted.

PRIVATE COMPANY FORMED

Subsequent efforts by the Mayor and City Council to construct a water system for the use of the City's inhabitants met with failures and at the February 1804 session of the council a resolution was passed authorizing the Mayor "to give public notice that proposals will be received at his office, until the first day of June next for introducing a copious and permanent supply of water into the City of Baltimore or any part thereof by any individual or company."

In consequence of such public notice that the city government was unable to cope with the situation, a meeting of citizens was called on April 20, 1804. As a result of this meeting a stock company was formed for the purpose of supplying the residents with water. This company, named the Baltimore Water Company, constructed a waterworks on Jones Falls and installed a distribution system of wooden pipes. In May 1807, water started to flow through this system.

By 1810, the wells and pumps originally constructed for fire purposes undoubtedly were used as sources of domestic water by a large segment of the population. In this year the city government proceeded to develop other public sources of water through the purchase and preservation of certain springs. In all, four springs of good flow were chosen.

The names and locations of these springs or fountains were as follows: The Northern Fountain near Calvert and Saratoga Streets (1810); the Western Fountain at Charles and Camden Streets (1810); the Eastern Fountain at Eden and Pratt Streets (1819); the Center Fountain in Market Place south of Baltimore Street (1821). Water for the Center Fountain was supplied for many years by the Baltimore Water Company from a spring located at St. Paul Street north of Centre Street. The spring houses and fountains had great

architectural merit and were considered among the sights to be seen during a visit to Baltimore.

CITY BUYS COMPANY

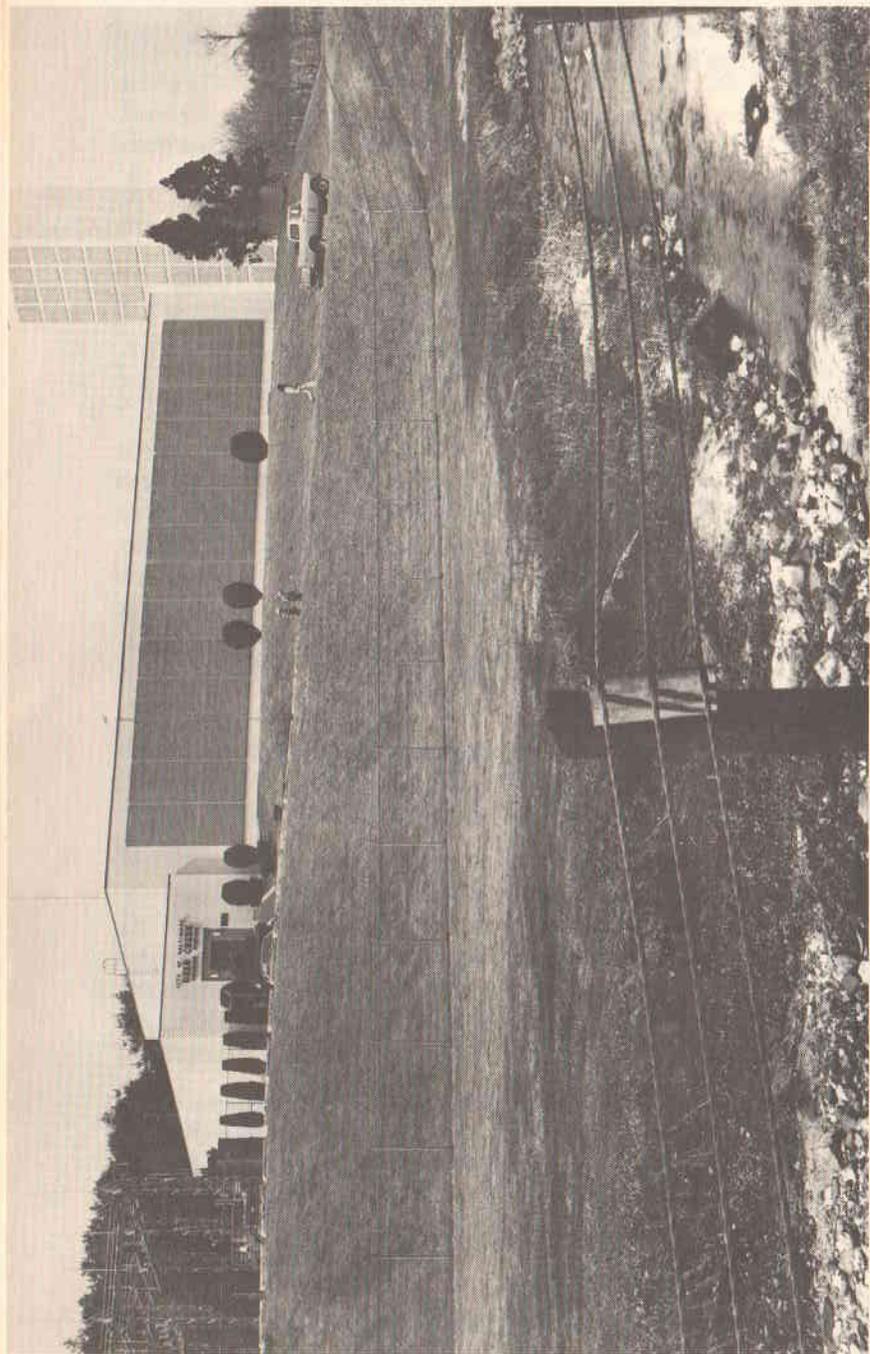
The Baltimore Water Company was incorporated on December 24, 1808. It continued to function until the fall of 1854 when the company was purchased by the City of Baltimore for the sum of \$1,350,000 and the Water Department was organized under a Water Board appointed by the Mayor.

Due to the growth of the city, the water system purchased from the Baltimore Water Company was inadequate for the water demands of the community. Between 1858 and 1862 the Water Department constructed the new Jones Falls supply consisting of a dam at Lake Roland, originally called Swann Lake, the necessary transmission mains and conduits, and Hampden and Mt. Royal reservoirs.

The Jones Falls supply was improved later by the construction of Druid Lake, Western Pumping Station, and Western High Service Reservoir, all in Druid Hill Park.

Many of the old wells and pumps had been abandoned and filled in by 1865 because of the failure of supply, contamination, etc. Resolutions were passed by the City Council and approved by the Mayor during the 1865 and 1866 sessions, authorizing the Water Board to install free flowing fountains at the markets and certain other locations near the docks.

In 1867 fifteen fountains were installed at the designated sites. That this source of water became increasingly important is shown by an inventory taken in 1915 which listed 263 fountains in service. The last ones were removed in 1945.



The Deer Creek Pumping Station in Harford County pumps raw water from the Susquehanna River to the Montebello Filtration Plants.

FIRST PUMPING STATION

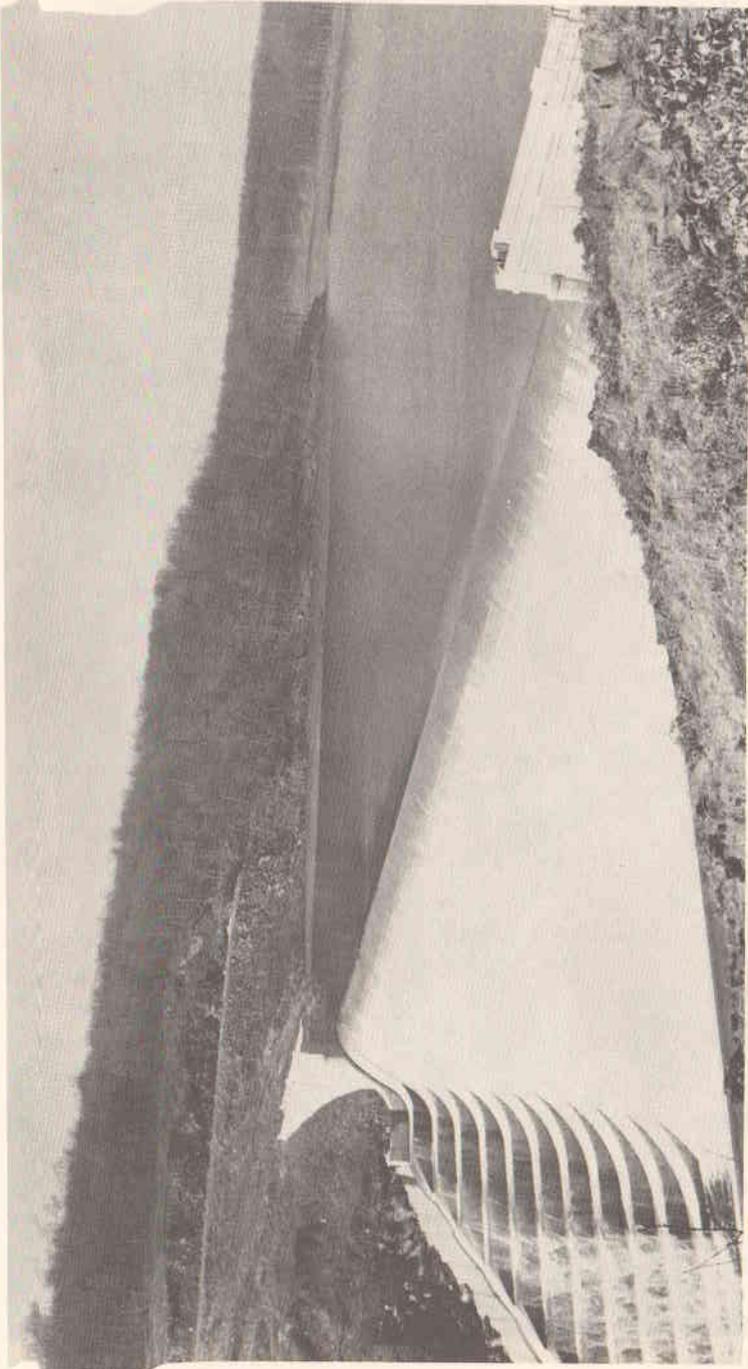
During a prolonged drought in the fall of 1869, when the City was threatened with a water famine, it became apparent that the Jones Falls supply would not suffice for the future. After due investigation it was decided that the Gunpowder Falls should be developed as a source of supply, and in 1873 a temporary pumping station was constructed. Water was pumped, when needed, during the years 1874 to 1881, inclusive, from Gunpowder Falls through a pipeline to Roland Run, a tributary of Jones Falls.

In the following year, 1875, construction of the permanent supply was begun, the entire program of improvements being completed in 1881. The system constructed at that time consisted of a stone dam across Gunpowder Falls, a large reservoir known as Lake Montebello, a tunnel connecting the two structures, and the necessary distribution mains and conduits. A few years later, this system was augmented by the construction of Eastern Pumping Station, Lake Clifton and Gullford Reservoir.

The City was supplied from Jones Falls and Gunpowder Falls, two sources, from 1881 until 1915. From time to time during this period, various structures were added to the water system, notably Mt. Royal Pumping Station, Lake Ashburton, Arlington Standpipe, and Roland Standpipe.

In 1912, as a result of a study completed two years earlier, the City began work on the Gunpowder supply improvements. These consisted of a new dam on the Gunpowder Falls about 2500 feet upstream from the original dam, a purification plant, and conduits. The new dam, with a crest elevation of 188 feet above mean low tide, was built of such size and strength that it could be increased to a height of 240 feet above mean low tide at a later date when conditions might demand such change.

Montebello Filtration Plant was constructed on the east side of Hillen Road, north of 33rd Street. All of these improvements were completed and placed in service in 1915, at which time the use of the Jones Falls supply was discontinued.



Liberty Dam, located on the North Branch of the Patapsco River, sends raw water by gravity to the Ashburton Filtration Plant.

TERRITORY ANNEXED

Through the annexation in 1918 of nearly 50 square miles of the territory surrounding Baltimore City and the purchase of many private water companies which operated in the annexed area and beyond, the need for water increased rapidly. The crest of the Loch Raven Dam was raised to elevation 240.

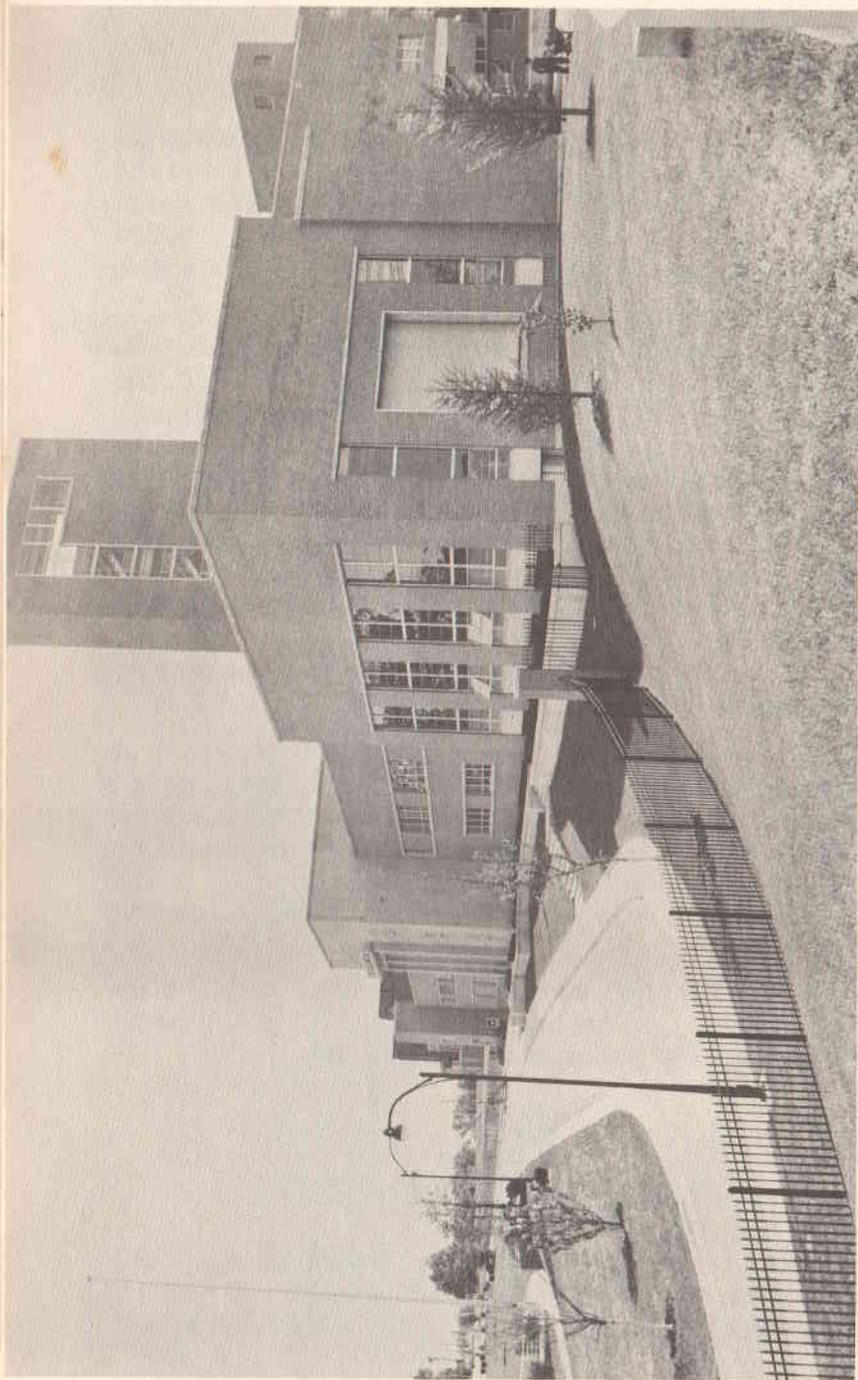
A second filtration plant was constructed at Montebello and, following completion of the new plant in 1928, the pumping system was improved. Eastern Pumping Station, which raised water into Guilford Reservoir, was replaced by Hillen Pumping Station; Mt. Royal Pumping Station was replaced by Vernon Pumping Station for raising water to Lake Ashburton; the Guilford and Ashburton pumping stations were built; and three small pumping stations supplying outlying sections of the distribution system were enlarged and modernized. The Prettyboy Dam and Reservoir were built on the Gunpowder Falls. All of these structures were in service by 1936.

The industrial activity due to World War II resulted in an increased demand for water, and plans were made to build a dam and reservoir on the North branch of the Patapsco River near Falls Run. A tunnel connecting the reservoir with the Montebello Filtration Plants, the dam and other structures needed before the river would be impounded were completed during 1954.

In September 1953, construction of a new filtration plant in the vicinity of Lake Ashburton was started. The Ashburton Filtration Plant was activated on June 5, 1956.

GROWTH ANTICIPATED

Heretofore, the waterworks for Baltimore City and adjacent areas were developed in part in answer to requirements brought about through increases in population and



The Ashburton Filtration Plant, at Liberty Heights Avenue and Druid Park Drive, was activated on June 5, 1956.

business activity in the area supplied. In January 1952 with considerable work on the Patapsco River Project planned or completed, the City decided to anticipate the growth of its water demands, and a Board of Advisory Engineers was appointed to determine population and water consumption for the area probably to be supplied in the year 2000.

The Board reported on December 15, 1953 and recommended the development of a pumped water supply from the Susquehanna River at Conowingo with an ultimate capacity of 230 million gallons per day. Engineering studies for this project were started in 1955 and construction was initiated in 1958.

Construction of two pumping stations, an intake on the river and connecting tunnels and pipelines between the Susquehanna River and the Montebello Filtration Plants continued until January, 1966. The system of supply was activated on January 17, 1966.

WATER ENGINEER APPOINTED

In 1925, through an ordinance approved on July 17, the City of Baltimore brought under one head the engineering, construction and maintenance departments of the municipal government, eliminated various boards and commissions under which some of the departments operated, and consolidated the departments having like functions.

By this action the administration of the municipally owned water supply system was shifted from the Water Board, its regulatory powers passing to the Board of Estimates, the chief executive board of the City.

The Water Department was renamed the Bureau of Water Supply and the title of its executive officer remained the same, Water Engineer; but he became responsible to the Director of Public Works for the functions of the bureau. The Water Engineer remained an appointee of the Mayor, subject to City Council approval.