

## Timeline of Major Events in Philadelphia's Water History

**1790s-1800s:** Yellow fever epidemics cause widespread panic; residents believe contaminated water supply is the cause. Watering Committee formed in 1799 to provide clean water.

**1801-1820s:** Centre Square distribution system transports water pumped from the Schuylkill River. New pumping station and reservoir built at "Faire Mount", the highest point of the city.

**1820-1850s:** Fairmount Dam and millhouse harness the hydropower of the Schuylkill River. Efficient hydraulic turbines replace traditional breast water wheels.

**1855:** City purchases land along the Schuylkill River to protect the water supply. Land purchases continue through the 1890s, creating several thousand acres of buffer known as Fairmount Park, the world's largest urban park.

**1860s:** The Civil War spurs massive industrial development and the coal industry thrives. City water managers' ability to provide reliable water supply system plays a pivotal role in Philadelphia becoming the first major industrialized U.S. city. Use of the river for waste disposal leads to crisis: Typhoid.

**1880s:** Annual typhoid outbreaks drive up death counts; medical reports point to contaminated drinking water as the source of the epidemics.

**1890s:** Citizens push for city government to build filtration plants to treat water supplies and stop annual typhoid outbreaks. The city weighs piping clean water to the city from distant locations, but all plans are rejected. Privatization is proposed and rejected.

**1902-1912:** After many political and financial delays, the city builds 5 filtration plants to treat drinking water and stop epidemics. Industrial and domestic wastes continue to flow into the river, degrading water quality further.

**1913:** The city treats its water supply with chlorine and disease rates plummet. River water quality continues to deteriorate from increasing amounts of waste.

**1914:** The city's master plan for sewer and sewage treatment system receives wide acclaim from water managers, but is not put into place.

**1950-1966:** Over 30 years after conception, the city constructs three sewage treatment plants and associated sewers.

**1970s-Present:** Increasingly stringent government regulations drive engineering advances in water and wastewater treatment. Stormwater management becomes a priority.



*Photo: Civic and business leaders watch as sewage begins to flow out of Philadelphia's first wastewater treatment plant, which started operations in 1951. Philadelphia Water Department.*

# References

- Clark, Joseph and Dennis Clark. "Rally and Relapse: 1946-1968" in Philadelphia: A 300-Year History. Russell Weigley, ed. W.W. Norton & Company, New York: 1982. pp. 649-703.
- Federal Water Pollution Control Act. 33 U.S.C. 1251 et seq. As amended November 2002.
- Geffen, Elizabeth. "Industrial Development and Social Crisis: 1841-1854" in Philadelphia: A 300-Year History. Russell Weigley, ed. W.W. Norton & Company, New York: 1982. pp. 307-362.
- Gibson, Jane Mork. "The Fairmount Water Works". Bulletin, Philadelphia Museum of Art, Volume 84, Numbers 360, 361 Summer 1988. Published for the exhibition The Fairmount Water Works, 1812-1911 (July 23-September 25, 1988).
- Ladner, Grover C. "Address at the Annual Meeting - Pennsylvania Division of the Izaak Walton League of America." Monday, September 9th, 1929. Harrisburg, PA: Pennsylvania Division, Izaak Walton League of America, 1929. Original document in PWD Historical Collection.
- Levine, Adam. "Drainage for the City" Online article part of Clean Water for Life at [www.phillyh2o.org](http://www.phillyh2o.org).
- Mason, W.P. "Sanitary Problems Connected with Municipal Water Supply." Paper presented at the Franklin Institute. Journal of the Franklin Institute Vol. 143, May 1897: 337-357.
- McCarthy, Michael P. Typhoid and the Politics of Public Health in Nineteenth-Century Philadelphia. Philadelphia: American Philosophical Society, 1987.
- Public Ledger. Untitled article from March 20, 1896. Available online at [www.phillyh2o.org/backpages/MSB\\_Water.htm](http://www.phillyh2o.org/backpages/MSB_Water.htm)
- Report of the Sanitary Committee of the Board of Health of Philadelphia on the Subject of the Asiatic Cholera, Embracing Certain Sanitary Suggestions and Recommendations, Philadelphia: Board of Health, 1848.
- Richardson, Edgar. "The Athens of America: 1800-1825" in Philadelphia: A 300-Year History. Russell Weigley, ed. W.W. Norton & Company, New York: 1982. pp. 208 – 257
- Safe Drinking Water Act. 42 U.S.C. s/s 300f et seq. As amended January 2003.
- Thayer, Theodore. "Town into City: 1746-1765" in Philadelphia: A 300-Year History. Russell Weigley, ed. W.W. Norton & Company, New York: 1982. pp. 68-108.
- Tinkcom, Margaret. "Depression and War: 1929-1946" in Philadelphia: A 300-Year History. Russell Weigley, ed. W.W. Norton & Company, New York: 1982. pp. 600-648.
- United Nations Development Programme. Human Development Report 2006. New York, 2006.
- UN-Water. Water for Life Decade 2005-2015. United Nations Department of Public Information, September 2005. Available online at [www.un.org/waterforlifedecade](http://www.un.org/waterforlifedecade).

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