

Self-Guided Tour



- Engine House:** Built between 1812 and 1815 to resemble a Federal-style country house, it contained two steam engines that pumped water from the Schuylkill River up to the reservoir. Abandoned in 1823, the steam engines were scrapped and a restaurant opened in the building. In the 20th century, it served as the main entrance to the Fairmount Park Aquarium.

Jonval Turbine (Engine House Lower Level):

Installed at the site in 1851, the turbine is named after its inventor, Feu Jonval. It was adapted for the Water Works by French engineer Emile Geyelin. It had twice the efficiency of one water wheel. One of the major goals of the Fairmount Water Works is to restore the turbine.

Morris Pump (Engine House Lower Level):

Manufactured in 1851 by the I.P. Morris Iron Works in Port Richmond, it is the oldest pump of its type to be preserved in the U. S. powered by waterwheels, then by turbines, these double acting piston pumps proved very reliable in pumping the water up to the reservoirs.

Phoenix Columns (Engine House Lower Level):

The Phoenix Iron Works in Phoenixville, PA fabricated these wrought-iron columns and the beams above. This roof system, deceptively delicate, represented the latest in industrial technology. The many brick vaults provided a strong fireproof deck, which accommodated skylights.

Watering Committee Building and Caretaker's House:

Masonry structures flanking the ends of the Mill House, the Watering Committee Building served as headquarters for the elected officials who developed and maintained the Water Works. The Water Committee was the precursor to today's Philadelphia Water Department. A custodian lived in the Caretaker's House.



2. Old Mill House: Built in 1821-22, in the neoclassical style, it contained eight waterwheels. In 1872, the Old Mill house was altered to provide room for the turbines. When it was remodeled again for the Aquarium in 1911, all pumping machinery was removed to accommodate the fresh water exhibits. The red brick deck is actually the roof of the building upon which rest the five smaller structures described below.

Pavilion and Entrance Houses: These wooden structures were built in 1872 when the deck of the Old Mill House was raised to accommodate the turbines. Frederic Graff Jr. adapted their designs from earlier drawings by his father. The Entrance House allowed visitors to descend into the Old Mill House, while the Pavilion protected them from the elements and provided spectacular views of the Schuylkill River and Fairmount Park.

Schuylkill Chained and Schuylkill Freed: These sculptures atop the portals of the Entrance House are fiberglass reproductions of the originals made by William Rush and his John in 1825, and which are now in the collection of the Philadelphia Museum of Art. The wild male figure represents the Schuylkill River struggling against the chains of dams and locks. The female figure personifies the Fairmount Water Works, using the waterwheel to pump water into the reservoirs in Fairmount.

3. Fairmount Dam: Completed in 1821, the dam directed the river into the forebay. The dam was constructed by floating wooden cribs out into the river and sinking them with large rocks. The head of water created by the dam provided energy to power machinery. It has been repaired many times, but portions of the original dam survive today.

Locks: Constructed on the west bank of the Schuylkill River, across from the Water Works to permit barges to bypass the dam, the locks survived until 1952 when I-76 was built. Remnants of the Locks' stone wall can still be seen near the fish ladder on the opposite side of the dam.

4. Forebay: The Forebay was blasted out of the bedrock of Fairmount. From the forebay, water flowed through openings in the mill houses to the machinery inside. After the Aquarium opened, sea lions and seals frolicked on the forebay. In 1924 the forebay was filled in and covered by Aquarium Drive.

Forebay Bridge: A stone bridge provided access across the forebay to the Old Mill House deck. When the forebay was filled in, the bridge was buried intact.

5. New Mill House: In 1858, a second mill house was constructed in the side of the dam. It was in the Victorian Romanesque style of architecture and housed three Jonval turbines. During the Aquarium period, the New Mill House held seawater exhibits. In 1962, after the Aquarium closed, a swimming pool was built inside.

6. Reservoir: Constructed on top of Fairmount was the reservoir. Its earthen walls were nearly as high as the roof of the Philadelphia Museum of Art, which stands on the site today.

7. South Garden: Its basic plan, designed by Frederic Graff in 1829, remains intact today. The marble fountain in the garden once boasted the city's tallest spray of water, created by the pressure of the adjacent reservoir.

Graff Memorial: The Superintendent of the Water Works, Frederic Graff, died in 1847. In recognition of his 42 years of service to the City of Philadelphia, the members of the Water Committee erected this monument.

8. Esplanade: Along the banks of the Schuylkill River below the South Garden, a stretch of land, now known as the Esplanade, was built in 1835. The Fairmount Water Works is making use of this land as an exhibit area to highlight the ecology of the Schuylkill and the history of man's relationship to the river.

Fisherman: By 1940, decades of factory waste, raw sewage contamination and neglect had choked the life out of the Schuylkill River. In 1961, the government and industry forged the first of several water-use agreements. Millions of dollars were invested in wastewater treatment and other conservation projects.