

A

History

of Treating Tampa's Water



The first record of the public water supply dates back to 1887, when the Tampa Water Works Company secured a 35-year franchise from the City. A total of 45 wells were drilled in an area north and west of today's downtown area. Of those wells, 21 were abandoned and the remaining 24 seldom furnished water that was suitable for general household use. The city realized that they needed to find and alternate source for potable water, so in 1922 they began to look for an adequate source. The Hillsborough River, which flowed into Tampa from a 640 square mile water shed, was chosen as our source and remains our primary source of water today.



In 1924 the system consisted of 24 artesian wells, one spring, a steam operating pumping plant with a capacity of 13 mgd, and 60 miles of cast iron water distribution mains. The City began work on a new water treatment plant and pumping station on the south bank of the Hillsborough River at 30th Street, just upstream from Tampa Electric Company's dam, this is the plant that we know today, **David L. Tippin Water Treatment Facility**. This plant included its own steam plant, electrical generators, and steam-driven pumps. The treatment plant consisted of mixing and settling basins, rapid sand filters, clear well storage, a chemical house, laboratory, and office and could supply 20 million gallons of quality potable water per day. The facility was built to last and accommodate for growth and much of that very same plant is still in use today. Recently it was restored to its original Moorish-Spanish architecture, and was designated as an American Water Landmark.



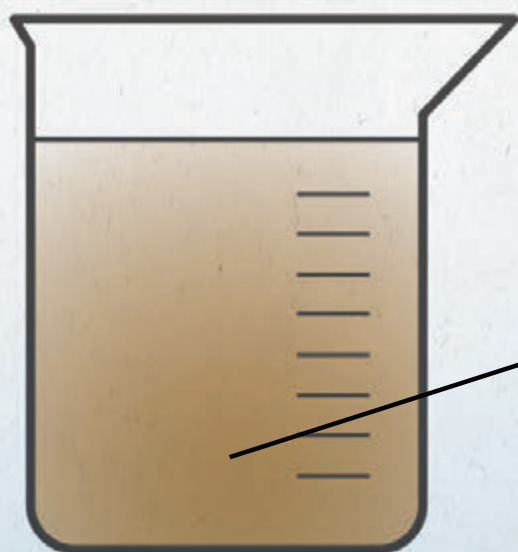
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All of the pumps are originals from when the plant was brought into service and are still working today. They were originally powered by steam and are now driven by electricity. Even the wood slats that make up the ceiling of the Pump House are the original teak slats from when the building was constructed. While the architecture of Tampa's original water treatment plant has been preserved, the treatment process continues to change and improve as technology advances. The plant houses Florida's only municipally-owned, state-certified, complete drinking water laboratory. Throughout the treatment process, continuous and complete water analysis ensure that Tampa's water quality exceeds all State and Federal standards. Early water treatment methods included filtering the water through charcoal, exposing the water to sunlight, boiling, and straining the water. This was done to eliminate visible cloudiness (later termed **turbidity**) and was the driving force behind the earliest water treatments, as many of the wells in the Tampa area contained particles that had an objectionable taste and appearance.



turbidity

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During the late nineteenth and early twentieth centuries, concerns regarding drinking water quality continued to focus mostly on disease-causing microbes (pathogens) in Tampa public water supply. Scientists discovered that turbidity was not only an aesthetic problem; particles in source water, such as fecal matter, could harbor pathogens. As a result, primary purpose of the David L. Tippin Water Treatment Facility was the need to reduce turbidity, thereby removing microbial contaminants that were causing typhoid, dysentery, and cholera epidemics that was so prevalent in the early part of the 1900s.



While the original pipe is still in place, thousands of miles of pipes have been laid since the treatment plant opening. With the demand for water and the growing population the treatment facility now pumps potable water through 2,300 miles of pipe to the more than **600,000 people** served by the City of Tampa Water Department. The Water Treatment Facility produces around 90 percent of the 77 million gallons of water per day that is consumed by the City of Tampa Water Department customers.



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Short Answer:

1. Describe the reasons why treatment of water was so important in the early 1900's.

2. Describe turbidity. What are some of the other impurities that are found in our drinking water source?

3. How has the David L. Tippin Water Treatment Facility remain unchanged since it was built in 1924?

Student Project:

Research the different types of water treatment methods found throughout history. Use this information and compare contrast it with the Hillsborough River and the Tampa area. How can we draw similarities between the ancient Greeks and Egyptians method of water treatment and how our native settlers, the Spanish and Seminole Indians might have treated the water?

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