



LAUDERTRAC



INFRASTRUCTURE UPDATE

Tracking Progress on Fort Lauderdale Commission Priorities for 2021

April 2021

INVESTING IN OUR FUTURE

While the City Commission Infrastructure Top Priority covers a breadth of topics, this month is focused on three major projects to improve the City's Potable Water Treatment and Distribution System.

Hydraulic Modelling

A consultant is developing a hydraulic model of the City's potable (drinking) water distribution system. Once completed, this type of model will benefit the City in a number of different ways. The City will be able to:

- ▶ Run scenarios on future water demand to determine if existing water mains have sufficient capacity and pressure to support new development;
- ▶ Determine water flow characteristics and perform "what if" scenarios when planning maintenance to be able to redirect water around areas under repair and understand how water pressure will be impacted;
- ▶ Support prioritization of community improvement projects to better invest utility dollars in new water distribution infrastructure; and
- ▶ Develop a unidirectional flushing program to help maintain the health of the water distribution system.

The model is currently undergoing verification utilizing field data to confirm its accuracy. The final model update is scheduled to be completed by the end of July. Application to the unidirectional flushing program is anticipated to start in September.

Valve Condition Assessment

Our drinking water is conveyed through an extensive network of underground pipes. Valves are used to isolate different service areas to allow for maintenance or to turn the water off to areas when there is a major leak. These valves need to be inspected and exercised (turned on and off) on a regular basis to ensure they will be ready when needed. The water valve maintenance program is well underway. As of April 12, 2021, 936 water distribution system valves have been inspected and assessed. The crews have averaged 234 valves per month. At this pace, the assessment will be completed by the target date of April 2025. By ensuring the functionality of our water valves, the City improves its ability to respond to emergency situations requiring water shut offs.



Photo of City crew inspecting and maintaining a water valve.

Leak Detection Program

With all these underground pipes, how does the City know if one is broken? Unless a puddle forms on the surface, we may not know for a period of time that there is a problem. When comparing the volume of water produced with the amount billed, the City is able to calculate water loss. Following the 2019 annual water loss report submitted to the South Florida Water Management District, it was recommended that the City should pursue a leak detection program in an effort to reduce the City's non-revenue water losses. The City is currently investigating a formal leak detection program. To begin the process, we have received proposals from two vendors to pilot their leak detection solutions which are being reviewed for approval. The pilots will take place over a period of six months and are expected to start in late May.