City of Jupiter Water & Stormwater Utility

March 28, 2018





Location: Jupiter, FL

Client: City of Jupiter

Carylon Operating Company: Ace Pipe Cleaning

Services Performed: Water Main Inspection & Leak Detection

The City of Jupiter selected Carylon to provide visual assessment and leak detection services to determine the cause of changing pressure on a 14″ HDPE line. Additionally, the City Utility would like to determine if sand is infiltrating the line. This evaluation is performed on the 14″ HDPE transporting discharge from the Nano Filtration to an additional processing and blending facility.

The section chosen was approximately 2,500 ft. The tool used for this assessment was a tethered system. This allows for real-time observations to be made with a potential deployment of up to 3,200 ft. from a single insertion point. The system requires a minimum flow rate of 1 ft per second.
Project management required that the plans that were provided by Jupiter Utilities to Carylon be reviewed to develop the approach for launching the tether through the existing air relief valve. The deployed tri-sensor will travel with the natural flow of the pipe. The tri-sensor head contains a camera for visual observations, a hydrophone for leak detection and a sonde which is used for locating the device above ground with a standard wand style locator. Additionally, a counter on the cable displays cable distance in real-time on the video feed. The sensor head wide angle optic, fix focus (PAL system) with Illumination 3 LUX at F1.2 provided the lighting requirements for the diameter of the pipe. The tool was mobilized to the launch sites and was attached to the preconfigured fittings and perform the requested survey. Other unrelated issues such as traffic control, right of entry, local permitting, necessary modification to the pipe configuration and manipulation of valves on branch lines had to be part of the project management and helped to coordinate with the City of Jupiter Utilities.