



LIFT Scholarship Exchange Experience for Innovation & Technology (SEE IT)
Sponsored by: WRF, WEF, and NACWA

TRIP REPORT SCHOLARSHIP UTILITY: *Orange County Utilities*

SCHOLARSHIP UTILITY CONTACT:

*Norman "Matt" Blowers; Environmental Programs Administrator; norman.blowers@ocfl.net;
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ATTENDEES:

Orange County Utilities:

*Matt Blowers: Environmental Programs Administrator; Bridgett Tolley: Assistant Division Manager;
Jerry Mustain: Senior Utilities Maintenance Coordinator; Mitchell Crowdus: Field Services Technician;
Justyn Fields: Operations Specialist; Laura Arce: Engineer.*

Pasco County Utilities:

Kevin Jenkins: Water Quality and Operations Manager; and operations staff from Pasco County.

TRIP DATE: *April 18, 2023*

UTILITY/SITE VISITED: *Pasco County Utilities, Land O' Lakes Florida*

TECHNOLOGIES/INNOVATIONS SEEN: Innovative water flushing to reduce non-revenue water loss

TRIP BACKGROUND and RATIONALE:

In the fall of 2020 at the FSAWWA conference Pasco County Utilities presented their innovative flushing program that they had implemented to reduce non-revenue water loss. Orange County Utilities contacted them after the conference to arrange a visit to observe their process both in design and in the field. Orange County attended with water conservation staff, senior utility staff, engineering staff, and field operators to see what lessons could be gleaned from their program to apply to our utility. While the two utilities are similar in size in terms of the number of customers and population served, Pasco County is much larger geographically and has a more rural setting than does the urban setting of Orlando and its suburbs that Orange County Utilities serve.

TRIP SUMMARY:

The trip occurred on April, 18, 2023. Originally planned as a two day trip for the fall of 2020 the trip was delayed due to the impact of COVID. Furthermore since overnight visits were limited by Orange County Government it was shortened to single long day trip since Pasco County is a little over 100 miles away.



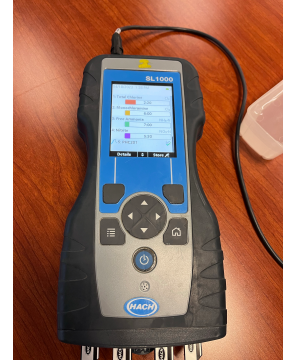
Why did you select the specific utility and technology for the visit?

Pasco County was chosen because of their presentation at the fall of 2020 FSAWWA presentation where they presented their findings. While the water quality is the primary concern for a utility, it was innovative to see the techniques implemented by Pasco County Utilities to achieve even better water quality while at the same time reducing the amount water needed for flushing. Kevin designed benchmarks to reduce the number of water quality issues that their customers experienced. By specifically setting operational targets he was able to work with his engineering team to create flow rate models to determine site specific sequential flushing operations that not only improved the water quality and reduced by-product levels in traditional problematic areas, but also reduced the amount of water needed to flush. Pasco County was seen by us a model that showed promise and needed to be further explored to see what lessons we could learn take back to our utility.



On your visit, do you think this technology/approach works for your utility?

There were many take aways from this visit that we are discussing as a utility. We are determining which techniques and practices can best be used to inform and improve our own operations. One of the first and most obvious challenges in our assessment is the obvious geographical differences. We are both in Central Florida and we work with similar climate and topography considerations. However, Pasco County tends to be more rural than the urbanized area of Orange County. A second challenge is that we each have different water source types and use different treatment processes creating differences in by-products. Orange County Utilities currently exclusively uses water from the Floridan Aquifer that is of high quality and is relatively easy to disinfect and treat. Pasco County Utilities uses a combined supply that includes surface water and aquifer treatment.



How useful was the trip in your decision-making process?

The most beneficial aspects of this trip was to look at our flushing processes with a more critical eye to ensure that we are taking proactive steps to ensure that we are achieving the water quality our customers expect while also considering the water volume needed. Seeing how Pasco County has used a systematized process to limit water loss and achieve better water quality was very informative to us.

What were some of the trip highlights and takeaways?

The biggest highlight of the trip was interacting with another utility to see the processes they use to reconsider our own processes to ensure that we are use best management practices. As the water conservation manager for Orange County Utilities I was especially interested in the water savings achieved but it was extremely helpful to have cross-divisional representation ensure that



we were looking at all the variables. Another highlight for us was the demonstration of the field testing equipment to get immediate field results testing for by-product levels and disinfectant residuals. These do not replace lab results but give immediate feedback to the operators to better inform in field decision making.

