



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

TRIP REPORT

SCHOLARSHIP UTILITY: Mount Pleasant Waterworks, Mount Pleasant, South Carolina

SCHOLARSHIP UTILITY CONTACT: Allan Clum, Operations Manager, aclum@mpwonline.com

ATTENDEES: Tyler Waterhouse, Allan Clum

TRIP DATES: May 2019 & December 2019

UTILITIES/SITES VISITED: City of Altamonte Springs, City of Daytona, WaterReuse Florida Annual Meeting, Potable Reuse Commission of Florida

TECHNOLOGIES/INNOVATIONS SEEN: Direct Potable Reuse pilot plants, Potable Reuse Commission meetings

TRIP BACKGROUND and RATIONALE (250 WORDS): *What technology did you select to visit? What is the problem you are trying to address? How did you envision the LIFT SEE IT scholarship trip helping your utility?*

We elected to visit locations in Florida to observe and better understand the concept behind potable reuse. Mount Pleasant Waterworks, located in Mount Pleasant SC, is a coastal utility dealing with the challenges of a growing community and reduced groundwater withdrawal permits. Our source water comes from an aquifer 2000 feet below the surface; It is a valuable resource that we as environmental stewards want to preserve while meeting the needs of our community. One potential solution is to supplement our groundwater source with potable reuse to reduce the impact on our aquifer while continuing to provide high quality, safe drinking water. The LIFT SEE IT scholarship has been very beneficial for our utility by allowing us to visit sites where similar technologies have been employed. Being able to talk with knowledgeable operators, managers and regulators in a state with a better developed regulatory framework and infrastructure for reuse has given us insight into how to engage stakeholders in our state as we try to lead the charge into this new era of sustainability.

TRIP SUMMARY:

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

- We selected the utilities visited based on proximity and compatibility with our own interests in direct potable reuse (DPR) and Indirect Potable Reuse (IPR). Both Altamonte Springs and Daytona own and operate pilot projects similar in cost and size to what Mount Pleasant Waterworks (MPW) is investigating. The Altamonte Springs plant is smaller than our projected pilot and utilizes an Ozone/BAF based system. The Daytona pilot is larger than Altamonte Springs and utilizes UF/RO membranes as their main treatment stages which are similar to the current technology MPW utilizes for groundwater treatment. We found it helpful to see and discuss both options with the respective utilities.
- We also decided to attend two Potable Reuse Commission (PRC) meetings while we were in Florida. The information and insight gained from talking to utilities and stakeholders which are already engaging the legislature and regulators to advance potable reuse in Florida was very valuable. We hope that the information gained can be applied to help advance the process in South Carolina.

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

- Yes. MPW currently operates four reverse osmosis treatment plants to produce drinking water. Our operations staff is very familiar with advanced treatment techniques and could quickly adjust to the new technologies we visited.

How useful was the trip in your decision making process?

- Both trips were very useful in our decision-making process. As a result of the trips, MPW has engaged an engineering firm to conduct a feasibility study and benchtop pilot testing for direct potable reuse. Another important component of the trip was to evaluate the public outreach and project branding strategies that each utility employed. We feel it is critical to the success of the project to keep our customers informed. We gained valuable information about the implementation of different public relations strategies and what might work for our service area.

What were some of the trip highlights and takeaways?

- Some of our greatest highlights and takeaways were:
 - DPR may be a more viable option for MPW than IDR.
 - Public outreach and project branding strategies will be critical for success in our community.
 - Communications with all stakeholders and regulators is key to a successful implementation.
 - Extended duration pilot studies allow the opportunity for community education and acceptance. Don't rush the implementation process.



