

FWEA Manasota Chapter

Vol 20 – October 2014

The Whirlwind of WEFTEC 2014!

*By Manasota Chapter Director at Large
Kristiana Dragash, Carollo Engineers*

Far from the friendly bubble that is FWRC where everyone is a familiar face, WEFTEC makes it a challenge to find colleagues from the sunshine state amidst hundreds of technical sessions and thousands of exhibitors in a seemingly endless exhibit hall. That being said, the Manasota chapter has returned victorious, connecting with many FWEA members in the vast exhibit hall and tech sessions. I presented in a session entitled, *Planning, Why Bother? Just Let the Reuse Flow*, which featured presenters from North Carolina, California, and even Australia. The presentations highlighted the vast differences in reuse throughout the nation and world. While I was presenting on the intricacies of calibrating Irrigation Quality (IQ) water models for purposes of serving large customers such as golf courses and theme parks, in Australia and California, people wouldn't dream of putting reuse on their lawns. San Diego is treating it to higher standards and planning to use it as a more sustainable source of drinking water, instead of continuing to rely on importing potable water, which has recently sky rocketed in price. In Australia, they are also treating wastewater to much higher standards, though rather than using it for drinking water, this water will be used to wash stands and flush toilets in the new Olympic stadium. In both Australia and San Diego, the presenters spoke about "sewer mining," a term I had not heard before. Water is becoming so scarce in some areas that people are starting to mine wastewater to treat and use to reduce potable consumption. In San Diego, lawyers are getting involved trying to define rights and ownership of wastewater to protect it from being mined. Another Floridian presented in session 429, Karen Lowe, past chair of the West Coast chapter. Karen presented on reclaimed water agreements providing a win/win opportunity for TECO's Polk power station and local municipalities.



Chuck Hlavach, one of the Manasota members-at-large, always made sure to invite me to some of the best gatherings on Bourbon Street courtesy of Andritz filter and Vaughan pumps. Florida food is not tasting so great now that I've experienced crawfish mac and cheese and bourbon brisket from the big easy. I also made it a point to find and stop by the Evoqua booth to visit with some of our Manasota sponsors, Vaughan Harshman and company.

In the midst of the WEFTEC whirlwind, I also ran into Raye Marshall-Curry, *the FWEA president elect*, Juan Oquendo, *chair of the West Coast Chapter*; Rudy Fernandez, *chair of the Collection System Committee*; Juli LaRock, *chair of the Public Communications and Outreach*

Continued on page 2

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Committee; Manny Moncholi, *past chair of the Southeast chapter*; and Tim Ware, *former West Coast membership action chair* who has now graciously volunteered to assist the Student and Young Professionals Committee, which Danielle Bertini has just been appointed the chair of! All in all, it was a wonderfully eye-opening conference in a beautiful, historic city.

The University of South Florida Bulls have once again won the wastewater category of the national Student Design Competition! Congratulations USF!

Now onto Manasota news, our chapter has signed up for an exhibitor booth at the upcoming Sarasota Bay Water Festival, which will be held on November 1 at Ken Thompson Park on Lido Key from 10 AM to 4 PM. Our volunteers will be assisting the public at our booth to perform tests of pond water for DO, pH, Turbidity, and temperature using the world water monitoring day kits. This event is a lot of fun with games, live music, delicious

food, raffles, boat races and more. The attendance last year was over 3,000 guests, so our chapter is excited to be a part of the event this year. We hope you all can make it!



Our luncheon venue has changed! We are now meeting at the Sarasota County BOB building. Our next luncheon is on Tuesday, November 4th. Since we are ordering food ahead of time and need RSVPs 1 week in advance, we are changing the prices as follows to encourage everyone to preregister:

- ▶ \$15 member preregister: RSVP by Wednesday, October, 29
- ▶ \$20 non-member preregister: RSVP by Wednesday, October, 29
- ▶ \$25 - walk in

I look forward to seeing you all at the luncheon!

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Calendar of Upcoming Events

OCTOBER

11 FWEA West Coast Chapter and FSAWWA Region IV Run4Water 5K Race, Oldsmar

17 FWEA Biosolids Technical Seminar, Fort Myers

25 Central Florida Water Festival, Orlando

28 FWEA Board of Directors Meeting, Orlando

30 FWEA Southwest Chapter Quaterly Dinner Meeting, Bonita Springs

NOVEMBER

1 Sarasota Bay Water Festival, Sarasota

4 FWEA Manasota Chapter Luncheon, Sarasota

6 SE Region Wastewater Process Seminar, Boca Raton

13 FWEA West Coast Chapter Luncheon, Tampa

30-12/4 FSAWWA Fall Conference, Orlando

DECEMBER

4-5 ASCE/EWRI Stormwater Treatment Seminar, Tampa

9 FWEA Board of Directors Meeting, Orlando



October

| SUN | MON | TUE | WED | THU | FRI | SAT |
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| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

November

| SUN | MON | TUE | WED | THU | FRI | SAT |
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December

| SUN | MON | TUE | WED | THU | FRI | SAT |
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| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |



Charting the
Future of

BIOSOLIDS MANAGEMENT

October 17, 2014

Location:

**Lee County Emergency
Management Center**
2675 Ortiz Avenue
Fort Myers, Florida 33905

FWEA Member Cost:

\$85 | \$125 After 10/1/14

Non-Member Cost:

\$135 | \$175 After 10/10/14

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| | |
|---------------------|---|
| 8:00 AM – 8:45 AM | Registration Opening Remarks <i>Christian Collins (FWEA Biosolids Committee Chair)</i> FWEA Update <i>Kart Vaith, FWEA President</i> |
| 9:00 AM – 9:45 AM | The Future of Biosolids Management – a WEF Perspective <i>James Welp (Residuals and Biosolids Committee Chair, WEF)</i> |
| 9:45 AM – 10:30 AM | An Overview of Biosolids from a National Perspective <i>Lisa McFadden (Senior Program Manager, Water Science & Engineering Center, WEF)</i> |
| 10:30 AM – 10:45 AM | Break |
| 10:45 AM – 11:30 AM | Biosolids Processing, Land Application, and Public Acceptance in Lee County, FL <i>Keith Howard (Lee County Waste Deputy Director)</i> |
| 11:30 AM – 12:15 PM | Energy Optimization and Recovery in Biosolids Treatment: A Case Study, Orlando, FL <i>Ted McKim (Reedy Creek, Harvest Power Facility)</i> |
| 12:15 PM – 1:15 PM | Lunch |
| 1:15 PM – 2:00 PM | The Value of Biosolids in Florida <i>Amir Varshovi (Green Technologies President)</i> |
| 2:00 PM – 2:15 PM | Break |
| 2:15 PM – 3:00 PM | Chapter 62-640 F.A.C. Update <i>Maurice Barker (Biosolids Coordinator, Florida Department of Environmental Protection)</i> |
| 3:00 PM – 3:45 PM | Biosolids Regulated as a Fertilizer, “How does that work?” <i>Bill Cox (Environmental Manager, Fertilizer Section (FDACS))</i> |

Consultant's Corner: Florida Community Development District Benefits by Outsourcing Many Key Services

By Richard Gardner, P.E. - Severn Trent Services

The Gulf Coast of Florida is widely considered as one of America's most popular areas in which to retire. In fact, in 2012 Port Charlotte was named one of America's Top 10 Places to Retire.

Four miles to the west of Port Charlotte is little-known El Jobean. Perhaps little-known to people outside the Gulf Coast region, El Jobean is one of southwestern Florida's best-kept secrets. In 1991, the Riverwood Community Development District (CDD) was established in the town to create a retirement haven - and a desirable place to live for those not yet ready to retire. The beautiful gated golf course community is located on the northern banks of the Myakka River, which feeds into Charlotte Harbor Estuary, home to oysters, sturgeon, manatees, loggerhead sea turtles, bald eagles, wood storks - and Florida panthers and American alligators.

The Riverwood CDD was established under Chapter 190 of the Florida State Statutes to serve as an alternative to municipal incorporation for managing and financing

infrastructure required to support development of a community. The community consists of 1,335 mixed residential units with both multi-family and single family homes. From the inception of the CDD, Severn Trent Services has provided management services to the district. The company was instrumental in creating Florida's Chapter 190 community development district legislation in 1980 and has been responsible for establishing more than half of the state's existing districts. Today, Severn Trent provides property management services to more than 100 districts and associations throughout Florida, managing operating budgets in excess of \$200 million through its own certified and licensed personnel.

In 2003, the company assumed responsibility for operation and maintenance of Riverwood's water and wastewater systems. The systems include a 0.5-mgd advanced wastewater treatment plant, 20 lift stations and collection and distribution systems for the 1,265-acre community.

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Consultant's Corner: Florida Community Development District Benefits (cont.)

By Richard Gardner, P.E. - Severn Trent Services

Severn Trent's operations and maintenance (O&M) work began when its Management Services division contacted Riverwood to assist with repairing some water services leaks because the District's contract operator at the time was not meeting their expectations. The District had also received a consent order for non-compliance issues at the wastewater treatment plant and opted to hire Severn Trent to take over the water and wastewater operations.

"Many CDD's prefer to utilize a 'one-stop-shop' for as many services as possible," said Robert Edge, Severn Trent Services' project manager for Riverwood. "Typically, this approach is more efficient and saves a community money."

When Severn Trent assumed the additional O&M responsibilities, the wastewater plant was significantly out of compliance and major system components were inoperable. Within 30 days, company personnel had repaired or replaced critical mechanical and instrumentation components and restored compliance with stringent effluent reuse requirements. Severn Trent also began using reclaimed water to irrigate the entire community, replacing the potable water that had been more widely used.

In 2008, Severn Trent's scope of service was expanded to include meter reading, billing and customer service. While the previous meter reading service manually recorded readings on paper, Severn Trent implemented the use of hand-held meter-reading devices, which improved the accuracy of the readings and reduced the time spent reading the meters.

"With nearly 1,900 meters to read on a monthly basis, we estimate that switching to meter-reading devices cut our reading and recording time by approximately 40 percent," said Edge.

Since 2004, Severn Trent personnel have made extensive improvements at the wastewater plant, including:

- ▶ Installing an influent pump panel at the equalization basin with SCADA monitoring, enabling remote control access
- ▶ Upgrading nine of the lift stations with two more in queue; the stations can be accessed and controlled remotely through the SCADA system
- ▶ Repiping the influent line to flow to the equalization tank
- ▶ Replacing failed diffusers
- ▶ Facilitating filter replacement
- ▶ Upgrading aeration blowers
- ▶ Installing monitoring and other equipment to bring the plant to up to reuse standards.

Operational safety significantly improved following the conversion from chlorine gas to liquid chlorine disinfection. The switch to liquid chlorine disinfection eliminated the need for OSHA process safety management training, risk management planning and purchasing and transportation of HazMat chemicals that are required when dealing with pressurized chlorine gas.

In addition, personnel reduced power consumption by upgrading to a new and more energy efficient blower system and utilizing an operational strategy that places half of the plant offline in the summer months when demand is less, generating additional energy savings.

Recent maintenance projects included installation of an odor control system using carbon polishing media to remove hydrogen sulfide. The SCADA system at the lift stations and the plant also were upgraded to improve monitoring efficiency which, in turn, improved process control techniques and water quality.

"Our preventive maintenance program is part of our forward-thinking partnership with the Riverwood CDD," said Edge. "Our people have the experience and expertise to identify problems before they occur, and this saves the community money in the long run."

"We have had an excellent working relationship with Severn Trent Services and consider them a partner in the management of our treatment plant," said Jim Martone, supervisor and chairperson of the Riverwood sewer committee. "Their numerous suggestions for plant improvements have improved the efficiency and operation of our facility."

Sarasota Bay Water Festival

Ken Thompson Park on Lido Key

November 1st from 10 AM to 4 PM

Come join us at our chapter's exhibitor booth as we celebrate the importance of Sarasota Bay to the region's environment, economy, and quality of life.

There will be games, live music, delicious food, raffles, boat races, and more.

Free admission, convenient parking, and all ages welcome!

The Manasota Chapter is in search of Project Spotlight articles for future newsletter editions. Chapter sponsors are encouraged to submit an article highlighting a local project. Please contact Laura Baumberger at lbaumberger@carollo.com or 941-371-9832 for more information.

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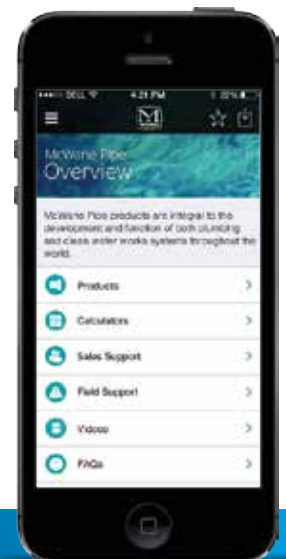
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For Generations

High-Level Ratemaking: Financial Management

by Andrew Burnham, Senior Vice President - Burton & Associates

Abstract

First and foremost, utilities must set rates to collect the revenue they need to satisfy their annual operating, capital, debt, and reserve requirements. After that, they strive to design rate structures that equitably charge customers based upon the cost-of-service, while addressing a number of other objectives, such as affordability, economic development, conservation, and fiscal stability. However, some of these additional objectives can come in direct conflict with one another, such as balancing revenue stability and promoting resource conservation.

It is a fundamental challenge for utilities to price their services to encourage customers to use less, while at the same time recovering enough revenue to fund their operating and capital requirements. This presentation will identify best practices to develop rates that provide sufficient revenue to meet the financial requirements of a utility system in environments of declining demands,

as well as identify key considerations and practices for developing specific rate structures that reflect a community's unique blend of other common ratemaking objectives.

Andrew Burnham

Andy has nearly 15 years of experience in utility financial planning and rate development and has been recognized as an industry expert as part of utility rate-related regulatory proceedings in multiple states and territories, as well as before the Federal Energy Regulatory Commission. Andy has personally conducted and/or managed over 400 water resources utility rate studies and over 525 total financial planning studies for local governments since joining Burton & Associates. Andy currently serves on the Rates and Charges Committee of the American Water Works Association, and is actively contributing to an update of AWWA Manual M1 - Principles of Water Rates, Fees, and Charges.

FWEA MANASOTA CHAPTER LUNCHEON MEETING

Sarasota County Operations Center BOB Building Conference Room 1

1001 Sarasota Center Blvd., Sarasota, FL 34240
Registration - 11:30 • Lunch and Program - 12:15

Menu: Market salad (mixed greens, fresh veggies with a vinaigrette dressing on the side), chicken parmesan, tilapia with dill, rosemary roasted red potatoes, assorted mini dessert tray, and assorted sodas, tea, and water

Please register by Wednesday, October 29th.

Pre-registered Members: \$15 • Pre-registered Non-members: \$20 • Walk-in: \$25

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