

FWEA Manasota Chapter

Vol 9 - February 2012

Message from the Steering Committee

By Lindsay Marten, Public Relations Chair and Webmaster

With the start of the New Year, the *FWEA Manasota Chapter* would like to take the time to revisit some recent noteworthy events as well as spread the word about upcoming events in 2012! Two occasions that merit revisiting are the 3rd Annual *Water For People* Kayak and BBQ event and the Chapter's recent scholarship donation to Booker High School's science technology engineering math (STEM) Program. We would also like to announce that the first meeting of 2012 is the Chapter's first quarterly luncheon presentation in March.

The *FWEA Manasota* and *Southwest Chapters* along with *FSAWWA Region X* hosted a *Water For People* Kayak and BBQ event on November 12th, 2011 from 9:00 AM to 1:00 PM at the Nav-a-Gator in Arcadia. Approximately 30 paddlers and volunteers of all ages and skills suited up for a serene day of kayaking along the scenic Peace River. Island Style Watersports of Sarasota provided boats, life jackets, and guides to ensure that the participants had a safe and enjoyable time. The Peace River provided calm waters, wildlife of all varieties, and picturesque scenery for adventurous kayakers to explore. The day ended perfectly with delicious barbecue, cold beverages, outdoor games, and live music provided by the Nav-a-Gator. The event brought friends, families, and members of the water profession together for a fun day while raising awareness for *Water For People*.

Todd Bosso and Kristiana Dragash of our very own Steering Committee presented a \$500 check on January 25th to the Booker High School STEM program to aid students in attending a State engineering competition in March. Kristiana and Todd also spoke to the students about the engineering profession and the benefits of pursuing a career in the civil engineering field. This is the first year of the STEM program at Booker High School, and the Chapter was thrilled to be a part of it!



The first luncheon of the year is scheduled for March 7th at the Polo Grill in Lakewood Ranch. Timothy Ware with the City of Tampa and David Hagan with Greeley

Todd Bosso and Kristiana Dragash present a \$500 check to the Booker High School STEM program to aid students in attending a State engineering competition.

Continued on page 2...

Calendar of Upcoming Events

FEBRUARY

10 FES Myakka Chapter
MATHCOUNTS Competition,
Sarasota, FL

16 ASCE Suncoast Chapter EWRI
Luncheon, Sarasota, FL

19-25 National Engineers Week

23 FWEA West Coast Chapter
Luncheon, Tampa, FL
ASCE Laws & Rules and
Alternative Delivery Methods
Course, Tampa, FL

24 FEWA/AWWA/FES/ASCE/
APWA Poker Run, Sarasota, FL
ASCE Suncoast Branch Winter
Social, Sarasota, FL

25 ASCE/FES/APWA/SME
Toothpick Bridge Contest,
Sarasota, FL

MARCH

3 FWEA USF Student Chapter
Yueling Brewery Tour, Tampa, FL

7 FWEA Manasota Chapter
Luncheon, Lakewood Ranch, FL

February

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29			

March

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

Continued...

and Hansen will be presenting on a study in which they evaluated various alternatives to rehabilitate/replace the existing HPO system at the Howard F. Curren Advanced Wastewater Treatment Plant (AWTP) in Tampa. Mr. Ware has been the Manager of the City of Tampa's AWTP since August of 2009 and is also responsible for the City's 223 pumping stations. Mr. Hagan is an associate with Greeley and Hansen and has over 35 years of experience in wastewater, biosolids, reclaimed water master planning, and value engineering. Registration information for the luncheon can be found on the last page of the newsletter. You don't want to miss out!

Keep your eyes and ears open for more great opportunities and occasions to come in 2012. On behalf of the *FWEA Manasota Chapter*, we would like to thank all of the participants, volunteers, presenters, and sponsors for making these events possible and unforgettable.

FWEA Manasota Chapter Steering Committee Officers

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*If you are interested in participating as an officer
on the Steering Committee, please contact us.*

*We are currently seeking a Vice-Chair
and additional members at large.*

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Consultant's Corner: Deep Injection Well Tour with City of Sarasota Commissioners

By Chris Sharek, P.E., BCEE, PMP - Atkins

Atkins was contracted by the City of Sarasota to design, permit, and oversee the construction and testing of a Class I Industrial Deep Injection Well (DIW) system for the disposal of brine reject from the City's reverse osmosis treatment plant and excess reclaimed water during wet weather conditions. Completion of the well will eliminate primary discharges of reclaimed water into Sarasota Bay, which is designated as a Florida Outstanding Water.

The DIW will be completed with a 24-inch diameter final steel casing with an 18-inch fiberglass tubing and packer assembly to a depth of approximately 1,200 feet with an open-hole interval extended to 1,760 feet. The injection well system also includes an Upper Zone Monitor Well planned for a depth from 1,040 to 1,075 feet and a Lower Zone Monitor Well planned for a depth from 1,115 to 1,140 feet.

The DIW is being constructed by Youngquist Brothers, Inc. (YBI) from Fort Myers, Florida. Atkins is overseeing the construction and testing of the DIW. Atkins is directing and executing the following testing activities:

- ▶ Geologic rock core samples
- ▶ Water quality sample analysis
- ▶ Packer pumping tests
- ▶ Geophysical logging
- ▶ High volume injection test
- ▶ Mechanical Integrity Testing

Tour with Commissioners

On November 9, 2011, the City of Sarasota Commissioners were invited to the DIW site to observe the well construction and be briefed on key elements of the project. Items discussed with the City Council members included:

- ▶ The drill rig utilized by YBI is entirely driven by electrical power instead of diesel and/or gasoline. The alternative power source facilitates a 24 hour-7 days a week construction schedule within the City limits due to a substantial reduction in noise.
- ▶ A discussion of the regulatory requirements for a Class I deep well and how the construction and testing protocol follows and address those regulations.

- ▶ An injection test performed at the end of the construction program will be used to determine the actual injection capacity of the DIW. An injection capacity in excess of 10 million gallons per day is being targeted.
- ▶ The City Council was also briefed on the construction of two monitor wells that are required by FDEP in association with all Class I deep injection wells. Operation and construction of Class I injection wells is one of the strictest and heavily regulated water resource management tool in the State of Florida.



The City Council members are standing in front of the YBI drilling rig.



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The Big Switch: Exploring Options to an Existing Cryogenic HPO System

by Timothy Ware, P.E. and David Hagan, P.E.

Abstract

The City of Tampa owns and operates the Howard F. Curren AWTP, receiving an annual average daily flow of about 55 mgd. The plant operates as a two-stage activated sludge system for the removal of cBOD and for nitrification. The carbonaceous stage consists of a four-zone HPO activated sludge system, which uses oxygen generated by a 60-tpd cryogenic plant. The nitrification stage consists of conventional air, diffused air reactors. Denitrification filters are used for the removal of nitrogen. Since the 1970s, the HPO system has been robust and has consistently allowed the City to meet permit. The cryogenic oxygen plant is near the end of its useful life, and does not possess the turndown capability to match the current plant loading. It is a big change to consider something else.

This presentation will provide results of an evaluation of alternatives to rehabilitate or replace the existing HPO system. The objectives of this project were to evaluate the following alternatives and to recommend a cost-effective strategy:

- ▶ Rehabilitation of the existing cryogenic oxygen system
- ▶ HPO using a vacuum pressure swing adsorption (VPSA) oxygen generation
- ▶ Conventional activated sludge (CAS) using mechanical surface aeration

Timothy Ware, P.E.

Timothy Ware has been the manager of the City of Tampa's AWTP since August of 2009. He is also responsible for the City's 223 pumping stations. Mr. Ware started his wastewater career as a co-op with the City in January of 2004 working in the planning section. After graduation, he moved into an engineering position, then to Continuous Improvement Coordinator for the AWTP, and then started his current role as plant manager. Mr. Ware graduated from USF with a Bachelor's degree in civil engineering in 2006 and Master's degree in environmental engineering in 2011.

David Hagan, P.E.

David Hagan has BS and MS degrees from the Illinois Institute of Technology. He is an associate with Greeley and Hansen with over 35 years of experience in wastewater and reclaimed water issues. He was the project manager for a new 45-mgd WWTP in Medellin, Colombia, that received the Grand Award for Engineering Excellence from the Florida Institute of Consulting Engineers. He has also managed several water reclamation facility projects in the State of Florida and participated in the design of facilities throughout the U.S. He is also experienced in wastewater, biosolids, and reclaimed water master planning and value engineering.



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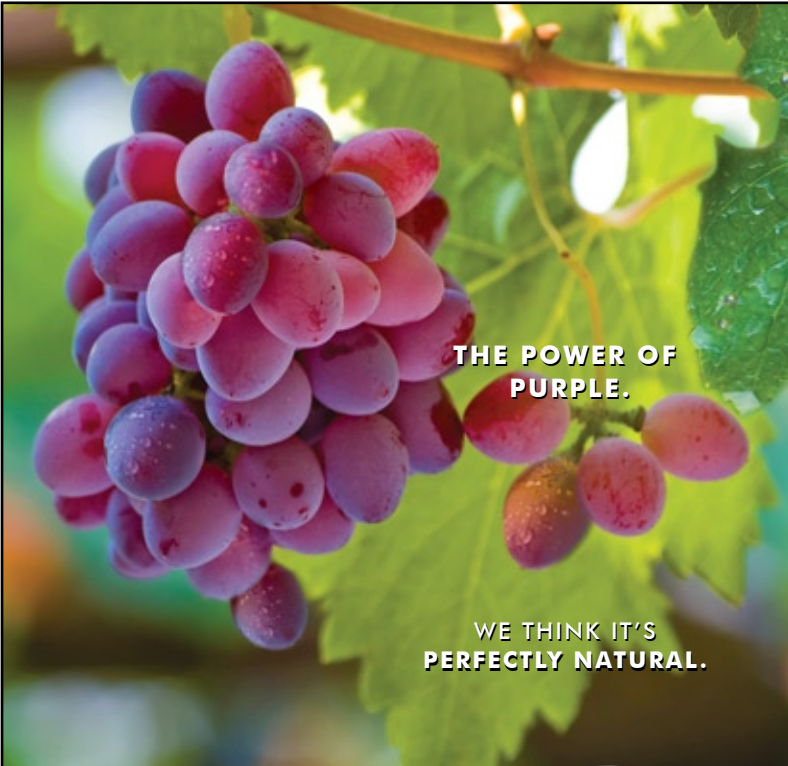


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**Florida Water
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Association**

FWEA MANASOTA CHAPTER LUNCHEON MEETING

FÊTE/POLO GRILL
10670 Boardwalk Loop, Lakewood Ranch, FL 34202
Registration - 11:30 • Lunch and Program - 12:00

- Choice #1 - Pulled Pork Sandwich** - Slow Cooked Pulled Pork & Fried Pickles Served with House Kettle Chips and Southern Slaw
- Choice #2 - Lynn's Salad with Chicken** - Field greens, corn, dried cranberries, sunflower seeds, grape tomatoes, cucumber, shredded mozzarella, and balsamic vinegar
- Choice #3 - Vegetarian Lynn's Salad** - Lynn's Salad without Chicken
- Dessert** - Freshly Baked Smores Cookies

Cost: \$22 for pre-registration online or by mail, phone, fax, or e-mail • \$25 at the door
\$15 for municipality employees or student
No credit card payments day of event - check (made payable to FWEA) or cash only please

Pre-registration deadline: Friday, March 2

REGISTRATION FORM

Registration can be made by mail, phone, fax, or e-mail, with payment mailed in advance or collected at the door.

Name	Company/Affiliation	Phone	Choice of Meal

You can register online at www.fwea.org or register by phone, fax, or e-mail to Linda Maudlin
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