

S&YP NEWS



FWEA Students and Young Professionals Committee Newsletter

Winter 2016

Message from the Chair

[Tyler Smith](#), *Carollo Engineers*

Welcome to the second issue of the semi-annual FWEA Students and Young Professionals Committee (SYPC) Newsletter! As incoming Chair of the SYPC, I am thankful for the past chair, Danielle Bertini as she has done an amazing job organizing and advancing this committee to what it is today. She has made the transition as seamless as possible and we are all appreciative of her continued efforts. The goal of this newsletter is to recognize our sponsors (without whom we would not exist) and to showcase all of the hard work put on by the outstanding young professionals, students and volunteers throughout the year. Additionally, we hope it serves as a networking tool and a venue for sharing your experiences and lessons learned.

The mission of the SYPC is to support students and young professionals in the environmental engineering field. We accomplish this by providing scholarships, hosting the student design competition (SDC) and Poster competitions, and offering a variety of networking opportunities. Recently added was a resume review and workshop for the students attending the SDC at the Florida Water Resources Conference. Students received feedback from multiple industry professionals and had the opportunity to speak with volunteers and judges about their careers.

I'd like to congratulate both of our Florida teams that competed in this year's WEFTEC SDC. The University of South Florida - Sludge team came in 2nd place overall for their design, "Supplementary Sludge Management Process for City of Plant City Water Reclamation Facility," with team members Rebecca Braz, Krystin Kadonsky, Christin Gentz, Maria Reed, Poe Poe Min Hlaing.

SYPC and FWEA are tremendously proud of both teams for their hard work and great representation of our state.

Looking to get involved?

Interested in Sponsoring?

Are you new to the industry or to Florida? The SYPC is a great way to get involved and get connected with others in your field.

If you're looking to get involved or become a sponsor, please reach out to:

Tyler Smith, Chair SYPC
Carollo Engineers
tsmith@carollo.com

David Hernandez, Vice Chair SYPC
Hazen & Sawyer
dhernandez@hazenandsawyer.com

Samantha Hanzel, Poster Competition Chair
Jacobs
Samantha.Hanzel@jacobs.com

In This Issue

Message from the Chair

WEFTEC Recap

USF Sludge Team

USF Septage Team

2017 FWRC Details

Manasota Chapter Clay Shoot Recap

Educational Outreach—
Tips from the West Coast Chapter

You Don't Get What You Deserve—Tips for Working in the Real World

Upcoming Events

Thank you to our Sponsors!



WADE TRIM



TSC-JACOBS



Meet the S&YP Committee

Tyler Smith	(Carollo Engineers)	George Dick	(Gresham Smith & Partners)
David Hernandez	(Hazen & Sawyer)	Weizhi Cheng	(CDM Smith)
Danielle Bertini	(Carollo Engineers)	Suzanne Mechler	(CDM Smith)
Sam Hanzel	(Jacobs)	Mike Semago	(Kimley-Horn & Associates)
Kristen Waksman	(Carollo Engineers)	Fernando Pleitez	(Calvin, Giordano & Associates)
Lauren Davis	(Arcadis)	Lindsey Short	(Gresham Smith & Partners)
Yanni Polematidis	(CDM Smith)		

WEFTEC—Perspective from the Two Competing Teams

USF—Sludge Team (2nd Place at WEFTEC)

by [Rebecca Braz](#)

For our senior capstone design course at USF, my teammates: Maria Reed, Krystin Kadonsky, Christin Gentz, Poe Poe Min Hlaing, and I worked on a project called *Supplementary Sludge Management Process for City of Plant City Water Reclamation Facility*. We looked into biosolids handling processes capable of producing Class AA biosolids, focusing mostly on solar drying technologies. We entered our project into the student design competition at FWRC as a chance to challenge ourselves and strengthen our public speaking skills. Earning first place in the Environmental category and receiving the opportunity to present our project at the WEFTEC student competition was a truly exciting bonus!

To prepare for WEFTEC, we polished and fine-tuned our design report and practiced our presentation through Skype or in person as often as we could. Finally, the time arrived to travel to New Orleans and present our project. We were expecting the competition's atmosphere to be very stern and competitive. Instead we were met with friendly faces and lots of encouragement from the organizers, judges, as well as the other teams. It was interesting to see the topics the other teams worked on, how they approached their projects and the solutions they created. When the results were announced, my team was very happy to have placed second in the wastewater category.

Attending the other events at WEFTEC was another amazing bonus. Some teammates and I spent time in the exhibit hall looking at the vendor displays and picking up free swag. We attended the career fair and received invaluable face-time with representatives of some amazing engineering firms and organizations. The opportunities for networking afforded to us were wonderful and much appreciated. We were in awe during our entire WEFTEC experience and so grateful to be there. My team and I had a wonderful time at WEFTEC and we are so appreciative of the support given to us by FWEA. Not only by helping us in improving our project but especially with the travel allowance, without which we would not have been able to attend the conference. Once again, thank you!

2016 WEFTEC Quick Bits

- WEFTEC was held September 24-28 in New Orleans, Louisiana
- There were 130 technical sessions, 9 local facility tours, 29 workshops and over 1,000 exhibiting companies!
- The S&YP Community service project included nearly 200 volunteers where a bioswale and rain garden was constructed to help flow and filter stormwater runoff
- Teams competing from FWEA have placed in EVERY WEFTEC SDC with 8 first place finishes in 15 years!

2016 WEFTEC SDC Winners

Environmental

1st Place: University of Minnesota
2nd Place: Virginia Military Institute
3rd Place: Johns Hopkins University
4th Place: University of Guelph

Wastewater

1st Place: Southern Methodist University
2nd Place: University of South Florida (Sludge)
3rd Place: University of Colorado
4th Place: North Dakota State University

**For more information on
WEFTEC and the national
SYPC, visit:**

<http://www.weftec.org/>

[http://www.wef.org/
membership/students-and-
young-professionals2/](http://www.wef.org/membership/students-and-young-professionals2/)



USF—Septage Team

by [Monica Resto](#)

I was the project manager for a capstone group of six students. We formed the team in November 2015, two months before our design course started, because we were so eager to compete at the 2016 FWRC Student Design Competition (SDC)! We worked tirelessly throughout the semester to complete our project (entitled *Developing Solutions for the City of Plant City Water Reclamation Facility to Handle Septage Loads due to the Ban from FL SB 550*), meet with our client, improve our presentation skills, and deliver a comprehensive final report. We competed at the FWRC SDC and won in the wastewater category! This win meant representing FWEA by competing at the 2016 WEFTEC SDC at the end of September. This is an account of my experience at WEFTEC and advice that I would give to students.

My first piece of advice: never underestimate a conference. We were told by others who had been to WEFTEC that the conference is huge and, boy, were they correct! WEFTEC is the largest water quality event of its kind in North America. It took me, a soccer player, at least 15 minutes to speed walk from Hall G, at the Morial Convention Center in New Orleans, to the Great Hall! The exhibition floor was enormous; you cannot simultaneously see both ends of the room at the same time. I got enough pens and pamphlets to start my own consulting company. The professionals and sales people on the floor were extremely kind, informed, and friendly. I had a blast walking around and learning about the newest technologies being implemented to treat our water. (Cont'd on pg 4)

USF—Septage Team (Cont'd)

by [Monica Resto](#)

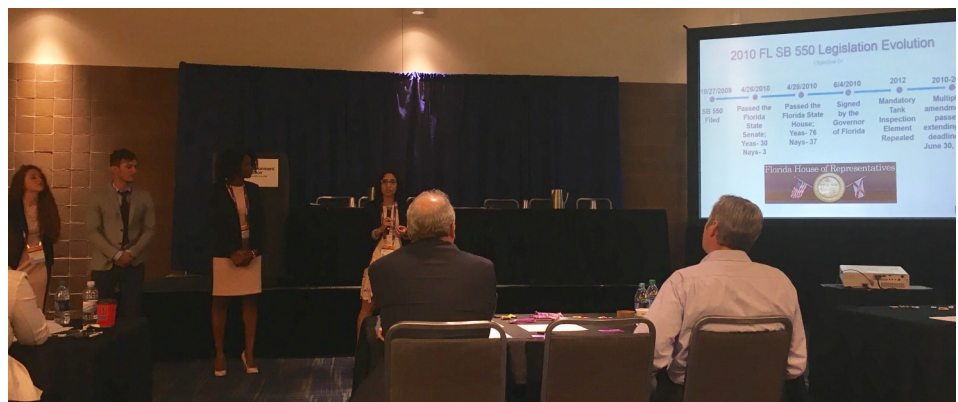
Secondly, talk to everyone! This conference is a great place to improve your social skills and practice your elevator speech. I did not encounter an unfriendly face; even the convention center staff was professional and inviting. I enjoyed meeting people on escalators, in the exhibition hall, sitting near me at the opening ceremony, and around town. It was invaluable talking to water professionals about where they were from, what they did for a living, and how they got there. I truly felt a camaraderie being at this event.



Lastly, it's not about the end result, it's about the journey. We worked tirelessly to achieve a complete project package for this competition. Countless nights I stayed up rereading the final report and thinking of ways to make it better. At the competition, we delivered our best presentation for this whole project; this was affirmed by audience members, advisors from other universities, and students alike. It was therefore disappointing to learn that we did not place within the top 4 student groups in the competition. But, if I learned anything from this experience,

it is from a conversation with Tyler Smith. In the real world, and especially in consulting, hard work is not guaranteed to pay off and result in successful outcomes. Sometimes you work hard on a design or project, only for the client to completely reject it without clear reasoning. This is an especially difficult situation to manage as a student who has grown up knowing that academic success is more often than not dependent upon the amount of effort put into studying. In a situation like this, and as was the case for us, it is valuable to look back at the entire ten month experience and see that the journey brought us new skills and polished the ones that we already had. I have never worked with such a cohesive and compatible group of students, and I am so proud of our completed project, how we handled the bump in the road, and of how professionally we handled ourselves at the conferences.

Thank you to FWEA, industry professionals who helped us rehearse, the USF student chapter, Tom Cross and Dr. James Mihelcic for their mentorship, and lastly, THANK YOU to my phenomenal team.



2017 FWRC Details

The 2017 Florida Water Resources Conference will be held April 23rd—26th at the Palm Beach County Convention Center in West Palm Beach, Florida.

Conference Registration:

<http://fwrc.org/attendees/online-registration/>

Student Design Competition:

The SDC will be held on Sunday, April 23rd from 12:00 PM to 6:00 PM, and strives to promote real world design experience for students interested in water and wastewater engineering and sciences. The winning teams compete at WEFTEC each year.

To review the guidelines, visit:

http://www.fwea.org/student_design_competition.php

Entry forms are due electronically by February 10th to the SYPC Chair. The written report and participation forms are due April 12th. If a topic or design idea is needed, FWEA will gladly help, simply email the [SYPC Chair](#) for more details.

Student & Young Professional Poster Competition:

The poster competition will be held on Monday, April 24th and is open to students and young professionals.

This year we will, for the first time ever and with FSAWWA, be **accepting water topics!** Therefore poster topics related to the field of water engineering, wastewater engineering, water resources, and other environmental topics will be accepted!

For more information, visit:

http://www.fwea.org/docs/2017_FWEA_Poster_Guidelines.pdf

Participation forms are due March 31st to the S&YPC Poster Competition Coordinator, [Sam Hanzel](#).



American Water Works Association

FloridaSection

Call for SDC and Poster Competition Judges!

The SYPC is looking for seasoned professional to judge the student design competition and judges for the poster competition! Judges will not need to register for FWRC in order to participate. For more information on the responsibilities and duties for judging, please email the [S&YPC Chair](#).

Interested in Sponsoring?

Every year the S&YP events and competitions are made possible by our sponsors. Your sponsorship helps send student to WEFTEC, provides prizes for the poster competition winners and send the YP of the Year to the WEF/AWWA YP Summit.

For more information and to learn the benefits of becoming a sponsor, please email the S&YP Vice Chair, [David Hernandez](#)

Manasota Chapter Clay Shoot - New FWEA Member & First Time Clay Shooter

[Kelsey Mahoney](#) (Carollo Engineers)

I recently joined the working world at Carollo Engineers, and the FWEA Manasota Chapter Clay Shoot was the first FWEA event I have ever been to! It was an interesting one, to say the least. The day started with a call from Kristiana while I was already on my way into work (dressed business casual with very cute and professional shoes; not the type for outdoor activities). One of their team members for the clay shoot had dropped out last minute, so I was recruited to meet her at the gun range for the day. I accepted, but due to location and logistics I was forced to dress to impress at the gun range!

I have been to a gun range before, but never have I been to a clay shooting gun range (or a competition). I was expecting to be standing underneath an overhang and shooting out onto the field all day. Nope! We took golf carts around the vast property going from secluded booth to booth, shooting skeet in the woods. Needless to say, I ruined my shoes. And I was terrible! I got the lowest score on my team (and probably overall), but I had so much fun! The instructors at the range were incredibly helpful and my team was encouraging.

Since I started working, I have been pleasantly surprised at how nice and close everyone in this field is. It seems that everyone knows everyone, whether it be from previous events or previous jobs. I hope to reach that point. I met so many people at this event, and everyone was incredibly friendly. I got to meet several people who work for Carollo at a different office, so it was nice to make connections and get to know co-workers in a casual setting. I even ran into an old friend from college! Not only were the people great, but the food was great too! We had barbecue with your traditional sides: beans, coleslaw, and salads.

I am grateful that I was able to be a part of this event. It was awesome to have the experience so early on in my career. I will definitely be going to next year's clay shoot... Now I know to have a change of clothes in my car and desk at all times!



Interested in attending a Clay Shoot Event? - No experience required!

There are two FSAWWA/FWEA joint clay shoots coming up:



West Coast Chapter

February 24th, 2017 at Fishhawk Sporting Clays

For more information and to [register](#) or contact [Jacob Porter](#).

Southwest Chapter

March 3rd, 2017 at Gulf Coast Clays at Port of the Islands

For more information and to register contact [Billy Saum](#)

Educational Outreach—Tips on Making an Impact from the West Coast Chapter

[Nicole Smith](#) (McKim & Creed)

Environmental professionals have more to offer our communities than technical skills. Each professional has a story that could make a big difference in a student's life. Sharing this story is one of the best ways a professional can give back to their community. In the West Coast Chapter, we have targeted many different ways that we can do this. Most of these opportunities are specific to the school district in our area, but could serve as ideas that anyone else could initiate in their community.

Where to Start

If you are looking for ways to get your chapter involved with educational outreach, there are several places to start:

- **Reach out to your school district.** If they have a Science, Technology, Engineering, and Math (STEM) department, the best person to talk to is the STEM Director. He can tell you how your chapter can get involved. If the programs they have in place are not convenient for professional participation, then ask if you can host your own event.
- Already know which school you would like to reach out to? **Call the school and ask for a STEM teacher.** They should know who you need to talk to in order to start planning an event.
- Another place to check with is your **school district's volunteer services.** They may know about events coming up that you could participate in or how you can initiate your own event.



West Coast Chapter Experience

Hillsborough County partners with professional organizations periodically to put on an event on Saturday where students, parents, and professionals can come together. They call this “Saturdays with STEM.” Professionals have the opportunity to do an activity, talk about their profession, and offer career advice to students and their parents. The professionals can choose the topic to cover for the 2-3 hour event (3 hours max). Hillsborough County provides the space, school site, cost to open school, stipend to participating teacher/administrator, and some finger snacks. An event needs to be planned out weeks ahead of time (1 month minimum, 2 months max).

This year, the West Coast Chapter young professionals will partner with Dowdell Middle Magnet School (Environmental Focus) for a Saturday with STEM event titled, **“Water for Life and for a Living.”** Here’s what it will look like:

- ◇ Water for Life Presentation: How water matters to each of us. (15 min)
- ◇ World Water Monitoring Challenge Activity (30 min)
- ◇ Water for a Living Presentation: How to get into one of the many water career opportunities. (10 min)
- ◇ Drinking Water vs. Reclaimed Water Quality Activity (45 min)
- ◇ Break-out Group Q&A session with professionals (15 min)

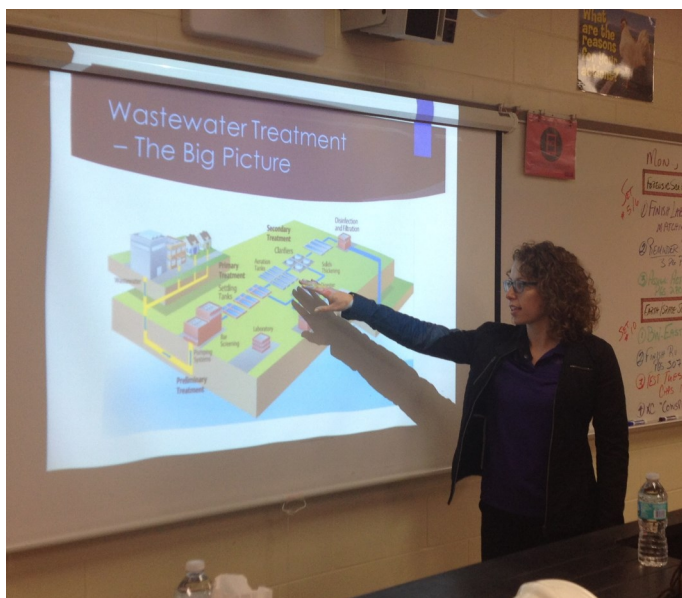
Educational Outreach—Tips on Making an Impact from the West Coast Chapter (Cont'd)

The **FWEA Public & Community Outreach Committee (PCOC)** is a great source for presentation and activity resources. In fact, they provided us with 50 World Water Monitoring Challenge Test Kits and will provide feedback on the presentation we are making.

Other Ideas and Opportunities

The Great American Teach In

This is one day organized by the school district where professionals volunteer their time to speak to one or more classes at the school of their choice at the time of their choice.



Club Time

Professionals could participate in a school's "Club Time," sponsor a club, or start their own club. This would be a time after school where professionals could teach or organize activities with participating students.

STEM Goes to Work

Students and parents visit the work place of a participating business.

Student Design Projects

Professionals can offer project ideas to teams or volunteer to be their mentors. Some teams participate in competitions.

Host Field Trips at Local Facilities

The professional society can coordinate with the schools and a local municipality to coordinate a field trip to a facility. Professionals can also attend and follow the tour to answer students' questions.

Mentor Programs

Hillsborough County partners with Million Women Mentors. It is a nationwide program that pairs any professional with a girl in school. The professional would be asked to commit a certain amount of time for the entire school year. There are other programs available, too.

STEM Network

Professional society could host a fundraiser and donate money to sponsor the local STEM network.

Teacher Workshop

Professionals could meet with teachers to discuss class content and develop water curriculum.



You Don't Get What You Deserve—Tips for Working in the Real World

By [Mel Butcher](#) (Arcadis)

There is a lot of material that your professors do not cover with you in college: how to receive multiple job offers upon graduation; explanation of the [sectors where engineers might work](#), such as industry, consulting, construction, research, government; how to keep a project on budget; and salary negotiation.



The latter is a tricky topic, because in the U.S. culture, it is already somewhat taboo to even discuss money.

When you get out of school, should you just take the first offer you get, or is there room for negotiation? How should you respond when they ask, “What is your salary expectation?”

These are valid questions, and you should be well prepared for negotiation whether you are just getting out of school or hoping to ratchet up your earnings in the first couple of years in your career. Here are some things you can do to set yourself up for a successful negotiation:

Do your homework – There are two specific areas you need to research in advance.

First, understand the economic climate. Is the market area you are entering flourishing, or experiencing a downturn? For example, when the overall economy is not doing well, many construction activities come to a halt; this can trickle into design work. During such an economic circumstance, engineers in your area might outnumber demand which diminishes room for negotiation. It is important to get a sense of the climate by using your network, particularly more seasoned professionals such as those you meet through FWEA, to discern this.

Second, learn your market value. It's important to have a sense of what other engineers with your skills and level of experience are earning, particularly in your geographic region. Do not rely on what just friends in your class tell you. Get on the internet and poke around places like Salary.com, Glassdoor.com and Pay-scale.com. You can get an idea of the Engineer I salary range for Environmental Engineers in the Tampa area by clicking [here](#).

Practice – Practice, preferably with someone who has experience interviewing prospective new hires. Ask a confidant in some professional area to role-play a mock interview with you. Have them ask you difficult questions. It could go something like this:

Confidant as interviewer: We really enjoyed getting to know you in the interview process and believe you would be a good fit for our company. What is your salary expectation?

(You don't want to be the first one to give a number, but they're putting you on the spot. Luckily, you've done your homework....)

You: Thank you so much for the positive feedback; I agree that ABC company could be a fantastic fit for me too. Regarding salary-- according to my research, X engineers in the Tampa area with similar experience to my own earn between \$48,000 and \$54,000. I have gathered that this position requires extra work with AutoCAD and, as we've discussed, I have extensive experience with the program through X project at school and Z project work at my internship. How negotiable is the salary for this position?

.... And so on. Notice how to keep the discussion going – ask “how negotiable” it is rather than “is it negotiable”. It is important to be prepared to volley these questions, to be prepared with your research, and to have a clear understanding of what you bring to the table. As [Liz Ryan](#) often highlights, you need to know and understand the employer's pain, and be able to articulate how you can solve it.



Know your floor – For every potential job offer, you need to know your floor, or the minimum amount you would be willing to accept. This comes after your homework in #1, and it should vary by location. If you are looking for jobs in multiple cities, you should look at cost of living, your research on what engineers at your level make in that region, and then you should determine your minimum for each region. Your minimum might also vary by the type of opportunity. If you really want to work for company A because they are doing cutting edge design in the field you are most interested in, your floor might be lower than an offer from company B.

You Don't Get What You Deserve—Tips for Working in the Real World (Cont'd)

Be prepared with non-salary options – Let's say you get an offer from a company you love. You go through the negotiation process, and you get to a number that is close to what you want, but not quite. What can you do? Be prepared to ask about other options such as:

1. Can you get a sign-on bonus?
2. Are there other types of bonuses you could earn throughout the year and how, precisely, are they awarded?
3. Will the company pay for your cell phone?
4. Are the number of paid vacation days negotiable?

These are just a few examples. There could be other intangibles that are important to you, such as the ability to work from home a couple of days a week. Such perks are valuable, and you should prioritize them according to the experience you want out of your new career.



A parting thought... One of my supervisor's gave me a nugget of wisdom that I will leave you with today:

"You don't get what you deserve; you get what you negotiate."

Through a bit of research and preparation, you can facilitate salary negotiation success.

A quick message for the Ladies.... Sisters, I simply cannot stress enough how important it is for you to research and practice negotiation. Look at your male peers around you. Do they deserve more pay than you? Of course not, but you can bet that the majority of them are going to attempt to negotiate higher pay regardless of whether or not they are more or less qualified than you... Simply put: this is a difficult area where you must stand up for yourself. Negotiation is a skill you can continue to hone to your benefit throughout the entirety of your career ([Note the amount of money you take off the table over the course of your career by not negotiating](#)). We walk a fine line in this communication process so as not to [come across as pushy or demanding](#), so it is critical that you are equipped for the challenge. Develop relationships with more senior engineers and ask for their help with such processes. A great place to start to learn about negotiation is [this video from Lean In](#). If you are really strapped, feel welcome to get in touch with me directly and I will do what I can to help.



- Mel Butcher, EI, MSCE

Melissa (Mel) Butcher is an engineering consultant at Arcadis. She earned a BS & MS in Civil Engineering from the University of South Florida. Mel's primary work area is industrial water risk, and industrial water treatment processes. During her spare time, Mel hosts a podcast about careers in Science, Technology, Engineering, and Mathematics, STEMxm, which is available on iTunes & Stitcher. Learn more at STEMxm.com. You can reach out to Mel at Mel.Butcher@arcadis.com or on Twitter at [@MelTheEngineer](https://twitter.com/MelTheEngineer).

Accepting Nominations for YP of Year Award Now...

The SYPC is now accepting nomination packets for YP of the Year award. We are looking for outstanding young professionals that show leadership, initiative, technical knowledge and actively participate within FWEA. The award is presented at the FWRC Awards Luncheon every year and provides the winner with a paid trip to attend the annual AWWA/WEF YP Summit. The winner may also be recognized in the Florida Water Resources Journal, FWEA S&YP Website, social media and other publications.

Visit the [S&YP Website](#) to download the Nomination Form. Forms are due Friday, February 24th and should be submitted to the SYPC Chair, [Tyler Smith](#).

Note:

YPs are not allowed to nominate themselves but are encouraged to have their supervisors or colleagues submit a nomination form on their behalf. Members of the S&YP Committee are not eligible.

Upcoming Events

National Events in Florida:

January 25—28, 2016 - WEF Young Professional Midyear Springboard Program, Coral Gables

February 6—7 - WEF/AWWA Young Professionals Summit, Tampa

Registration still open [here](#)! All YPs are strongly encouraged to attend this event.

Committee Events:

January 27th, 2017—[Utility Council Meeting](#)

February 9th, 2017— [Air Quality Seminar](#)

February 9th, 2017— [Collection Systems Seminar](#)

February 12-13th, 2017—[Leadership Development Workshop](#)

February 23rd, 2017- [Wastewater Process Seminar](#)

Chapter Events:

West Coast Chapter:

February 23rd, 2017—[Winter Luncheon](#)

February 24th, 2017— [2nd Annual Sporting Clays Tournament](#)

Manasota Chapter:

January 20th, 2017- Joint Luncheon with AWWA Region X

March 2nd, 2017- Joint Luncheon with AWWA Region X

Southwest Chapter:

March 3rd, 2017— [2nd Annual Sporting Clays Tournament](#)

May, 2017—Golf Tournament

TBD—YP Event (details to come)

First Coast Chapter:

TBD

Southeast Chapter:

October, 2016—Quarterly Meeting, YP Event, TBD

Big Bend Chapter:

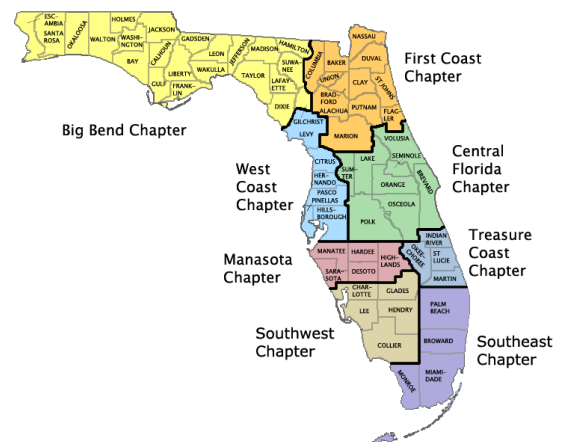
January 31st, 2017—[Annual Banquet](#)

February 21st, 2017— [Steering Committee Meeting](#)

March 14th, 2017— [Lunch & Learn](#)

Central Florida Chapter:

January 25th, 2017— [Technical Luncheon—RO Concentrate Discharge to WWTP](#)



Contact Us

Visit our [website](#) or contact the S&YP Committee Chair for more information on FWRC, volunteering, or sponsorship opportunities.

Tyler Smith

(813) 906-4606