

SOUTH TEXAS CHAPTER

e-newsletter



THE FUTURE IS HERE—EMBRACING A NEW PARADIGM IN THE WORLD OF WATER

Art K. Umble (2014)

Among the prominent advancements in improving public health and environment over the past two hundred years, collection and treatment of domestic wastewater ranks near the top. The traditional view of wastewater treatment has been of a “linear pipeline,” whereby wastewater is collected at one end of a watershed, transported as quickly as practical to the other



end, where it is treated and discharged to the nearest waterbody as a disposal byproduct. But in recent years this “out-of-sight, out-of-mind” attitude has been rapidly giving way to a more circular approach whereby the resource values intrinsic in wastewater are recovered and returned to the local community from whence it came, contributing to its environmental, economic and social sustainability. This radical shift in thinking lies at the core of what is now redefining today’s public utility.

From a technical perspective, it’s easy to envision what our utilities of the future might look like within the context of this new paradigm. [Water is reused to minimize impacts of finding and exploiting new sources of supply, particularly in water-scarce regions.](#) Nutrients are recovered in various forms to be applied as agricultural fertilizers, while reducing the long-term environmental damage resulting from over-accumulation of nutrients in waterways. Energy, in the form of heat and electricity, is extracted from organics to offset local power demands. However, as is typical with any type of change, numerous barriers need to be overcome in order for these positive outcomes to be realized as beneficial by the individual utility customer. In a study led by the National Association of Clean Water Agencies, [it was found that prominent barriers include:](#)

TAWWA/WEAT JANUARY MEETING

Date: Thursday, January 15, 2015
Place: San Antonio Water System
Tower II, 1st Floor, Room C145
2800 US Hwy 281 N
Speaker: To be determined
Topic: To be determined

TAWWA/WEAT SCHOLARSHIP DINNER

Date: Thursday, November 20, 2014
Place: Old San Francisco Steakhouse
10223 Sahara Dr.
San Antonio, TX 78216
Speaker: Robert Puente
SAWS

EDITOR:
Kim Keefer (kkeefer@pape-dawson.com)

GRAPHIC DESIGNER:
Vicky Frenkel (FrenkelV@bv.com)

(continued on page 2)

1) how we embrace and advance innovative technology that blazes the “change trail” to recovering value benefits in wastewater, 2) how we engage the regulatory process to enable and incentivize the change, and 3) how we secure the financial commitment necessary to get there. While none are insurmountable, each is dependent on the other. Our challenge for the next decade lies less in discovering new technology to achieve full resource recovery, but rather in removing institutional barriers that inhibit it.

Wastewater utilities have traditionally been publicly owned entities, and adoption of new technology is viewed with caution because of the risks associated with the uncertainty of performance reliability of an unproven approach. The risk and worry of adopting new technology is failure that may result in a loss of trust by ratepayers. [To overcome this slow adoption barrier it is necessary for utilities to collaborate in evaluating, testing and implementing technologies with the open, coordinated sharing of applicability, reliability, and performance data.](#) Not only does this accelerate innovative technology into commercial markets, it provides a framework for regulatory agencies to endorse the innovations as part of the permitting process. This is the approach taken by the Leaders Innovation Forum for Technology (LIFT) initiative recently launched jointly by the Water Environment Federation (WEF) and Water Environment Research Foundation (WERF).

In its more than 40 year history, the Clean Water Act has proven to be the most effective environmental legislation ever enacted, but it lacks the flexibility necessary to endorse new technologies designed to convert waste streams to

value streams. Updates to the CWA are needed to allow for adaptive management approaches to the implementation of resource recovery technologies within the structure of the permit. Additionally, the benefits of the recovered resources extend far beyond utility boundaries, suggesting that permits must be structured on the basis of the fully integrated watershed approach. [Progress in this area has been encouraging, with recent shifts in regulatory policies at the federal level around total maximum daily loads, water quality trading and adaptive management.](#)

Financing our utilities of the future is perhaps the biggest challenge. Utilities continue to struggle with balancing the need to reduce costs and increase revenues for sustaining their near-term solvency with making investments in resource recovery systems to benefit the sustainability of the entire community for the long-term. To date, this concept remains elusive for many ratepayers, but securing their buy-in will come in time through proactive legislation that appropriates secured funding primarily at local levels, that incentivizes public/private partnerships to invest in resource recovery technology, and shapes public policy around community-based utility benefits rather than just services. [In the interim, however, creative utility management in terms of leveraging grants, load guarantees, revolving loans etc., is critical to seeding the new paradigm.](#)

The future of the public utility looks much different than it has traditionally. The future is all about recognizing the intrinsic resource value in wastewaters and moving to adopt technology that captures these benefits as soon as practical. Regulatory frameworks and financial mechanisms need immediate reforms in order to incentivize innovation and provide sustainability for utilities and the ratepayers they serve. ●

MESSAGE FROM THE PRESIDENT

Although this isn't the last newsletter for 2014, we are quickly approaching the end of our activities for the year, and planning for 2015. As of October 16th, we had our last general meeting of AWWA/WEAT for 2014. We have had some interesting monthly speakers this year that included topics such as dam safety modifications, sanitary sewer overflows, HDPE pipe design, corrosion in collection systems, direct water reuse, pharmaceutical disposal programs, and water polishing. We are fortunate to have strong attendance at our monthly meetings and support for all our fundraising and community service activities.

One major focus of our organizations is to raise money for scholarships, which helps promote our industry and aid in the education of our local community. The results of these efforts will be acknowledged at the 10th Annual Scholarship Dinner on November 20th. The Scholarship Dinner will again be held at the Old San Francisco Steakhouse in San Antonio. The guest speaker will be San Antonio Water System CEO and President, Robert Puente. At the dinner, the San Antonio Chapter of WEAT intends to award six (6) students with a total of \$7,000 in scholarships. Additionally, the San Antonio Chapter of AWWA will award nearly an equal amount of scholarships at both the state and local levels.

As you know, WEAT and AWWA coordinate many fundraising and community service events annually. These events include: Basura Bash, Sporting Clays Tournament, Summer Seminar, Water for People Golf Tournament, Scholarship Dinner, YP Fall Forum, Alamo Science Fair judging and awards, YP Tours, and YP Happy Hours.

We can all be proud of our efforts and the impact we are having on the community. I am excited to be part of an organization that values promotion of our industry, community, and academic achievement. I look forward to finishing the year strong with a successful Scholarship Dinner which acknowledges our scholarship recipients and your efforts. Thank you.

Sincerely,
Cale Underberg
President San Antonio WEAT Section

ABOUT THE AUTHOR



Art Umble, Ph.D.

Dr. Umble's experience covers many aspects of engineering practice. After completing a Ph.D. in biological waste treatment at the University of Notre Dame, he added to his experience nearly a decade municipal water and wastewater utilities management and operations for the City of Elkhart, IN, a city of 50,000. In this capacity, he was responsible for strategic master planning, day-to-day treatment plant operations, regulatory compliance, facility planning, preliminary and final design of civil/sanitary

systems, asset management and maintenance of the drinking water and wastewater treatment systems. Dr. Umble has also served as Adjunct Professor of Civil Engineering at the University of Notre Dame. His focus has been in technical support for the environmental policy areas of water quality standards, treatment technology, water reuse, biosolids and residuals management, stormwater management, watershed planning, affordability for water environment program implementation, developing frameworks for stakeholder coalitions in environmental policy, and implementation of environmental management systems.



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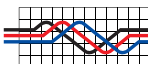
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SPECIAL THANKS TO OUR OCTOBER SPEAKER AND SPONSOR:

Thank you to Jeff Haby from SAWS for speaking about the Status of SAWS' SSO Program at the August meeting held on October 16, 2014. And thanks to Pape-Dawson Engineers for sponsoring!



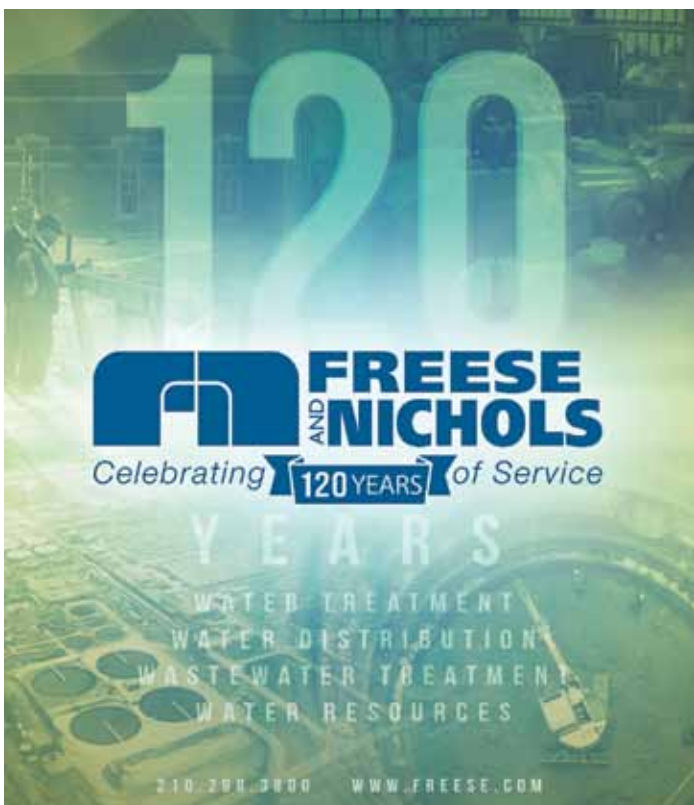
BASURA BASH

On Saturday October 25th, San Antonio's TAWWA/WEAT Chapters participated in the cleanup of Olmos Basin Park along the San Antonio River. After some breakfast tacos and drinks provided by Jacobs and Freese and Nichols, everyone got to work. Among the interesting items found were a boot, construction debris and traffic control. The traffic control was especially impressive! We had a great turnout and really appreciate everyone who participated (a special thanks to all the hardworking kiddos):

- Bernard Bahaya
- Bobby Ballí (CP&Y) and children Jose and MariFer
- David Bennett (Freese and Nichols) and son Bryce
- Max Bertetti and daughter Amathyst
- Brett Larson (GarzaBury) and niece Aubrey Jones
- Katherine Lopez (MTR Engineers)
- Josh Marazzini (CP&Y)
- Mike Persyn (Jacobs)
- Steve Renneker
- Rikki Anderson (Freese and Nichols) and daughters Emory and Evan



The next Basura Bash is scheduled for February 21st, 2015, so be sure to mark your calendars now!



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10th Annual Student Scholarship Dinner and Fundraiser



Thursday, November 20th at 6:00pm
Old San Francisco Steak House

Keynote Speaker

Robert Puente, President and CEO
San Antonio Water System

Sponsorship Levels

\$1,500 – Platinum Sponsor (1 table, top recognition in program)

\$950 – Gold Sponsor (1 table, name in program)

\$300 – Silver Sponsor (Name in program, registration table poster)

If you are interested in making a donation, please send it to:

*James Scardami, WEAT San Antonio Chapter, P.O. Box 171267, San Antonio, TX
78217.*

***SPONSORSHIP COMMITMENTS REQUESTED
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Robert Jenkins at 210.404.1330 with any questions.



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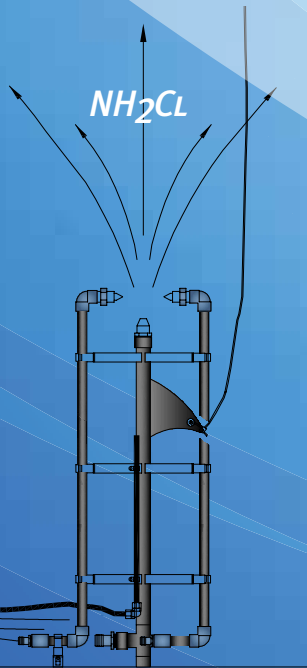


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Fall 2014 Announcement

LOOKING FOR VOLUNTEERS!

TAWWA has an Education Division which has the objective to promote and encourage training, upgrading and certification of water plant operators, managers and other utility personnel; and to promote and encourage water education. The Division is dedicated to the promotion of water education through a proactive effort to support membership and consumer educational opportunities in Texas.

The TAWWA Education Division has 5 committees which are currently looking for active volunteers:

- Competitions
- Consumer Outreach
- K-12+ Education
- Member Education
- Partnership Development

Please visit the TAWWA website at <http://www.tawwa.org/?page=Advocacy> for more information and descriptions on the different committees. If you are interested in serving on any of these committees, please feel free to contact Melissa Bryant at mbryant@sara-tx.org or Amy Middleton at amiddleton@sara-tx.org.



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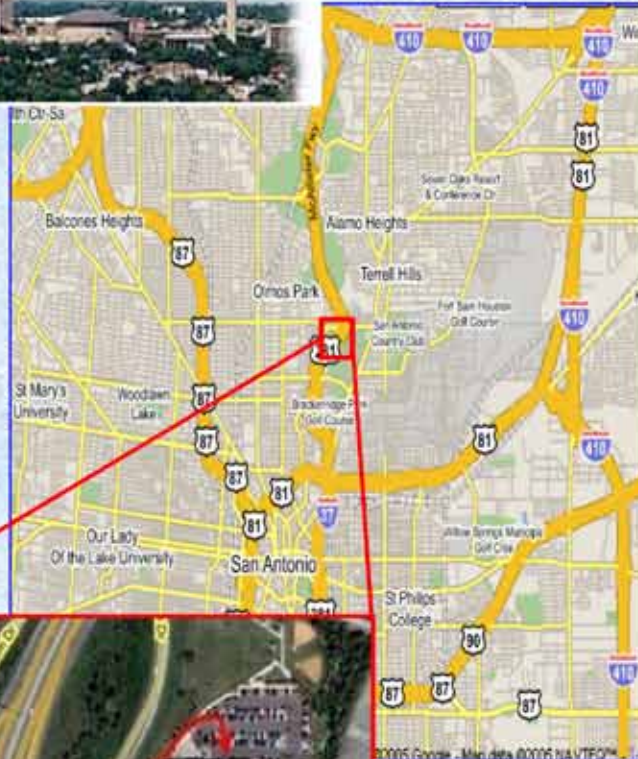
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- **Stormwater:** Drainage & floodplain management and water quality
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**TAWWA / WEAT
SOUTH TEXAS SECTION
JANUARY MONTHLY MEETING**



When:
Thursday, January 15, 2015
11:30 A.M.

Where:
San Antonio Water
System Tower II – 1st
Floor
Room C145
2800 US Hwy. 281
North
San Antonio, Texas

Speaker:
TBD

Topic:
TBD



Young Professionals Fall Forum

Date: November 13, 2014

Time: 11:00 a.m. - 1:00 p.m.

Cost: \$10

San Antonio River Authority Board Room
100 E. Guenther St.
San Antonio, Texas 78204

This year's YP Fall Forum will feature presenters from ComedySportz San Antonio, a local Improv group. The presenters will focus on improving communication skills, building confidence, and encouraging risk-taking in a non-judgemental environment.

Everyone is welcome to attend, although **space is limited**. The

attendance fee will be used for additional YP activities. Please RSVP to Denyce Alcorta at dalcorta@sherfeysa.com by Tuesday, November 11. Lunch will be provided courtesy of TAWWA/WEAT.





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Local TAWWA / WEAT Contacts

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YP Representative	Christina Preddice, E.I.T	210-233-3441	christina.preddice@saws.org

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Treasurer	James Scardami	210-268-3434	jscardami@cematx.org
Section Representative	Josh Marazzini, P.E.	210-494-8004	jmarazzini@cpyi.com
Scholarships Chair	Josh Marazzini, P.E.	210-494-8004	jmarazzini@cpyi.com
YP Representative	Lance Rothe, P.E.	210-841-2910	lance.rothe@hdrinc.com
YP Representative	Denyce Alcorta, E.I.T.	210-493-9200	dalcorta@sherfeysa.com

Logic Puzzle

	First Names	Wood	Homepages
	Briana	Izabella	Maxwell
	Teagan	beech	boxwood
		oak	rosewood
			craigslist.com
			imdb.com
			nytimes.com
			yahoo.com
Wedding Years	1932		
	1948		
	1964		
	1981		
Homepages	craigslist.com		
	imdb.com		
	nytimes.com		
	yahoo.com		
Wood	beech		
	boxwood		
	oak		
	rosewood		



CLUES

1. The web surfer who set their homepage to craigslist.com is not Maxwell or Briana.
2. The person married in 1932 is Izabella.
3. The person whose table is made of oak is not Teagan or Briana.
4. The person married in 1932 never visits craigslist.com.
5. The web surfer who set their homepage to yahoo.com doesn't have a table made of beech or boxwood.
6. The web surfer who set their homepage to yahoo.com doesn't have a table made of rosewood.
7. Either the web surfer who set their homepage to craigslist.com or the web surfer who set their homepage to
8. nytimes.com is Teagan.
8. Teagan got married after the person whose table is made of boxwood.
9. The person whose table is made of beech got married after the person whose table is made of boxwood.
10. The person married in 1948 doesn't have a table made of oak.
10. The person married in 1948 doesn't have a table made of oak.
11. Of the web surfer who set their homepage to nytimes.com and Teagan, one got married in 1964 and the other has the table made of beech.
12. The person whose table is made of rosewood is not Teagan.
13. The person married in 1932 has the table made of boxwood.

Wedding Years	First Names	Wood	Homepages
1932			
1948			
1964			
1981			



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Upcoming Meetings and Events

Date	Event	Event Host	Location
November 13, 2014	YP Fall Forum	AWWA/WEAT	SARA Boardroom, San Antonio, TX
November 20, 2014	Annual Scholarship Dinner	AWWA/WEAT	San Francisco Steakhouse, San Antonio, TX
December 1, 2014	WEF Call for Abstract	WEF	Chicago, IL
January 15, 2015	TAWWA/WEAT January Meeting	TBD	San Antonio, TX
February 17-20, 2015	AWWA/WEF Utility Management Conference	AWWA/WEF	Austin, TX

**CALLING ALL YOUNG
PROFESSIONALS!**

In an attempt to better serve the Young Professional (YP) members, we are asking that all members under the age of 35, or less than 10 years in the industry, please e-mail Kim Keefer at: kkeefer@pape-dawson.com with their name, e-mail, and phone number.

If there are others in your offices who are not yet TAWWA/WEAT members, but might also be interested in participating in YP events and functions, please pass this request on to them.

Thanks!

Logic Puzzle Answers

1932	Izabella	Boxwood	lmdb.com
1948	Teagan	Beech	Craigslist.com
1964	Briana	Rosewood	Nytimes.com
1981	Maxwell	Oak	Yahoo.com



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Please e-mail Rikki Anderson at rikki.anderson@freese.com to be removed from the list.