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TAWWA/WEAT | MARCH/APRIL 20011 | ISSUE 77

South Texas Chapter

e-Newsletter

Green Pipe for Potable Water?

Don Vandertulip, P.E. BCEE
WEF Water Reuse Committee Chair
CDM, San Antonio

The Problem

Proposing green pipe as the national color code for potable water is a controversial topic among many water utility professionals. This is despite the fact that for years, the two plumbing codes typically used in the U.S. for all plumbing inside the property line identify potable water piping to be green or designated with a green stripe. Public water utilities typically use the color blue to indicate potable water as recognized by the American Public Works Association (APWA) Uniform Color Standard and the Common Ground Alliance - Best Practices Guide (CGA-BPG). Green, under these two codes, represents: sewers, storm sewer facilities, or other drain lines. Over the last two years, AWWA, the Water Environment Federation, and the WateReuse Association have been working with the two plumbing code organizations [International Association of Plumbing and Mechanical Officials (IAPMO) and International Code Council] to change their respective 2009 plumbing code requirements for purple pipe use for any alternate water delivered on private property. A white paper was presented to IAPMO in August 2009 proposing the use of green pipe with black text to identify onsite alternate waters, including graywater which is untreated wastewater. While this seemed logical to those of us with a water utility background, the plumbing code and building code individuals summarily rejected the proposal. The rejection was based on the Plumbing Code requirement for the color green to designate potable water in buildings.

Texas Commission on Environmental Quality (TCEQ) has pipe color code requirements for surface water treatment plants painted after October 1, 2000 in Chapter 290.42(d)(13)(A). Light blue pipe color is identified for potable and filtered waters. Green is identified to designate settled water. This settled water would not yet be considered potable as it has not been filtered and disinfected. There is no color designation in the chapter related to distribution mains or color code required in American Water Works Association Standards. APWA and CGA-BPG color standard (shown below) are two national standards adopted by many utilities and utilized nationally by One Call systems to mark underground utilities prior to contractor excavation in an area. The UPC and IPC code requirement for green pipe designating potable water pipes is clearly in conflict with utility interest.

(Continued on Page 3)

Save the Date

TAWWA/WEAT
April Meeting

Date: Thursday, April 21, 2011
Time: 11:30 am
Place: San Antonio Water System
2800 US Highway 281 North
San Antonio, TX 78212
Speaker: Mr. Jason Anderson, PE
Carollo Engineers, Inc.
Topic: Emerging Issues and Concepts with UV Disinfection
Operator's Corner: Mike Villegas, Medio Creek

TAWWA/WEAT
May Meeting

Date: Thursday, May 19, 2011
Time: 11:30 am
Place: San Antonio Water System
2800 US Highway 281 North
San Antonio, TX 78212
Speaker: Ms. Marisa Vergara, PE
CP&Y, Inc.
Ms. lla Drzymala, PhD, PE
SAWS
Topic: "Life Cycle Analysis of Tertiary Filters for Rerate Expansion"

EDITORS:
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Colleen Koenig (ckoenig@cpyi.com)

MESSAGE FROM THE PRESIDENT

I want to thank everyone involved in supporting me since taking the prestigious office of W.E.A.T. President - South Texas Chapter. We must continue in the direction that my predecessors set forth. I only wish to maintain the same level of professionalism, as well as being educational. A little entertainment, once in a while, does not hurt either. Little did I know how much time must be invested to carry out the responsibilities that come with being an officer of W.E.A.T.

As a wise man once said, "There are only two seasons in South Texas, drought & flood". Currently, the Edwards Aquifer level is at ~ 665 ft. This same time last year, we were at ~ 682 ft. Six month earlier the level was at ~ 641 ft. and flirting with Stage III drought restrictions. This situation only confirms that we must always be prepared for all weather extremes.

When the Rio Grande River crested at ~ 35 ft. above flood stage eight month ago, all surrounding water/wastewater utilities were ready to send assistance. Whenever a hurricane hits our region we all promptly send assistance to help get their systems back to normal. That is the nature of people in this line of work.

Water and wastewater are two areas of work which will never get boring. They are two areas of work which will never go away. When it comes to water resource management, we truly are all in the same boat.

Roberto Macias
President, San Antonio Section, WEAT

SPECIAL THANKS TO OUR SPEAKERS

February: Don Vandertulip, CDM and Sterling Lee, SARA
March: Trent Slovak, Malcolm Pirnie-ARCADIS

APRIL SPEAKER

Mr. Jason Anderson, Carollo Engineers, Inc. Mr. Anderson has been involved with design of both water and wastewater UV disinfection systems throughout his 15 years with Carollo Engineers. His research at the University of California, Davis was on the hydraulics of open-channel UV disinfection systems, and he was a contributing author to the EPA UV Guidance Manual.

MAY SPEAKERS

Ms. Marisa Vergara, CP&Y, Inc. Ms. Vergara holds a Bachelors of Science in Civil Engineering from Texas A&M University and a Masters of Engineering in Civil Engineering from the University of Texas at Arlington. She has worked with CP&Y, Inc. since 1996 and is a Senior Associate with the firm. Marisa is the Deputy Trustee for South Central TAWWA and is a past President of the South Central TAWWA and the 2006 YP Maverick Award recipient.

Ms. Ila Drzymala, SAWS. Ms. Drzymala is a graduate of University of Southern California with a Ph.D. in environmental engineering. Her research dissertation was on nitrification/denitrification and sulfate removal from reverse osmosis brines. Ila worked for CH2M HILL for 5 years before joining SAWS where she has been for the past 3 years working as a project engineer/manager with the Treatment and Recycle Department. Her professional experience has focused on biological processes, nutrient removal, process modeling and WWTP preliminary design.

Green Pipe (Continued from Page 1)

Public Health Risk

One might ask "Why there have not been numerous cross-connections between a green pipe carrying sewage in the public right of way (ROW) and a green potable water pipe inside the property line". Another question might be "Don't the backflow inspectors see two different color pipes connected to opposite ends of a water meter or backflow preventer"? Both are good questions. Maybe we have been lucky to date. How long can we expect to remain lucky? I believe it is only a matter of time before a utility contractor bidding on site work or a plumber bidding on utility work connects a potable and wastewater source together due to their experience with a different color code.

RED	Electric power lines, cables or conduits and lighting cables.
YELLOW	Gas, oil, steam, petroleum or other hazardous liquid or gaseous materials.
ORANGE	Communications, cable TV, alarm or signal lines, cables, or conduits.
BLUE	Water, irrigation and slurry lines.
GREEN	Sewers, storm sewer facilities or other drain lines.
WHITE	Proposed excavation.
PINK	Temporary survey markings.
PURPLE	Reclaimed water, irrigation and slurry lines.

Solve the Problem

From my experience these last three years attempting to work with both IAPMO and ICC to change the pipe color code, it is obvious that these organizations have no interest in changing deep seated patent driven interest. Utilities can start to solve the problem by discussing the issue internally and with the city building and plumbing code officials. Involve the backflow professionals working for area utilities that are on the front line of dealing with potential cross-connections. If local cooperation cannot be achieved, discuss with TCEQ and the state Health Department. Florida and California did not agree with IAPMO color code change to purple pipe for all onsite alternate waters and both have solved the conflict at state level by eliminating enforcement of the UPC provisions in each state related to pipe color for alternate waters. In Florida and California, only municipally treated and distributed reclaimed (recycled) water meeting state quality requirements can be distributed in purple pipe. Maybe it is time for all state environmental quality/health departments to require that only blue color coding be used for potable water and green to designate wastewater pipes. It's a start.

2012 Ops Challenge Fund Raising Fishing Event May 7th, 2011

The TAWWA South Texas Chapter / WEAT San Antonio Section will be hosting a family fishing tournament on May 7, 2011 from 11:00 AM to 1:00 PM as a fundraiser to send our local Operators Challenge team to compete at national conferences. The tournament will be held at the San Antonio Water System's Twin Oaks Aquifer Storage and Recovery Facility Pavilion at 4588 Hardy Rd, Elmendorf, TX 78112. The pavilion is adjacent to a stock pond full of fish. The cost will be $10.00 per person and will include a BBQ lunch and fishing. Participants can bring their own fishing gear or in case anyone needs them, children's fishing poles will be available to purchase for $15.00.

environmental EI2 improvements, inc.

WateReuse Association Spearheads Water Awareness Effort

Unveiling of "A Thirsty Planet" website at WateReuse Association's national convention September 12-15 in Washington, DC

A major public outreach effort to promote education, understanding and acceptance of water reuse and desalination is being launched using a website that will serve as an information hub for the general public and non-industry audiences.

The WateReuse Association unveiled the new website at the 25th Annual WateReuse Symposium held September 12-15 at the Omni Shoreham Hotel in Washington, DC.

The URL address for the new site is: www.athirstyplanet.com

"This is a big undertaking for our industry and will help achieve our goal of educating the public about the benefits of water reuse and desalination," said Mark Millan, chair of the Association's Public Education & Outreach Committee. "We want to be able to reach out to a wide range of the public, such as teachers, students, environmentalists and community leaders that are considering these new water sources. We think 'athirstyplanet.com' will do that."

The website will provide a variety of information on water reuse and desalination, including background information, frequently asked questions and educational tools on the "Water Cycle" that can be utilized by educators, the media, and the general public.

The Association has retained Krome Communications of Pittsburgh, Pennsylvania, to assist with messaging, branding, and development of the outreach effort, which includes print ads and a new tagline for Association: "Sustainable Solutions for a Thirsty Planet."

"This effort has been two years in the making and we are pleased to finally introduce this comprehensive resource to help enlighten and bridge the knowledge gap on these innovative and sustainable water sources," said WateReuse Association Executive Director Wade Miller.

The WateReuse Association is an international organization with the mission "to advance the beneficial and efficient use of water resources through education, sound science, and technology," and is well known to water and environmental management agencies and governmental entities throughout the world.

The Association's membership consists of water agencies, public agencies, consulting firms, and local, state, and federal government agencies. WateReuse is involved in national advocacy, public education and outreach, and water reuse and desalination research.

For more information on the WateReuse Association please visit: http://www.watereuse.org

YP Tour of MRSO/Medio WRC

AWWA/WEAT Young Professionals kicked off its first tour of 2011 on March 4th with a joint visit to both SAWS Medio Creek Water Recycling Center (WRC) and Segment 6 of SAWS Medina River Sewer Outfall (MRSO)! A group of over 30 engineers, project managers, operators, planners, inspectors and manufacturers were treated to breakfast and drinks courtesy of Pape-Dawson and CH2M Hill, followed by the tour. Attendees enjoyed the unique opportunity to witness active construction sites including the digging of 20+-foot-deep trenches, lowering of 36-inch FLOWTITE glass-reinforced plastic (GRP) pipe and backfilling for the MRSO and the construction of a future pump station site, installation of valves, fittings and special "diapers" for corrosion protection and to lock in the restrained joints on the 30-inch C303 Bar-Wrapped "Purple" Pipe. The next Young Professionals tour will be on May 20th, 2011 at the Leon Creek WRC Improvements and Tertiary Filters Project, sponsored by Carollo Engineers.

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Scholarship News

2010 TAWWA & WEAT Scholarship Applications

TAWWA
The 2010 TAWWA scholarship applications have been be posted. Go to www.tawwa.org for more information. The deadline for submission will be the July 8, 2011. This scholarship is given to the children of TAWWA members or TAWWA members who have returned to full time educational pursuits.

WEAT
Scholarships will be awarded to local students with interests in Water related studies. Email Josh Marazzini at CP&Y (jmarazzini@cpyi.com) if you are interested in receiving an application. The deadline for submission will be July 8, 2011.

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Basura Bash, Spring 2011

On Saturday February 26th, 2011 San Antonio's TAWWA/WEAT Chapters participated in San Antonio's 17th annual Basura Bash, a city-wide river clean-up event. Basura Bash is the largest single-day waterway clean-up event in Texas and the only event that collects recyclable waste products. In 2010 approximately 2,825 volunteers collected 42 tons of trash, 3.7 tons of recyclables and 250 tires. In 2011, with approximately 25 member volunteers and their families and friends, SA's TAWWA/WEAT Chapters officially began their adoption of the section of Salado Creek that runs through Walker Ranch Park. The Brown Park location that had been adopted in prior years will not be available for the next several years due to work on the Mission Reach San Antonio River Improvements Project. A special thanks to those who woke up early Saturday morning and participated. We hope to continue this semi-annual community service project for the chapter in the new location during the month of October (exact date TBD).

Sudoku

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TCEQ's Environmental Trade Fair and Conference

The next Environmental Trade Fair and Conference is scheduled for May 3—4 at the Austin Convention Center. The Environmental Trade Fair & Conference is Texas' premier environmental educational forum, considered by many to be one of the best in the country. Features of the 2011 event include: 11 concurrent tracks and nearly 100 educational sessions offering in-depth training on the latest regulatory information; up to 400 exhibitors showcasing leading environmental organizations and technology; informal lunch with TCEQ commissioners on Tuesday, May 3; up to 10 hours of continuing education credits offered for attorneys, engineers, geoscientists, MSW technicians and supervisors, public water system operators, wastewater system operators, and other professionals; and a banquet honoring the 2011 winners of the Texas Environmental Excellence Awards on Wednesday, May 4.

Attendee and banquet registration opened Feb. 7. For more information, visit www.tceq.texas.gov/p2/events/etfc/etf.html.

2011 Officer Elections

get involved

The South Texas Chapter of TAWWA and the San Antonio Section of WEAT are now soliciting nominations for Vice President and Treasurer.

The South Texas Chapter of TAWWA is accepting nominations for Chapter Vice President and Treasurer.

Ballots will be picked up at the May meeting!

Submit nominations via email to Kerry Averyt at kaveryt@saws.org.

The Vice President will:
- Assist the President in his duties
- Act as President in his absence
- Perform other duties as required

The Treasurer will:
- Oversee funds of Chapter
- Manage receipts and expenditures
- Prepare annual budget
- Perform other duties as required

**Official ballots will be distributed at the May meeting where all those that are attending who work in the water/wastewater industry are eligible to vote.*

The San Antonio Section of WEAT is accepting nominations for Section Vice President and Treasurer.

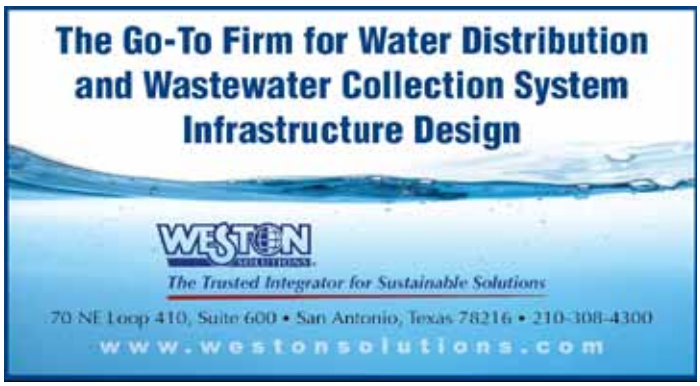
Ballots will be picked up at the June meeting!

Submit nominations via email to Roberto Macias at rmacias@saws.org.

The Vice President will:
- Assist the President in her duties
- Act as President in her absence
- Perform other duties as required

The Treasurer will:
- Oversee funds of Chapter
- Manage receipts and expenditures
- Prepare annual budget
- Perform other duties as required

**Official ballots will be distributed at the June meeting where all those that are attending who work in the water/wastewater industry are eligible to vote.*



Alamo Regional Science & Engineering Fair

On March 7, 2011, members of the local sections of AWWA and WEAT participated in judging water related projects at the Alamo Regional Science and Engineering Fair. The Science Fair was held at the Bill Greehy Arena Athletic Center at St. Mary's University in San Antonio, Texas. This regional fair which was founded in 1956 which covers thirty-two surrounding counties with over 700 students in participation from grades six through twelve. Members of the judging teams included Dennis Laskowski, Rob Jones, Josh Marazzini, Jana Cezeaux, Cale Underberg and David Bennett.

The projects where extremely completive and awards of cash prizes along with a calculator were made to the top three places in the junior and senior divisions. In addition, the top selection in the senior division was given the opportunity to participate in the Texas Stockholm Junior Water Prize (SJWP) Competition. The competition for the SJWP award is open to projects aimed at improving the quality of life through improvement of water quality, water resources management, water protection or water and wastewater treatment. The section by the judges is as follows:

Senior Division:
1st Place: Akhil Rajiv
Project Title: The Effects of Ultrasonic Treatment with Various Treatment Times and Intensities on Anaerobic Digestion for the Production of Methane Gas

2nd Place: Jaclyn Guz
Project Title: Post Drought Recovery of Native Trees in South Texas

3rd Place: John Salvadore
Project Title: Current to the Future: The Viability of Underwater Turbines

Junior Division:
1st Place: Randall Scharmen
Project Title: Hydroponics Feeding the World Made Easy: Improved Edition

2nd Place: Hailey Smalley
Project Title: How Clean Are Local Rivers?

3rd Place: Elise Notzon
Project Title: What's lurking in your H2O? Determining the Amount of Bacteria in Water Bottles

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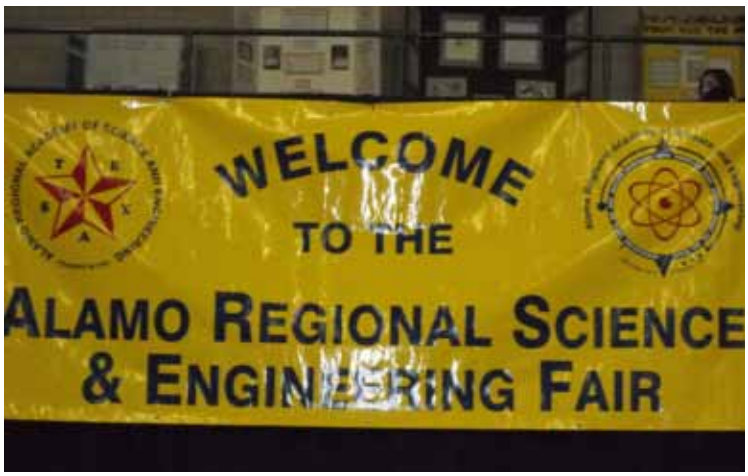

Young Professionals Social

Date: April 28, 2011

Time: 5:30-7:30pm

Place: Tomatillos
3210 Broadway
San Antonio, TX

Please come join your fellow young professionals (YPs) and the young at heart for a social at Tomatillo's on Thursday April 28th. This social, sponsored by Treatment Equipment Company, will include free appetizers and drinks. This will be a great opportunity to kick back, relax, and network with your peers.

Sponsored by:

National Drinking Water Week: May 1–7

National Drinking Water Week is held annually to help people understand the importance that drinking water has on our daily lives. To assist communities in promoting National Drinking Water Week, the American Water Works Association offers free materials for download on its website.

For more information and ways to participate, visit www.awwa.org.

Local TAWWA / WEAT Contacts

TAWWA, South Texas Chapter Officers				
Office	**Name**	**Day Phone**	**Fax No.**	**E-Mail**
President	Kerry Averyt, PE	210.233.3591	210.233.4804	kaveryt@saws.org
Past President	Jonathan Vorheis, PE	210.377.3081	210.349.8944	Jonathan.Vorheis@CH2M.com
Vice President	Melissa Bryant, PE	210.302.3611	210.302.3692	mbryant@sara-tx.org
Secretary	Lizanne Douglas, EIT	210.298.3818	210.298.3801	lmd@freese.com
Treasurer	Steve Renneker, PE	210.349.3271	210.349-2561	srenneker@vickreynet.com
Trustee	David Davenport	830.609.0543	830.609.0740	crwa@crwa.com
Deputy Trustee	Andrea Beymer, PE	210.233.3490	210.233.5490	abeymer@saws.org
Communications Chair	Alissa Lockett, PE	210.233.3401	210.233.4494	alockett@saws.org
Finance Chair	Andrew Hunt, PE	210.321.4353	210.854.9518	ACHunt@lan-inc.com
Scholarships Chair	Marisa Vergara, PE	210.494.8004	210.494.8286	mvergara@cpyi.com
Water For People Chair	Robert Cullwell, PE	210.377.3081	210.349.8944	Robert.Cullwell@CH2M.com
YP Representative	Lizanne Douglas, EIT	210.298.3818	210.298.3801	lmd@freese.com
YP Representative	Adam Conner	210.233.3452	210.233.4862	aconner@saws.org
WEAT, South Texas Section Officers				
Office	**Name**	**Day Phone**	**Fax No.**	**E-Mail**
President	Roberto Macias	210.233.3824	210.233.4406	rmacias@saws.org
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Secretary	Jana Cezeaux	210.826.3200	210.826.8876	cezeauxjs@cdm.com
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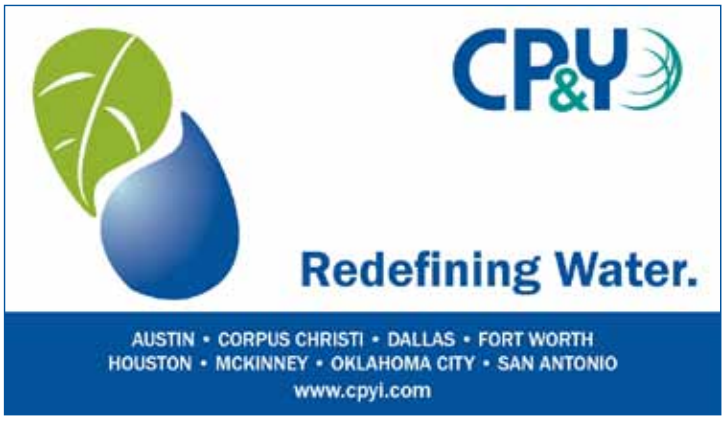
YP Representative	Cale Underberg, PE	210.841.2800	210.841.2828	Cale.Underberg@hdrinc.com
YP Representative	Kris Kneese, PE	210.841.2800	210.841.2828	Kris.Kneese@hdrinc.com

UPCOMING MEETINGS AND EVENTS

Date	Topic/Presenter	Event Host	Location
April 21, 2011	UV Disinfection	WEAT San Antonio Section	SAWS, Tower II, Conference Room 145
May 3-4, 2011	Environmental Trade Fair and Conference	TCEQ	Austin Convention Center Austin, Texas
May 7, 2011	Fishing Fundraising Event	TAWWA & WEAT	ASR Pavilion
May 19, 2011	Tertiary Filtration	TAWWA South Texas Chapter	SAWS, Tower II, Conference Rooms 145 and 154
July 28, 2011	Summer Seminar on "Hot" Topics	TAWWA & WEAT	SAWS, Tower II, Conference Rooms 145 and 154
August 3-4, 2011	Biosolids and Odor and Corrosion Conference	WEAT	San Marcos, Texas
August 11-12, 2011	Capacity, Management, Operation & Maintenance (CMOM) - Proactive Approach	EPA Region 6, WEAT, TCEQ, & Austin Water	Austin, Texas
October 15-19, 2011	WEFTEC 2011	WEF	Los Angeles, CA



ARE YOU RECEIVING THIS E-NEWSLETTER IN ERROR?

Please email Jana Cezeaux (cezeauxjs@cdm.com) to be removed from the list.

Answer to puzzle on page 5:

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4	6	7	9	5	1	3	8	2
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