

SUMMER
2013

The Official Publication of the Water Environment Association of Utah



DIGESTED news

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Plant Spotlight:
**Jordan Basin Water Reclamation Facility
Wins 2013 Grand Conceptor Award**

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INSIDE:

2013 NWEA/WEAU Joint Conference Recap ■ Collections ■ 1st Annual Sewer Cycle Ride

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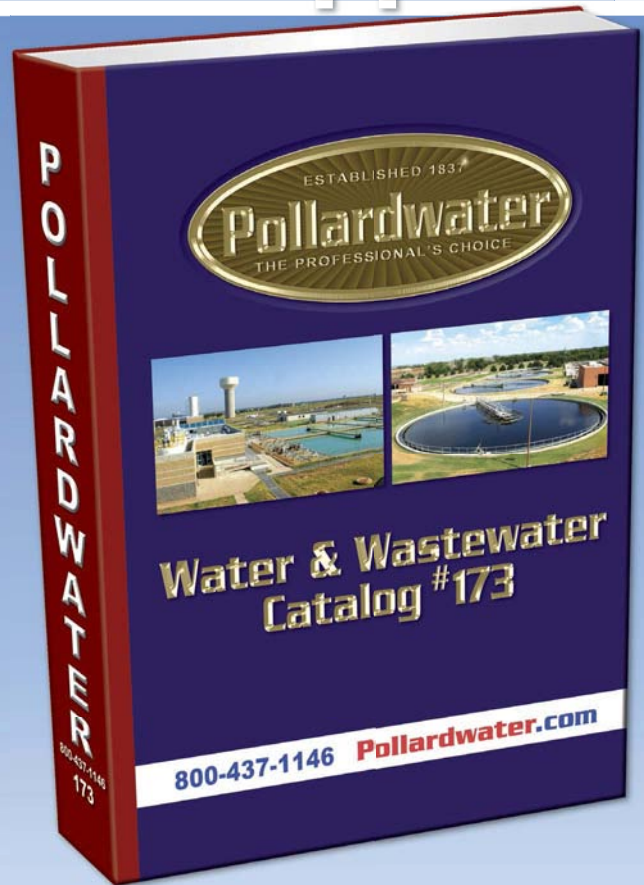
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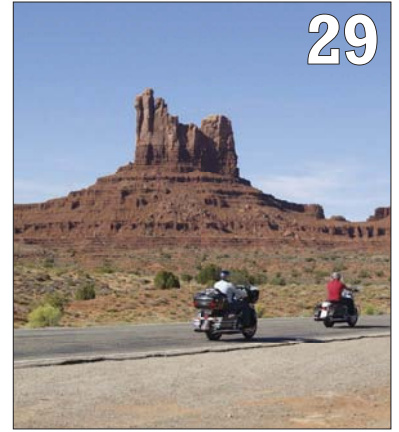
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Work, life, and technology – find your balance



Dru Whitlock

Our profession is a demanding one, requiring constant innovation, adaptation, and assimilation of information. Competition and long hours can create stress and disharmony. While ever-present laptops, tablets, and hand-held devices provide ease of access and communication, the demands of work plus electronic devices that render us constantly 'on call' can often be overwhelming. Tranquility and satisfaction are often elusive, but it may be possible to be happier in life, and a better professional, paradoxically, by getting away from work more often and deliberately.

Although scientists are just scratching the surface of brain research, recent investigations indicate the brain becomes a hotbed of activity when we are not ... thinking. Say what? Yes, recent research indicates that even when we sleep, our brain is very active.


Neurologists contend that when we feel like we are concentrating on problem solving and analysis, we use the frontal and temporal parts of our brain. When we are able to 'turn off' these aspects of the brain, however, other more creative parts of the brain kick in and continue to congregate somewhat passively on those same problems. Brain scientists indicate

that when one wakes up in the middle of the night or has the 'aha moment' when performing meditative activities, such as low intensity aerobic exercise, ping pong, or fly fishing, these are signs the creative aspects of the brain are providing clarity to the problems we are working on during the day job. Some research claims that by 'encouraging' our brains to disengage through meditative activities, we can optimize performance for problem solving and creativity.

I like research that supports my preconceived notions, so I am going to take this as gospel. As many of you know, I am an aerobic sport enthusiast. I feel that long exercise bouts, especially when I am working through tough problems, provide support and clarity. My wife sometimes hands me my cycling shoes and points me to the garage door, hmm. (I tried to get a billing number for a long bike ride during the day at work, but management would not buy it. Still working on that.) We all should find our outlets, those things that allow us to disengage from active work pursuits turn off the myriad electronic items offering distraction, and turn on the creative parts of our brain. I feel better and more centered when I am actively engaged with family or friends and exercising regularly, than the times I slip into absent-mindedly checking my mobile device for emails.

To be optimal professionals at work, we should strive for balance. A good formula:

- Eat well
- Exercise several times a week
- Enjoy friends and family
- Accumulate vacation time and take longer vacations less frequently
- Get plenty of sleep

We should strive to work hard, but then disconnect. In short, we should manage the technology, not let it manage us. By working smarter and enjoying life, we will be better professionals. 

Dru Whitlock
President

Dear WEAU Committee Chairs,

Thank-you for continuing serving WEAU. We are conducting a kick-off meeting on July 2 at DEQ (195 North 1950 West) from 10:00am to 12:30pm. Lunch will be provided. Please let me know if you can attend.

The objectives of this meeting are to ensure you have the information you need to conduct business as committee chair; and, also, so the WEAU board understands your activities, schedule, budgetary needs, and goals for your committee this year.

If you cannot make it to the July 2 meeting, we can coordinate sometime after. One important matter that we need to resolve soon is your budgetary requests. We need to prepare the WEAU budget by the end of July, so that WEAU Treasurer, Clint Rogers, can prepare the budget by mid-August.



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Chad Burrell

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I do not know how many of you are parents, and for those of you that are not parents, you might at least have had some parents and might be able to relate! My children do not always appreciate the things their mother and I try to do for them. Looking back, I think I was the same way with my parents. I was clueless that mom did all the laundry; I expected three meals a day and a place to sleep every night, and dad worked a lot and that was how it was. I cannot remember exactly how old I was when I finally got a grip of the fact that my parents made a lot of sacrifices, put in a lot of time, and really received no credit for all they did behind the scene when no one was watching. Now I find myself living through the same thing, sometimes wanting to pull my hair out because my kids do not have a clue, but holding out hope that someday they will come to that recognition, be grateful, and be better people and better parents someday because of it.

With that in mind, I would like to express my deep appreciation to all of those that help me every quarter to put together this magazine. Weeks before you ever see the *Digested News* show up in the mail, I am sending out emails to countless individuals in the WEAU requesting content in the form of articles, announcements, pictures, quizzes, and more. Without fail the stuff starts coming in. It would be interesting to consider the amount of time these individuals put in; I think if it was all totaled up it would surprise us all. Some of these individuals might have their name at the bottom of an article, sometimes even a picture, but many of them never get the recognition that they very much deserve for what they have done behind the scenes, just like mom and dad. So, I want to thank all those that have helped with this issue as well as past issues. I want to thank all those that have served in this organization this past year, and I look forward to working with those that have a new place to serve for this coming year. Enjoy the articles, enjoy the pictures, and thanks to all those that help me out. 

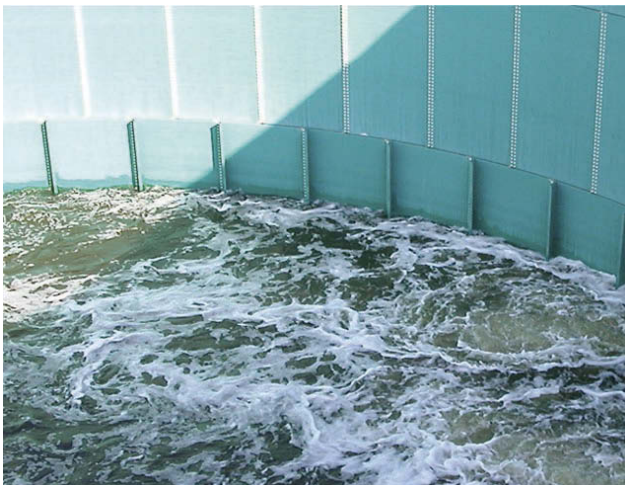


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Spotlight on Marlo Davis

By: Gordon Evans

Please allow me the opportunity to tell you about one of my best friends and a real asset to the wastewater industry as a whole. I first met Marlo when he moved with his wife Dawnya into his father's house in Taylorsville, Utah some 20 years ago. Marlo was working for Machinery and Hardware in Salt Lake City and I got to know him because he was in the same neighborhood and we both enjoyed some of the same things. Before I get into our common interests let me tell you what makes Marlo who he is and why he is that way.

Marlo grew up fast and learned early about hard work and what it takes to provide for a family. At a young age he helped put food on the table by hunting Elk, Deer and Antelope, plucking chickens and fishing. He still loves hunting and fishing and especially the muzzle loader elk hunts, but he is not a big fan of as he calls them, yard bird. He also does not like tomatoes and will always give them to the garbage can if they are on his plate.

Marlo has been married to the love of his life, Dawnya, Dawny as he calls her for 21 years. Together they have four children, two boys and two girls. Mitchel the oldest is 17, Kelson 14, Madisyn 12 and Breezy seven. Because of his family when he is not working he can usually be found driving kids to and from the dance studio, supporting and cheering at school activities and helping with homework. He is a devoted husband and father and spends most of his free time taking care of their needs

Marlo loves to spend time outdoors especially in the summer time. Almost every weekend you will find him camping with his family up on Tabby Mountain where he and his father have a cabin lot. If he is not camping he is riding his motorcycle. Marlo enjoys planning trips and taking long rides on his bike. For those of you who know Marlo you also know that he is very tenacious. He will not back down when he knows he is in the right. There was



however, one time when he was forced to surrender even though he was clearly doing what was best. Late last summer Marlo and his family were up on Tabby Mountain enjoying a leisurely hike when a bear came out of the trees in the road ahead. Knowing that his family was behind him he attempted to stand the bear down. This went well until the bear charged and he and his kids made for the trailer as fast as his short legs would carry him.



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“ Because of his interests outside of plant operations he was offered the opportunity to be the interim pre-treatment coordinator in 2009 when the regular inspector was called to active duty. Since then Marlo has taken the Districts pretreatment program to where it is now and had it permitted.”


In 1998, there was an opening at Snyderville Basin SID, they were looking for someone with pump maintenance experience, I knew that Marlo had pump experience so I told him he should apply and the rest is history. Marlo started his career in wastewater in January of 1999 as a treatment operator. He and I worked together for almost 12 years and I soon learned that there were not many projects he would not attempt to tackle. The biggest project that I am aware of was when a bearing went out in one of the centrifuges. Snyderville had the repair tools but no one knew how to repair one of them so out came the book and before long there was a centrifuge bowl assembly sitting on the bench being torn apart. This was the first of many times that these machines were rebuilt and they would have been done more extensively had he had the tools to balance and replace the tiles on the bowl and scroll assembly. Marlo took advantage of his early training as an operator and within four years of starting at Snyderville he had obtained his grade 4 wastewater certificate. He has also obtained a grade 4 collections certificate and has learned to do other duties outside of his area of work. Because of his interests outside of plant operations he was offered the opportunity to be the interim pre-treatment coordinator in 2009 when the regular inspector was called to active duty. Since then Marlo has taken the Districts pretreatment program to where it is now and had it permitted. He is currently serving as the Utah delegate for Region 8 pretreatment. He has recently won WEAU's Pretreatment Specialist of the year and in 2011 he won Pretreatment Specialist of the year. This year Snyderville Basin won the Pretreatment Program award largely in part to Marlo. He has also won Operator of the year under 5mgd in 2004. Marlo has enjoyed all of the opportunities that have come his way as a member of WEAU and started participating on Snyderville's operations challenge teams. This earned him the opportunity to participate on Utah's all-star teams at the national WEF conference two times. For now he has given up competition and been more involved in running the operations challenge for WEAU. After three years of very hard and

dedicated service he has resigned his position and was recognized this year by Steve Harrison and John Hart, WEF operations challenge coordinators for his efforts to build Utah's challenge into the event that it is today.

From early on in my acquaintance with Marlo I learned of another of his great loves in life. He always talked of his younger days and his adventures on the back of a motorcycle. His dream is to have a Harley Davidson Heritage but for now he has settled for his 1700 V-Star. Together Marlo and I have logged many miles on motorcycles. One of my favorite times together was a four-day trip we took to Yellowstone on our bikes. It is amazing just how big a Buffalo is from the back of a bike. In spite of rain, cold, bugs, heat and sunburns, and having to sleep on the ground we had a great time. At that time Marlo was riding his 800 Intruder and when we finally got to Evanston Wyoming for gas both of us were ready to be off the bikes. Since then we have taken day trips and even tried our hands at hunting deer from the back of a bike. They are really big at 55 mph.

I hope you have enjoyed getting to know Marlo a little better; he truly is a great guy. [Dn](#)





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1. In an activated sludge system, what is perhaps the most important parameter affecting biological activity?
A. D.O. B. temperature
C. alkalinity D. pH
2. A wear ring on a centrifugal pump is installed to do what?
A. increase efficiency
B. prevent internal liquid leakage
C. increase discharge pressure
D. all of the above
3. $[MgHN_4PO_4 \cdot 6(H_2O)]$ = magnesium ammonium phosphate is more commonly known as _____?
A. krptonite B. vivinite
C. calcite D. struvite
4. A mechanical seal in a pump is designed to drop approximately drops per second in order to be considered working properly?
A. 1 B. <1
C. >1 D. 0
5. Wastewater originating from households is best described as _____?
A. sanitary B. combined
C. residential D. domestic

6. Ultraviolet lamps normally contain which of the following elements?
A. lithium
B. sodium
C. mercury
D. nitrogen
7. How many pounds (lbs) of polymer must be added to 30 gallons of water to make a 0.1% polymer solution?
A. 1.0 lbs B. .5 lbs
C. .25 lbs D. 1.50 lbs
8. What is the efficiency of a lift station where the pump has an efficiency of 92 percent and the motor has an efficiency of 84 percent?
A. 77% B. 84%
C. 92% D. 110%
9. What horse power is required for a pump discharge of 1,000 gpm at 110 psi?
A. 32Hp B. 64Hp
C. 110Hp D. 220Hp
10. What resistance should be measured through a motor that uses 65 amps and runs on 480v?
A. 0.015ohms B. 0.14ohms
C. 7.38ohms D. 31,200ohms

1. Blowers are usually classified as either dynamic or _____?
A. high speed B. high volume
C. displacement D. differential
2. Bioassay is used to _____?
A. access the toxicity of a plants effluent
B. determine local limits
C. keep the local fish store in business
D. consists of pH, DO and TSS
3. Shortly after the TV camera enters the pipe the monitor shows a foggy picture. The most likely problem is that _____?
A. the lens heater failed
B. the glass lens is cold
C. grease is on the lens
D. sewer water hasn't washed off the dirt
4. To clean a tag line and power cable while it is being rewound use _____?
A. a rag and leather work gloves
B. a piece of rubber foam
C. a cotton cloth
D. rubber gloves
5. The word "normal" associated with a reagent refers to _____?
A. the reagent normally used
B. the exact concentration
C. the purity of the chemicals
D. the molecular weight
6. A 6' diameter pipe 1,000' long will hold _____ times as much water than one that is 12' in diameter.
A. 2 B. 0.25 C. 0.5 D. 4
7. What is the surface area of a pond that is 4' deep if it s holds 30 million gallons?
A. 9.2 acres B. 17.48 acres
C. 27.85 acres D. 23 acres
8. If the chlorine dose was 8.5 mg/l and the resulting residual at discharge equals 1.2 mg/l what is the chlorine demand?
A. 8.5 mg/l B. 1.2 mg/l
C. 9.7 mg/l D. 7.3 mg/l
9. If a pump is capable of pumping 60,000 gpd based upon continuous operation, the pump should be capable of pumping _____?
A. 37 gpm B. 42 gpm
C. 47 gpm D. 50 gpm
10. What is the velocity if the flow is 2 cfs in a 10" pipe running full?
A. 2.52 ft/sec B. 2.38 ft/sec
C. 3.7 ft/sec D. 2.91 ft/sec

Answers: C-0-C, 7-C, 8-A, 9-B, 10-C 1-A, 2-D, 3-D, 4-D, 5-D, 6-C, 7-C, 8-A, 9-B, 10-C

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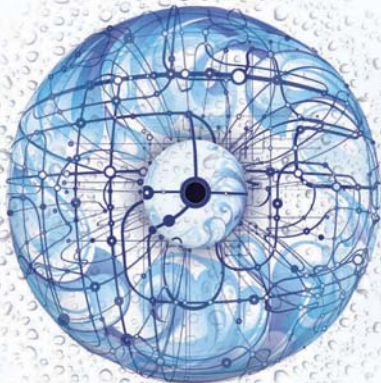
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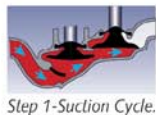
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Training seminar recap

By Chris J. Brown

On May 14, 2013, the WEAU Collections Committee sponsored a training seminar held at Cottonwood Improvement District. There was a good turn out of around 50 to 60 people. Chris Rozelle, Claims Manager, from Utah Local Governments Trust started our training off talking about the advantages and cost savings of using preferred providers for disaster clean up. All Pro Disaster Cleaning taught us all about sewer waste water mitigation and the safety factors involved from the first call to the restoration process. I would like to thank All Pro who provided the coffee, juice and bagels that we enjoyed during the registration. After a short break, Vaporooter talked about the application and how to properly get the most out of foam root control treatment for optimum product results. Then we broke for a catered lunch. After lunch we had a hands-on look at Vactor and Vac-Con Jet Trucks. Questions could be asked as we did a walk around the trucks. There were demo trucks and factory reps available. They also brought some sewer pipe cleaning nozzles that are used on the trucks. I would like to thank the people that provided the training presentations for doing such a great job. A big thank you to the guys at Cottonwood for helping with the set up and clean up. If any of you have any collection training ideas that you would like to see in the future, please let someone on the Collections Committee know and we will try to arrange it. [bn](#)

“ I would like to thank the people that provided the training presentations for doing such a great job. ”



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2013 NWEA/WEAU Joint Conference May 1-3, 2013

Recap

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Annual Conference – The most successful ever

By Jim Schwing/CH2M HILL

The 2013 WEAU Annual Conference again exceed expectations with nearly 550 attendees, 92 vendor booths, including two large truck spaces, and 60 Preconference Workshop attendees. This year's conference was the first joint event with the Nevada Water Environment Association. The conference was held from April 30 (the date of the Preconference Workshop) through May 5 in St. George.

The Preconference Workshop theme was 'Take the Heat Off Your Power Bill: Innovations in Energy Management for Wastewater Utilities' presented ways for financing energy supply, process modeling for energy efficiency, blower selection, and management tools for energy use optimization. The Workshop included speakers for power utilities, design consultants and plant operators.

In a departure from past year's conference schedules, the Preconference Workshop wrapped up at 12:45 PM so that the Annual Golf Tournament and Mountain Bike Ride could occur on Tuesday afternoon. This tweak to the schedule allowed time for camaraderie early in the program rather than waiting until the

latest time in the program. Consequently, both social events were the best attended in recent years.

The Operators Challenge, which always a fun event began on Tuesday afternoon with the Process Test and continued into Wednesday afternoon. There were two teams from Nevada, two teams from Snyderville Basin, two from North Davis (Gold Flush and Royal Flush), one team each from Magna Water, Central Valley, South Valley Sewer District, Central Weber, Cottonwood Improvement, and a 'Composite Team' made up of participants from more than one agency.

The technical program ran from Wednesday afternoon through Friday morning. Session themes included



Status of UDWQ Nutrient Regs, Energy, Nutrient Removal, Collection System, U of U Student Sessions, Operator Track, Biosolids, Facility Design and Operation, Innovative Technologies and Equipment, Facility Security and Code Compliance.

The Young Professionals (YP) from both states combined their energies and sponsored a bowling tournament for the benefit of Water For People, a scavenger hunt, a YP and student breakfast, a tour of the St. George WWTP and a blood drive. On Wednesday evening the YPs and Operator's Challenge participants held a combined BBQ at a local St. George park.

The Opening Lunch on Wednesday featured the Keynote Address by Dr. David Jenkins of UC Berkley. The title of his address was 'From Rotifers to Homo Sapiens – the Good, Bad and Ugly of Animals in Wastewater Treatment Plants.' The Business Lunch was held on Thursday and the Annual Banquet was Thursday evening that included remarks from the visiting WEF Representative, John Hart, who serves on the Board of Trustees. Incoming WEAU President Dru Whitlock of CH2M HILL accepted to President's Gavel from Paul Krauth of UDWQ the outgoing president. The banquet was followed by an impromptu

'post-banquet meeting' at 'The Office' in the Hilton Garden Inn that went on to midnight.

Extra-curricular activities include a Pre-conference ATV Ride, Sporting Clays, Golf Tournament, and a Mountain Bike Ride.

Select Society of Sanitary Sludge Shovelers (5S) inductees included Jeff Wiest of Waterford Systems, Clint Rogers of Carollo Engineers, Phil Heck of Brown & Caldwell, Matt Myers of South Davis, and Ron Clements of North Davis. Master of Ceremonies for the induction was the ever-entertaining Jon Adams of the Timpanogos Special Service District.

WEF and WEAU awardees included Jill Houston of Central Davis – Arthur Sydney Bedell Award (WEF), Dal Wayment of South Davis – William D. Hatfield Award (WEF), and Sherry Sheffield – Laboratory Analyst Excellence Award (WEF), and Jim Schwing/CH2M HILL – Grant K. Borg Award for outstanding service to WEAU.

WEAU extends thanks to our Premier Platinum Sponsors: Aqua Engineers, Bowen Collins & Associates, Brown and Caldwell, Carollo Engineers, CH2M HILL, JUB Engineers, and MWH; Premier Silver Sponsors: HDR Engineering and Thatcher Chemical; and Annual Conference Gold Sponsor George K. Baum & Company.



WEAU also extends special thanks to the Annual Meeting Committee: Jim Schwing – Chair; Trevor Lindley – Technical Programs; Mike Foerster – Hotels; Tavis Timothy and Dan James – Vendor Exhibits; John Mackey – Pre-conference Workshop; Derrick Anderson – Young Professionals; Marlo Davis, Ron Clement and Brett Olson – PWO; Clint Rogers – Registration; Jeff Beckman – Golf Tournament; Nick Von Stackelberg – Mountain Bike Ride; Dave Hutchinson – Pre-conference ATV Ride; Sporting Clays – Dan Olson; and Jeff Wiest – Board Liaison.

Special appreciation goes to last year's WEAU President for having the vision for a joint meeting between NWEA and WEAU that was a resounding success. **DA**



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Operator Challenge 2013 Review

By John Marteliz

We had another fantastic year for the operator's challenge competition. There were a total of 12 teams that competed this year making it the largest challenge we have ever had. Two of the teams were from Nevada, which added a nice twist to the competition. North Davis Royal Flush had an impressive showing as they took home 1st place finishes in safety, lab, process control, and was the overall winner. This is North Davis' 5th overall championship. Cottonwood Swat finished a close 2nd overall and had a 1st place finish in maintenance, a 2nd place finish in safety, and a 3rd place finish in process control. Snyderville Basin #1 rounded out the top three overall winners and had a 1st place finish in the collections event. All of the teams did a great job on representing their municipalities well. In most of the events, the difference between 1st place and 5th place was just a few seconds.


After the competition, the teams, judges, and their family members were able to relax at Fiesta Fun for the

Operators' barbecue. By the way, I think a couple of WEAU members have promising careers in law enforcement after they demonstrated their pit maneuvering skills on the go-kart track.

At the Awards Banquet, Ron (crybaby) Clements was a little emotional as he announced the winner of the sportsmanship award to the Nevada #2 team. Ron also enjoys sunsets and to go for long walks on the beach. Both Nevada teams did a great job and we look forward to them competing again next year.

There were a couple of surprises during the competition this year, like Cottonwood Swat placing 3rd in the process control event... Really? Well, I guess even a blind squirrel finds an acorn every now and then. Marlo Davis had to look the test over three times to make sure it said Cottonwood on it. He could not even believe it. Can you blame him though? I know one of those Cottonwood boys has a hard time with big words like 'ph.'

This year's competition would not have been possible if it was not for all the support we get from our managers, board members, judges, coworkers, sponsors, ops challenge committee, Mr. (Reign of Terror) Paul Krauth, Ron Clements, Marlo Davis, and the WEAU Board. There is a lot that goes into an event like this and you guys never get the credit that you deserve. We appreciate all that you do for us. Speaking of someone who deserves some credit, I would like to thank Brett Olson. Brett did a wonderful job creating the collection tables and trophies for this year's competition. As a matter of fact, Brett did such a great job on the trophies that Steve Harrison of WEF has ask him to create the trophies for Nationals this year. I guess that will teach him, just kidding Brett. This event would not be where it is today if it was not for people like Brett, Ron, Marlo, and Chris Reilley.

Thanks again for everyone who participated and supported the operator's challenge this year. See you all soon. 





2013 Ops. Challenge Team Participants

Nevada Team 1

Brian Carlson- Coach
Nate Seltenreich- Captain
Perry Johnson
Linda Gallant
Jon Yoffee

Nevada Team 2

Scott Farnsworth- Coach
Clayton Coon- Captain
Alycia Ybarra
Lance Lizama
David Lekar

Snyderville Basin Team 1

Cody Snyder- Captain
Dustin Lewis
Nick Brown
Trent Bay

Snyderville Basin Team 2

Dustin Walton- Captain
Dave Smilanich
Mario Aguilar
Brandon Mason

Magna Water

Dallas Henline- Coach
Rob Jaterka- Captain
Clint Giles
Beau Lamper
Ed Tucker

Central Valley

Hadley Gunn- Coach
Darrin Morris- Captain
Michael Earl
Josh Hunsaker
Jeremy Deppe

South Valley Sewer

Gordon Evans- Coach
Jordan Boone- Captain
Derek Anderson
David Thatcher
David Walker

Left Overs(Composite)

Ray Henninger- Captain
Trace Workman
Ryan Dowland
Craig Gritzen

North Davis Gold Flush

Bryce Southworth- Captain
Rick Woodward
Brian Lamar
Kylee Nelison

Central Weber

Jeffery Porter- Captain
Ryan Ewing
Shawn Vockler
Shawn Baxter

North Davis Royal Flush

Gordon Call- Captain
Tom Anderson
Tyler Barfuss
Jason Stansfield

Cottonwood

Chris Brown- Coach
Jonathan Gubler- Captain
Tim Madsen
Dan Watts
John Marteliz

Ops. Challenge Judges

Process Control

Marlo Davis
Gordon Evans
Ron Clements

Lab

Sherry Sheffield
Tiffini Adams
Anthony Daw
Leanna Risso

Collections

Brent Canham
Chris Brown
Brett Olson

Maintenance

Dave Barnes
Dennis Young
Myron Bachman

Safety

Gordon Evans
Eddie Alex
Chris Reilly
Gary Faulkner

A big Thank You to:

The PWO and the Operation Challenge Committee would like to give a big thank you to the management of each of the entities that have sponsored a team this year. We would also like to thank the Supervisors and Operators that cover the operators that are practicing and participating in the Challenge. We know that this is a team effort, from the people that cover shifts to the managers and to the participants, Thank You All for making this a great event.





2013 Operator Challenge Results

Safety Event

- 1st Place- ND Royal Flush
- 2nd Place- Cottonwood SWAT
- 3rd Place- ND Gold Flush

Laboratory Event

- 1st Place- ND Royal Flush
- 2nd Place- ND Gold Flush
- 3rd Place- Magna Flow

Maintenance Event

- 1st Place- Cottonwood SWAT
- 2nd Place- CV Wasted Gas
- 2nd Place- ND Royal Flush
- 3rd Place- Magna Flow

Collections Event

- 1st Place- SBWRD Sewer Saviors
- 2nd Place- Composite Left Overs
- 3rd Place- Central Weber Vortex

Process Control Events

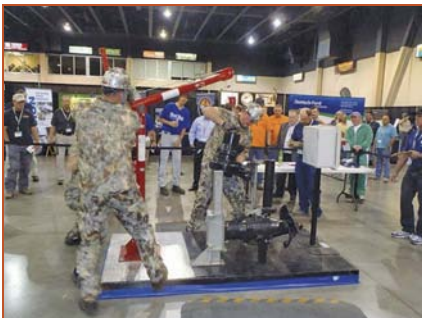
- 1st Place- ND Royal Flush
- 2nd Place- CV Wasted Gas
- 3rd Place- Cottonwood SWAT

Sportsmanship

Nevada #2 Fecal Matters

Overall Results

- 1st Place- ND Royal Flush
- 2nd Place- Cottonwood SWAT
- 3rd Place- SBWRD Sewer Saviors





The WEF Awards for this year are:

Dal Wayment – William D. Hatfield Award (020208)

Jill Houston – Arthur Sidney Bedell Award (020206)

Sherri Sheffield – Outstanding Laboratory Analyst Award (020210)

Select Society of Sanitary Sewer Shovelers:

Clint Rogers

Matt Myers

Phil Heck

Jeff Wiest

Ron Clements

Other Awards from 2012 Calendar Year:

Water Reclamation Facility under 5 MGD — East Canyon

Water Reclamation Facility over 5 MGD — North Davis SID

Collection System under 5 MGD — Taylorsville-Bennion ID

Collection System over 5 MGD — Snyderville Basin WRF

Lagoon w/Discharge — Logan City

Lagoon System w/out Discharge — Ash Creek SSD

Safety Award — Orem WRF

Biosolids Award — Tooele

Laboratory Award — North Davis Sewer District

Pretreatment Program — Snyderville

Plant Operator under 5 MGD — Ash Creek, Kim Spendlove

Plant Operator over 5 MGD — North Davis SID, Gordon Call

Collection System Operator over 5 MGD — Central Davis, John Woodrow

Pretreatment Specialist Award — Logan, Brad Jones

Supervisor Award — South Valley, Lee Rawlings

Laboratory Technician Award — North Davis SID, Rodney Shields

Maintenance Award — Central Davis, David Barnes

Young Professional — Carollo Engineers, Tyler Bird




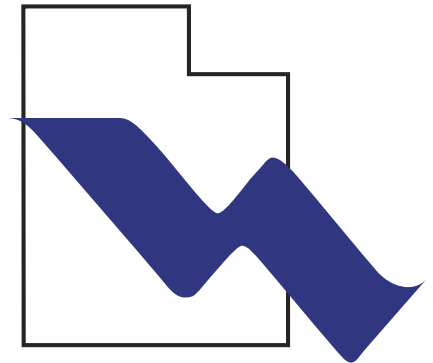
*Congratulations,
award winners!*

WEAU Treatment Training

All classes will be held at CVWRF from 1:15 pm until 3:15 pm. The classes are on Tuesdays unless noted. There is no charge for the class. Attendees are responsible for their own manual. We will be utilizing the New Mexico Wastewater Systems Operator Certification Study Manual (a free printable pdf version is available at <http://www.nmenv.state.nm.us/suqb/FOT/WastewaterStudyManual/index.html>). Please bring a calculator, paper and

pencil. Please have the corresponding chapter(s) read for the week attending. The class is designed to help operators prepare for their exam. The schedule outline is subject to change. Please refer to the training calendar for the most up to date schedule.

Taking this class does not guarantee you will pass the test. The more you study outside of class the better your chances are of passing. 



WEEK	DATE	COURSE DESCRIPTION
1	July 16, 2013	Chapter 1, 2 & 3 – Introduction to Wastewater Characteristics and Treatment, Operator Safety and Plant Pretreatment
2	July 23, 2013	Chapter 4 – Wastewater Collection Systems
3	July 30, 2013	Chapter 5 – Wastewater Treatment Ponds
4	August 6, 2013	Chapter 6 – Sedimentation
5	August 13, 2013	Chapter 7 – Fixed Film Secondary Treatment
6	August 20, 2013	Chapter 8 – Mechanical Systems
7	August 27, 2013	Chapter 9 – Disinfection
8	September 10, 2013	Chapter 10 – Activated Sludge
9	September 17, 2013	Chapter 11 – Solids Handling
10	September 24, 2013	Chapter 12 – Tertiary Treatment
11	October 8, 2013	Chapter 13 – Nitrogen Removal
12	October 15, 2013	Chapter 14 – Wastewater Laboratory
13	October 22, 2013	Chapter 15 – Sampling and Reporting
14	October 29, 2013	Chapter 16 – State and Federal Regulations
15	November 5, 2013	Review

 Applications due October 4, 2013. Exam date – November 8, 2013.

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Plant Spotlight: JBWRF Wins 2013 Grand Conceptor Award

The Jordan Basin Water Reclamation Facility (JBWRF) has been awarded the 2013 Grand Conceptor Award by the Utah chapter of the American Council of Engineering Companies. The award is given in recognition of the outstanding engineering achievement in the state. The JBWRF is owned and operated by the South Valley Sewer District (District). Engineering was provided by Bowen Collins & Associates, Inc.

Project Description

The JBWRF is a state-of-the-art, membrane bioreactor (MBR) wastewater treatment facility. Its current treatment capacity is 15 million gallons a day (mgd). It is designed to be expanded in the future to an ultimate capacity of 30 mgd to meet the demands of growth in the District. The facility was completed in July 2012 at a cost of \$98 million.

Project Features

The facility includes the following features:

- **Membrane Technology.** The hollow-fiber membrane system provides exceptionally high-quality effluent,

while reducing the overall footprint of the treatment facility by eliminating the need for clarifiers.

- **High-speed Turbo Blowers.** Air for biological processes and for membrane operations is provided by high-speed turbo blowers that operate at speeds of

25,000 rpm, with higher efficiency and lower noise than conventional blowers.

- **Biofilters.** One of the major concerns of the local residents was odors. In order to address the odor concern, which has caused major problems for other wastewater plants in the





state, foul air in specific areas of the facility is captured and treated through biological filters, or biofilters, to remove odors. The biofilters are constructed of lava rock and wood chips and remove odors through a natural biological process.

- **LEED Certification.** The JBWRF Administration and Maintenance Buildings achieved a Gold LEED certification.
- **Water Reuse.** Because of the high-quality effluent produced by the membrane process, direct reuse of the effluent is possible. Provisions for future reuse of the effluent have been incorporated in the design of the facility. Riverton, Bluffdale, Herriman, and Draper have been planning to develop a pump station at the site that would take the effluent from the plant and deliver it to secondary water systems for the communities. This would allow this water to be reused in the communities where it originated.
- **Open Space Preservation.** The District owns approximately 150 acres at the project site in Riverton. The facility occupies 30 acres of that property. Approximately 80 acres will be preserved by the District as open space. The District has prepared a Property Management Plan, which provides a plan for the District to clean up the property, restore native vegetation, protect wetland areas and provide educational opportunities.
- **Traffic Reduction.** To eliminate

traffic impacts on residential streets in Riverton, the District acquired additional property and built access roads to Bangerter Highway and 1300 West. The District obtained special permission from UDOT to gain access to Bangerter Highway.

- **Mitigation Wetlands.** A 3.25 – acre wetland area was constructed as part of the project to mitigate for wetlands affected by construction. Development of the wetland was coordinated with Ducks Unlimited. The wetland will be maintained by the District using treated effluent from the plant.

South Valley Sewer District

The District provides wastewater collection and treatment service to approximately 108 square miles in south Salt Lake County and north Utah County. The District's service area includes the cities of Bluffdale, Draper, Herriman, Riverton, South Jordan, the southern portion of Sandy and a small portion of West Jordan, and unincorporated areas



of southwest Salt Lake County, including Copperton. The District currently serves over 160,000 people.

Project Background

Wastewater treatment for the District has been provided at the South Valley Water Reclamation Facility (SVWRF). In 2002, the District had concerns regarding the ability of the SVWRF to meet the future treatment needs for the District's rapidly growing service area. In addition, the District needed to construct additional pipeline capacity, at a substantial cost, to convey wastewater to the SVWRF. The District did not want to invest in this additional pipeline capacity to SVWRF if it was determined that its treatment requirements could be met more cost-effectively at another location. As a result of concern over these issues, the District hired Bowen Collins to prepare a feasibility study to investigate other alternatives. The study determined that the most cost-effective option for the District was to build a new treatment facility in the south end of the valley. [DBA](#)



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Local student to represent Utah in prestigious water science competition

Syracuse, UT – **Taylor Murdock**, a student at Wasatch High in Heber City, UT has been named the state winner of the 2013 Stockholm Junior Water Prize (SJWP) competition – the most prestigious youth award for a water-related science project. Selected for his project, Fingerprinting Oil Wells, Taylor Murdock represented Utah at the national competition, June 14-15, 2013 at the Red Lion Hotel on the River – Jantzen Beach, Portland Oregon.


The purpose of the SJWP is to increase students' interest in water-related issues and research, and to sensitize them – as future leaders – to global water challenges. The competition is open to projects aimed at improving quality of life through improvement of water quality, water resources management, water protection, and water and wastewater treatment.

“The state winner’s study was very timely and relevant to issues facing the water quality community,” As a professional association of water quality experts, we are extremely proud to send Taylor Murdock to the national competition.

In the United States, the Water Environment Federation (WEF) and its Member Associations organize the national, state, and regional SJWP competitions with support from Xylem Inc. (also the international sponsor). The WEAU selected and sponsored Taylor Murdock to the 2013 national competition in Portland.

The national winner receives \$10,000 (USD) and an all-expense-paid trip to Stockholm, Sweden for the international competition as well as the opportunity

to present their research to water quality experts at WEFTEC® 2013 this October in Chicago, Illinois. In addition, the two runner’s up students, or team, will receive \$1,000 each.

The national winner represents the United States at the international competition in Stockholm, Sweden during World Water Week, September 1-6, 2013. The international winner will receive an additional \$5,000 (USD) presented during a royal ceremony by the prize’s Patron HRH Crown Princess Victoria of Sweden. For more information about SJWP, visit www.wef.org. 

This is the form the WEF suggests we use to announce the winner. In addition, may I just reiterate how important it is to our industry, state and nation to encourage young minds to address the issues of water. The issues of water, from pollution to water rights, are not going to get any easier. Last year’s WEAU Junior Stockholm winners were Jed Grow and Andrew Ross from Clearfield High. This year they continued their research entitled “The Passive Acquisition of a Viable Source of Bio-Electricity from Wastewater with Applications for Hydrogen Generation: Phase II” and participated in the 2013 Intel ISEF, where they won the Ricoh Sustainable Development Award of \$12,500 cash, not to mention scholarships. We commend them for their efforts and realize that we can count the seeds in an apple, but can you count the apples in a Science Fair project.



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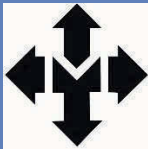
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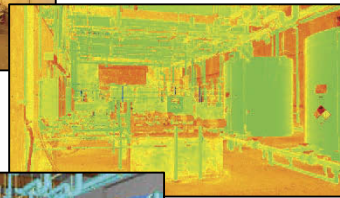


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The ride will start at the Central Valley Water Reclamation Facility (800 W. Central Valley Rd. - 3190 So.) at 9:00 AM, KSU at 10:00 AM. We will ride up Parleys Canyon to East Canyon and make our way to the Central Weber Sewer Improvement District Treatment Plant (2618 W. Pioneer Rd. Ogden Utah.) where we will have lunch provided by Dickeys Barbeque. There will be door prizes during the Barbeque and bug cards will also be issued. Let's make this an annual event for all Operators, Collections, Maintenance and Managers working in the Wastewater industry. Please invite your friends that ride. This is not a charity or a fundraiser just a chance to ride with friends. The cost for the ride will pay for lunch and for the door prizes. For more information contact Gordon Evans at, gordone@jordanbasin.com or 385-2022-2769 work, 801-885-0773 cell.





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YP Blood Drive

This year the Young Professionals organized the first blood drive to be held at the annual conference. I received an email from the Red Cross representative stating:

“The blood drive really was a great success. I attached a simple report on how many donors registered, how many units we collected, and most importantly how many first time donors we had. Almost half of all the units collected came from first time donors! That is great!

I would really enjoy working with you again next spring or whenever you will be down in St. George again... From my experience first time drives only achieve the projected goal about 45% of the time. This is in my area I believe in the state it is around 25%. So again great job and I really enjoyed working with you and hope to do so again.”

The report states that they had a goal of 30 total donors; we had a total of 47 donors with 39 units of blood collected and a total of 19 first time donors.


Then you all for your support and patronage of this charitable event! It is our hope to be able to create a tradition with the annual conference to host a blood drive every year and continue to give back to the community that has given so much to us! 



Thank you

Your blood drive results

Total Donors:	47
Units Collected:	39
First-time Donors:	19
Blood Drive Goal:	30



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YP Connections

By Jennifer Davis

Y*P Connections* is the Water Environment Federation YP national newsletter that is published three times a year.

The first trimester of 2013, which focused on October – December 2012 will be out soon!


As stated in a previous email to solicit articles for the first trimester issues, this year we are making an effort to include more information on a MA YP level, and we need your help! The main goal of the newsletter is to highlight all the work that YPs are doing within their MA as we will be the new generation of leaders in the water industry. With the preparation of each newsletter, we would like to ask for updates on the MAs student and YP groups.

We are starting work on the second trimester, which will focus on events that happened January – April 2013. If your Students / YPs had any events (yp events at an annual conference, public outreach events, tours, ect) during this time period that you would like to include in the next issue of *YP Connections*, please send me the information. We would love to include more information on what students/ YP are doing across the nation! Pictures are always great to include, we want to showcase that YPs are getting out in the community, helping other YPs, and contributing to this profession. If you include pictures, please let me know who is in them.

If possible, please provide this information by May 24, so we can include this info in our next edition.

We would love to hear from you and want to create an open dialogue with the MAs, as those are the core of where leadership begins before moving to the national organization.

For parties that are interested in signing up to receive notifications when the newest newsletter is available, you can contact YPConnections@wef.org.

Thank you for your time and your help! 



Check out the *YP Connections* newsletter on the YP portion of Wef.org, for the latest information on committee updates, member profiles, professional development and much more! *YP Connections* is published 3 times a year.

Contact Information:

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Paper is an essential part of human civilization. While we all use and depend upon electronic communications, it is easy to ignore that it comes at an environmental cost. Worldwide spam email traffic creates greenhouse gases equivalent to burning two billion gallons of gasoline yearly, with numbers rising. More than 200 million items of toxic e-waste are thrown away every year in the US alone, with a recycling rate of only 18% compared to 57% for paper. Estimates are that North Americans throw out more than 500,000 toxic computers and cell phones every day.

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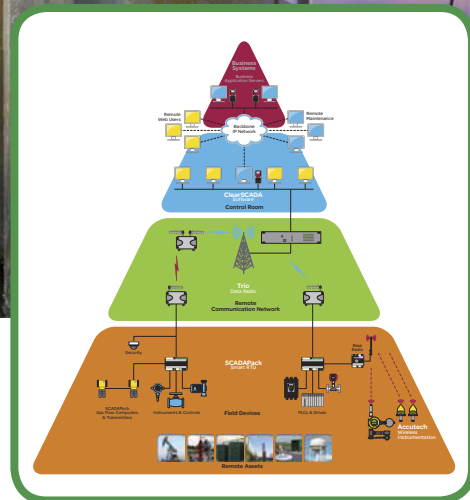
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