



H₂O Oregon

Spring 2012
Vol. 34, No. 2

HIGHLIGHTS
**OAWU's 34th Annual
Management & Technical
Conference in Sunriver**

A publication of Oregon Association of Water Utilities

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COVER PHOTO

by Mark Russell

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OAWU's mission is to provide service, support and solutions for Oregon water & wastewater utilities to meet the challenges of today & tomorrow.

HIGHLIGHTS REVIEW

34th Annual Management and Technical Conference in Sunriver

This year's conference started with snow and ended with the sun shining and temperature in the 60s. Many of the attendees were able to catch up with old friends and make new ones within the industry. OAWU staff enjoyed serving the members of the association and providing assistance to those in need. Sunriver staff again provided genuine, friendly, excellent service, and great food.

The conference sessions were lead off by Jason Green, your OAWU Executive Director, and Mark Snyder, your OAWU Board President. They welcomed us and discussed the state of your association. They were followed by Charles Hilton, Vice President of National Rural Water Association. Charles provided an update on the issues the industry is facing at a national level and discussed the need of support for the WaterPac. Mark Landauer then spoke

about the legislative issues we are facing on a state and local level.

Back again to Sunriver this year by popular demand was Joe Chambers. Joe talked with us Tuesday and Wednesday about Managing Multiple Generations in the Workplace. The attendees who went to this talk were able to better understand the dynamics between bringing multiple age groups together in a highly functional work environment. Joe, as usual, was inspirational and thought provoking.

The OAWU annual business meeting was held after class sessions ended on Tuesday. President Mark Snyder presided over the meeting as attending members heard committee updates, saw the membership dues passed as submitted and elected board members.

The slate of board members who were re-elected to the board are:

- Darrel Lockard from the City of Rainier
- Mark Kerns from Avion Water Co.
- Ed Butts from 4B Engineering and Consultants
- Gay Melvin from the City of Dufur
- Jerry Arnold from West Slope Water District

Your OAWU Board officers, as elected at the March 23rd regular board meeting, for 2012 are:

- Mark Snyder, President
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- Tim Bunnell, Secretary
- Russ Cooper, Past President and NRWA Director

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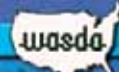
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HIGHLIGHT

34th Annual Management and

Continued from page 3

The awards banquet, on Wednesday evening, was well attended by the attendees and many families came along to see the humorous entertainment by Charles Marshall and enjoy the evening together. Charles gave an important message about the true meaning of "service" through comedy. A night of laughing throughout his performance was much needed after a day full of educational classes. The 2012 Manager and Operator award recipients are as follows:

- The **Manager of the Year** award went to DJ Ezell from Rivergrove Water District.
- The **Office Manager of the Year** award went to Lorrie Biggs from the City of St. Paul.
- The **Water Operator of the Year** award went to Joel Haag from Camp Rilea.
- The **Wastewater Operator of the Year** award went to Joe Whisler from the City of Lincoln City.
- The **Rookie of the Year** award went to Tom Tuski from the City of Banks.
- The **Associate Member of the Year** award went to Scott Nebeker for his multiple years of service to the association.
- The **Friend of Rural Water** award went to Pam Swires from USDA Rural Development.

Congratulations to all of our award recipients. These awards recognize the dedication and commitment made by those who choose to serve the communities of Oregon every day. Don't forget, if you have an employee whom you would like to nominate for next year's awards, submit the information to the OAWU office for consideration.

Our Best Tasting Water award recipients this year were Rhododendron Water Association for Best Surface Water and McNulty PUD for Best Ground Water. The submissions are judged by 5 individuals who hold different responsibilities in the water community of Oregon for ground water and surface water and then the winners go head to head for best overall. The winner of the best overall category, for the third year in a row, is McNulty PUD. Their water will be flown to Washington DC and submitted for judging in the Best Water in the Nation contest.

At the Exhibitors Hospitality Night on Thursday there were many door prizes, raffles (even a

spontaneous auction of a Sunriver stay, won by Andy Tinkess, in support of the Jeff Swanson Memorial Scholarship fund), as well as food and drink. Phoebe Obrist, daughter of Jake Obrist from LaPine Special Sewer District, won the Best Crazy Hat contest.

The raffle winners were:

Mark Beam from Ice Fountain Water District won the 47" LG LED TV/LG Blu-Ray DVD Player/movie combo, Steve Graeper from Rhododendron Water Association won the Garmin nuvi 50LM, Rick Durham from Oregon Water Wonderland II SD won the framed Duck Picture, and the winner of the WaterPac raffle of a Remington 700 CDL .270 rifle with a Leupold VX II scope was Phil Davis from Odell Water Company.

The winners of the ping pong and cribbage tournaments were announced. First place in ping pong was Dave Bobbett from ITT Flygt, receiving a \$100 prize. Brian Coulter from Crater Lake National Park came in second, receiving \$50. Jake Obrist from LaPine Special Sewer District came in 3rd, donating his \$50 in winnings to the Jeff Swanson Memorial Scholarship fund. David Crider from Water Wonderland came in first for cribbage, receiving a championship board and donating his cash award of \$100 to the Jeff Swanson Memorial Scholarship fund. Bob Ulrich from Northwest Pump & Equipment came in second, receiving \$50. Scott Rethwill from the City of Vernonia came in third, also donating his \$25 in winnings to the Jeff Swanson Memorial Scholarship fund. The \$100 winner of the Find the Logo contest was J. Kevin Roberson from the City of Redmond.

We also wish to thank the following associate members for their sponsorship at this year's annual conference:

Special District Association of Oregon – Silver sponsorship.

We wish to thank our Associate Members for their donations and time in support of this conference and of course the members who continue to believe in and support their Oregon Association of Water Utilities. Be sure to sign up for Sunriver next year, the first full week of March 2013 as there will be a slate of new classes to attend, people in our industry to visit with, food to eat, and fun to enjoy. See you there! Best wishes to you, our friends.



ITS REVIEW

Technical Conference in Sunriver



OAWU extends a very appreciative thank you to the following exhibitors for their time at our 34th Annual Conference.

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OAWU thanks our speakers for sharing their time and expertise at our 34th Annual Conference.

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Goals: Through the Eyes

Submitted by Hans Schroeder, Circuit Rider

In the last issue I wrote an article about setting priorities and goals. My daughter, Lexi, wanted to contribute the story of her special day at the Queen Coronation. This reflects not only a "proud father" moment, but also reveals to me that my little girl is growing up and showing responsibility of her own. The following is her story.

Before coronation I felt nothing. No emotions; not nervous, scared, or stressed. I felt like it was just a normal day. Earlier in the day we practiced our speeches, timed our walks, and got the auction ready. After that my two court advisors (Debbie Scudder and Chris Wallace), Queen Gina Mauri, Princess Hannah Grant and myself (Princess Lexi) went to Chinese food. That is my favorite food and let me tell you, it was pretty good. I hadn't had time to eat all day and it was already around 1:00 pm. After lunch we walked back to the Community Hall and got beautiful, well more beautiful than we naturally are!

First, we dressed in our matching dresses, earrings and hats, and then greeted all the guests to the annual meeting and Queen Coronation. The 2011 court and the 2012 court ate dinner together up on the stage. After that Gina, Hannah and I changed into

our parade outfits. We had gotten our buckles, which is how we figured out who was Queen. Gina got Queen, I got Princess Hannah, and Hannah got Princess Lexi. Our goofy court advisor, Chris, had mixed up our belt buckles, she just guessed which one was which and she was wrong.

We then had to stay in the room because we couldn't go out in our outfits since our chaps had princess or queen on them and people would find out what we were. When it was time Chris went and got my Dad to walk me down the aisle, we were the first to go (of course I wanted to go first because I have a loud personality and that's how I am). There was a slide show from when I was a baby up to now; I was kind of a cute baby and child, just in case you were wondering. My mom waited for me by the stairs; I'm surprised she didn't cry seeing me "walk down the aisle".

At this point I felt like nothing could go wrong, but of course it was too good to be true. That's when I noticed my note card wasn't on the podium. I got nervous, I really needed my note card - it had one word clues for each of the paragraphs for my five minute speech. I could feel myself start to blush. I knew the first three paragraphs and then I froze, that's when my mom had mouthed to



Princess Lexi

Queen Gina

Princess Hannah

of a Princess

me "4-H", I continued on. Then I totally forgot my speech and I was only half way done! I FROZE for about five seconds but it felt like it was forever. I felt like everyone was staring at me and that's when I literally felt like I was dripping sweat. I looked at my mom and she mouthed "fbghd djn dhiuS", I gave her a blank stare. She then said it slowly, "When you bought George". I then remembered and was on a roll after that. My mom had to mouth a few more helpful hints to me but nothing as bad as the sweating part.

I started crying when I was thanking my parents, because without my parents none of this would be possible. They do so much for me! Parents should be the best gift in life that you could ever receive. They don't have a price tag, but they also don't have an off or on switch for when you think you might need it. Parents give you everything you need and

without them you would have nothing.

After all of us had done our speeches it was crowning time. Gina got Queen, Hannah and I got princess. Joycelin, the past princess, crowned me and told me that I'm stuck with her all year, because she is on the Walla Walla Rodeo Court this year. I told her I was glad because I love her and we always have fun. After the crowning, Gina gave her Queen speech, then our parents and family members that had put money towards our tack came up and presented it to us. It is beautiful and I thank you all who put money towards it.



Many pictures were taken, I thought my lips might fall off from smiling so much, I had a lot of people there and I got a picture with everyone; well I'm pretty sure I got everyone. February 4th, the day of the Queen Coronation, was a fun filled day with lots of smiles, some tears, lots of laughter and it also brought new friends.

I can tell this year is going to be a lot of fun we have already made memories and have so many more to make. Being on court is a life experience, it has been a dream of mine and now I'm living it. I can honestly say I know what it feels like to live a dream. ♦

—Princess Lexi



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Overview of the Revised

by Mike Collier, Source Water Specialist

The EPA is revising the Total Coliform Rule!

Under the Safe Drinking Water Act the Environmental Protection Agency (EPA) is required to review and, if necessary, revise each National Primary Drinking Water Regulation at least every six years. The revisions to the 1989 Total Coliform Rule (TCR) are taking place because the required review determined that the current TCR could be improved to better protect the public health from microbial contamination due to the system's source water and/or their distribution system. The revisions were recommended by the Total Coliform Rule Distribution System Advisory Committee, established by the EPA in 2007. This advisory committee signed an Agreement in Principle (AIP) in 2008 which outlines the recommendations and is the basis for the proposed revisions. The proposed Revised Total Coliform Rule (RTCR) was published in July 2010, the final rule should be completed by October 2012, and the effective date for the rule will be three years later (October 2015).

This article does not include every fact and detail about the RTCR. The RTCR is still under review and has not been finalized, so some of the elements may still change. This article gives a brief overview of how the RTCR currently stands and hopefully shows some of the impacts that public water systems may face.

The revisions will affect community water systems, non-community water systems, state primacy agencies, and local and tribal governments. The proposed revisions require public water systems, that may be vulnerable to fecal contamination, (as indicated by their monitoring results) to do an assessment to identify and fix sanitary defects that make them vulnerable to microbial contamination. The assessment will be either a Level 1 or a Level 2 depending on the severity and frequency of the contamination. Basically, the RTCR shifts the focus from monitoring results leading to public notification to monitoring results leading to investigation and corrective action.

The Level 1 assessment is done by the public water system to find any sanitary defects,

correct them, and create a timetable for any additional actions that were not completed immediately. The Level 1 assessment is triggered if:

- a system taking at least 40 samples each month, has 5% or more of the samples return from the lab as positive for total coliform,
- or a system is taking less than 40 samples each month has two or more of the samples return as positive for total coliform,
- or the system has failed to take all of its required repeat samples.

Although a sanitary survey is unnecessary, a site visit by the state or an agent approved by the state must be completed by the end of the month following the Level 1 assessment. This site visit must give adequate information for the primacy agency to determine if the cause of contamination was identified and if the problem has been corrected. The primacy agency cannot approve an employee of the system to perform this site visit, even if the employee is an agent approved by the state to perform sanitary surveys.

The Level 2 assessment (conducted by either the state or an agent approved by the state) is triggered if the system has:

- an E. coli MCL violation,
- or an E. coli monitoring violation,
- or had a second Level 1 trigger within a 12 month period (unless the primacy agency has determined that the system has corrected the initial problem),
- or been on annual monitoring and had a Level 1 trigger in two consecutive years.

The revisions also contain the requirements for a water system to qualify for and maintain reduced monitoring. The criteria for reduced monitoring include:

- a sanitary survey showing that the system is free of defects,
- a clean TCR compliance history for 12 months,
- a recurring annual site visit by the state,
- and/or a voluntary Level 2 assessment for systems on annual monitoring.

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Total Coliform Rule

One big difference between the TCR and the RTCR is that the RTCR replaces the legal limit (Maximum Contaminant Level) and health goals (Maximum Contaminant Level Goal) for total coliform with a treatment technique for total coliform (that requires an assessment and corrective action) and adds a Maximum Contaminant Level (MCL) and Maximum Contaminant Level Goal (MCLG) for E. coli. The MCL and MCLG for E. coli will be set at 0; this is because E. coli is a better indicator of harmful pathogens than total coliform. The MCL and MCLG for total coliform is currently set at 0, under the new RTCR this will be lifted because many of the positive coliform samples do not indicate fecal contamination or pose a direct threat to public health. However, total coliform does indicate a potential pathway for contamination to the distribution system. If a water system exceeds a certain frequency of total coliform, an assessment to determine sanitary defects will be completed, and if found, they must be corrected. Under the new proposed treatment technique requirements, if there is an E. coli MCL violation, a Level 2 assessment must be completed and any sanitary defects found must be corrected.

The RTCR changes public notification from monthly notification if the distribution system is positive for total coliform to public notification for an E. coli MCL violation. The hope is that residents will no longer be confused by a public notification due to total coliform presence, as this indicates a potential pathway for contamination and is not, in itself, a risk to public health. Also, public notification will be required if the public water system fails to conduct a required assessment or corrective action.

Now consider these monitoring changes from the RTCR. For Routine monitoring, there is no change for systems serving more than 1,000 in population, but for systems serving less than 1,000 in population, the primacy agency may determine that the system's current monitoring frequency should be changed. There are also new criteria when monitoring can be reduced or increased. For Repeat monitoring, there are no changes for systems serving more

than 1,000 in population, but for systems serving less than 1,000 in population there is reduced repeat samples from 4 samples to 3 samples (groundwater systems must still take any samples needed to comply with the Groundwater Rule). Systems on monthly monitoring, serving up to 4,100 are not required to take additional routine samples the month following a positive sample for total coliforms, but can return to their normal monitoring. The RTCR increases monitoring for small systems that have poor compliance history and requires new monitoring for seasonal systems. Seasonal systems will have required start-up procedures and have mandatory sampling during periods when they are most vulnerable.

The RTCR allows the use of dedicated sampling sites instead of public buildings or customer houses. This gives utilities more control over the tap to prevent contamination and facilitates better access to sampling taps at locations throughout the distribution system. Under the RTCR systems have the flexibility to propose repeat sample locations that best verify and determine the extent of potential contamination of the distribution system rather than sampling only within five connections upstream and downstream of the location that was found positive for total coliforms. The public water system must demonstrate to the state that the sample site plan remains representative of the water quality in the distribution system.

Let's look at some of the violations one may run into from the RTCR. An E. coli MCL violation is when:

- a routine or repeat sample is positive for total coliform and at least one of the samples is positive for E. coli,
- or a system has a repeat sample that is positive for total coliform following a routine sample that was positive for E. coli,
- or there is a failure to take the required samples after a routine sample is found positive for E. coli.

In these cases, there must be a Tier 1 public notification, the primacy agency must be consulted within 24 hours, and a Level 2

assessment must be done with any corrective actions deemed necessary completed.

A Treatment Technique violation is when there is a failure to:

- perform a triggered Level 1 or Level 2 assessment within 30 days of the notification for exceeding the trigger,
- or correct all sanitary defects identified in an assessment within 30 days,
- or correct sanitary defects according to an agreed upon schedule.

In these cases there will be a required Tier 2 public notification. The public notification must be repeated every 3 months as long as the violation or the uncorrected defects continue.

Finally, we will briefly review Routine Monitoring and Reporting violations. A Routine Monitoring violation occurs when the public water system does not take the required routine samples, or when there is a failure to test for E. coli after a routine sample tests positive for total coliform (some labs in Oregon automatically test for E. coli after a routine sample tests positive for total coliform). A Reporting violation is when a system fails to submit a monitoring report or an assessment form, or fails to submit a report by the required date. For these violations, the system must complete a Tier 3 public notification (this can be included in the annual Consumer Confidence Report).

The proposed RTCR also modifies the public notification and Consumer Confidence Report (CCR) language to reflect the rule revisions. In addition, the proposed RTCR removes the CCR requirements for total numbers of positive samples, or highest monthly percentage of positive samples for total coliforms, and total number of positive samples for fecal coliforms. These are replaced by requirements to include the number of Level 1 and Level 2 assessments needed and/or completed, the corrective actions required and completed, and the total number of positive samples for E. coli.

The proposed RTCR allows all systems to transition to the new rule at their current TCR monitoring frequency (even if they are currently on reduced monitoring).

Continued on page 13



New Ford Fleet Program

by *Heath Cokeley, Circuit Rider*

Let me preface this article by saying I am not on Ford's payroll. I do not even drive a Ford for my daily driver. As many of you know I drive a '07 Toyota Tacoma. The main point of this article is to inform all of you water and wastewater operators out there, who are in charge of purchasing vehicles for your utilities, that there is a new Ford fleet program (see ad on page 26). As a member of OAWU, you qualify for this program and can get discounts of more than \$5000.00 depending on which vehicle you are looking at. There is a different discount rate for the different models of Fords, so if you are interested just contact our office and Donna will get you in contact with one of us to help you figure out how much of a discount you are entitled to.

The second point of this article is to talk a little about some of the new toys that are available on Fords. For those of you that know me know I am a bit of a gear-head. Though my current daily driver is not a Ford, I have owned more Fords in my short life than I can easily count and still own four Fords. My favorites being my 66 4x4 appropriately named Rusty and my 71 high boy with a moderately built 390. Though I will regularly bash on Chevy and Dodge there are many things about those two lesser brands of automobiles I still like. Am I starting debates about which is best yet?

Ok, so what are the new cool things Ford has that you may or may not know about. Have you test driven the f-150 with the 3.5 liter Ecoboost yet? If not, I dare you to. Yes, I said it is a 3.5 liter, so I am sure many of you are scoffing at why I would suggest a truck with a six cylinder when, for many of the things we do we need the power of a V8. Well try this on for size; this little V6 puts out 365 horse power and 420 foot pounds of torque and does this while averaging in the low 20 miles per gallon. My first thought was that is too much power out of a small motor; it is going to break things. I think some guys at Ford thought the same thing because they decided to send this motor through a slew of torture tests. You can find these tests on Youtube by typing in Ecoboost torture if you would like, but I will do a quick rundown of what they did to this poor thing.

They randomly selected a motor from the line with the block number 448AA and stressed the motor to try and represent 150,000 hard miles in a lab. They did this by running the motor at

full throttle for over an hour and then they put it in a deep freeze at minus 20 degrees. They then shocked it to 230 degrees and all this takes place in 15 minutes. But the best part is they do this over and over and over again.

Now if you're like me, you are thinking "yeah, they can do whatever they want to in a pretty clean lab, but what is it going to do in the real world." Well they tested that as well. After the first round of tests they put this same motor in a truck and drove the truck to Oregon and used it as a skidder on a logging crew.

I think these guys may have done their research on what we north westerners use a truck for. I know I have used my little Toyota to pull out some stumps and move some logs on my place, but they did a little more than that. They sent the truck to Nygaard logging out of Astoria with the challenge of dragging 22 logs out at a total weight of 110,000 lbs. up a 10% grade. The truck did this with no issues.

Then it was off to homestead Miami speedway. They hooked up 11,300 pounds, which is its maximum towing capacity, and towed that load at full throttle for 24 hours only stopping for fuel and tires. After that it was on to Davis dam for a 3.5 mile race up a 6% grade towing a trailer. Who did they race, well who else, but Dodge and Chevy. The Dodge had the 5.7 hemi and the Ecoboost beat them to 60 mph by 11.9 sec and to the finish by 3.2 seconds. I think it only fair to point out for Scott's and Jason's sake, who are both Dodge fans, that the Dodge was catching up. But then came the Chevy. Mr. Tim Tice is the one on our staff who is a Chevy man, so this is for you Tim. The Chevy was equipped with the 5.3 Vortec and all else was fairly comparable, they were both 4x4 and the gear ratio was close to the same. The Ford beat the Chevy to 60 by 12.6 seconds and overall by 42.9 seconds. Let me remind you all that this motor has an equivalent of more than 162,000 miles on it and the Dodge and Chevy where both new.

After all this you would think they would be done, but they weren't quite. For the final test they put the motor in a Baja truck and ran the Baja 1000 in Mexico. The problem they had here was that they had calculated the fuel consumption based on their old high performance motor. The new Ecoboost got over double the gas mileage, meaning they could stop far less

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and finished the race sooner than anticipated. Not a bad problem to have.

So after all this abuse, the next logical question is: What kind of shape is this motor in now? They took the motor back to the Ford lab and it still made the same horse power and torque as when it was brand new. They then took it to the North American Auto Show and tore the motor down in front of a live audience. The motor still met all factory specifications.

Some of the other cool bells and whistles you can get on this truck include a key, which you can program, so that when it is used the truck cannot go over a speed you set or play the radio over a volume you select. Great for your teenagers but as Scott pointed out, when I told him about it, who is going to let their teen drive their almost \$50,000 dollar truck moderately equipped? You can also get all the other

amenities like heated and cooled seats and other frills that, for the most part, I see as one more thing to break.

I guess the best piece of advice I can give to end this article is; if you are looking at upgrading your work fleet or even thinking about a new vehicle for yourself, don't get locked into one brand name because it is what you have always driven. Look around and take lots of test drives to make sure you find a vehicle that will fit all your needs.

I will say that Ford is not the only one with cool new toys out there. For instance the Chevy offers the only heated tailgate on their trucks. And if you are wondering, yes - it is to keep your hands warm when pushing it home on a cold winter day. I can already hear the feedback I am going to get for that last remark, so I will finish with: travel safe and I will see you down the road. ♣

Total Coliform Rule, continued from page 11

States will then evaluate the monitoring frequency during the sanitary survey conducted after the effective date of the RTCR (fall of 2015). This gives public water systems more time to learn about and initiate any necessary changes. It will also reduce a state's burden by not requiring the state to determine monitoring frequencies while trying to develop policies, train their own staff, and train the public water systems about the rule revisions.

Whewwww, are you exhausted? I know I am. I hope that this quick overview of the Revised Total Coliform Rule gives you an idea of what to expect from the rule and when to expect these changes to affect your water system. As rule implementation begins, we are confident that further detail and direction will be provided by our state's Drinking Water Program. ♣

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SB 3874 – Reduction of Lead

by Scott Berry, Circuit Rider/Programs Manager

In my last article I wrote about SB 3874, an amendment to the Safe Drinking Water Act (SDWA), ending the article with a promise to explain the changes to the NSF 61 regulation. I will explain that to the best of my ability, but before I do, I think we need to look back into how this rule came to be.

While the list of regulated chemicals in drinking water expands as new potential contaminants are identified, the presence of lead continues to receive special scrutiny. Lead is not normally found in source water, but can enter drinking water systems through the corrosion of the pipes and plumbing fixtures. Therefore, regulatory efforts to reduce the presence of lead in drinking water primarily focus on the lead content of drinking water system components.

Among the most recent efforts in this area is the passage of the federal “Reduction of Lead in Drinking Water Act”, signed into law by President Barack Obama in January 2011. The new law redefines “lead-free” under the SDWA to further restrict permissible levels of lead in drinking water system components. In this case, federal action follows the implementation of strict regulations in California and Vermont, where tighter limits on lead content have been in place since early 2010, and in Maryland where similar restrictions become effective in January 2012.

I have spoken with some of my colleagues in both California and Vermont who told me that the lead free legislation in their respective states has meant a couple of things to the water systems that they represent. First, the difference in price for fittings and appurtenances that meet the less than 0.25% lead regulation is about triple the price of those that do not. For a new connection, this cost increase is passed on to the customer in the cost of the service installation. For the replacement of existing appurtenances, this increase in cost is passed on to the water users in rate increases. The net result has been

an increase in cost and some significant public relations concerns due to those cost increases.

Another concern has been: “What do we do with all of the brass fittings we currently have in our inventories?” For us here in Oregon, my response is to use them up before January 4, 2014. After that date, the regulations state that anything that has been pulled from service will need to be replaced with fittings that meet the new regulations. There are exemptions listed and they are as follows:

Exemptions – The prohibitions in paragraphs (1) and (3) shall not apply to –

Pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are exclusively for non-potable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where the water is not anticipated to be used for human consumption. Also worth noting is the exemption for water distribution main gate valves 2 inches or larger.

So, what does that mean for fire hydrant stems and components? My thoughts are that water from a fire hydrant is not intended to be used for human consumption, but we'll need to wait for the interpretation from the Oregon Health Authority to know for sure.

ANSI/NSF 61

The NSF Joint Committee on Drinking Water Additives was tasked with amending ANSI/NSF 61 to incorporate criteria for the weighted average lead content requirement of California's AB 1953. The result of this effort was the development of Annex G for ANSI/NSF 61 published in January 2009. Intended to be used in conjunction with ANSI/NSF 61, Annex G defined a method for calculating the weighted average lead content of a product, consistent with the requirements of AB 1953.

However, while the publication of Annex G provided a method for calculating lead content, it did not expand the scope of

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Lead in Drinking Water Act, part II

ANSI/NSF 61 to include the full range of products identified in the California law. More important, Annex G failed to define specific testing requirements and methods for analyzing the lead content of materials. So the NSF Joint Committee turned its attention to the development of a new standard that would address these shortcomings. The result was the development of ANSI/NSF 372 – Drinking Water System Components, Lead Content released in late 2010.

ANSI/NSF 372 contains the lead content evaluation procedure originally detailed in ANSI/NSF 61 Annex G, as well as testing requirements and methodologies for material lead content analysis. Further, the scope of the standard applies “to any drinking water system component that conveys or dispenses water for human consumption

through drinking or cooking, mirroring the scope of AB 1953. Because ANSI/NSF 372 does not address contaminants other than lead, it can be used in those jurisdictions which have adopted requirements similar to those in California, but which do not mandate compliance with ANSI/NSF 61.

With the introduction of ANSI/NSF 372, Annex G of ANSI/NSF 61 has been revised to reference ANSI/NSF 372 for the evaluation of the weighted average lead content and lead content material analysis. This change makes ANSI/NSF 372 the primary standard regarding lead content in drinking water system components.

This, at least for now, is all the clarification I am able to provide on this topic. OAWU will continue to monitor the developments

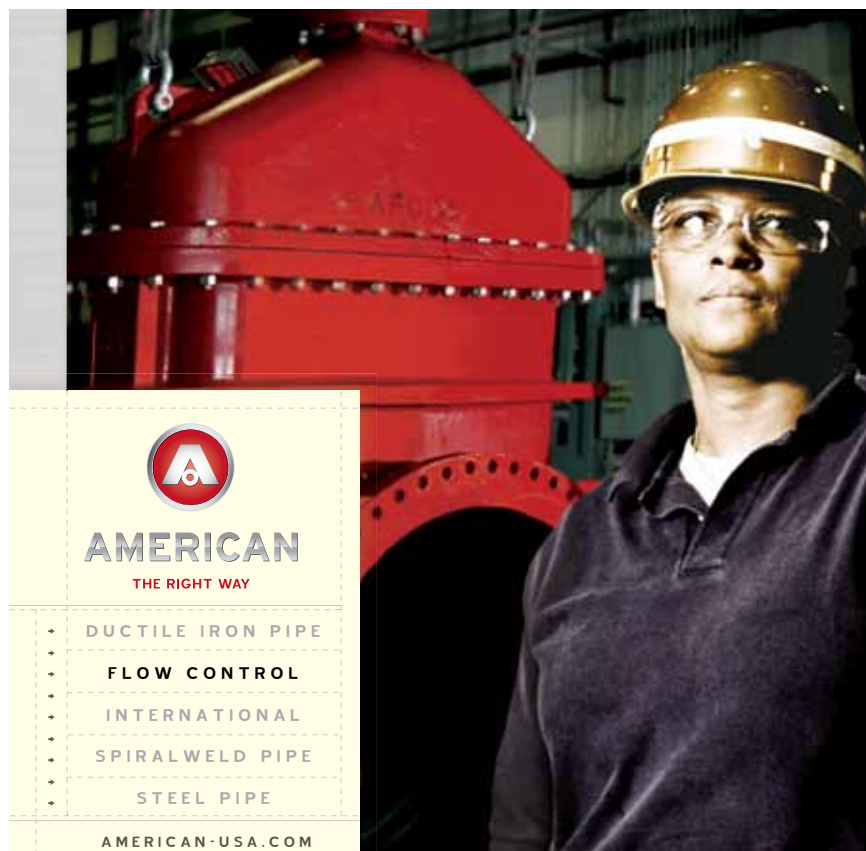
pertaining to the passing and implementation of SB 3874. ♦


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Wastewater Options for Rural Communities

by David Branham, Wastewater Technician

Many rural communities in Oregon lack a wastewater management system that can effectively protect public health, ensure environmental quality, accommodate future housing needs and facilitate growth. Decentralized wastewater treatment should be at the top of their list. However, Oregon does not, at this time, have a comprehensive, statewide strategy that provides for the cost-effective treatment of municipal wastewater in rural areas.

History, Not Technology Favors Centralized Approach

Thanks to federal funding during the 1970's and 1980's most urban communities across Oregon installed centralized wastewater systems to meet their citizen's needs. The federal money, combined with the failure of communities to adequately maintain traditional septic systems, provided justification for construction of sewer and wastewater treatment plants. Usually, larger communities were favored over smaller communities to receive the majority of the Federal funds.

During the 70's and 80's most rural Oregon communities considered only two options to meet their wastewater management needs:

- Continue using poorly maintained traditional septic systems, or
- Install an extensive pipe network that collects wastewater to a centralized, highly maintained wastewater treatment plant.

These centralized systems have been termed the "big pipe" approach. They involve installing an extensive network of large pipes throughout a community to collect wastewater and bring it to a central treatment plant, followed by disposal in a stream or body of water.

Today however, major federal funding for wastewater management projects has been severely curtailed if not completely eliminated. Often times, Oregon communities must bear the full cost of installation, operation and maintenance. The price tag

to construct a centralized sewage system has become prohibitive for less densely developed rural communities. Also, increasing environmental regulations pose significant challenges for wastewater systems that discharge treated wastewater into surface waters; such as rivers, streams and coastal waters.

Decentralized Options Abound

Today there are multiple alternatives to centralized sewerage. Conventional septic systems are dependable options where soil conditions are favorable and the systems are properly maintained. Advanced on-site systems (sand filters, peat filters, pressure distribution systems, drip-irrigation systems, and disinfection systems) and community lagoon/spray irrigation systems can be used over a much broader range of site and soil conditions than conventional septic systems. Cluster systems use small collection networks to bring wastewater from a limited number of houses (usually 5 to 100) to a common treatment and disposal area. Cluster systems use small-diameter gravity sewers and pressure sewer systems that are less expensive to install than the large pipes used in the centralized approach.

While these land-based, alternative wastewater systems are recognized as viable options, the treatment strategies are relatively new and may not be recommended by some in the private sector. In times past, these treatment techniques were not considered to be mainstream options that communities could depend on.

Yet, land-based systems have been judged to be the most cost-effective and environmentally sound wastewater treatment options for rural communities, both now and for the future. The regulatory community requires assessment of land-based alternatives because they pose minimal environmental impacts on streams and rivers. Land-based systems require extensive planning and stepwise implementation depending on the area to be served.

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Rural Communities

Management, Maintenance and Inspection Are Key

The success of the decentralized approach depends on the establishment of a management program assuring that systems are regularly inspected and maintained. Trained and certified system operators will ensure that systems function effectively. While decentralized wastewater technologies work best for rural communities, a centralized management network to oversee them provides the most effective management and best implementation for rural areas. The centralized management can be provided on a community, county or multiple-county area.

Establishment of wastewater infrastructure in rural areas should include a systematic evaluation of all options; beginning with consideration of on-site systems, cluster systems, and finally, the centralized treatment option. When community leaders in rural Oregon begin reviewing their wastewater management options they should put decentralized wastewater systems at the top of their list to ensure public health, environmental protection, lower installation costs, and increase the flexibility to plan for future growth. 💧

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“Know-Knows” for Development

by Jack Hills, Source Water Specialist

A significant component of your Source Water Protection Plan (SWPP) is your Contingency Plan. Did you know that the mandate for a contingency plan is included in your SWPP? Yes, per the Oregon Administrative Rules (OAR) under “Voluntary Drinking Water Protection Program”, OAR 333-61-0057, contingency planning is an essential component of the Oregon Wellhead Protection Program. The contingency plan should recognize the potential threats to the supply and set out actions to be taken should the threats actually occur.

The development of a contingency plan for a water system needs to be coordinated with the local protocols of emergency response. Technical assistance is available as written materials offered by state and federal agencies (OHA and EPA). Oregon has what is called the “Ten Essential Elements of a Contingency Plan”. Know what they are. As a minimum, the following items must be considered in your system’s contingency plan:

Know the threats that could curtail your system’s service to its customers. Obviously each water system is unique so the priority of threats may not be the same for each system. Consider the elements and the environment of the system; such as the source of supply, potential contaminants, the system equipment, its design and operation, geology, and climate of the area. Begin to prioritize what threats have the most significant impact to the successful operation of the water system.

Know about the water usage and demand on the system in case it is necessary to replace the source of supply. Knowing the minimum and maximum daily and peak demands will allow for planning for an emergency supply from the appropriate sources.

Know what action is to be taken for each anticipated incident. Evaluate how the water system will respond to different scenarios and prepare the necessary actions to mitigate damage and downtime.

Know who to contact that is qualified to operate the water system and perform the necessary actions as anticipated. There should also be a response coordinator assigned to

work with local, county, and state emergency response personnel. Contact the Oregon Emergency Management (OEM) staff for assistance with preparing the contingency plan and for information about existing local, county emergency response coordinators.

Know where to acquire water supplies for both short and long term replacement. The short term needs may be for hours or days where the long term needs could be from weeks to a permanent alternate supply. Depending on the incident and type of need for the system, the water system will need to evaluate the quantity of supply needed in order to select the appropriate alternate supply source.

Know how to conserve water and prioritize the consumptive uses during emergencies. A conservation program should be utilized - know ahead of time which uses may be curtailed such as irrigation, agriculture and surplus sales to use for fire, health and safety of consumers on the system.

Know the emergency plans, test them, review them and update them. Practice by simulating the anticipated incidents. Then review the practice efforts, their results and modify or update the plan of action as needed for each of the incidents.

Know where to train the water system operators to be prepared for the emergencies. Continually train additional personnel to maintain sufficient qualified operators to handle the work load during emergency incidents.

Know how to inform, educate and communicate with the public. Keeping the consumers informed about the capability of the system and its operators helps maintain their confidence during an emergency.

Know where the resources are to meet the needs of an emergency; not only the in-house inventory of materials, chemicals, and equipment but the availability of outside forces, contractor services, additional transport equipment, including the resources from neighboring communities and water systems. A monetary fund resource should

Planning Your Contingency Plan

also be established to be prepared to meet the financial demands of an emergency.

Having a good contingency plan is a great thing. Knowing how to use it along with the information it contains is extremely important to the preparedness that a system

and its personnel have ready for the eventual occurrence of an emergency situation. Just as having a contingency plan is a wise investment of time and resources, so is the overall attention toward having a Source Water Protection Plan; to know what potential

contaminates could threaten your source of supply and know how to lower those risks. ♦

Call on OAWU for assistance. Web access to contingency planning and DEQ: <http://www.deq.state.or.us/wq/WhpGuide/ch3step6.htm#Step6>



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Transparency in Water Rates

by *Tim Tice, Projects Manager*

For the past few years the Oregon Association of Water Utilities has been busy studying water rates for systems. The primary reason is because our members have been requesting such services. In performing these studies we have seen that no two set of rates are alike and that much time is needed to regularly determine if the rates are sufficient to keep the water system operating in the black.

Who is involved with setting water rates? Typically, as an off the cuff answer, it is either the city council or board of directors (as the governing authority). Even though more people may be part of the process, it is often only the decision makers completing the daunting task of rate adjustments. Other folks affected by a rate adjustment are city or system personnel and the consumers. The level of involvement with any role in our lives is usually linked with how involved we are with other responsibilities or activities (the many hats we wear). The 64 thousand dollar question relating to water rates is: How much time is spent, from various parties, thinking about water and the monthly rates? The general answer is “not much.” That is precisely the focus of this article; to pass along a set of solutions or options to those involved with setting water rates.

The hat most often worn by all of us, during the longest part of the day is the “job” hat. This head gear simply requires more time and thought than the others associated with our daily lives. Other hats worn are the spouse hat, the parent hat, and the recreational hat. It is often difficult for a committee or council to fully engage and commit the time necessary to conduct one’s own rate study. We are busy people and are wearing too many hats. Simply put, we as users do not often consider water rates because of the minimal impact they have on our financial lives.

Looking at operators of water systems, these folks wear the water hat as their job hat. Their daily task is the operation, maintenance and management of the water system. They deal with all aspects, including budgets. Operators are tasked with providing the governing authority with current issues and forthcoming concerns that will involve expenditures. A majority of the folks who

govern a small water system are volunteers and their primary focus each day is not the water system. The governing authorities, who are elected by their peers, rely on the operators to keep them informed.

Another group affected by any rate adjustment is the consumer. Often consumers only give thought regarding the water system when water is not flowing, low flowing, or has an offensive characteristic. Their understanding and thoughts of water systems are often related to turning on the tap and receiving clean cool water. We, as humans, think less often of the person, place, or thing that creates the least headaches for us. How frustrating is it to go out to the car and find that it won’t start? We have come to expect that by turning the key the engine will start. So, if the water system has clean flowing water, it is given less consideration, if any at all. Out of sight, out of mind!

Due to the reliability of water system functions often the water system and employees are taken for granted; taken for granted, not from the aspect of being neglected, but due to the steady services associated with most water systems. From this we can expect those with the greatest level of understanding of water systems, generally speaking, are the system personnel, then the governing authority, and lastly the public. Now, there are exceptions to the previous statement as we are unique in our abilities and/or knowledge to comprehend various subjects.

The governing authority trusts the operators → the operators trust the governing authority to provide the proper tools guidance and policy to complete the task → and consumers trust the governing authority and operators to provide clean water.

The governing authority gives a degree of trust to the system personnel to keep informed on the general operations. The consumers have elected the members of the governing authority, and their vote is a way of conveying that they trust that the right decisions are made in regard to the water system. The operators are entrusted with understanding system operations to the best of their ability. A simple circle of trust, that is or can be pushed out of shape.

Oregon Association of Water Utilities

Transparency is the answer that keeps the level of trust at its highest and the two pillars of transparent support are communication and education. If we falter on either, we lose trust in half the time it takes to build. The most significant tool provided to the operators is maintaining financial stability.

Financially, system operations are supported by monthly rates. Yet, we often find that rates are rarely considered or are tabled for another year. Similar to milk, gasoline, and electricity, water (though not a commodity), is a product that is part of a service. We have seen prices increase for all of these goods and services. Why is it we put off any discussion about water systems, the cost of operations, the infrastructure and the rates that support them? The primary focus in understanding rates for all concerned parties is education.

If we had to get water from our satellite dish we would all go thirsty, yet costs associated

with television viewing has increased many times in the past 10 years. We can all live without water, but we can't live without TV!?!

Keeping up with the times financially is a daunting task for all of us, both at work and on the home front. Any successful business continually makes financial adjustments and the same should be true for a water system. The water system needs to be considered a "business."

Asking our constituents to pay each month for water service is an overwhelming task. Life's circumstances never deal any of us the same financial hand. We cannot and should not tell anyone how to live their life, yet their life would change considerably if their water system failed. So, begin the challenging task of reviewing water rates with open discussion, and education. Public relations are a key component to sharing information with

folks who rarely think of water and the cost linked with its operations. Communication is vital and the second answer to a better understanding of water rates. Talk to your consumers. Let your consumers know of system improvements and when you're finished reading this article pass it on to the consumers. They have a responsible role to play in this feat.

One insight gained from water rate studies is that we all want clean drinkable water; it's the common ground for all people involved. Helping the consumer understand, in a general sense, the necessities and costs of water system operations will build trust. Impress on them the importance and the value of the water system and gain back their confidence. Sustainable rates will follow.

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Jodi Green Receives NRWA Scholarship

DUNCAN, Okla. – Jodi Green, a senior at Nestucca High School, has been awarded a National Rural Water Association Scholarship. The NRWA Scholarship is a one-year scholarship valued at \$2,000, which is awarded to the children and step-children of Rural Water staff across the nation.



Green has a 3.3 Grade Point Average, and was on the honor roll. She participated in volleyball and student council. Green plans to attend Oregon Coast Community College after graduation and study Nursing.

Jodi is the daughter of Jason Green, Executive Director of the Oregon Rural Water Association.

Scholarship recipients are selected by the NRWA Scholarship Committee, based on the applicant's academic record, awards, honors, leadership, activities and content of a 250-word essay.

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The Board Corner

by Russ Cooper, OAWU and NRWA board member, City of Medford

Why is it so hard to stand up and accept recognition for a job well done? I know the uneasy feeling I get at the thought of someone speaking about my successful efforts. My intent with this article is to say "THANK YOU" for the part you play in making the Oregon Association of Water Utilities an outstanding organization.

I felt it was important to take a moment of my time and yours to recognize the unmatched efforts of the Oregon Association of Water Utilities. Not just recognizing some ambiguous name of an association, but to acknowledge the individuals who make up this great Association. I believe OAWU staff deserve a hearty pat on the back for all the work they do. More importantly, I wanted to acknowledge you, the individuals, who make up the "membership". It is the combined efforts of each individual that makes an association successful, as each of you continue doing your part.

Recently, I have found myself needing to defend the cost of memberships. Not just here at work, but in my personal life too. Our current economic climate has many of us looking more closely at how we spend our dollars. It is easy to ask, "Did my membership dues pay

dividends last year? Did I receive direct benefit from my membership?" Unfortunately, I have heard of more than one story of a Council Member making those types of statements, and proceeding to sway others to cut budgets without really seeking to answer the question.

Could you answer the question, "What benefit do I get from my membership dues to OAWU?" Most of us would rattle off great conferences, pretty good training, and readily available on-site technical assistance. You may not recognize OAWU's efforts on a State and National level directed toward influencing legislation that affects water utilities. Additionally, there are a number of other services provided to member systems that many of us are unaware of and yet are still available. Before you find yourself needing to defend the membership dues vs. benefit, question take a moment and give it some thought.

I have found the following to be a more challenging question to ask and answer. What are my membership responsibilities? What do I offer to the rest of you? I am grateful to the water systems that make facilities available for OAWU training classes. Many of our Associate Members donate their time and products to

provide training classes and hands on opportunities. Additionally, many of our utility managers are willing to take time to contact our State Representatives to educate and influence these legislative decision makers. Thank you, to each of you who give back in a number of different ways. You are a big part of what provides value to OAWU, and makes this organization worth being associated with.

So, why am I thanking you? Our utility needed to put together an Operations and Maintenance Manual that would satisfy the requirements of OAR 333-061-0064. Who was it that offered an excellent training class on writing O&M Manuals? OAWU. Our system sent staff to attend one of these classes. The class provided our system with the resources and an excellent framework to develop our O&M Manual.

Why am I thanking you? Our utility was notified earlier this year that we were scheduled for a Water System Survey. Who did we call to help us prepare? OAWU. Circuit Rider, Heath Cokeley spent an afternoon at our system and walked our staff through a mock water system survey. Heath reviewed our facilities, our testing procedures and records, and



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other important documents that would be required during our water system survey. Based on feedback from Heath's visit, the City made some adjustments. The outcome was a successful water system survey resulting in our system receiving the coveted Outstanding Water System recognition by the Oregon Health Authority.

Why am I thanking you? The City was embarking on a \$2 million biosolids removal project from our sanitary sewer lagoons. The City needed a lagoon biosolids profile and samples collected for testing. When asked if OAWU could provide these

services, the City received a timely and professional report that assisted in a successful project. This service was provided for a very reasonable fee.

So here is my point. When I consider the benefits and responsibilities of membership in the Oregon Association of Water Utilities, I am certain that in the long term our system has received more than we have put into OAWU. The above list of benefits we received this year doesn't include the countless indirect benefits the City has received from OAWU's legislative efforts. It would be hard to quantify the value of the

excellent training our staff receives. I know it has been worth more than the class registration fee.

Again, Why am I saying thank you? YOU make this a great organization to be associated with. You the Member and what you give back provides value to the rest of us. I am proud to give back to your organization, an organization that does so much good. Ultimately, it is the people you and I serve who benefit from our involvement with OAWU. Keep up to good work, and I look forward to seeing you at a conference.

OREGON ASSOCIATION OF WATER UTILITIES 2012 TRAINING & EVENTS SCHEDULE

Date	Class Title	Location	CEU Information	ESAC#	Fee/Free
April 24-26	Water (WT/WD) Certification Review	Grants Pass	1.8 Water/0.7WW	2112	FEE
May 8-10	Water (WT/WD) Certification Review	Salem	1.8 Water/0.7WW	2112	FEE
May 15	Safe Drinking Water Act Update	Island City	0.4 Water	2287	FREE
May 15	Math for Operators	Island City	0.3 Water/Wastewater	TBA	FEE
May 22	Excavation Safety & Confined Space	Keizer	0.6 Water/Wastewater/Onsite	2356	FEE
May 24	Developing Your O&M Manual	Portland Area	0.6 Water/Wastewater	2113	FEE
May 30	Control Valves by GC Systems	Springfield	0.7 Water/Wastewater	2286	FREE
May 31	Advanced Control Valve	Springfield	0.9 Water/0.4 Wastewater	1927	FEE
June 12	Safe Drinking Water Act Update	Keizer	0.4 Water	2287	FREE
June 12	Math for Operators	Keizer	0.3 Water/Wastewater	TBA	FEE
June 20	Developing Your O&M Manual	Pendleton	0.6 Water/Wastewater	2113	FEE
July 11	Hydrants and Valves	Salem	0.6 Water	TBA	FEE
July 26	Developing Your O&M Manual	K-Falls	0.6 Water/Wastewater	2113	FEE
August 9	Hydrants and Valves	Bend	0.6 Water	TBA	FEE
August 20	Developing Your O&M Manual	Seaside	0.6 Water/Wastewater	2113	FEE
August 20-23	Summer Classic Conference	Seaside	1.7 Water/Wastewater	TBA	FEE
September 13	Water Treatment Process	Salem	0.6 Water/0.3 WW	1739	FEE
September 18-20	Water (WT/WD) Certification Review	Bend	1.8 Water/0.7 WW	2112	FEE
October 9-11	Water (WT/WD) Certification Review	Salem	1.8 Water/0.7 WW	2112	FEE
October 24-25	Wastewater (WWT/WWC) Certification Review	Salem	1.4 Wastewater/0.6 Water	2295	FEE
November 6-8	Fall Water Operator's Conference	TBA	2.0 Water	TBA	FEE
November 21	Water Treatment Process	TVWD	0.6 Water/0.3 WW	1739	FEE
December 4-6	End of Year Operator's Conference	Hood River	2.0 Water/Wastewater	TBA	FEE

2012 State Water exam dates

May 17, 2012

October 17, 2012

For additional water exam information, please visit <http://oregon.gov/DHS/ph/dwp/certif.shtml>

2011-2012 State Wastewater exam dates

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August 15, 2012

January 16, 2012

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For more information on any class by OAWU, please contact the office at 503-837-1212, office@oawu.net or visit www.oawu.net.

Training class dates, class topic and/or locations may be subject to change as needed.

QUIZ CORNER

We apologize for any problems or stress that may have occurred over the wrong answer key in Winter's issue of the magazine. This Quiz Corner is a re-print from the Winter issue, but with the correct answer key.

1. With salinity of about 20% by weight, an 8-inch glass full of water from the Great Salt Lake, when evaporated, will leave about how much granular salt in the bottom.
A. 2-inches C. 1 inch
B. 1.6 inches D. 0.5 inches
2. Is the pH value of seawater (A.) Higher or (B.) Lower than most natural fresh water?
3. Water boils at a (A.) Higher or (B.) Lower temperature at Denver, Co. than at the beach.
4. What percentage of a chicken is water?
A. 30% C. 10%
B. 40% D. 75%
5. An estimated how many households use private wells for their daily water supply?
A. 17 million B. 1.5 million
C. 5 million D. Less than 5 million
6. Approximately what percentage of the world is covered by some form of water?
A. 40% C. 80%
B. 60% D. 95%
7. Anaerobic digester gas is composed mainly of:
A. Carbon dioxide and hydrogen sulfide
B. Methane and carbon dioxide
C. Methane and hydrogen sulfide
D. Methane and carbon monoxide
8. Which of the following is not a consideration in the operation of a gravity thickener?
A. BOD
B. Type of sludge
C. Age of sludge
D. Temperature
9. What is the minimum pressure that you can have for at your service connections?
A. 20 psi
B. 25 psi
C. 30 psi
D. 35 psi
E. There is no minimum
10. Which of the following is a finished water storage deficiency?
A. Hatch not locked or adequately secured
B. Roof and access hatch not watertight
C. No flap valve, screen, or equivalent on drain
D. No screened vent
E. All of the above
11. What would your chlorine setting need to be in pounds to treat a flow of 3.5MGD with a dose of 3mg/L using 65% available chlorine?
A. 47.5lbs
B. 100.8lbs
C. 134.7lbs
D. 237.6lbs
12. A pump moves 110 gpm with a head of 175 feet. How much horsepower is being used?
A. 4.86hp
B. 5.33hp
C. 4.86mg/L
D. 5.33mg/L

11-C, 12-A

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

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You Gotta Have Heart *Throwing My Loop* Michael Johnson

A few years ago, I did a show for Stock Horse of Texas, an organization dedicated to creating better horses and horsemen. The conference and the show were held in Ft. Worth in the Stockyards. (Does it get better than that?) Sherry and The Rowdy Cow Dog were with me, and surrounded by such good wholesome people – and people who love horses – we had the best of times. Afterwards, a man approached our table and said, “I want to come see you. I have an idea.” Sherry and I said, “Come on.” A few days later, Dr. Harry Anderson came driving up the lane.

Sitting at our kitchen table – having one of my special “Killer Chicken Salad Sandwiches” I made for him – Dr. Harry told us about his life...

“Grew up in North Dakota,” he said between bites. “Graduated low in a class of fourteen. Voted “Least Likely to Succeed,” he laughed, and I could tell he wasn’t kidding. “But my wife, Margaret, believed in me. Found my focus because of her, and eventually received my PhD in Nutrition from South Dakota State University.”

Dr. Harry went on to explain he did the professor/research thing for a time, then entered the corporate world, and became a key feedlot nutritionist and district manager for a major feed company. “In those days,” he said, “the company I worked for believed the horse came first, and customer service was critical. If we did those two things well, marketing and sales success would naturally follow.” Times were good. Later, new management came with a different view.

The new breed thought less about the horse, was less interested in customer service, and focused more on the bottom line. Dr. Harry became disenchanted, and eventually left to follow his dream – to create the best all-purpose feed possible for the horse, and to keep the customer’s needs right alongside those of the horse. He did so. Then, he got in his truck pulling a trailer full of horse feed, and started driving across America. Hardly anyone would buy his feed. Years passed and Dr. Harry kept driving. Now the “road that never ends” had brought him to our farm...and to our kitchen table.

“I want to do a TV show,” he said, wiping the crumbs away. “A three-minute embedded segment driven by questions from viewers. I want to offer people a way to gain information. There will be three of us. I’ll handle questions about nutrition; Dr. J. D. Norris will answer concerns involving areas such as hoof care, equine dentistry, and other health issues. I want you to help horse owners with the “mental” side of starting colts, problem areas, and so on.” I said, “Okay,” wondering who in the world could ever vote for this well-dressed, articulate, intelligent man to be “least likely” at anything.

We pitched the show. While the people we were talking to were very nice, it was clear as a bell they had little interest. Afterwards, Dr. Harry gets in the truck and said, “Man, that went well, didn’t it? They are going to do it.”

I’m thinking, “Did we just go to the same meeting?”

For the next five years, Dr. Harry comes by my house when he is in the area – and while eating his chicken salad sandwich – always says, “They are going to do the TV show.” For five years he said that.

By this time, I have come to have a genuine fondness for this fellow. As a youth, others looked down their noses at him, but he rose to the heights of academia and gained his doctorate. When the company

he worked for forgot the horse – and the human – he remembered the horse and the human and did everything in his power to help them both. When no one would buy his feed, he kept on. But now?

Now each time he drove away, there was some sadness in me. What he was trying to do was...well, it was noble. He was trying to do something good...and no one noticed. The poor fellow just kept believing when there was no reason to – and one day when he was driving away, down our lane headed out again on that road that never ends – I said to my wife, “You gotta watch people like him.”

“How so?” she asked, watching him drive away.

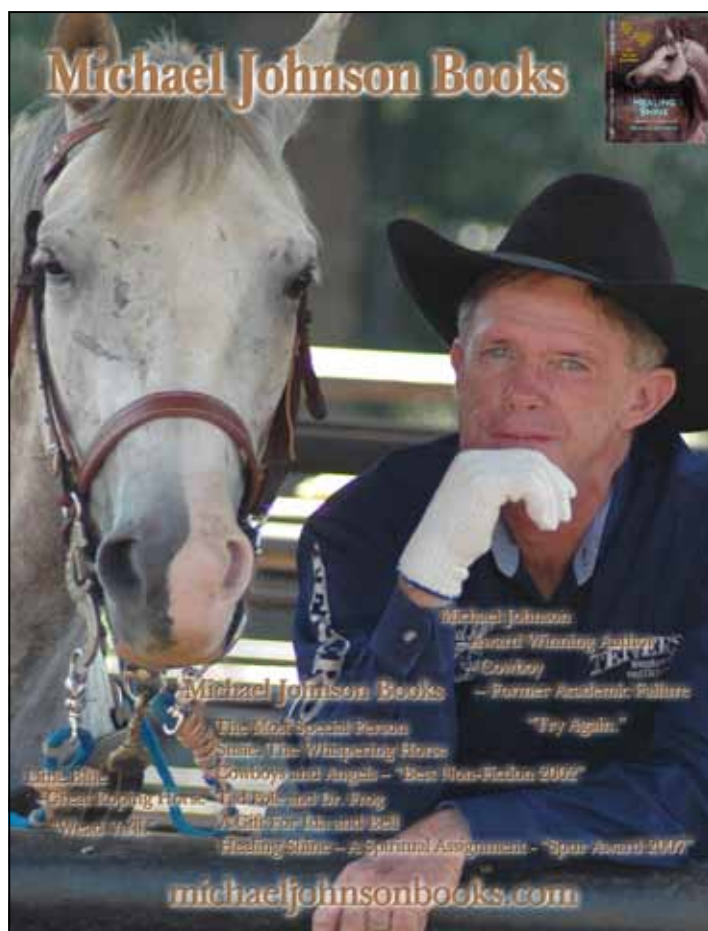
“People like him,” I said, “those people who keep on – the ones who keep on believing no matter what...you gotta watch people like that.”

—Michael Johnson

Ed. Note: In January of 2012, RFD-TV’s All Around Performance Horse TV, and Roping and Riding with Tyler Magnus, will broadcast the first embedded segment of The Advice Barn, a viewer call-in show hosted by Dr. Harry Anderson, with featured guests, Dr. Michael Johnson, and Dr. J. D. Norris.

The Advice Barn is sponsored by Total Feeds, Inc. maker of Total Equine, Dr. Harry Anderson’s creation of an all-purpose feed designed for the horse.

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Phone: _____ Fax: _____

Operator: _____

Contact Person: _____

Number of Hook-ups: _____

Were you referred? By whom _____

Type of System:

☐ Water ☐ Wastewater ☐ Both

Membership Category Amount of Dues

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<input type="checkbox"/> Individual Member	\$75.00

Regular Member Dues Schedule

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Annual Dues - See Dues Schedule

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Individual Member

An Individual Member shall be an individual involved in the water/wastewater industry or a user of such utilities. The membership is informational in nature and shall be non-voting.

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- Discounts on training courses
- Discounts on Annual Conference registration
- Access to on-site training program
- Subscription to quarterly *H2Oregon* magazine
- Direct mailings in your area about upcoming training courses
- Summaries of legislative issues
- Legislative representation at state and federal level
- Associate Member Services and Products Guide
- Access to technical assistance library
- Access to technical and testing equipment for loan
- Voting rights in Association affairs (Regular & Associate Members)
- Positive contacts with other organizations
- Camaraderie with water and wastewater professionals
- Operator Of Record services
- Job referrals, announcements and searches
- Well testing
- Plan review
- System performance evaluation and options
- Additional programs and services
- Disaster response assistance and planning





MEMBERS



62nd Court Mutual Water Company
 Adair Village, City of
 Adams, City of
 Adrian, City of
 Agate Water Company
 Albany Rifle & Pistol Club
 Alpine Crest Improvement Dist.
 Alpine Water Company
 Amigo Villa Water Service, Inc.
 Amity, City of
 Arch Cape Service District
 Arlington, City of
 Arrah Wanna Water Company
 Arrowhead Mobile Home Park
 Aspen Lakes Utility Company, L.L.C.
 Athena, City of
 Aumsville, City of
 Aurora, City of
 Avion Water Company
 Baker City, City of
 Bandon, City of
 Banks, City of
 Barlow Water Improvement District
 Barlow, City of
 Bay City, City of
 Bay Hills Water Association
 Beaver Water District
 Bella Casa Mobile Home Park
 Bend, City of
 Benton County Service District
 Bentwood Estates Water District
 Berndt Creek Water Corp.
 Black Butte Ranch
 BLM Eugene
 BLM Hines
 Blue River Water District
 Blue Spruce Mobile Estates
 Bly Water & Sanitary Dist.
 Boardman, City of
 Bonanza, Town of
 Boring Water District #24
 Brandy Bar Landing, Inc.
 Breitenbush Hot Springs
 Bridge Water District
 Brooks Community Service District
 Brownsville, City of
 Buell-Red Prairie Water District
 Bunns Village
 Bunns Village Properties, LLC
 Burns, City of
 Burnside Water Association
 Butte Falls, Town of
 Camp Yamhill
 Canby Utility
 Canby, City of
 Cannon Beach, City of
 Canyon City, Town of
 Canyonville, City of
 Carlton, City of
 Carolina Water District
 Cascade Head Ranch Dist. Improv.
 Co.
 Cascade Locks, City of
 Cave Junction, City of
 Cedarhurst Improvement Club, Inc.

Century Meadows Sanitary System,
 Inc
 Century Meadows Water System,
 Inc.
 Chaparral Mobile Ranch
 Charles Tracts Water Company
 Chehalem Mt. Sun Ridge
 Association
 Chenoweth Water PUD
 Chiloquin, City of
 Christmas Valley Domestic Water
 Cimmarron City Water Co., Inc.
 Circle C Improvement District
 Clarks Branch Water Association
 Clatskanie, City of
 Clayton Creek Water Association
 Cline Butte Utility Company
 Cloverdale Sanitary District
 Cloverdale Water District
 Coburg, City of
 Colton Water District
 Columbia City, City of
 Columbia Hills Homeowners
 Association
 Conagra Foods
 Coquille, City of
 Corbett Water District
 Cornelius, City of
 Country View Mobile Estates
 Covanta Marion, Inc.
 Cove, City of
 Crater Lake National Park
 Crescent Water Supply &
 Improvement District
 Creswell Court MHP/IPM
 Creswell, City of
 Crooked River Ranch Water Co-Op
 Crystal Springs Water District
 Culver, City of
 Dallas, City of
 Dayton, City of
 Dayville, City of
 Deception Creek Mobile Park
 Deer Creek Estates Water Assn.
 Deer Park Water Association
 Deerhorn Community Water
 Association
 Depoe Bay, City of
 Deschutes Valley Water District
 Desert Mobile Home Estates
 Detroit, City of
 Dexter Oaks Mobile Home Park
 Dexter Sanitary Service
 Diamond Hill RV Park
 Diamond Summit Association
 Dietz Airpark Water System
 Donald, City of
 Drain, City of
 Driftwood Mobile Estates
 Dufur, City of
 Dumbeck Lane Domestic Water
 Supply District
 Dumbeck Lane Water Supply
 District
 Dundee, City of
 Eagle Point, City of

East Shore Water Improvement
 District
 East Yamhill Rural Water Company
 Eastmont Water Company
 Eastshore Water Improvement
 District
 Echo, City of
 Elkton, City of
 Enterprise, City of
 Estacada, City of
 Eugene Mobile Village
 Fairview Water District
 Fairview, City of
 Falcon Cove Beach Water District
 Falcon Heights Water & Sewer
 District
 Falls City, City of
 Fern Ridge School Dist. 28J-10
 Fern Valley Estates Improvement
 Dist
 Fernridge Mobile Estates
 Fir View Water Company
 Fischer's Place Mobile Home Park
 Fishhawk Lake Recreation Club, Inc.
 Florence, City of
 Forest Park Mobile Village
 Fossil, City of
 Garden Valley Water Assn
 Garibaldi, City of
 Gaston, City of
 Gates, City of
 Gearhart, City of
 Georgia Pacific-Wauna
 Gervais, City of
 Gilchrist Water Co., LLC
 Gladstone, City of
 Glendale, City of
 Gleneden Sanitary District
 Glenmorrie Co-op Association
 Glide Water Association
 Goble Water Association
 Gold Beach, City of
 Gold Hill, City of
 Government Camp Water Company
 Grand Prairie Water Supply
 Company
 Grand Ronde Community Water
 Association
 Grand View Mobile Home Park
 Granite, City of
 Grants Pass, City of
 Green Oaks Mobile Ranch
 Greenhoot Properties
 Gresham, City of
 Haines, City of
 Halfway, City of
 Hall's Trailer Court
 Halsey, City of
 Harbor Water PUD
 Harrisburg, City of
 Hebo Joint Water/Sanitary Authority
 Heceta Water District
 Heppner, City of
 Hidden Valley Mobile Estates Impr.
 Dist.
 High Lostine Owners Association

Highland Water District
 Hiland Water Corporation
 Hines, City of
 Hood River, City of
 Hopewell Water Company
 Horizon View Hills Water, Inc.
 Hubbard, City of
 Hunnell Hills Water System
 Huntington, City of
 HWY 58 Trailer Park
 Ice Fountain Water District
 Idanha, City of
 Idleway Improvement District, Inc.
 Imbler, City of
 Independence, City of
 Indian Meadow Water Company
 Interlachen Water PUD
 Lone, City of
 Irrigon, City of
 Island City, City of
 Jackson County Parks
 Jacksonville, City of
 John Day Water District
 John Day, City of
 Johnson Creek Water Services
 Company
 Junction City, City of
 Juniper Mobile Park
 Keizer, City of
 Kelly's Brighton Marina LLC
 Kelso Water Association
 Keno Water Company, Inc.
 K-GB-LB Water District
 Kilchis Water District
 Kingswood Heights Water
 Association
 Klamath Falls, City of
 Klippel Water, Inc.
 Knappa Water Association
 L.A. Water Cooperative
 La Casa Mia
 La Pine Special Sewer District
 La Pine Water District
 Lady Creek Water System
 Lafayette, City of
 Lake Grove Water District
 Lakeshore Estates
 Lakeside Water District
 Lakeside, City of
 Lakeview, Town of
 Lakewood Utilities, LTD
 Lamplighter Water Association
 Lane County Parks
 Langlois Water District
 Lark Meadows Water Association
 Laurelwood Academy, Inc.
 Laurelwood Water User's Co-op
 Lawrence Subdivision Water
 Association, Inc
 Lebanon, City of
 Lexington, Town of
 Lincoln City, City of
 Long Creek, City of
 Lostine, City of
 Lowell, City of
 Luckiamute Domestic Water Co-op



MEMBERS



Lyons-Mehama Water District
 Madras, City of
 Madrone Hill MHP
 Malin, City of
 Manzanita, City of
 Mapleton Water District
 Marshall Beach
 Marshland Water Association
 Maupin, City of
 McKay Acres Improvement District
 McKenzie Palisades Water
 McMinnville Water & Light
 McNulty Water PUD
 Medford Water Commission
 Merrill, City of
 Metolius Meadows Prop. Owners Assn.
 Metolius, City of
 Midland Water Association
 Mill City, City of
 Milo Adventist Academy
 Minikahda Water District, Inc.
 Mitchell, City of
 Modoc Point Sanitary District
 Molalla, City of
 Monmouth, City of
 Monroe, City of
 Monument, City of
 Moran Water System Association
 Moro, City of
 Mosier, City of
 Mossy Brae Water District
 Mt. Angel Abbey
 Mt. Angel, City of
 Mt. Ashland
 Mt. Bachelor, Inc.
 Mt. Vernon, City of
 Mulino Water Dist. #23
 Myrtle Creek, City of
 Myrtle Point, City of
 Nantucket Shores Water Company
 NeahKahNie Water District
 Nehalem, City of
 Nesika Beach-Ophir Water District
 Neskowin Regional Sanitary Authority
 Neskowin Regional Water District
 Netarts Water District
 Netarts-Oceanside Sanitary Dist.
 New Bridge Water Supply District
 Newport, City of
 North Corvallis Mobile Home Park
 North Hill Water Corporation
 North Plains, City of
 North Powder, City of
 Northwest Newberg Water Association
 Nyssa, City of
 Oak Lodge Sanitary District
 Oak Lodge Water District
 Oakland, City of
 Oakridge, City of
 Oaks Mobile Home Park
 Oaks Mobile Home Park
 Oceanside Water District

Ochoco West Water & Sanitary Authority
 Odell Sanitary District
 Odell Water Company
 Orchard Heights Water Association
 Orchard Point Mobile Homes
 Oregon Shores Beach Club, Inc.
 Oregon Water Wonderland II Sanitary District
 Orient Drive Mobile Estates, LLC
 Otter Rock Water District
 Paisley, City of
 Paradise/ Rogue Meadow WS
 Parkdale Water Company, Inc.
 Parrett Mountain View Estates
 Perrydale Domestic Water Association
 Pete's Mt. Water Company, Inc.
 Philomath, City of
 Phoenix, City of
 Pilot Rock, City of
 Pinecrest Water Company
 Pioneer Park Water Co-op
 Pioneer Village Water Company, Inc.
 Pleasant Valley Water Company
 Pleasant View Water Company
 Polehn Heights Water Association, Inc.
 Ponderosa Pines Water Company
 Port of Morrow Commission
 Port of Tillamook Bay
 Port Orford, City of
 Portland Bureau of Water Works
 Power City Water Co-op
 Powers, City of
 Prairie City, City of
 Prineville, City of
 Quincy Water Association
 Rainier, City of
 Redmond, City of
 Redwood Water Service, Inc.
 Reeder Ranch, Inc.
 Reedsport, City of
 Rhododendron Water Association
 Richland, City of
 Rickreall Community Water Association
 Riddle, City of
 Rimrock West Improvement District
 River Meadows Improvement District
 Riverbend-Riverbank Water District
 Rivergrove Water District
 Riverside Water District
 Riverview Trailer Park
 Riviera Mobile Park
 Roats Water System, Inc.
 Roberts Creek Water District
 Rock Creek Water District
 Rockaway Beach, City of
 Rocky Pointe Marina
 Rogue Community College
 Rogue Lea Estates MHP LLC
 Rogue River, City of
 Rogue River-Siskiyou National Forest
 Roseburg Forest Products Co.

Round Lake Utilities
 Rufus, City of
 Running Y Utility Company
 Salem, City of Public Works
 Salem-Keizer School District
 Salmon River Mobile Village
 Salmon Valley Water Company
 Sam's Valley Elem. School Dist. #6
 Sauvie Island Moorage
 Scappoose, City of
 Scenic Fruit Company
 Scio, City of
 Scofield Mobile Home Court
 Scotts Mills, City of
 Scravel Hill Water Co-op
 Seal Rock Water District
 Seneca, City of
 Seventh Mt. Golf Village
 Shadow Hills Park Water Cooperative
 Shady Cove, City of
 Shady Rest Mobile Court
 Shangri-La Water District
 Shenandoah Home Owners, Inc.
 Sheridan, City of
 Sherwood, City of
 Shorewood Estates
 Siletz, City of
 Silver Falls School District 4J
 Sisters, City of
 Skylane Farm
 Skyview Acres Water Company
 Sodaville, City of
 South Fork Ranch Homeowners, Inc.
 South Fork Water Board
 South Hills Water System, Inc.
 Southview Water Services LLC
 Southwest Lincoln County Water District
 Southwood Park Water District
 Spirit Mountain Gaming, Inc.
 Spray, City of
 Springbrook Water Association
 Squaw Creek Canyon Development
 St. Paul, City of
 Staffordshire Water System, Inc.
 Stanfield, City of
 Star Satellite Improvement District
 Steeves Mobile City
 Steele Water Company Inc.
 Sublimity, City of
 Suburban East Salem Water District
 Sumpter, City of
 Sunridge Estates
 Sunriver Environmental LLC/Sunriver Water LLC
 Sunset Water Systems, Inc.
 Sunshine Village Water Association
 Sutherlin, City of
 Sweet Home, City of
 Talent, City of
 Terrace Mobile Plaza
 Terrebonne Domestic Water District
 The Dalles, City of
 Three Rivers School District
 Tierra Del Mar Water Company

Tigard, City of
 Tillamook Bay, Port of
 Tillamook, City of
 Timber Water Association
 Timberline Rim Water Company
 Tingley Lake Estates
 Toledo, City of
 Tollgate Water Company
 Train Mountain Railroad Museum
 Trappist Abbey
 Tri City Water & Sanitary Authority
 Troutdale, City of
 Tualatin Valley Water District
 Tumalo Rim Water Impr. Dist.
 Turner, City of
 Twin Rocks Sanitary District
 Tygh Valley Water District
 Umatilla, City of
 Umpqua Basin Water Assn.
 Union, City of
 Unity, City of
 US Army/COE-Cottage Grove
 Vale, City of
 Valley View Water Co-op
 Valley View Water District
 Veneta, City of
 Vernonia, City of
 Waldport, City of
 Wallowa Lake Co. Service District
 Warm Springs, Conf. Tribes Reservation of OR
 Warren Water Association
 Warrenton, City of
 Wasco, City of
 Water Wonderland Improvement District
 Watseco-Barview Water District
 Wedderburn Sanitary District
 Welches Water Company
 Weldon Mobile Home Park
 West Hills Water Company
 West Linn, City
 West Slope Water District
 West Yamhill Water Co.
 Westfir, City of
 Weston, City of
 Westport Water Association
 Wheeler, City of
 Wickiup Water District
 Willamette Water Company
 Willamina, City of
 Wilson River Water District
 Wilsonville, City of
 Wi-Ne-Ma Christian Camp, Inc.
 Winston-Dillard Water District
 Wood Village, City of
 Woodburn, City of
 Woodland Mobile Home Park
 Yachats, City of
 Yamhill, City of
 Yoncalla, City of
 Young Life's Washington Family Ranch
 Young's River Lewis & Clark W.D.
 Youth With A Mission
 Zig Zag Water Cooperative, Inc.

WELCOME, NEW MEMBERS!

Askins, Robert
Beauchemin, James
Bowers, Milford
Butcher, Erik
Clement, Tony
Conklin, Daniel
Dammeyer, Scott

Geiman, Dave
Grek, Robert M.
Hesse, Todd
Johnston, Daniel
Laymon, Mark
Littlejohn, Charles
Malepsy, Evan

McFadden, Tim
McKevitt, John
Mitchell, Joe
Morgan, Daniel
Olson, Jeff
Sackett, Terry A.
Sannar, Todd

Smith, Craig
Strahl, Joe
Summerlin, Joshua R.
Verley, Christopher
Olson Engineering
Oregon Business
Development Dept.

RH2 Engineering Inc.
Shearer Tanks
Sherwin-Williams Co.
Whitney Equipment
Paradise/Rogue Meadow WS
Sunridge Estates

INDIVIDUAL MEMBERS

Askins, Robert
Baker, Scott
Baldwin, Charles T.
Beauchemin, James
Bevard, Cody
Biamont, Tony
Blake, Mike
Blanton, Andrew
Bowers, Milford
Bradshaw, Dave
Brainard, Thomas E.
Brown, Jeff
Buckley, John
Burres, Brenda
Burton, Howard
Bush, Shawn
Butcher, Erik
Carley, Bill
Carlton, Larry
Carpenter, Matthew
Carroll, Jacqueline
Cato, Stuart
Christensen, Brian N.
Clement, Tony
Cole, Michael
Comiskey, Dale R.
Conklin, Daniel
Covey, Steven
Dammeyer, Scott
Daniel, Morgan
Davenport, Ray
Davis, Ben
Davis, Guy P.

De Paz, Geo
Demanett, Micah
Desroche, Ron
Dillard, Bob
Dobie, Kevin
Dolbow, Elizabeth
Donaldson, Joseph
Doolittle, Ray E.
Dunn, Francis M. Jr.
Durfee, Kenneth C.
Eichel, Dain B.
Elder, Dave
Etsel, Matthew
Evans, Paul
Evers, Jeffrey C.
Farris, Randy
Ficek, Mike
Flye, Shawn
Foster, Rob
Fowler, Robert
Gallino, Joseph
Gaschler, Steve
Geiman, Dave
Gill, Robert J.
Gohring, James A.
Goodpasture, Joe
Green, Patti
Green-Hite, Matthew
Grek, Robert M., Jr.
Griffin, Beverly "Bev"
Griggs, Charles L.
Gunter, Mark G.
Haag, Joel

Hachtel, Tom
Hanes, Cameron R.
Hansen, Zachary
Hardy, Vance
Hartley, Stewart
Harvey, Mark
Hecox, Thomas C.
Hedges, Terry
Heiken, Rob
Henderson, Paul
Hesse, Todd
Hodge, Patrick R.
Hodge, Steve D.
Hoover, Max
Houston, Colin
Hubbard, Randy
Human, Steve
Hume, John
Hunt, Kevin
Jansen, Brian
Jauron, Scott
Johansson, Leon
Johnston, Daniel
Kash, Stella
Keenan, Pete
Kerby, Kevan N.
Kirk, Jeremiah
Klee, Ken
Klinger, Martin
Kneaper, Jason
Koester, Leland
Kramer, Larry
Kunders, Aaron

Larman, Dan
Laymon, Mark
Leffler, Charles D.
Littlejohn, Charles
Lund, Darrell
Macuk, Shane
Mahoney, Mike
Maine, Mike
Malepsy, Evan
Malley, Susan
Mangini, Jered
Marlborough, Norman
Mathews, Eric
Matteson, Randy
McClenathan, Mike
McFadden, Tim
McKevitt, John
McKibbin, Scott
McTeague, Kyle
Meigs, Gilbert
Meshew, Blane
Miller, Paul
Mitchell, Cletis
Mitchell, Joe
Montgomery, Martin L.
Moore, Tom
Morgan, Daniel
Newey, Jacob R.
Nielsen, Tom
Nigh, Thomas
Norman, David
Olson, Jeff
O'Reilly, Mike

Parent, Kenny
Patch, Dave
Perigo, John D.
Peters, Andrew
Piccolotti, Jim
Points, Frank
Pollock, Dennis
Porter, James
Powers, Ron D.
Reed, John
Reed, Russ
Reiersgaard, Michael
Rettke, Timothy W.
Riggs, Justin
Roque, Eric
Rosales, Ben
Russell, Kelly T.
Sackett, Terry A.
Sannar, Todd
Schmidt, Dan
Schmidt, Lonny
Schmittle, William L.
Scowden, Mark
Sheppard, Neal F.
Simenson, Donald J.
Smith, Craig
Smith, Larry
Smith, Randall
Snegirev, Pavil
Sollee, James
Steele, Mark
Steidler, Matthew B.
Sterzinar, Frank M. Jr.

Stinnett, William
Strahl, Joe
Strassner, Bob
Summerlin, Joshua R.
Tabrum, Walter
Taylor, Brad
Thayer, Bradley
Thomas, Dan
Thomas, Russ
Tilander, Tim
Turner, Keith
Turner, Susan
Van Dorn, Kevin
Verley, Christopher
Vermaas, Dwight A.
Violette, Jeff
Wallace, Neal
Weaver, Rick
Weber, Thomas J.
Whitlock, George
Whitson, Scott
Willer, Keith
Wilson, David A., Jr.
Wilson, Roger
Wimberly, John A.
Wolfe, Chad
Wolford, Paul
Woodward, Steve
Woody, Max
Younger, Lewis S.

ASSOCIATE MEMBERS

4B Engineering & Consulting
A & A Drilling Service, Inc.
Abbey Systems, Inc.
American AVK Company
American Flow Control
American Leak Detection
Anderson Perry & Associates
AquaStore NW, Inc.
Backflow Management, Inc.
Bancorp Insurance
BioLynceus, LLC
Branom Instruments Co.
Cascade Columbia
Distribution Co.
Caselle, Inc.
Chlorinators, Inc.
Consolidated Supply Co.
Ditch Witch Northwest

DYK, Incorporated
East Jordan Iron Works
Elster AMCO Water, Inc.
Enviro-Clean Environment,
Inc.
EZ Valve-Curb Box Specialist
Ferguson Enterprises
Frank J. Martin Company
Furrow Pump, Inc.
GC Systems, Inc.
General Pacific, Inc.
Godwin Pumps
HACH Company
Harco Fittings
HD Fowler Company, Inc.
HD Supply Waterworks
Instrumentation Northwest,
Inc.

Itron, Inc.
ITT Water & Wastewater
FLYGT Products
Jordan Schrader Ramis PC
Kelly-Moore Paints
Kennedy/Jenks Consultants
Kleinfelder, Inc.
Lakeside Industries/EZ Street
League of Oregon Cities
LiquiVision Technology, Inc.
M & H / Kennedy Valve
Master Meter, Inc.
Mueller Company
Mueller Systems
Natgun Corporation
Neptune Technology Group
Olson Engineering
Oregon Meter Repair

Oregon Business
Development Dept.
Oregon Public Utility
Commission
Owen Equipment Company
PACE Engineers, Inc.
Pittsburg Tank & Tower Co.
Pollardwater.com
Public Works Supply
RH2 Engineering Inc.
Romac Industries, Inc.
Schneider Electric
Schoen's Motors
Schroeder Law Offices, PC
Sensus USA
Shearer Tanks
Sherwin-Williams Company
Solarbee, Inc.

Special Districts Assn of
Oregon
Taylor Made Pump Stations
The Automation Group
The Ford Meter Box Co., Inc.
TMG Services
Treatment Equipment
Company
Umpqua Research Co.
United Pipe & Supply
United Rentals Trench Safety
USABluebook
Utility Service Company, Inc.
Waterlab Corp
Whitney Equipment
Wonderware PacWest

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To join or for more information,
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Oregon Association of Water Utilities
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Independence, Oregon 97351
Phone (503) 837-1212
Fax (503) 837-1213 www.oawu.net



OAWU's mission is to provide service, support, and solutions for Oregon water and wastewater utilities to meet the challenges of today and tomorrow.

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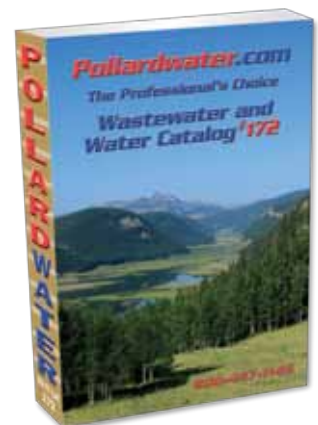
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