



# Water Ways

Volume X — Fall 2013



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## MISSION STATEMENT

*“Protecting and preserving the water and wastewater resources of Rural Illinois through education, representation and on-site technical assistance”.*

On the Cover:

This picture was taken at sunset at Lake Springfield.  
by Heather McLeod, Membership Services Assistant

Water Ways is the official publication of the Illinois Rural Water Association, P.O. Box 49, Taylorville, Illinois 62568, and is published quarterly for distribution to members as well as other industry associations and friends. Our website is [www.ilrwa.org](http://www.ilrwa.org). Articles and photographs are encouraged. Advertising and submissions should be mailed to the above address or e-mail us at [ilrwadb@ilrwa.org](mailto:ilrwadb@ilrwa.org).



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## Stewart Spreading Field Day, 2013

by Wayne Nelson,  
IRWA Training Specialist

Our association is proud and lucky to have the best associate members of any state rural water association. We can and do count on them for assistance with our conferences, training sessions, and our annual golf outing.

One of these members is Stewart Spreading. John and Michelle Stewart operate their business on their family farm located near Sheridan, Illinois. One of the many things that their company does is working with public water supplies and wastewater treatment plants in the removal and disposal of plant bio-solids as well as the related regulatory issues.

Each fall, they hold their annual Field Day and graciously have, for the past several years, made the Illinois Rural Water Association a part of it. We are proud to be involved with this event by providing public water supply operators the opportunity to hear about a wide range of informative topics while at the same time receiving some of their certification renewal training hours.


The most recent event occurred on Wednesday September 18, 2013. Attendance totaled over 90 and included agri-business folks, engineers, farmers, and water/wastewater operators. Topics included dealing with IEPA issues



regarding bio-solids and lime sludge, bio-solid land application, safety, and sustainability, and the day-to-day operations of a 32 MGD water treatment plant. The first speaker set the session tone when he spoke of America's drinking water being second to none.

Water operators in attendance were able to obtain, at-no-charge, four hours of training toward their certification renewal requirements. While many of us in the water business may not think that there is a link between our business and that of agriculture and rural issues, all we have to do is look at the training provided at this session. (Heck, you can look at our name and its' even got "rural" in it!) Attendees also got a taste of some good cooking with a lunch of pork burgers with all of the sides.

To expand on what I said at the start, we are fortunate to know that we can count on all of our membership, be it voting, associate, supporting, or S.O.U.P members. In closing, I want to give special thanks to John and Michelle, Amy Haines, Greg Firrantello, and the rest of the Spirit Farms family for allowing us to be a part of their family. 💧



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## Loss of a True Friend

by Jeff Tumiati,  
IRWA District 5 Board Member

Normally when I am asked to submit an article for the IRWA magazine I look around me to see what I am dealing with at that particular time. Usually it would be about some sort of water or wastewater issue that is consuming my mind. You know what I mean – why am I having so many main breaks in this area and not others; why are my chlorine levels fluctuating so much; why is my sewer plant not meeting all of the parameters of our NPDES permit. And the list goes on and on. Unfortunately, that is not the case this time. Even though it has been a little over a month since the tragic event, I felt compelled to share with you not only my loss but the loss suffered by the Village of Stonington and the Illinois Rural Water Family as well. It was on August 3<sup>rd</sup> of this year

that Philip Schwab lost his life in a scuba diving accident at Bull Shoals Lake in Arkansas. Philip and his brother Vince have been coming to the IRWA annual conference for many years and the past few years have been spending most of their time selling the Sportsman's Raffle tickets (so much time that they even talked the IRWA Executive Director into purchasing IRWA shirts for them to wear while they were "working").

Phil along with several family members and friends had traveled to Arkansas for a week of "kicking back" and relaxing on the lake. Part of the unwinding process from their busy lifestyles involved renting a couple of houseboats, spear-fishing, and scuba diving. Tragically, on Saturday, August 3, 2013 while scuba diving and spear-fishing something went terribly wrong and Phil ran out of air and did not resurface. It took crews several hours to find and recover the body of our friend and co-worker.

Phil loved the IRWA family and each year he truly looked forward to the IRWA annual conference where he could hang out with fellow operators and work the Sportsman Raffle booth (even though he mentioned something about a "master and slave concept"). Even though he already had a full time job with ADM running their power plant; his second calling was Public Works - more importantly his love of water. Phil had been working as a fulltime part-time employee for the Village of Stonington



for many years and if he ever found out that a water leak had occurred after hours and I hadn't called him he was upset with me. We recently had one of those after hour events (we usually don't say THAT word out loud – not that we're superstitious or anything) and I found myself fondly remembering all of those times where he would out run me or push me out of the way because he had to be the one to put that repair clamp on. The loss of Phillip has left a huge void with all of those that knew and loved him and he is greatly missed – but not forgotten. He truly was a water /wastewater specialist. He fully understood that what we do as water treatment specialists is one of the most important jobs in the world that provides for quality of life.

In closing let me say this: Keep your friends and family close; enjoy every minute you're given and work safe – for you never know when your time on this earth is up. Until we meet again, rest well my friend and colleague. 💧



*Philip Schwab*



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## *Some Observations, and a Year in Training*

*by Phil Donelson,  
IRWA Training and Marketing*

Wow, has it been a year already??? I guess that old saying is right...time flies when you are having fun!! As I approach my one year anniversary of training for the IRWA I want to reflect back on a few things our program has done over the last twelve months, and some things I've observed while out and about!

It seems like only yesterday, that I began meeting many of you at the northern conference last October. What a fun time and a great way to get oriented into the family!! The first impression of the IRWA membership and my fellow employees still holds true today...I got a strong feeling that there were a lot of people with big hearts, integrity, pride in a job well done, and character...(with quite a few "characters" mixed in!) Each week, I learned more and more about the underappreciated and often humble heroes of the water industry! What a great bunch of people and a vital role you play in our communities! I have really enjoyed my first year and want to thank you for welcoming me into your industry with open arms.

With that said, I would like to share a few things that I have learned about many of you... I have taken note and hear that you guys prefer the mailed fliers as your favorite means of getting information and doing you registrations for classes. Even though we have started using e-mail more often, we will continue to use the mailers and get them out to as many of you as we can to alert you of upcoming training opportunities. Please don't forget to check out the website if you don't see a

flier I would hate for you to miss a class just because a flier got lost in the mail somewhere...

I have also learned that you like to eat, a lot!! If you guys will continue to fill the seats in the classes, and bring in your appetites, I will do my best to keep feeding ya!

---

***"Never be afraid to  
try something new,  
because life gets  
boring when you stay  
within the limits of  
what you already  
know."***

*- Author Unknown*

---

You have also shared with me that you guys like our hands on training and relaxed environment over the more clinical rigid training some other associations offer. We like hearing that, and have tried to keep our program more suited for the smaller rural systems vs. some other training associations have catered more to the larger municipalities. We feel the training should allow you to ask questions about things that matter to you and pertain to your job. We try to bring in industry professionals with practical experience so you can have those discussions. I am glad we are



hitting the mark and plan to continue in the future.

Here is something about us that you may not know... The IRWA does have Twitter, Facebook, and LinkedIn accounts...Social Media is being used quite a bit out there, and although the IRWA does not plan on using it as a primary means of communicating at this point, it may be something that some of our members can benefit from. With that in mind, it is worth our efforts to make it avail to them... so please find us on these sites and connect to us via a "tweet", a "like" or do whatever it is you do to connect to us? Have your friends and spouses get on there and check us out as well! The more the merrier!


Over the last year I have offered a broad range of topics as well as covered a large portion of the geography of our fine state. We have had some wonderful trainers with some great hands on sessions over the last few months. RE Pedrotti, Midwest Meter, PDC Labs, and Layne Co. have all had hands on and demonstrations included in their sessions. We have also had some wonderful speakers with years

## *Some Observations, and a Year in Training*

of industry experience such as JCM, American Flow Control, Midwest Water Group, and HydraStop. Our speakers have all gotten great marks from our class surveys, which tell me that you have been happy with the sessions and the course offerings. In the next couple months we will have at least 3 or 4 sessions that will include Hach, USA BlueBook, Utility Services, JCM, Kupferle, and SSI, so please look for them as you work on completing your hours. I am working on filling the 2014 calendar as we speak, so stay tuned, check your e-mail, look at our website, and register for a session near you!

One new event we have rolled out in 2013 was our first ever administrative conference. It was held in May at the Four Points Convention Center in Fairview Heights. It was a lot of fun and very informative for the attendees. We had administrators, city officials, city clerks, and board members all in attendance! I had wonderful feedback and plan to do it again in the spring at the same location! So please look for future information and register as soon as you can for the 2<sup>nd</sup> Annual Spring Admin. Conference, 2014. We had such great interaction and feedback from the conference goers and the

*continued from page 9*

speakers that we decided to have the same conference agenda a little further north and hold one in East Peoria. It was originally planned for September, but due to some unforeseen conflicts we have now rescheduled it for the 21<sup>st</sup> and 22<sup>nd</sup> of November 2013! It is just around the corner but there is still time to get registered so you can take advantage of it this fall!! Look for the registration form in this issue of Waterways, and on our website. We really hope to see you there!! 



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# 1st Annual Fall Administrative Conference



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- *These Risk Management and Insurance Issues Should Not be Keeping You up at Night*
- *Managing Public Records*
- *A Discussion on Illinois E Pay*
- *Human Resources Services Overview*
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## 2013 Annual Fall Administrative Conference

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### REGISTRATION:

Includes Sessions, Meals, and Activities for both days

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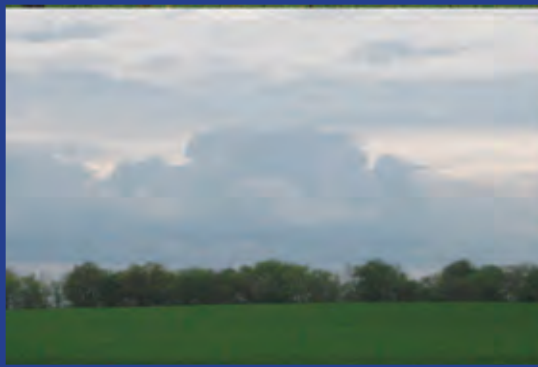
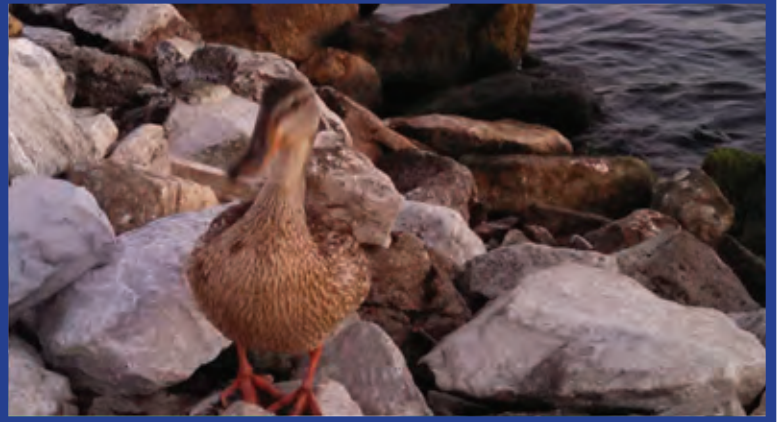
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**Watch for more information in November!**

# IRWA'S 10TH ANNUAL GOLF OUTING— Friday, August 16, 2013



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# Getting Started for Certification

by Gale Moore,  
Circuit Rider

In the numerous “One on One Training” I have done over the years for operators to become certified it seems that probably 90% of the training is spent on Math. Math is a very important part of operating any treatment plant and distribution system. Getting started with understanding some basic math terms is essential, thus I have included these to put to memory:

- 7.48 gallons in one cubic foot of water
- 8.34 pounds of water in one gallon of water
- For every 2.31 feet vertically you go up equals one psi
- Area of a square = length x width
- Area of a circle = .785 x diameter squared
- Volume of a rectangular tank = length x width x height
- Volume of a cylinder ( usually water main) = Area x Length
- Dosage = Pounds divided by flow in million gallons divided by 8.34 lbs/gallon

- Pounds = Dosage times flow In million gallons times 8.34 lbs/gallon

Using the information provided, understanding how to use the information and proper steps to solve the problem is the next step. Thus let’s work some “good old math problems”

- 1.) An operator has just installed a six inch water main in a new subdivision and wants to completely fill it. The water main is 5,000 feet long, buried 5 feet in the ground, and is ductile iron. How many gallons of water will it take?

**First find the area of the circle:**

$$\begin{aligned} \text{Area} &= .785 \times \text{diameter squared} \\ \text{Area} &= .785 \times \text{diameter} \times \text{diameter} \\ \text{Area} &= .785 \times 6/12 \times 6/12 \text{ (changes inches to feet)} \\ \text{Area} &= .785 \times .5 \times .5 \\ \text{Area} &= .19625 \text{ feet squared} \end{aligned}$$



**Next find the volume of the water main:**

$$\begin{aligned} \text{Volume} &= \text{Area} \times \text{Length} \\ \text{Volume} &= .19625 \text{ feet squared} \times 5,000 \text{ feet} \\ \text{Volume} &= 981.25 \text{ cubic feet} \end{aligned}$$

**Next convert cubic feet to gallons:**

$$\begin{aligned} \text{Gallons} &= 7.48 \text{ gallons/cubic feet} \times 981.25 \text{ cubic feet} \\ \text{Gallons} &= 7,339.75 \end{aligned}$$

**Amount of water needed =**  
7,339.75 or 7,340 gallons

- 2.) Now the operator is ready to fill the newly installed water main. He needs at least 50 psi at the water tower to start filling the water main. The tower holds 200,000 gallons, has a bowl diameter of 40 feet, and is 120 feet in height. Does the water tower need to be full when he starts?

$$\begin{aligned} \text{Tower Height} &= 120 \text{ feet} \\ 2.31 \text{ feet} &= \text{one psi} \\ 120 \text{ feet} &\text{ divided by } 2.31 \\ &= 51.9 \text{ or } 52 \text{ psi} \end{aligned}$$

**Yes, the water tower should be full**

- 3.) An operator has a rectangular ground storage tank 15 feet in width, 20 feet in length, and 25 feet



in height. He wants to completely fill the tank, how many gallons will it take?

Volume = Length x width x Height  
Volume = 20 feet x 15 feet x 25 feet  
Volume = 7,500 cubic feet  
One cubic feet holds 7.48 gallons

*7,500 cubic feet x 7.48 gallons/1 cubic feet = 56,100 gallons*

- 4.) An operator is using chlorine gas as his disinfectant, his rotometer is set at 9 pounds/ day, the daily average pumping is 112,000 gallons per day, and a dosage of 5 parts/ million. Is the rotometer at the proper setting?

Pounds = Dosage x Flow in Million  
Gallons x 8.34 pounds/  
gallon  
Pounds = 5 ppm x (112,000 divided  
by 1,000,000) x 8.34  
Pounds = 5 x .112 x 8.34  
Pounds = 4.67 or 5

*No, an adjustment of the rotometer to 5 pounds/day is needed.*

These are some basic Math problems, putting these to memory is essential in becoming certified.

---

Also, I have included some **Study Site Information** compliments of Bill Dowell, Wastewater Technician Illinois Rural Water Association.

### California State University, Sacramento

**Phone:** 916-278-6142

**E-mail:** [wateroffice@csus.edu](mailto:wateroffice@csus.edu)

**Manuals:** <http://www.owp.csus.edu/wastewater.php>

**Website:** <http://www.owp.csus.edu>

*(Excellent O&M manuals for all water and wastewater; videos and training materials; correspondence courses for water and wastewater. Check costs)*

### Southern Illinois University, Edwardsville

**Environmental Resources Training Center (ERTC)**

**Phone:** 618-650-2030

**E-mail:** [siue-ertc@siue.edu](mailto:siue-ertc@siue.edu)

**Website:** [http://www.siue.edu/ERTC/self-study\\_courses.html](http://www.siue.edu/ERTC/self-study_courses.html)

*(Offering correspondence courses for water and wastewater, using Sacramento manuals above. Also offer on-site 3-4 day programs with testing at completion. Check costs.)*

[http://www.siue.edu/ertc/training\\_schedules.shtml](http://www.siue.edu/ertc/training_schedules.shtml) for class schedules

### Montana State University Montana Water Center

**Phone:** 406-994-6690

**E-mail:** <http://water.montana.edu>

**Website:** <http://water.montana.edu/default.asp>

**Use link:** <http://watercenter.montana.edu/training/ob2005/default.htm> to access download page

*(30 hour water study available as a download to your computer or request CD for home/office. IEPA recognizes 26 hours of it, and can be used as CEUs one time. Also includes math study and about 9 hours of lagoon wastewater. FREE!)*

### Technical Learning College

**Phone:** 928-468-0665

(866-557-1746 Toll -Free)

**E-mail:** [info@tlch20.com](mailto:info@tlch20.com)

**Website:** <http://www.abctlc.com/>

*(Variety of 30 hour study courses, on-line or by mail. It ain't free, but about \$100-\$125 per course. Compare.)*

### Water Environment Federation

**Phone:** 800-666-0206

**Website:** <http://www.wef.org/Home>

*(Source of MOP-11 O&M volumes and other wastewater study materials.)*

### IEPA

**Website:** <http://www.epa.state.il.us/>

**Water/Wastewater Operator**

**Certification Info, Forms, Etc. :**

<http://www.epa.state.il.us/water/operator-cert/waste-water/index.html>

### IRWA

**Website:** <http://www.ilrwa.org/>

Go to "Downloads" then "Basic Math Booklet"

*(Free and well worth it. Good information for math study, other operator information.)*

**Check out IRWA's Certification Overview Training**

**Website:** <http://www.ilrwa.org/>

Go to "Training" then "Certification"

### Also Check

**Website:** <http://smallwatersupply.org/>

# Certification Help

# *The Tooth, The Whole Tooth, and Nothing But The Tooth*

*by Cynthia Goodman*

To us adults, losing a tooth is scary. The mind cannot stay away from toothless witches, beggars, and the overwhelming dental costs. We hopefully try to protect our teeth from any kind of fall. But for kids, there is even more at stake. Three seemingly insurmountable questions are: how will the tooth come out, how will the tooth fairy get it, and how will money be received for the sacrifice of the tooth?

Our daughter Lailee had a wiggly tooth, and in every mirror, in every spare moment, she was amazed at how it wiggled. Why not, kids and movement, they are a team. The roadblock came with the apple and the carrots and whatever else is healthy to eat which leaves the squishy stuff like ice cream, pudding, and jello. Lailee knew that with crunchy food swallowing whole was not the way to lose a tooth. Well, for sure, how many adults do get squeamish about swallowing the potential bones in canned salmon croquettes and loafs? Then there's peanut butter sandwiches, but you might as well go to a dentist and get it pulled, or use the string and door fable.

Days went by and fears began to mount about would the tooth really come out, or was that a joke, and will the tooth fairy really come, or was that a joke. We decided to keep both ideas in the same trench, for now.

The upcoming tooth event prompted a lot of contemplation and learning. The value of a tooth to a tooth fairy seems to have gone up these days with everything else. How does the good fairy know if

that potential tooth will bring in \$1, or more? This is truly a ponderous decision to make thinking about the succession of teeth (are there 25 or 32), and the total expenditures, or collections whichever side you are on. We decided ahead of time to low ball at \$2.00 just to be over the cheap \$1.00 mark.

For Lailee, there was an insistence on preplanning. This was a good use of cause and effect as to how the pillow on top of the tooth will manage to protect the tooth but not prevent the fairy from finding it and leaving the treasure. Lailee decided, ahead of time, that she will provide a clean pillow case-- so the fairy will smile, a nightlight-- so there will be no mistaking as to who lost the tooth, and a gift beside the bed of (not candy or cookies) a wind up toy to make sure the fairy will be in a good mood for giving.

One day Lailee came home with a gap and a wail. The tooth was a goner. It bounced onto the playground at recess and now there was no evidence for the fairy. This was a tragedy, but as the sunny day provided a beam of light streaming through the glass door, and revealing an orange seed on the floor--a bit battered by the cats--miraculously, we knew we had a good tooth substitute. It will work, it will be fine, and we tried to convince her to no avail.

Our luck, and to her credit, Lailee decided a last resort was to write a note to explain herself to the tooth fairy, and leave it under the pillow. Later during the night we retrieved the note that said: Dear Tooth Fairy. I am sorry this is a seed. My friend Justin knocked out my tooth at recess, and I couldn't find it. Please leave the money.

With that we had to leave her a calling card back, complete with picture, which read, Hey Lailee, no sweat, saw it all happen and we're cool. T.F. and \$7.00 -one for each year of her precious candor. It always pays to be honest.

## ***About the Author***

*Cynthia Goodman is a seasoned educator, counselor, writer and artist. Although she holds a Master's Degree in Education and Counseling, she finds the most amazing and complex education is the one she receives everyday from her relationships. She writes for this kid-friendly website: <http://www.familyfuncartoons.com>.*





## **THE IRWA OFFICE WILL BE CLOSED THE FOLLOWING DAYS**

**MONDAY, NOVEMBER 11, 2013 –**

**VETERANS DAY**

**THURSDAY & FRIDAY, NOVEMBER 28 & 29 –**

**THANKSGIVING**

**TUESDAY & WEDNESDAY, DECEMBER 24 & 25, 2013 –**

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## NRWA Conference Happenings

by Don L. Craig  
IRWA Deputy Director

Recently, we attended the annual National Rural Water Association Conference in Louisville, Kentucky. While there, the federal government partially shut down, after Congress could not reach agreement on raising the national debt limit. Needless, to say, it was the talk of the town and the Conference. It has affected many, many different direct and non-direct government funded programs. At the time of writing this article, the shutdown is continuing without much chance for resolution in sight.

Fortunately for the National Rural Water Association and all its state affiliates across the nation, including the Illinois Rural Water Association, our government funded programs (such as Circuit Riders, Source Water Specialists, and Wastewater Techs) are considered 'essential' and have not been affected, to date. There are several government funded programs, and direct government entities, which are also, part of the list of those that are considered needed and not part of the shut down.

It's unfortunate that this situation has come about, to say the least. Hopefully, our congressional leaders will be able to come to terms, to help resolve the shutdown, and best serve the interests of the nation. Until then, our association, and all the other state affiliates across the nation will continue to work diligently to be of assistance to all rural water and wastewater systems within our states.

Back to NRWA's annual Conference... It was the third 'segment' of an ongoing agreement with the association of equipment manufacturers (ICUEE). The two groups held joint conventions in 2009, 2011, and this

year. While, the combined events were nice, those specifically attending for the NRWA's side of the conference have expressed the desire to move on and have our own specific one every year. And, that is exactly what will happen. Next year, the NRWA Conference will be held in Seattle, as previously planned; and, the following year in 2015, the convention will not be held with ICUEE, as in the past "odd" year, as NRWA will hold the annual Conference in Oklahoma City, Oklahoma that year.


At the Conference, the NRWA Board met and elected a new Chief Executive Officer, to replace long time CEO, Rob Johnson, who will be retiring at the end of the year. We here at IRWA, wish Rob the best in his retirement, and thank him for all his years of service and dedication to the interests and needs of rural systems throughout the nation. The new administrator will be Sam Wade, who has served for many years as the Deputy CEO, working out of the Duncan, Ok office. I have known Sam for many years, as he came on board to NRWA, from Minnesota Rural Water Association, not to long before I started with Illinois Rural Water Association back in 1985. I believe that Sam will do an admirable job as the new CEO of NRWA, and wish him and his staff, great success.

Also, John Montgomery, who has been with NRWA since its beginning back in 1976, will be retiring at the end of December. John has worked as NRWA's liaison in Washington, DC...out of the Association's office there. He has been an instrumental part of the National Rural Water Association, its programs, and the success they have endured through the years. He will be missed,



but the staff he leaves in the DC office, 'know their stuff', and will continue the work he instituted several years ago, and will labor tirelessly with Congress, to keep our programs and our work alive for the rural water and wastewater systems throughout the country. Again, thank you John, from IRWA, and enjoy your retirement years.

One final note, while at the Conference, it became official that long time IRWA Board Member Steve Fletcher, who serves as the National Director from Illinois, has ascended to the office of Vice President of the Executive Board of NRWA. If everything runs true to tradition, Steve would become Senior Vice President at the 2014 annual meeting; and then become President of the National Rural Water Association at the 2016 conference.

This is truly a 'feather in the cap' of IRWA, and its members throughout the state. Also, it's a testament to the true interest and support of IRWA, by Washington County Water Company's Board, who Steve works for. I thank them for their support of Steve and IRWA through the years; and wish Steve all the best in the coming years as he moves up the ladder of NRWA's Executive Board. 

## Is Your Furnace Ready for “Old Man Winter”?

### HOW CAN YOU TUNE-UP YOUR FURNACE SYSTEM?

HVAC systems are mechanical, so like all mechanical systems they do need to be maintained. A thorough professional tune up will cost you \$100 or more and is definitely something you should do every few years. However, you can do an annual tune up and maintenance process yourself, and save some of that money.

1. First take a look at your furnace. There shouldn't be any black soot or combustion residue on or around the furnace. Next, turn up the thermostat so your furnace comes on. Check the flames in the burner. They should be blue and steady, not yellow or orange and flickering. Soot build-up or yellow flames are an indication of poor combustion, and if you see any signs of either, call a professional technician to fix the problem.
2. Next, turn the thermostat back down and let your furnace cool. For extra safety, turn off the circuit breaker that powers your furnace. When the furnace is cool, remove the sides of your furnace and using a vacuum with a long nozzle, get rid of any dust that may have accumulated. Use a damp rag to clean the blades of the blower fan and any other areas the vacuum couldn't reach. While you've got the sides off, check to see if your blower fan has oil cups at the ends of the central shaft (some are sealed units and don't need oiling). If there are cups there, give them a few drops of oil.

3. An electric motor and a fan belt drive many blower fans, while some are direct drive and don't use a fan belt. If your blower does have a fan belt, check its condition and tension. The underside should be free of cracks, but over time, age and heat will dry out the rubber belt and cause cracks. If there are cracks in the belt, replace it with one of the same size. Checking the tension of the belt is as simple as pushing down on it. There should be about 1/2 inch of play in a properly adjusted belt. If you have more or less movement than that, adjust the tension by loosening the electric motor mounts and moving the motor to create the proper tension.
4. Reattach the furnace panels, and turn the circuit breaker back on.
5. Finally, changing your furnace filter once a month during heating season is a good maintenance practice. So when you're doing your furnace tune up, get ready for the season by installing a fresh filter.

Now your furnace is ready for “Old Man Winter.”

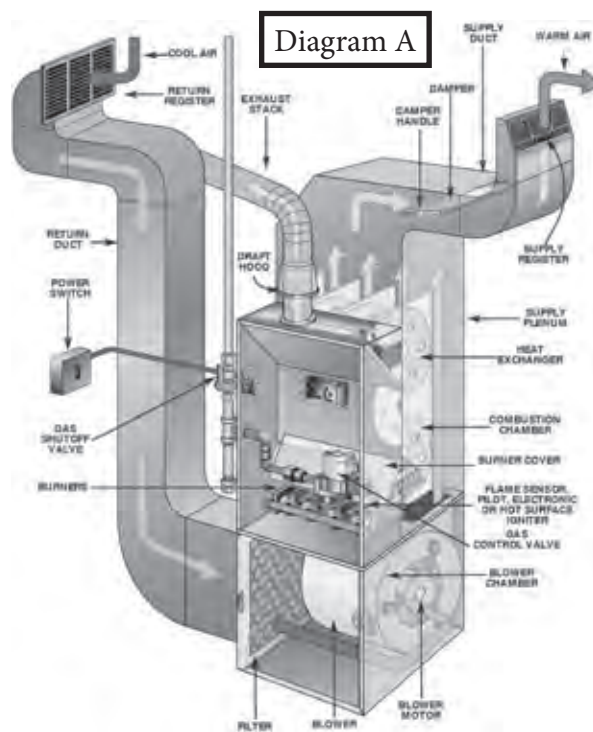
### BE SAFE!

Combustion creates Carbon Monoxide (CO), a colorless, odorless gas that can be deadly. Normally the CO produced by the combustion in your furnace

is exhausted up the chimney and out of your home. However, a furnace that is out of adjustment can leave CO in your home. You can help protect yourself from CO poisoning by installing a Carbon Monoxide detector in your furnace room. If the detector indicates any build up of Carbon Monoxide at any time, have your furnace professionally inspected immediately.

While doing your own tune up will help keep your furnace running efficiently, a professional inspection and tune up every few years is a good investment. The pros are the people who have the skills and equipment to ensure that any parts that might degrade over time are still functioning properly in your furnace. 💧

*Below (Diagram A) is of a gas furnace (the most common household furnace), although yours may be different, this will give you a rough idea of where burner, filter and other parts to be maintained are located.*





### **GPS/GIS MAPPING SERVICES**

Through the implementation of GPS & GIS technology, IRWA can effectively produce hard copy and digital maps. With this new service available from IRWA, utilities can attain new and accurate maps to better manage their infrastructure assets.



The printed maps can be large-scale wall maps up to 36"x48" showing major water and wastewater features with the desired layers (aerial photos, streets, topography, etc.). The printed maps can also be generated into a map book format. The map book is a bound 11"x17" book of high-detail maps printed at the best available scale.

The digital map file on a CD, can be viewed and printed with free software that IRWA will provide. The software allows you to click on a waterline with a leak and highlight which valves need to be closed to isolate the line. There are also tracing features to show the direction of water flow, and other useful features.

Payment for services is determined by a charge per each system feature located. The amount charged for a Map Book will be \$50 plus \$5 per page; and a wall map is billed at \$100 per map. More information is also posted on our website at [www.ilrwa.org](http://www.ilrwa.org) or you may call our office at 217-287-2115.

### **VIDEO INSPECTION SERVICES**

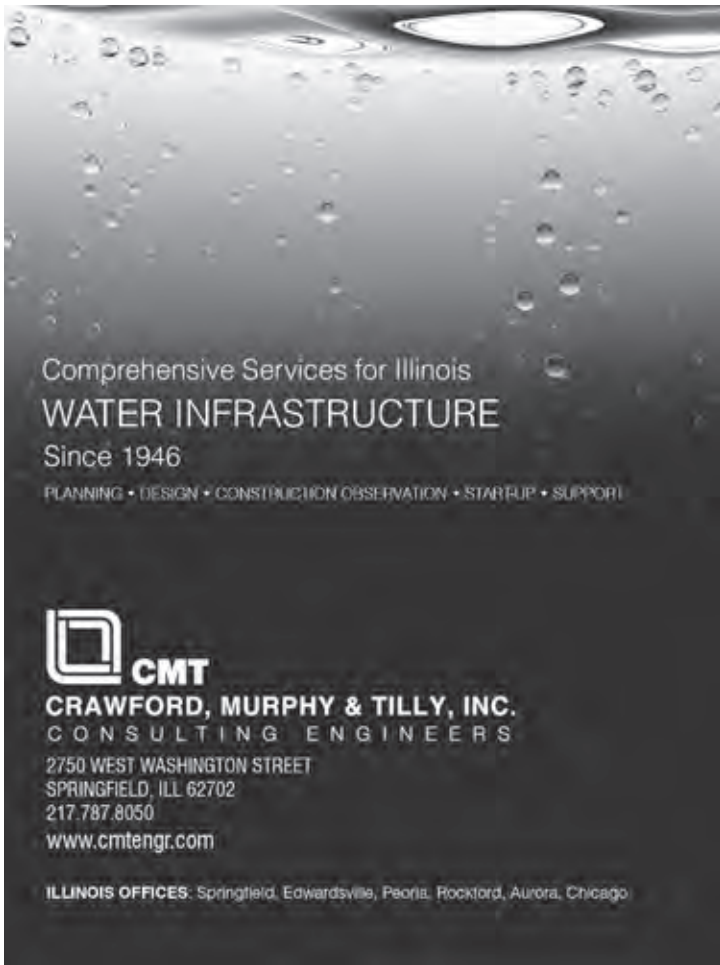
Video inspection technology can help you identify and prioritize maintenance issues, while improving service and reducing emergency maintenance costs.



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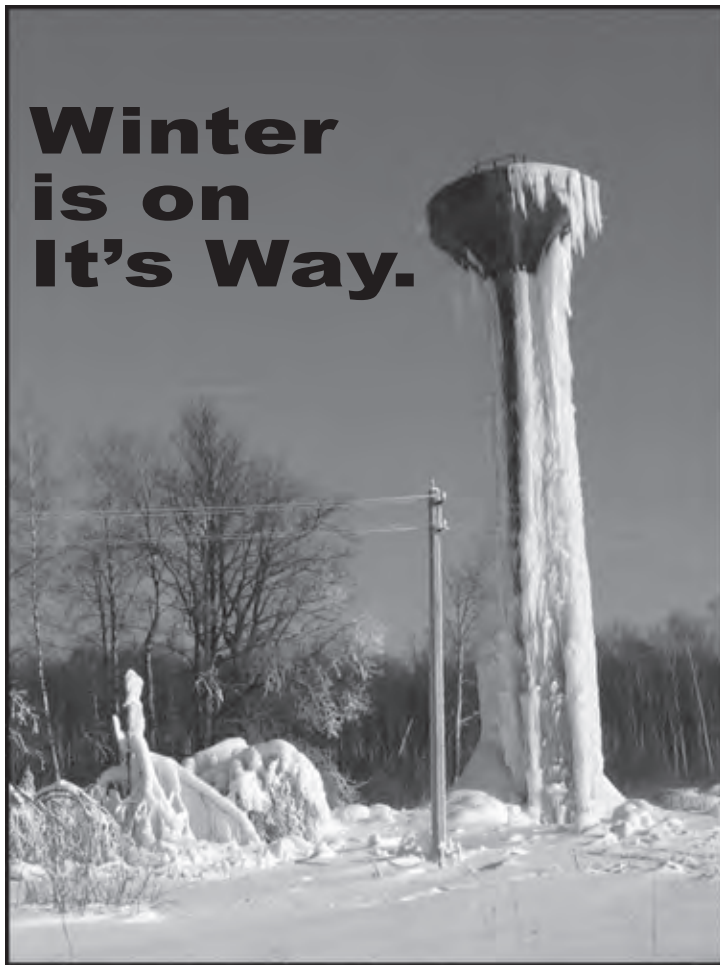


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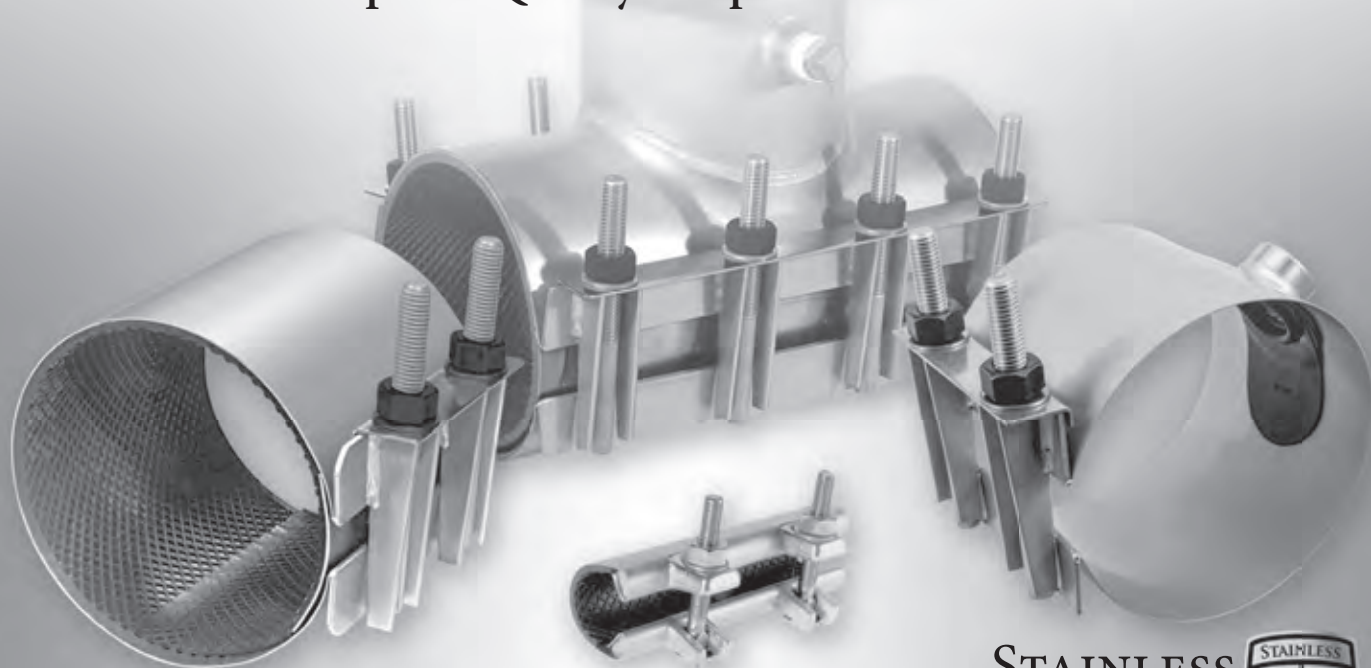
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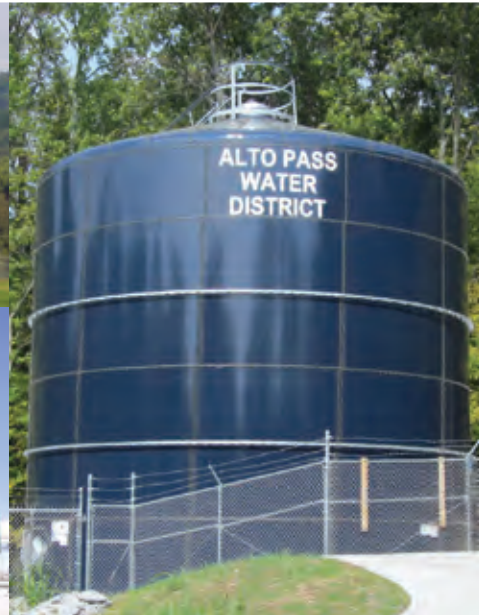
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