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Volume X — Winter 2013



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Volume X - Winter 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:

*These geese don't seem to mind the cold weather as they take a break on one of Illinois' many lakes.*

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).



## We Have You Covered

by Frank Dunmire,  
IRWA Executive Director

This past year the IRWA embarked on an exciting new path of providing its members access to cost effective property, casualty, and worker compensation insurance. The IRWA consulted with several companies and finally partnered with the Assurance Agency of Schaumburg, Illinois to create the Illinois Rural Water Assurance program and enrolled its first members during the months of November and December. There was an overwhelming number of members who indicated their interest in such a program representatives from Assurance were only able to complete a fraction of the on-site visits needed to gather all of the required submission data. As we traveled throughout the state this past fall a few

“roadblocks” sprung up and members were finding it increasingly difficult obtaining their loss reports and/or audited payroll information. In addition to those minor inconveniences we also had to deal with a bit of – let’s just say – misinformation about our program that was less than flattering. Nonetheless, we forged ahead and strongly feel we provided a more comprehensive and price competitive program for each member that has joined the IRWA program.

As we enter a new year I wanted to share few thoughts for you to consider when you are contemplating your options for insurance:

1. First and foremost, if you plan to consider insurance options in 2013, you should place your current



provider on notice – especially if your current provider is a pool such as IML, ICRMT and TOIRMA. There may be an intergovernmental agreement that may have previously been signed requiring “proper notice” be given.

*continued on page 5*

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2. Whether you belong to a self-insurance pool/group or a conventional first dollar program, they are all required by law to provide you with immediate access to all previous payroll audits and most up to date loss information. This information is something you should get in the habit of collecting on a regular basis so that it can be used throughout the year to aid in determining areas where improvements might be made. Some providers may offer this information online to their customers and is worth investigating.

3. Current schedules of insurance should be kept on file and up to date. These schedules will most likely include property, equipment and auto. A “schedule” is merely a listing of the property, equipment and autos and the pertinent information owned by the system.
4. Financial statements or a copy of the current year’s budget will also be required when applying for insurance.

In looking ahead to 2013 insurance renewals, we are confident we will have many more successes in achieving our goal of providing our membership

with a program dedicated to the needs of Illinois’ smaller to medium sized municipalities; and a program focused on proper underwriting and premium allocations. In order to better serve our members, work is currently underway to design an “application package” that can be completed in advance of any on-site visits.

IRWA and Assurance representatives will be contacting you shortly to discuss the program and begin the strategy for working on your 2013 renewal. We want to work with you in 2013!

If you have any questions, please feel free to contact me. 

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## Painting Elevated Water Towers

by Greg Bates,  
IRWA Board President

Remember when penny candy cost a penny and a gallon of gas cost 25 cents? Well, I can't say that I can remember quite that far back, but I do remember when the cost of repainting a water tower didn't equal the cost of a luxury home on a lake! Painting and maintaining water towers and tanks has become increasingly more complicated (and expensive) these days and has several underlying causes. Among these are the seemingly infinite number of coating choices; the advent and installation of tank mixers; safety concerns; and the ever-present liability concerns. Compared to 20 years ago, these and other concerns have increased the cost of tank painting tremendously. So much so, that the cost of painting an

elevated tank today has almost surpassed the original cost of erecting the tower just 20 years ago. I find this to be both shocking and amazing. Here at Jersey County Rural Water we have just completed a 15 year project of having 5 of our elevated tanks painted for the first time since they were constructed. Each tower was bid separately over that time frame and the cost rose dramatically each time we bid one out.

In all fairness, what we use today is no longer the old lead based paint of old. They have been replaced with coatings that have been engineered, tested and improved over the years to offer a much longer life span. The last two tanks we had painted are expected to



have a twenty-five year life expectancy on the exterior. These advances were not limited to just finish coatings but have been extended to primers as well. Some of the zinc primers that are being used today afford a better protection for the steel it is protecting and longer paint life

*continued on page 7*

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for the top coatings. In some cases the new paint systems may eliminate the need for cathodic protection in your tank. Some of the newer paints also eliminate the requirement of a clear coat which was an added expense in material and labor and leads to a much better finished product with no unavoidable skippers.

The addition of mixers in tanks has improved water quality and there are many different methods and types to accomplish this mixing (or destratification) of the water. These mixers are helping meet many of the EPA requirements on disinfection by-products and have assisted us in making huge improvements in our water quality – especially during the summer months. I highly recommend you consider their use

when you are considering your next tank maintenance project.

Security concerns can (and probably should) play a large role in any of your future tank maintenance projects. Although 9/11 was a tragic event it did force us in the water industry to take a much more in depth look at securing our many sites. A good place to start is with your vulnerability assessment and emergency operating plan. Although we utilized two of the best basic security measures available – locks and daily site visits – to protect parts of our system, as we reviewed our sites and plans, additional exterior lighting and razor wire fences at some of our remote locations was added.

As they should, safety issues also

play a vital role in anything you do – including your tank rehab projects. Employee and contractor safety is very important during tank maintenance so we added interior ladders to our tanks and a secondary top hatch for easier access of our tanks. In addition to those improvements we also had a riser cage screen installed for additional safety of those required to use it. Safety and its associated liability issues are always a huge concern with tank painting due to the heights involved and the very nature of the work being performed. We have learned many valuable lessons throughout this 15 year tank painting project and I hope these minor suggestions help you in your next tank painting project. Be safe out there! 💧



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# Water and Wastewater Operators and Systems of the Year

by Mark E. Mitchell,  
IRWA Source Water Protection Specialist

As I write this article I am reflecting over our more than 1300 mile round trip the first week of December of 2012 where we interviewed the finalists for our February 19 – 21, 2013 Annual Technical Conference Awards Ceremony scheduled for the Opening Session on Tuesday, February 19, 2013. I was wondering as we traveled the great state of Illinois from one end to the other (literally) and crisscrossing it a few times as well, how many of our fine Operators/Managers actually understand the process of our awards and the time and effort that goes into making sure the “The Best” get nominated and then that the “Best of The Best” get selected for the top honors.

During the year, as they go about

their normal jobs of providing technical assistance to you in your respective systems, the Illinois Rural Water Association Water Circuit Riders and Wastewater Technicians are constantly on the lookout for the exceptional water and wastewater system operators and water and wastewater systems. They then submit to our Executive Director their nominees for this honor within their work areas. You must realize at this point it is a great honor to be nominated or to have your system nominated to be considered for this award.

After the nominees are sorted out and contacted by phone and by a letter from our Executive Director, stating that you or your system has been nominated,

a route is set up, appointments are made and the process of interviewing the nominees begins.


The past few years, three grizzled veteran employees of IRWA who have no part in the nominating process, leave the IRWA office in quest of finding the four nominees to be awarded the top honor of Operator/System of the Year. We interview each of three top finalists in each category from one end of Illinois to



the other. We spend the largest part of 5 days on the road, looking at wastewater and water systems, going over records, looking at Emergency Response Plans, visiting with the operators and finding out what the responsibilities of each nominee are. We strive to find out what each operator does that goes above and beyond what they must do to just get by.

What has always amazed me during my years of being involved with these interviews is that when the three of us finish the interviewing process and we go back to our vehicle to go over our individual scoring sheets, how close the three of us are in our scores. We often have to spend a lot of time trying to break those ties by further evaluating the systems and operators that we have had the pleasure of interviewing.

The decisions have been made at this time for 2013. Please keep doing what it is you do that makes you an outstanding operator or keep your system running efficiently the way you do on a day-to-day basis. You never know when someone is noticing!

Please attend our Annual Technical Conference in Effingham, IL in February to help us honor the Illinois Rural Water Association's Operators and Systems of The Year! 



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# CONFERENCE AT A GLANCE

<b>Tuesday, February 19th</b>		<b>Registration Open: 8:00 a.m. — 4:00 p.m.</b>	
9:00 a.m.—10:30 a.m.	Opening/Awards Ceremony/RD Update/SRF Update		
10:30 a.m.—11:15 a.m.	<b>Break/Exhibit Hall Opens</b>		
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12:00 p.m.—1:00 p.m.	Lunch Buffet—Ticket Required		
1:00 p.m.—2:30 p.m.	IEPA Regulatory Update		Common legal issues facing today's systems (pt.1)
2:30 p.m.—3:00 p.m.	<b>Break/Exhibitor Drawings</b>		
3:00 p.m.—3:45 p.m.	Brass No-Lead Rule	Sand/Rock Filter	Common legal issues facing today's systems (pt. 2)
3:45 p.m.—4:00 p.m.	Ice Piggig	Bar Screens, Comminutors & Grit Collections	
4:00 p.m.—4:30 p.m.			Annual Meeting
4:30 p.m.	<b>Annual Meeting/Water Taste Test</b>		
5:30 p.m.—9:00 p.m.	<b>Hospitality Night</b>		
<b>Wednesday, February 20th</b>		<b>Registration Open: 8:00 a.m. — 4:00 p.m.</b>	
8:00 a.m.	<b>Exhibit Hall Opens</b>		
9:00 a.m.—9:45 a.m.	Contingency Planning/ Emergency Pumping	Lagoon Operations	Grant Writing Assistance
9:45 a.m.—10:30 a.m.	New IEPA Sourcewater Protection Rules & Regs.	Activated Sludge O & M	Pressure Filter Care & Troubleshooting
10:30 a.m.—11:00 a.m.	<b>Break/Exhibitor Drawings</b>		
11:00 a.m.—12:00 p.m.	Flood Recovery/Preparedness		pH Adjustment Cost Effectively Improves TOC Removal & DBP Performance
12:00 p.m.—1:00 p.m.	<b>Lunch Buffet/Ticket Required</b>		
1:00 p.m.—1:45 p.m.	Midwest Regional Perspective on Well Rehabilitation, Design & Construction	Nutrient Removal— Aerated Lagoons	Assurance
1:45 p.m.—2:30 p.m.			
2:30 p.m.—3:00 p.m.	<b>Break/Exhibitor Drawings</b>		
3:00 p.m.—3:45 p.m.	Improving Customer Service and Conservation with Advanced AMR	UV Disinfection	IMRF
3:45 p.m.—4:30 p.m.	The Economy, What is Going On?	Wastewater Certification Review	
6:00 p.m.—9:00 p.m.	<b>Casino Night /Announcement of Sportsman Raffle Winners</b>		
<b>Thursday, February 23rd</b>		<b>Registration Open: 8:00 a.m. — 9:00 a.m.</b>	
7:30 a.m.—8:30 a.m.	<b>Breakfast Buffet/Ticket Required</b>		
8:30 a.m.—9:15 a.m.	Taming Temperature Extremes in Storage Tanks		
9:15 a.m.—10:00 a.m.	Preventing Water Quality Problems in Storage Tanks		
10:00 a.m.—10:15 a.m.	<b>Break</b>		
10:15 a.m.—11:45 a.m.	Chlorine Equipment & Safety		
11:45 a.m.—12:00 p.m.	Closing Ceremony/Grand Prize Drawing		

## SESSIONS AT A GLANCE

### WATER SESSIONS

**RD Update - Mike Wallace; Rural Development** - Funding resources for your water and/or wastewater projects will be discussed.

**SRF Update** - Hear the latest news about the state revolving fund.

**Tracer Wire Tips - Greg Douglas; IMCO** - Locate buried pipe easily! Learn some valuable tracer installation tips in this session.

**IEPA Regulatory Update - Dave McMillan; IEPA** - Learn about new regulations as well as some major changes to some old ones, especially operator certification and training criteria.

**Brass No-Lead Rule - George Gilson, Jr.** - Hear about the new no-lead in brass fittings rule that is rapidly approaching in 2014.

**Ice Pigging - Darin Clarke; Utility Service** - Hear about a new way to clean biofilms and sediment from water mains without the fear of losing the pig!

**Contingency Planning/Emergency Pumping - Brad Gould; Heartland Pump** - You should know by now that a contingency plan is necessary. Find out about how to prepare for the inevitable and what equipment you will need. Permanently installed solutions for emergency pumping will also be discussed.

**New IEPA Sourcewater Protection - Rick Cobb; IEPA Groundwater Section** - Illinois EPA is actively changing from voluntary to mandatory SWP. Find out what the new rules will look like and how this will affect you.

**Flood Recovery/Preparedness - Jamie Headen; Benton & Associates & John Cosner; City of Jacksonville** - Hear about the experiences of Jacksonville and what they learned about how prepared they actually were to weather a major flood.

**Midwest Regional Perspective on Well Rehabilitation, Design & Construction - Mike Chapman & Jeff Stollhans; Peerless Midwest** - Hear how original construction and design of your wells can affect rehabilitation efforts in the future.

**Improving Customer Service and Conservation With Advanced AMR - Matt Thomas; Mueller Systems** - Rural water utilities are always looking for intelligent ways to improve customer service and reduce operational costs. Hear some case studies, find out whether AMR is right for your utility, and how to choose a system if it is.

**The Economy, What is Going On? Jim Maras; CoBank** - Come find out about some economic indices, where they have been and where they are headed. Impacts to rural water will be covered and opportunities this economy can provide will be discussed.

**Taming Temperature Extremes & Water Quality Problems in Storage Tanks - Nathan Miller; Pax Water Technologies** - Seasonal temperature variations present significant challenges for water operations. This presentation will review two water quality tools - active mixing and in-tank aeration to help stabilize temperature extremes inside storage tanks and prevent water quality problems.

**All About Chlorine - Kurt Downie; Smith Ecological Systems** - Several of you asked for chlorine topics after last year's conference - so here it is - a longer session on chlorine just for you!

### WASTEWATER SESSIONS

**IEPA Updates - Scott Twait; IEPA** - The latest information on wastewater regulations from IEPA.

**Sand/Rock Filters - Tom Newell - Newell's Sand/Rock Filter** - Find out how to clean your sand and rock filters.

**Bar Screens, Comminutors, Grit Collection - John Bell & Bill Dowell; IRWA** - This open discussion will cover questions of all types of preliminary treatment equipment, operations, and maintenance.

**Lagoon Ops - John Bell & Bill Dowell; IRWA** - This open discussion will cover questions on all types of lagoon operations and maintenance.

**Activated Sludge O & M - John Bell & Bill Dowell; IRWA** - This open discussion will cover all types of activated sludge operations and maintenance questions.

**Nutrient Removal - Aerated Lagoons - Tom Hinde; Air Diffusion Systems** - Nutrient Removal can be accomplished in aerated lagoons efficiently, and cost effectively.

**UV Disinfection - John Bell & Bill Dowell; IRWA, Larry Quick; City of Robinson & Jason Upton; City of Athens** - This open discussion will be an update on ultraviolet light and disinfection equipment. All types of applications and the O & M quirks.

**Wastewater Certification Review - John Bell & Bill Dowell; IRWA** - A review of the wastewater certification application and study guide information.

### BREAKOUT SESSIONS

**TBA - Mike Antoline; The Law Office of Michael Antoline** - Mr. Antoline will return again this year for an afternoon of information regarding some of the more common legal issues water and wastewater systems are facing today.

**IRWA Annual Meeting - Conducted by Frank Dunmire** - Come to this to learn about what your association has accomplished in the last year.

**Grant Writing Assistance - Pat Gleason; RCAP** - "Free" money is getting harder and harder to find. Attend this session to learn about RCAP's assistance in this hunt.

**Pressure Filter Care & Troubleshooting - Wayne Nelson; IRWA** - Do you know what's going on inside your pressure filters? Hear about some of the "do's" and "don't's" when maintaining your filters.

**pH Adjustment Cost Effectively Improves TOC Removal & DBP Performance - Howard Johnson & David Shafer; Shive Hattery, Inc.** - Simultaneous compliance with LTSWTR (Lt2) & Stage 2 DBP Rules are situations WTP operators should be equipped to handle. Case studies will be shown for improving DBP & TOC.

**Property & Casualty Insurance Overview - Keith Dobrolinsky; Assurance** - Are you covered? An overview of the property and casualty coverages that a municipality and water system should have.

**IMRF - Mandy Beedie; IMRF** - Are you looking at retiring soon? Come to this session to find out what you need to know about the IMRF program.

### Host Hotel

#### **Keller Convention Center & Hotel**

1301 Ave. of Mid-America

Effingham, IL

217-540-1111

Room Block: \$80.00

### Auxiliary Hotels

#### **Lexington Inn**

(formerly Holiday Inn Express)

1103 Ave. of Mid-America

217-540-1111

Room Block \$80.00 per night

#### **Country Inn & Suites**

1200 N. Raney St.

217-540-5555

Room Block: \$80.00 per night

#### **Hampton Inn**

1509 Hampton Drive (I 57 & I 70 X. 160)

217-342-4499

#### **Fairfield Inn & Suites**

1111 N. Henrietta (I 57 & I 70)

217-540-5454

### REGISTRATION

Registration & badges are required for all conference attendees. Please register each attendee using the registration form included in this packet. Include the attendee's full name on the registration form as it should appear on his or her badge.

#### **Pre-Registration:**

To pre-register just complete the registration form and mail with payment to:

**IRWA**

**PO Box 49**

**Taylorville, IL 62568**

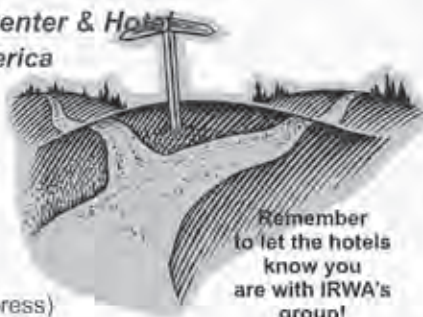
Or pay on-line with your credit card at [www.ilrwa.org](http://www.ilrwa.org).

Pre-registration must be postmarked by February 8th, 2013.

#### **On-Site Registration**

All conference attendees must obtain a name badge and conference material at the registration desk. If you do not pre-register, please make sure that you register as soon as possible after you arrive at the Keller Convention Center.

**\*\*Please note that on-site registration is \$25.00 higher than pre-registration.\*\*\***



Remember  
to let the hotels  
know you  
are with IRWA's  
group!

### Registration Hours:

Tuesday, February 19th 8:00 a.m.-4:00 p.m.

Wednesday, February 20th 8:00 a.m.-4:00 p.m.

Thursday, February 21st 8:00 a.m.-9:00 a.m.

### Cancellation & Refunds:

*Refunds only in the event of emergencies. We must have a written notice of cancellation to issue a refund.*

### EXHIBIT HALL

Professionals from all areas of the water and wastewater industry will be on hand to help solve your problems and provide you with the information you need to make those crucial decisions. 86 companies will be bringing their products and services to you at this year's conference.

The exhibit hall will be open during the following hours:

Tuesday February 19th 10:30 a.m.-4:00 p.m.

Wednesday, February 20th 8:00 a.m.-3:15 p.m.

### EXHIBITORS HOSPITALITY NIGHT

Tuesday, February 19th 5:30 p.m.- 9:00 p.m.

Come down and thank the exhibitors for providing the food, soda and beer for the evening.

### PUB CRAWL

Tuesday, February 20th

Buses will be available again this year for those who wish to go on a pub crawl.

### CASINO NIGHT

Wednesday February 20th 6:00 p.m.-9:00 p.m.

### SPORTSMAN RAFFLE

The exhibitors will be donating sports related prizes for the raffle. Attendees have the opportunity to purchase raffle tickets for these prizes, with the winners announced at the conclusion of Casino night. Last year we purchased new equipment for the staff and sent a portion of the proceeds to rural water lobbying efforts in Washington D.C.

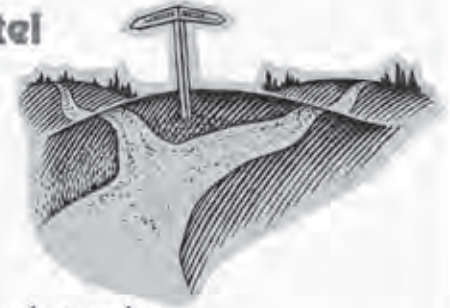
### NEW PRODUCTS/SERVICES ROOM

Stop by the Jefferson Room to see the presentations for the new and improved products or services our exhibitors have to offer. A new presentation will begin every 45 minutes. The schedule of sessions will be included in your packet at the conference. **These sessions will be included for CEU's.**

# 31ST ANNUAL TECHNICAL CONFERENCE

February 19-21, 2013

Keller Convention Center and Hotel  
Effingham, IL



## Registration Form

must be completed for all attendees - please photo copy for each attendee

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**FULL REGISTRATION:** (Includes technical sessions, exhibit hall, meals & activities for all 3 days)

Member - \$150.00       Non-Member - \$190.00       Spouse/Non-Employee - \$150.00

**ONE DAY REGISTRATION:** (Includes technical sessions, exhibit hall, meals & activities for 1 day only)

Member - \$120.00       Non-Member - \$160.00       Spouse/Non-Employee - \$120.00

**PLEASE CIRCLE WHICH DAY YOU WILL BE ATTENDING (for one day registration only)**

TUESDAY WEDNESDAY THURSDAY

*All fees must be paid when registering - no purchase orders or special billings*

**NO REFUNDS AFTER FEBRUARY 8, 2013**

**Registrations must be postmarked by February 8th**

Please make check payable to: **Illinois Rural Water Association**  
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## Is The Drought Over?

by Chuck Woodworth,  
IRWA Circuit Rider #3

It's that time of year again when we all start hearing that nasty four letter word all too often. Some use it in normal conversations as if it is no concern as to who would hear them say it. Some never want to say it yet alone hear it. Do you know what nasty four letter word this article is going to be about? Need a clue? It ends with the letter k. I'm sure after you read this I might be blamed the next time you have one. I will only type this nasty four letter word one time, so if you want skip over it, just skip it...Leak. There, I said it.

Today is the first working day of January, and I have already received four phone calls from operators seeking assistance in locating that four letter word. Don't take that the wrong way, I'm

glad those calls and future calls come in. If the phones do not ring there would be no need for the Association, so I for one like to hear the phones ring. Anyway, back to the subject at hand.

With the hot dry summer producing drought conditions all over the state, which produced record leaks during the summer, I'm sure it will also produce record main breaks this winter. As dry as the ground is, when it freezes it will add more than normal stress on water mains, thus creating that nasty four letter word. Finding them may be a little harder than normal also. As dry as the ground is, the water may not come to the surface. The water will more than likely follow a crack in the soil or other route to a tile. Remember that water



is lazy it will follow the path of least resistance. Following a crack or loose soil is easier than forcing its way to the surface. This theory is more so when the first couple of feet of soil is frozen. One of the above mentioned phone calls the operator explained the only indication of

*continued on page 22*



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## Is The Drought Over?

*continued from page 21*

a problem with a water main was a sump pump continuously pumping water from a basement. No other indication or the “normal” signs of a main break. Directly above the water main was snow and ice, no wet spot, no water coming up through the ground just the sump pump running. Upon further inspection the operator found that a nearby fire hydrant and a couple of meter sets produced sounds of a leak in the area. When I arrived on site I confirmed the sounds on the meter sets then dispatched the correlater loggers. It gave a location to check with the ground mic. A sound could be heard in that spot. The only “normal” sign was the sump pump running.

The point in all of this is that with the drought conditions of this past summer we will continue to see ill side

effects from it. Well into this winter and next summer and possibly into the following winter. It will take several years’ worth of rain fall to return the soil to the “normal” conditions. You might not hear about the drought anymore but it does continue to be a problem. If your daily pumping increases you might have a leak without any “normal” signs being visible. Completing all the leak locates that I have during the last few months have shown me that the “normal” conditions of a leak have changed. Of all of the leaks that I located, I can only recall one that came to the surface on its own. Most all have found its way to a tile, sewer main or just absorbed into the soil. Everything has changed, even the sound of the leak through the soil, while using the ground mic small leaks sound

like large leaks and large leaks sound like small ones. Each leak in the past would make a specific sound. In most situations I could tell what kind of leak you would find, but now I’m not sure what you will find other than the leak itself. The operator today thought he was losing 20,000 gallons per day, the sound I located did not sound like a “normal” 20,000 gallon per day leak. I am sure that a leak is at that spot.

If you know where the tiles are and where they discharge at you might want to be sure and check them if your pumping levels increase. If there is no flow coming out of the tile and your pumping more than normal amounts give me a call, it will only cost you a thank you letter if I find your leak. 💧



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# Ten Ways to Avoid Winter Plumbing Problems

The winter months in Central Illinois can be very harsh on your plumbing causing you to spend up to thousands of dollars on unnecessary plumbing repair. With the proper plumbing preventive maintenance these plumbing problems and repairs can be avoided.

Protecting your plumbing can be done with some common hand tools as well as some plumbing supplies that you can get from a local supply house and are much cheaper than calling a repairman after something has gone wrong. These are the most common plumbing problems you will run into during the winter and some simple solutions to help you avoid each plumbing problem.

## **How To Protect The Outside Wall Kitchen Sink From Freezing:**

Many builders often place the kitchen sink on the outside wall of the home so that you can see out of the window while doing dishes or using the sink. The problem is that the outside wall can get colder than most inside walls and there is a chance your plumbing could freeze. On new houses the plumbing is brought in from the bottom of the cabinet, but on many homes the water lines are actually on the outside wall of the house.

If your water lines are freezing or they did last year and you want to avoid the problem over the winter you can by doing a few things. The first thing you will want to do is to open the cabinet door all the way letting the inside room temperature flow inside the cabinet. This will work for many homes, it may look ugly because the door of the cabinet is always open but the warm inside air will prevent the pipes from freezing. If that does not work you could always place a portable space heater near the open door

so that more hot air can keep the water lines warm. When the summer comes around you should remove the cabinet and insulate the lines with heat tape or better pipe insulation.

## **How To Prevent A “No Heat” Call On Your Boiler Or Furnace:**

The best way to protect the health of your furnace or boiler is to have it serviced by a licensed plumbing and heating professional. Not only will this ensure that you have warm heat all winter long, but it also can prevent expensive repairs down the road due to lack of preformed service. A tune up for your oil or gas fired unit can really affordably compared to losing the heat for the night.

## **How To Prevent Your Sewer Line From Backing Up:**

One thing that commonly happens over and over again is that homeowners fail to remember to check the levels of their septic tank before the winter time causing an expensive service call from a plumber. It is always best to have your septic tank treated and pumped out before the winter time. If you wait until the septic tank becomes overfull, you not only can cause a stoppage in the main line but it will be more expensive for the plumber to dig through all that frozen ground and snow to access the cesspool and lines if they need to be repaired. So make sure to have your septic tank or cesspool checked before it gets to cold.

## **How To Prevent Your Oil Lines From Freezing:**

Another common problem during the coldest times of winter is oil burner tank lines will freeze because of water that is

in the fuel. There are two ways to protect against this. The first thing you will want to do if your oil lines are exposed to the outdoor weather is to insulate them with the pipe insulation. If you have already insulated your oil lines, you will want to remove any sludge and water from your oil tank. You will want to call an oil heating professional to do so as this can be a very messy job.

## **How To Keep Your Water Heater Hot All Winter Long:**

One of the most common plumbing DIY searches is “how to change a water heater element”. This is a common part that often will break at any given time but generally will not be noticed until the temperature outside drops to around freezing. What usually happens is that one of the elements goes bad and you won't have as much hot water, but being it was summer your showers were longer and much colder than in the winter. So when you now enter into winter you will notice that you have less hot water. This could be one of two things. One of your heating elements could be bad or you just need to raise the temperature of the water heater. You should always have your water heater checked by a licensed plumber before the winter time.

## **How To Prevent Your Pipes From Making Noise:**

Whether you have steam or forced hot water powered by oil or gas you can still have noisy pipes all winter long. Your noisy pipes could be happening for a number of reasons. If you have slant fin baseboard heat it could have been installed wrong and you might just have to adjust the clips on the elements. If you have steam heat you could be experiencing water hammer and could



have bad steam traps. It is always a good idea to have a heating professional come in and inspect the whole heating system before the winter, but if you have not done so you still have plenty of time and its never to late.

## How To Prevent Exposed Pipes From Freezing:

Over and over and practically ever winter millions of plumbing pipes freeze and bust due to improper installation or the lack of protection that was needed. If you have pipes that are exposed to winter elements you will want to first insulate them with pipe insulation and then seal all seams with tape to prevent wind from blowing in. In areas that get extremely cold you can also use something called heat tape to prevent the pipes from freezing. Heat tape is wire that wraps around pipes and then gets plugged into a wall to keep the pipe nice and warm. Heat tape is not that expensive and is a remedy for avoiding those costly repairs to frozen pipes.

## How To Winterize Plumbing Fixtures Not In Use:

If you have an outside bathroom or plumbing fixtures that are exposed to temperatures that are below freezing you will want to do something called winterizing to prevent them from freezing and cracking. You will want to first shut the water supply off to the fixture and then you will want to drain all the water from the basins or tanks. For example if it was a toilet you would empty the tank.

Once you have drained the water you will want to remove the p-trap from the fixture and empty the water from it, and once you do you can re-install the p-trap and re-tighten it. Now that the water is drained from the fixture and the faucet

you can add a non toxic anti-freeze to the tanks and traps for that extra level of freeze protection.

## How To Blow Out Water Lines From Freezing During Winter:

If you have an outside bathroom, pool slide , or even a irrigation system that is in need of blowing the water from the lines you can either use a air compressor if you no what you are doing or you can hire a licensed professional to do the job for you. Although its not recommended for you to try to blow out your own sprinkler lines it can be done with a high CFM air compressor which is much bigger then the average homeowner or center will have. If you you are blowing out swimming pool lines or other short runs you can use a smaller air compressor with a low psi so you don't wind up popping fittings apart with to much air pressure.

## How To Prevent Outdoor Faucets and Spigots From Freezing:

One of the most common things people do is leave there outside garden hose attached to the outdoor hose bib and then the winter comes , the garden hose freezes and sure enough so does the spigot. There are a few ways to avoid this all together. The first way is to always remove your garden hose before it starts to freeze. The second thing you should do if you do not have isolation valves installed already is to have a licensed plumber install isolation valves in the basement or crawl space so that the water to the hose-bib can be shut off from inside. If you already have valves you can just simply close them and then open the spigot outside to drain the rest of the water.

If you want to take it a step further you can install frost free hose bibs that are equipped with a long valve body that extends through into the inside of the house or building so the water does not freeze. These valves are a lot more money then the average hose bib but well worth the price just for the piece of mind.

These are the ten most common plumbing problems that happen over the course of the winter. Some of these you may want to tackle yourself so you learn ways to save money on your plumbing repairs, but other things may just require help because if limited knowledge or tools you might have. It is very important to remember that it is OK to hire a professional when needed. It is also a very good idea to make sure that they have a license , insurance and a good track record. One other thing to remember is that you will also want to get three written estimates to get the best price. 💧



### **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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