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ON THE COVER: French Lick Springs Hotel





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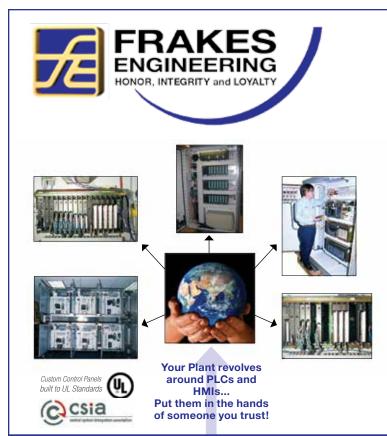
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An Exciting Year Ahead



Dave Seacat Alliance Board President Ramsey Water Co., Inc.

At the December Alliance board meeting, I was elected to serve as the board president in 2014. My name is Dave Seacat and I am the general manager for Ramsey Water Company and have served on the Alliance board for the past two years. I appreciate the confidence and support that is being shown by the other board members. Outgoing President Tom Speer has offered words of wisdom and advice.

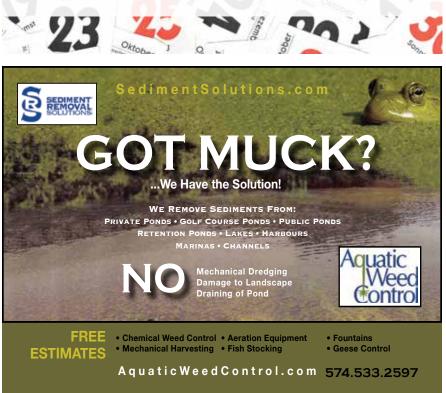


"I hope that you can attend one or all of these in order to learn from and network with other professionals in our industry."

The 2014 Training Calendar has been prepared. Hopefully, you already have a copy of the calendar. Some important dates to point out and plan for include the Spring and Fall Conferences and well as the Expos. The Spring Conference is March 19 – 20 in French Lick. The Fall Conference is September 17 – 18 in Fort Wayne. The Southern Expo is May 15 in Huntingburg and the Northern Expo is May 22 in Akron. I hope that you can attend one or all of these in order to learn from and network with other professionals in our industry.

The Alliance staff is very qualified and eager to help with any water or wastewater issues that you may have. At Ramsey Water, we have called on them for their expertise and feel very fortunate to have the Alliance.

I wish you a happy and successful 2014 and hope to see you at one of the Alliance events this year. \star





What to look for this year

Connie Stevens Executive Director

ast year was a very busy and successful year for the Alliance of Indiana Rural Water. We provided over 50 training sessions all across the state, as well as two conferences and two Operator Expos. Our commitment to your needs for your water/wastewater utility is very strong. It will continue to be our top priority.

Thanks to your input, the year 2014 will be packed with all of this and more. We have scheduled the classes that you requested and we want to express a special thank you to those who will be hosting our training sessions throughout the year. You should have your Alliance Training Calendar by now, but if you do not, just give us a call and we will get it to you. Our team has worked very hard to plan a training session near you, so be sure to check out the map in front of the calendar.

"Be sure to check out the map in front of the calendar."

Our water and wastewater exam review classes have been very successful, with an overall passing rate of 88%. We will hold a sevenweek training course for both water and wastewater in several locations. Please check out our website for these locations.

Just a few things to watch for this

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At the statehouse, there is continued discussion about water quantity and availability in Indiana. Rural Water systems need to know how the discussions are going and how or if it will affect them. I will be in close contact with this topic and keep you informed.

Next month, we will attend the Rural Water Rally in Washington DC to talk with our state legislators about the needs for rural water and wastewater systems in Indiana. Max Eldridge, Water Superintendent from the town of Brookston, will be joining us and representing Indiana in the Great American Water Taste Test. This is an exciting event and we all wish Max and the town of Brookston the best of luck.

There is still more to come, so check out our updates in the info line and on our website. I look forward to seeing you at the Alliance Spring Conference in French Lick. ★

Nonprofit Directors & Officers Insurance

By Erich Rich, McGowan Insurance Group

board of directors is a body of elected or appointed members who jointly oversee the activities of a company or organization. Many of the individuals asked to participate in a board of directors of a nonprofit organization is composed of respected members of the community. These individuals are sought after for their expertise, community involvement and, occasionally, economic support.

Some that are chosen feel grateful they have been selected and think of the position as more of an 'honorary' role than a hands-on commitment. However, directors of nonprofit organizations shoulder more responsibility than most. Applicable law considers directors or officers as 'fiduciaries' of the entity. Each director or officer can be held personally liable, in certain situations, for not satisfying their fiduciary responsibility. This is the highest duty of care that the law recognizes.

The statute governing directors' care states: A director shall, based on the facts then known to the director, discharge the duties as a director

- in good faith;
- with the care an ordinarily prudent person in a like position would exercise under similar circumstances; and
- in a manner the director reasonably believes to be in the best interests of the corporation.

Many individuals asked to be a board member may be unwilling to serve unless a directors and officers policy is in place. It is critical to have a comprehensive policy in force, no matter the size of the board.

The first responsibility of directors and officers is to confirm appropriate procedures are being followed by the board and by the specific nonprofit organization. All critical decisions need to be fully investigated and overseen by all members. All information should be





open to and shared with all directors and officers.

For the most part, directors and officers put forth great effort to make the correct decisions. Continuing to be prudent and thorough in the decision-making process is the best risk management practice a board can implement. However, it is vital to have a directors and officers policy in the rare instance a board's decision results in a loss. \star

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2013 Fall Conference RECAP





Some exhibitors agreed to pool their donations for the Sportsman's Raffle

for a larger prize. The Raffle Committee decided to purchase a 60" Big Screen TV to raffle during the conference. The lucky winner was Michael McKinney of the Town of Lizton. Thank you to everyone who purchased tickets, all the exhibitors who donated additional items for the raffle, and a special thanks to those who pooled for the larger prize: Artesian of Pioneer, Blue River Technologies, Commonwealth Engineers, Inc., GRW Engineers, Inc., London Witte Group, LLC, McGowan Insurance Group, SmartBill Limited, Spectra Tech, and Water Solutions Unlimited. Wednesday's luncheon featured Keynote Speaker, Vince Griffin, Vice President of Energy and Environmental Policy with the Indiana Chamber of Commerce, along with our annual water taste test contest. Congratulations to the Town of Brookston, which was awarded the 2013 Best Tasting Water in Indiana. On Thursday, we held our annual membership meeting during which Todd Gardner from the City of Knox was elected to the Alliance Board of Directors and Tom Speer – City of Lawrence Utilities and Terry Hafstrom – Town of Kentland were re-elected. ★

Town of Brookston BEST TASTING WATER IN INDIANA



The crowd cheered as the Town of Brookston was presented with the Best Tasting Water in Indiana award at the Alliance of Indiana Rural Water's annual Fall Conference on August 21, 2013. The taste test was conducted during lunch on the first day of the conference at the Star Plaza at the Radisson Hotel in Merrillville, Indiana. Participating water samples were judged on three categories – clarity, odor, and taste.

The sample was submitted by Superintendent Max Eldridge. Brookston treats 135,000 gallons of water per day with aeration, filtration, pre-chlorination, post-chlorination and fluoride and pumps, for a population of 1,700. Max Eldridge will be representing the Town of Brookston with an all-expensepaid trip to Washington, DC in February 2014 to compete in the National Rural Water Association's 'Great American Water Taste Test.' Congratulations and good luck to the Town of Brookston! ★





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Arrive a little early to take part in Tuesday evening's cookout and gathering.



Grand Prize Giveaway is a Weber Summit S-470 Grill/Smoker valued at \$2,000!



Register for a chance to win a FREE TRIP for TWO to the NRWA Conference in Seattle, WA. (Sponsored by Covalen & Midwestern Engineers)

Wednesday night's Bowling & Pizza Hospitality Event promises to be fun for all!

Earn up to 10 Water and Wastewater CEUs.

Awards Luncheon with Keynote Speaker BRIGADIER GENERAL BRIAN R. COPES, Chief of the Joint Staff, Indiana National Guard.

Enjoy a delicious HOT Breakfast and a chance to win a Kindle Fire HD on Thursday morning.

Don't miss the Shotgun Raffle!

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Conference Registration March 19 & 20, 2014

Please print or type.

List all attendees and indicate the type of registration desired.

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Full Registration Traccos Full Registration Two (2) days of technical sessions WITH CEU's, Pre-Conference Hospitality "Cookout" (Tues.), Exhibit Hall Access, Awards Luncheon (Wed.), Reception and Bowling Event (Wed.), and Hot Breakfast Buffet (Thurs.)	Before March 4	After , 2014	Before March 4	After 4, 2014
	\$135	\$160	\$185	\$210
Board / Clerk-Treasurer / Spouse / Guest Registration Two (2) days of classroom sessions (NO CEU's), Pre-Conference Hospitality "Cookout" (Tues.), Exhibit Hall Access, Awards Luncheon (Wed.), Reception and Bowling Event (Wed.), and Hot Breakfast Buffet (Thurs.)	\$95	\$120	\$120	\$145
Wednesday ONLY Technical Sessions WITH CEU's , Exhibit Hall Access, Awards Luncheon and Reception and Bowling Event.	\$90	\$115	\$115	\$140
Thursday ONLY Technical Sessions WITH CEU's, Exhibit Hall Access and Hot Breakfast Buffet	\$80	\$105	\$105	\$130

PLEASE INDICATE NUMBER OF ATTENDEES PLANNING TO ATTEND WEDNESDAY'S AWARDS LUNCHEON.

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Please send invoice	Enclosed is my check #		į
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Signature		Total \$	1.

Registration form must be returned to the Alliance office no later than March 4, 2014 for "Early Bird" registration prices.

Registrations will be fully refunded if cancellation is made before March 14, 2014. Cancellations after March 14, 2014 are subject to a \$15 administrave fee per registration.



Recognizing the outstanding contributions of rural water & wastewater professionals is one of the highlights of the Alliance's Annual Spring Conference.

Each year the Alliance of Indiana Rural Water presents awards in recognition of outstanding performance in four categories.

Award winners in each category will be presented with a plaque and a special award winner polo shirt on Wednesday, March 19 during the Awards Luncheon. Please take advantage of this chance to recognize someone for a job well done!

To assist the Alliance Awards Committee in selecting deserving individuals, please fill out the form below; attach additional pages if necessary. **Nominations must be received by February 14, 2014.**

Please select one:

Water System Operations Specialist of the Year	Wastewater System Operations Specialist of the Year
Manager of the Year	Administrative Professional of the Year
Nominee's Name:	
Job Title:	Shirt Size (circle one): S M L XL 2XL 3XL
System Name:	
Nominator:	
Telephone Number of Nominator:	

- 1. How long has nominee been employed with system?
- 2. What are the responsibilities of the nominee in his/her current position?
- 3. What is/are your primary reason(s) for nominating him/her for this award?
- 4. Please indicate what type of training the nominee has received:
- 5. Please list awards or certificates the nominee has received:
- 6. What contributions has the nominee made to the improvement of his/her system?
- 8. Will the nominee be attending the conference?

Yes

No

One award in each category will be presented. You may nominate one person in each of the four categories. (Please copy this form and submit one for each person you wish to nominate.)

Mail to: Alliance of Indiana Rural Water, P.O. Box 789, Franklin, IN 46131 Fax: 317-736-6676

Nominations MUST be received by February 14, 2014 to be considered. *The Alliance reserves the right to publish names and photos of all awards winners in future publications.

Tools for Creating Sustainable Infrastructure

By John C. Padalino, Administrator, US Department of Agriculture, Rural Utilities Service

hile sustainable water and wastewater infrastructure is always a critical foundation of economic development, in uncertain economic times it is even more critical. Rural economic activity depends on sustainable infrastructure, making it the first rung on the ladder of opportunity for rural and economicallychallenged communities. Without basic infrastructure such as rural water systems that provide safe, dependable, and efficient wastewater and drinking water services, there would be no support for the economic activities that are necessary for our continued success and growth as a nation. The work carried out by rural Americans stands as the backbone to the strength of our nation.

The United States Department of Agriculture (USDA) Rural Development and the Environmental Protection Agency (EPA) have joined forces to provide resources to our nation's small and rural communities' water and wastewater systems to increase levels of sustainability. Using input from both rural operators and managers, the USDA and EPA have worked closely with rural and small systems to develop flexible, user-friendly tools to help rural and small system managers and operators ensure their communities are strong, safe and sustainable. USDA and EPA are rolling out two new tools that are designed specifically for rural and small water and wastewater system operators and managers.

The first tool is the *Rural and Small Systems Guidebook to Sustainable Utility Management.* This guidebook takes small systems through a series of steps to assess their current operations based on 10 key management areas developed using best practices. The guidebook allows rural and small systems to assess their strengths and priorities for improvement, which will lead to an action plan to address those priorities and challenges. The guidebook also contains an extensive inventory of other utility management tools to help rural and small systems.

The second tool is called *Workshop in a Box.* The Workshop contains a series of materials and instructions to help both small systems and technical assistance providers market and conduct workshops on their own, based on the guidebook. These materials can be used either in a group setting with

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several systems, or on-site with a team of individuals from a single system.

With more sustainable water and wastewater systems in rural communities, the rungs on the ladder of opportunity will become closer, affording those communities greater environmental protection and economic opportunities. ★

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What are **PPCPs**?



By Rex Blanton, Wastewater Training Director

harmaceuticals and Personal Care Products as Pollutants (PPCP) refers to the products used by humans for personal health and cosmetic reasons. PPCPs also include products used by agribusiness to promote growth or better health of livestock. The list is made up of lots of things used daily, like prescription and over-the-counter drugs, veterinary drugs, fragrances and lotions. This sounds innocent enough, until they start showing up in our bodies of water.

How do they get into our bodies of water? People deliver them to the environment in many ways. Bathing, shaving and swimming can wash away many PPCPs into the environment. Medication residues pass through our bodies and are flushed down the toilet. Hospitals contribute a lot of these unused residues also. Unused and expired medications are thrown in the trash, which may be taken to landfills and leach into water tables. They can also be present in treated wastewater sludge that is applied to fields and reclaimed water used for irrigation, which can runoff into nearby streams. Agribusiness and pharmaceutical manufacturing are controlled, however like any industry, residues can remain in and near these facilities for years.

The full effects of PPCPs on the environment are at this point speculative at best, however a major concern is the harm they may cause when mixed with other chemicals or build up in the food chain. Some changes to fish and frog populations has been observed, including increased female populations due to estrogen and synthetic hormones as well as slow development in aquatic species with higher levels of antidepressants. Could these same things become prevalent in humans as these PPCP residues continue to increasingly show up in our bodies of water?

PPCP have most likely been in our environment and waters since we have been using them. With the ever-increasing population and the increased availability to purchase and use the medications and other products that can cause these pollutants, it becomes an ever-increasing concern to lessen their presence. A lot of communities have take-back

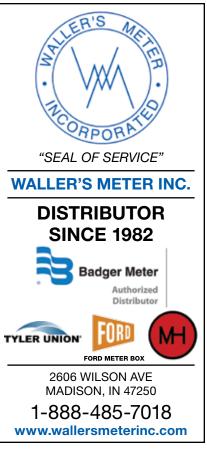


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MACHESNEY PARK, IL 815.636.9590 VALPARAISO, IN 219.462.7743 programs or household hazardous waste collections that include pharmaceuticals. That helps with the pharmaceutical side, but lessening the effects of the personal products we use daily will be more difficult.

EPA is responding to the issues of PPCPs in water with a strategy aimed at improving science, public understanding, partnership and stewardship opportunities and taking regulatory actions when needed. We can start by educating our customers in the proper disposal of pollutants instead of flushing them down the drain. ★



Writing That



Safety Manual

By Tom Speer, City of Lawrence Utilities

ver the last few years, I have had the opportunity and pleasure of visiting other utilities around the state to talk about safety. The Alliance has had many sessions over the years: OSHA 101 – What To Expect in an Inspection, Trenching and Excavation, Confined Space and GHS (Globally Harmonized System), just to name a few. At the beginning of every session, I always ask one question: Do you have a written safety manual? A few hands go up, but for the most part, I get the blank stare.

Writing a safety manual is timeconsuming, but is an important part of your utility operation. Every employee should be trained on every aspect of their job and the safety manual helps them learn what they can and cannot do while performing tasks. Your safety manual is a detailed 'book' that gives specific information on what you expect to be done and how to do it.

I am often asked, "what goes in the safety manual and how do I write it?" There are a number of sections to a safety manual: Confined Space, Hazard Communication, Ladder Safety, Tool Safety, Hearing Protection, Personal Protective Equipment (PPE), Trenching and Excavation just to name a few. How to write a safety manual is simple. There are lots of examples on the Internet. Once you find something that you might be able to use, you will have to make it fit your needs. Like I said, it is a time consuming project, but worth the time it takes.

Often, the next question is "why

do I need a safety manual?" There are several good reasons to have one. As I stated above, one is to promote employee safety. Another important reason is to comply with regulations. If staff from IOSHA (Indiana Occupational Safety and Health Administration) should show up, they will ask to see all or certain parts of a utility's safety manual. Not having such a manual can result in hefty fines.

To wrap it up, keep safety a number one priority. Train your employees. Make sure they know how to do a job and do it safely. Be a role model for safety. If you are not doing something safely, your employees will likely not be doing it safely either. And lastly, get to work on your safety manual.

Have a safe and happy 2014. ★



TTHM's



By Joe Frazier, Water Circuit Rider

rihalomethanes are formed as a by-product predominantly when chlorine is used to disinfect water for drinking. They represent one group of chemicals generally referred to as "disinfection by-products." If you are having problems with high or just over the limits for TTHM's, there are some ways to lower your levels.

Here are three ways to help lower your TTHM's:

1. Floating Spray Nozzles - which can be installed in, clear wells or storage tanks. Since there is no friction or lifting loss 98% of the energy is used with the pump is for stripping the TTHM.

- Fixed Spray Nozzles are the most widely used system for tanks under 50,000 gallons. It works by having a tank adaptor on top of the tank and the TTHM system can be lowered into the tank or removed from the tank, without having to enter the tank. The spray nozzles and pumps will be inside the tank, so there is less chance of the system freezing. Also there is a ventilation fan placed on top of the tank adaptor.
- 3. Floating Air Diffusers it has been found that this system works best

in larger tanks. This system works better on the chloroform then brominated species of TTHM. With this system, it carries the TTHM into the atmosphere of the tank, which eliminates the need for a ventilation system in the headspace of the tank.

These are just a few ideas if you are having problems. I am sure there will be other ways of controlling TTHM's down the road. You will need to do some research on your own to find out what works best for your water system, and what is the most cost effective. ★

DEVELOPING A CHLORINE SAFETY PROGRAM



By Gordon Meyer, Water Circuit Rider

very system that uses chlorine to disinfect should develop a good safety program that begins with the cooperation between operations and management. The operations specialist must be an important and active participant in the overall program and be responsible, taking all steps necessary to prevent accidents. The program begins with an overall attitude that the best efforts must be made by everyone giving safety the highest priority. Management must also take an active part by supporting the program by providing funding to purchase equipment and to enforce safety regulations required by OSHA and state industrial safety programs.

The following items should be included in all safety programs:

- 1. A formal written safety policy
- 2. Written rules and specific safety procedures
- 3. An emergency checklist should be developed & available at the facility
- Periodic hands-on training using safety devices including the selfcontained breathing apparatus (SCBA), leak-detection equipment, atmospheric monitoring devices and other safety equipment
- 5. A maintenance and calibration program for all safety devices and equipment
- 6. Emergency procedures for chlorine leaks and first aid
- 7. Tours of facilities for police, fire departments and county emergency management should be conducted to locate hazardous areas and provide chlorine safety information

All persons who handle chlorine should be trained on its hazardous properties as well as knowing the location and use of the various pieces of protective equipment and instructed in safety procedures. An emergency procedure should be established and each individual should be trained how to follow the procedures.

This article was developed to give some of the basic parts of a safety program which you could use and expand on to satisfy the needs for your system and could also be used to incorporate other chemicals used at the facility into it or to develop separate programs for each chemical. For additional information on chlorine safety see the Chlorine Institute's Chlorine Basics, 7th Edition.

When using chlorine always remember that it is an extremely hazardous chemical which could result in serious injury or death if not handled properly. ★

2013 Scholarship Golf Outing Recap

The 2013 Scholarship Golf Outing turned out to be another great event! The rain stopped just as we began golfing and we ended up with a really good day of weather, we had a great lunch and most of all had A LOT of fun! Once again, this year's longest drive contest was conducted **while sitting on a toilet!** Teams donated \$20 to the scholarship fund for a chance to hit the longest drive... the only catch was you had to sit on a toilet while hitting the ball! The prize for the longest drive was a new golf bag; but, the biggest reason to participate was on their next shot they got to drop their ball 165 yards from the hole on a par 5 – not to mention all the fun we had and great pictures it created!

Thank you to all our sponsors and everyone that attended to help make the golf outing a success!







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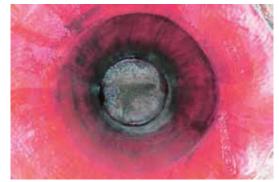


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Indiana Department of Environmental Management's (IDEM) Cross Connection Program Updates

By Marc Hancock, IDEM, Environmental Engineer Specialist

Public water systems commit many resources to ensuring water coming out of their customer's taps meet the Safe Drinking Water Act. An important, but many times forgotten component, is having an adequate Cross Connection Control (CCC) program in place. Such a program helps ensure that the treated water does not become contaminated because of backpressure and/or back siphonage through cross connections.

The water purveyor's responsibility begins at the source of supply and ends at the point of delivery to the consumer's water system. Within those boundaries, the purveyor must provide adequate treatment facilities, public water distribution systems and service piping. In addition, all public water supplies shall be continuously operated and maintained so that water is safe in quality, clean and adequate in quantity, and chemically satisfactory for ordinary domestic consumption. To ensure that the proper precautions are taken, the purveyor shall:

- Exercise reasonable vigilance to insure that the customer has taken the proper steps to protect the public water system;
- When it is determined that a backflow prevention assembly is required, the water purveyor shall require the customer to install an approved backflow preventer device with respect to the degree of hazard. The customer will be responsible for installation at their own expense, testing immediately upon installation, proper repair and maintenance of the assembly and keeping adequate records of each test;
- Maintain a list of their customers requiring backflow devices along with type and location of each device; and,

 Obtain from the customer a copy of each backflow device test report and keep the three (3) most recent for review and inspection by IDEM staff.

The duty to install protective devices and inspect was set out by the Indiana Appellate Court in the Lincoln Trust cross connection case of 1929: Pennsylvania Railroad Company vs. Lincoln Trust Company, Admr., 167 NE 721, or 91 Ind. App 28.

Most public water systems have a Cross Connection Control program that mirrors the Indiana Department of Environmental Management's (IDEM's) requirements, which are covered under 327 IAC 8-10. Effective December 13, 2012, IDEM's Cross Connection Control and Backflow Prevention rules were modified. The new regulations in their entirety can be found at: *http://www. in.gov/legislative/iac/T03270/A00080. PDF* (scroll down to page 298). Major changes/additions from the previous rule are summarized below:

- Added definitions of "atmospheric vacuum breaker back siphonage prevention assembly, and "spill resistant vacuum breaker";
- Incorporated by reference the December 13, 2010 "List of Approved Backflow Prevention Assemblies" by the Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California, including vertical reduced pressure principal backflow preventers;
- Allow a double check valve assembly on a fire sprinkler system without a chemical additive and require a reduced pressure (RP) device for one that does have a chemical additive;

- Added spill resistant vacuum breakers as approved backflow prevention devices for irrigation facilities;
- Added installation requirements for atmospheric vacuum breaker back siphonage prevention assemblies;
- Modified the testing interval for reduced pressure principle backflow preventers from every six months to annually, and added an annual testing interval for atmospheric vacuum breaker back siphonage prevention assemblies;
- Added a requirement for annually testing and calibrating testing equipment for accuracy;
- Added a requirement to install an inspection tag upon completion of testing, calibration, or repair of any cross connection control device. The

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inspection tag must have the name of the inspector, date of inspection, and model, serial number and size of the backflow device being tested. The inspection tag must be waterproof and protected against tampering; and,

Incorporated by reference the "Manual of Cross-Connection Control 10th Edition" by the Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California into the training provider course requirements, as well as for the backflow prevention assembly field test procedures and gage accuracy verifications.

IDEM has developed an "active" certified backflow device testers list, as required by 327 IAC 8-10-11. It is specifically for cross connection control device inspectors who ask to be included, and it provides an opportunity for them to list contact information such as company name, address, telephone number and e-mail address. (The Indiana Professional Licensing Agency's searchable database for licensed persons, which only lists the tester's name and city, was the only available listing until now.) The IDEM active listing is divided into two lists, one for "in state" testers, which is sorted by county and city, and one for "out of state" testers. IDEM updates its listing monthly and posts the information on its website at www.idem.IN.gov/4109.htm. Testers not already on this list, who wish to be on it, should contact Phil Hiestand, with IDEM, at (317) 234-7428 or phiestan@ idem.IN.gov.

IDEM has revised its Cross Connection Control & Backflow Prevention Manual. The new version is available on our website at *www.idem*. *IN.gov/4109.htm*. The main revisions include information on the revised IDEM rules, a section on the Indiana Plumbing Code and how it interacts with our rules, and a current listing of approved 40 Hour Backflow Tester Schools.

For more information about IDEM's Cross Connection Control Program, please contact Marc Hancock, with IDEM, at (317) 234-7434 or *mhancock*@ *idem.IN.gov.*★





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The Middle Patoka River Watershed Project;

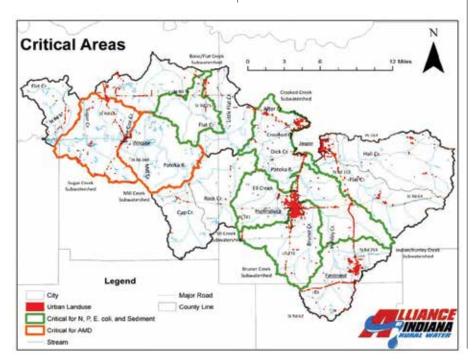
Making an Impact



By Amanda Bradshaw-Burks, Source Water Protection Specialist

he Middle Patoka River Watershed Project was initiated by local agencies in Pike and Dubois counties who saw a need to protect the source of their drinking water. the Patoka River. The Alliance of Indiana Rural Water and the Indiana Department of Environmental Management met with local governments and found interest to be high for this project. Two thirds of the Patoka River Watershed was already covered under protection plans so this project would fill a significant gap. The area - dubbed The Middle Patoka River Waters — has a number of conservation concerns present that will be addressed over the next three years with a grant given by the State of Indiana.

To date; exciting things are happening within the watershed. The cost share program has hit the ground running and interest has been high for a number of projects. The majority of applications coming in at this point have been for the planting of cover crops. Cover crops are non agricultural plants (usually a mix of different plants) planted on agricultural fields. They support conservation efforts in a multitude of ways: by reducing water runoff and decreasing erosion, mitigating compacted soil which lessens the need for plowing, scavenging and fixing nutrients into the soil which decreases the need to add fertilizer, and adding organic matter to the soil which both increases soil quality and helps the



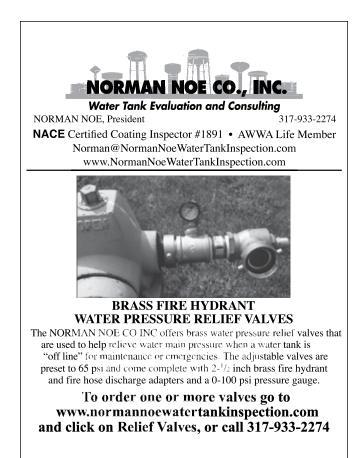
soil to retain moisture during our hot, dry summers. There have also been a number of applications for equipment modifications that will allow producers to more efficiently run their equipment. This means less excess application of fertilizers and pesticides which means less opportunity for these applied products to make their way into our waters.

This winter we are hoping to find some innovative urban projects to partner on. Structures like rain gardens to retention ponds to permeable concrete are all being considered. These projects will help to slow down storm water as it leaves our towns and cities. By slowing down the water the pollution and/or nutrients that are being carried in it will have a chance to settle out before it gets to our lakes, river, and streams. Good news for water quality!

We are also planning on a number of informational meetings to be held within the counties of the effected watersheds. The subjects of these meetings will range anywhere from septic system maintenance to general water quality information to smart urban growth. All meetings associated with the grant are open to the public no matter in what county you reside. All are welcome.

If you are a resident of Pike or Dubois County and feel you may have a project or practice that would be covered under the grant please don't hesitate to contact us. For more information please check the website: *www.middlepatoka. org* or contact Amanda Burks at *abrad@inh2o.org.* ★







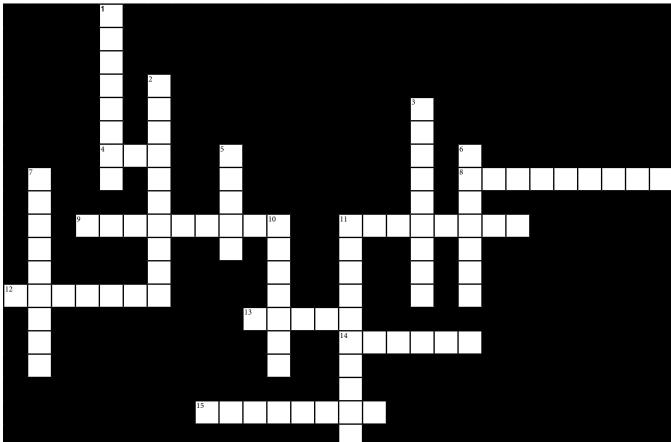
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Water and Wastewater Treatment* By Barbara Smith



ACROSS

- 4. Water lubrication is ___typical of a 'submersible.'
- 8. A flood would be considered a natural event, however, this would not.
- 9. Enclosed, open and semi-closed are terms used for the designation and selection of this.
- 11. If a pump outputs 625 gpm against a TDH of 211 feet, and the pump is 71% efficient, what is the brake HP if the fluid being pumped has a specific gravity of 1.12? Round up.
- 12. If a repair job can be done by seven people in 8.5 hours, how long will it take four people to do a similar job in hours? Round up.
- 13. How many minutes in an hour?
- 14. When opening a power rodder properly, make sure all the ____ is out of a broken rod.
- 15. (D2) x 0.785 x D is the formula for what shape?

DOWN

- 1. This and volatile solvents are objectionable when present in a sewer because they can cause an explosion hazard.
- 2. Calculate the water horsepower if the pump it operates provides 1,475 gpm against 125 feet TDH.
- 3. When trench shoring these factors must be considered: structures and sources of _____.
- 5. This type of connection is least likely to be performed by collection system personnel.
- 6. This type of meter measures quantity of fluid by the difference in pressure between a constricted and full-size portion.
- 7. Biological hazards in collection systems include this.
- 10. Aluminum hydraulic is a type of this.
- 11. If a sewer must have a flow rate of 27 MGD with a velocity between 1.50 ft/sec and 2.75 ft/sec, the minimum size pipe is this in inches.

ACROSS 4. NOT 8. EXPLOSION 9. IMPELLERS 11. FORTYTWO 13. SIXTY 14. TOURQUE 15. CYLINDER 4. NOT 8. EXPLOSION 9. IMPELLERS 11. FORTYSEVEN 3. VIBRATION 5. WATER 6. VENTURE 7. HEPATITIS 10. SHORING 11. FIFTYTHREE 1. GASOLINE 2. FORTYSEVEN 3. VIBRATION 5. WATER 6. VENTURE 7. HEPATITIS 10. SHORING 11. FIFTYTHREE

SOLUTIONS

I would like to thank the Alliance of Indiana Rural for providing the Small Utility Board Training session. It was very informative for board members/managers. The packet that you put together is a useful tool to go to when addressing specific issues. The topics covered were things that every board encounters at one time or another. It is obvious that you are very knowledgeable about the topics covered and know which ones are the most important.

The financial topics covered are a critical part of a utility. Board members need to know the capacity that they play in approving budgets. They also need to know about the day-to-day operating funds, utility reserve funds, and when to examine rates, which your training covered.

The session was also a reminder to me that our district needs to update our Vulnerability Assessment and our ERP since we have had recent employee changes.

I will use the packet that we received at the training to help educate new board members so that they will know what their responsibilities will be as board members and I will also encourage them to attend future board training sessions.

I also liked the certificate of completion that shows the other board members who did not attend the training, and the guests. It is important for all board members to take their responsibility seriously. Keeping educated will help them better serve the utility customer.

Again, than you for providing the free training!

Sincerely, Nancy Harmon, Office Manager South Henry Regional Waste District



I am writing to express my appreciation for the services rendered to the Town of St. Paul Water Utility. The water company was experiencing a major water leak for a period of time. It took me awhile to find the general location of the leak by monitoring storm and sanitary sewers. After I narrowed down the area of the leak, I called Joe Frazier and asked if he could provide some locating assistance. He came the same day as I placed the call and spent ample time listening for the leak with his locators. He was very methodical and was able to provide a spot that he believed the leak was in. I was able to get a crew in the next day for excavation and the leak was exactly where he indicated.

This quick and accurate response saved the town from pumping about double the amount of water normally pumped in a day's time and saved the town much expense, effort, and time in resolving the issue.

Without the AIRW's help and availability, small utilities like ours would be hard pressed to function without spending much of our limited resources.

Thank you, Joe and the Alliance,

Jerome Buening St. Paul Water Supt.

On May 8, 2013, I attended a Small Utility Board Training Course presented by Vicki Perry and Connie Stevens, Executive Director of Alliance of Indiana Rural Water.

Kempton is now in the inception stages of providing utilities to the residents of our town. Rapidly approaching is the time Kempton will actually own and operate a wastewater treatment plant, providing sanitary sewers for our modest community.

It is with great pride and honor that I lend my support to the efforts Connie and Vicki put forth to present an information-filled and fact-based program. I honestly believe that without their dedication to providing a complete and enjoyable education to a novice like myself, many communities would remain decades behind in the technology needed to live in a safe and healthy environment such as Kempton.

I'm looking forward to attending many more classes provided by these two exceptional instructors.

Sincerely yours, Russel Williams Kempton Town Councilman I wish to thank Mr. Toby Days for helping me with the wellhead protection for the Shadeland Mobile Home Park. Also, thanks to Mr. Don Papai for helping with MRO and Joe Frasier for helping with the CCR. Again, many thanks.

Tom Tinsman Plant Operator for Shadeland Mobile Home Park

P.S. Keep up the very good work.

I want to thank whoever started the program to help find these water leaks. It saved me a lot of money on replacement cost and water loss.

Gordon Meyer came to my house and found the leak. He was a very nice person. I can't thank him enough.

Thank you very much. David Abner

Thank you for awarding me the \$1,000 scholarship. This will help me cut down my cost of going to college and help me pursue my career.

It is very much appreciated. Thank you! Grant Naville

I want to thank you for allowing Rex to make a stop at my plant today. I am sure you know that Jennings Northwest Regional Utilities (JNRU) has major issues with our wastewater treatment plant. After our third party comprehensive performance evaluation (CPE), JNRU is once again looking for an upgrade to fix the last upgrade. Rex is assisting me in gathering the information I need to learn more about the next proposed process.

What I like about Rex is that once he knows what an operator is looking for he will do his very best to see that the operator gets all the information. I know the Alliance provides a valuable service to all of the operators in Indiana and Rex is a valuable assist to the Alliance.

Thanks to the Alliance of Indiana Rural Water and thank you to Rex Blanton.

Michael E. Ruby

I wish to thank Gordon Mever and the Alliance of Indiana Rural Water for finding a non-surfacing water leak. His persistence and determination was exceptional.

Many Thanks, Joe Christmas A.T.R.S.D.

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These photos were all taken somewhere in Indiana. Can you pinpoint the location? (Answers at bottom.)









- 5. Brookville Lake
- 4. Fortville, Indiana
- $3.\,$ Corner of Highways 28 and 31, south of Kokomo
 - 2. Oakalla Bridge
 - 1. Bridgeton









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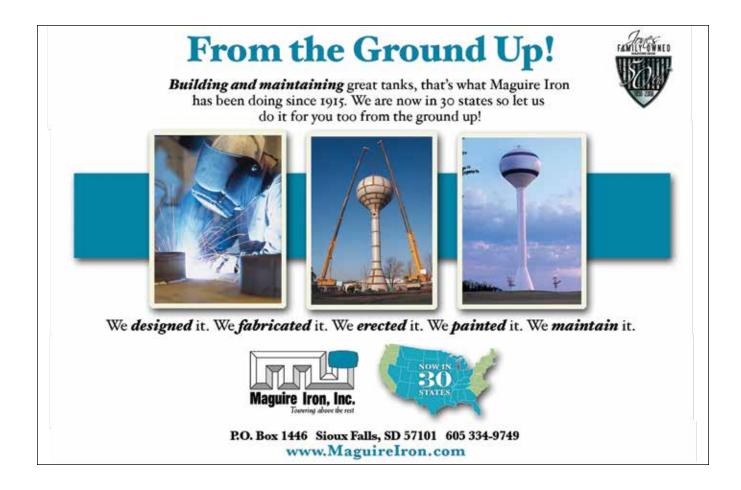
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