



# FYI - Small Systems

Small Systems Committee  
INDIANA SECTION AWWA

FYI - Small Systems

June, 2004

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## FYI

Happy Summer!! This FYI – Small Systems covers a wide range of topics that we hope you will find beneficial. There is a very in-depth article on a great summer maintenance item – flushing your water system. It covers everything from determining if you need a flushing program to implementing the program to evaluating the program's success.

Another summer item – Consumer Confidence Reports – are due to your customers by July 1. A reminder of the parameters of the CCR are included in the What's Up What's New – IDEM article below. This article also covers the latest on some funding sources -- the State Revolving Fund and the Rural Water Supply Revolving Fund. Information on the latest Drinking Water Operator Certification Exam, Drinking Water Fees, and Well Head Protection Plans is also given.

Additionally, you will find details on: upcoming Operator School classes; Meter Madness Competition; and an EPA Security Advisory.

Enjoy the warm weather!! Please give us your input on this publication and other ways we can assist you and your utilities. Contact any member of the Small Systems Committee or AWWA Board with comments or suggestions.

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## WHAT'S UP WHAT'S NEW - IDEM

**Consumer Confidence Report:** July 1 marks the deadline for community public water supply systems to have provided the Consumer Confidence Report (CCR) to their customers. Also be aware that the community water system is to mail a copy of the report to the department, followed within three (3) months by a certification that the report has been distributed to customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the commissioner. If the distribution has been made the certification can be submitted along with the copy of the CCR. Failure to submit either the CCR or the certification is a violation of rule. Please make sure both are submitted within the required time frames. If we can be of help please con-

tact our office. There are templates available for use by systems. The rule cite for this is found at 327 IAC 8-2.1, Consumer Confidence Reports.

**State Revolving Fund:** A 12-year-old program that has already invested more than a billion dollars to help hundreds of Indiana communities build or upgrade water treatment facilities has been expanded to help even more.

The State Revolving Fund (SRF) program has created additional programs to help small communities afford to take steps to improve surface water quality and to provide safe drinking water, said Jim McGoff, who directs the program that is overseen jointly by the Indiana Department of Environmental Management (IDEM) and the State Budget Agency.

Much of the funding for the expanded programs is a result of actions taken by IDEM's Drinking Water Branch to no longer rely on the SRF program to fund a portion of its operating budget. That branch will be using revenue generated by new drinking water fees, approved by the General Assembly in 2003.

As those fees are phased in over three years, the drinking water branch will eliminate its reliance on SRF funds, eventually freeing up to \$1 million for community financing programs.

The program's past investments have helped Indiana make tremendous progress in keeping polluted water from being piped directly into Hoosier streams and to ensure clean drinking water is piped  
*(Continued on page 8)*

## FYI FROM THE SECTION CHAIR

Pat Spence

### **CHANGE – It's exciting, it's fun, and there are always a few challenges along the way.**

Thank you for joining the Indiana Section annual conference move from the Adams Mark to the Downtown Marriott. The move was exciting – plenty of space to congregate between sessions and in the exhibit hall; plenty of space for the Silent Auction, the Safety Wheel and prizes, and a new operator's refresher session; a clean, well maintained facility; and hotel rooms with plenty of hot water. The move was fun – plenty of space for an Indy 500 race car exhibit, opportunities for exploring downtown Indy sites and restaurants and even a Tuesday evening at the Slippery Noodle for folks attending the conference. Of course the move also had its challenges - downtown parking and knowing how to take advantage of the most cost effective locations; the disappointment of many that bacon and eggs were not served on Thursday morning; space in some sessions being at a premium; the choice of vendors not to have hospitality suites; and a hard cut off date for the on-site hotel rooms with the reduced conference rate.

As the Indiana Section leadership begins planning the 2005 conference (yes it has already begun), we will address the challenges from 2004 that are within the Section's control – distributing more information on parking locations and the cost; taking advantage of session space being made available at the Marriott in 2005; having conference information distributed in early December for planning conference and hotel registrations; and of course, looking at bringing back that **HOT** Thursday breakfast.

I am looking forward to a great program in 2005 orchestrated by our new chair elect, John Stancati. John would certainly appreciate your input as he plans for 2005.

Looking forward to this year as chair, I am excited about new opportunities with the golf outing, the WUC and new ways to get our water message to our state legislators, broader participation in the Public Information committee, and a new look to Newsleaks.

Pat Spence  
Indiana Section Chair

## INDIANA SECTION AWWA OPERATOR SCHOOL COMING UP SOON

Each summer and fall, the Indiana Section AWWA Operator School Committee holds 12-week classes to help prepare people prepare to take the IDEM Operator Certification Exams. The classes start in early August and will be held at various locations throughout the state. They end at the end of October. The Operator Exam will be held on November 4<sup>th</sup>. Information about the Operator School will be mailed out to all community and nontransient noncommunity water systems and transient surface water systems in June. The course announcement and registration forms will also be posted on the Indiana Section AWWA website at [www.inawwa.org](http://www.inawwa.org). For more information about the course, you can contact Stacy Jones at (317) 885-2408 or Alan Wiseman at (317) 639-7159.

### AWWA MENTORS PROGRAM

The persons listed below have volunteered to be primary contacts as part of our "Mentors Program". Please contact any of them for advice and information. If these primary mentors are unable to assist you, they will direct you to others that can. Additionally, you may contact any of the Small Systems Committee members, AWWA Officers, or District Presidents. Mentors and others will speak to you as peers only. Please keep in mind that IDEM has final regulatory oversight.

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American Water Works  
Association

## Security Advisory

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The Authoritative Resource for Safe Drinking Water <sup>SM</sup>

# SECURITY ADVISORY

**TO:** AWWA Leadership  
All Utilities

**FROM:** Jack W. Hoffbuhr

**DATE:** April 13, 2004

<b>Who:</b>	<b>Community Water Systems serving 3,301 to 49,999</b>
<b>What:</b>	<b>Vulnerability Assessment and Emergency Response Plan Certification submission deadlines</b>
<b>When:</b>	<b>June 30, 2004</b>

*Note: U.S. EPA requested distribution of the below notice.*

All Community Water Systems (CWSs) with a service population of 3,301 to 49,999 are required to conduct a Vulnerability Assessment (VA) of their facility and submit a copy of the VA and certification of submittal to EPA by **June 30, 2004**. In addition, these systems are required to submit a certification to EPA within six months of submitting the VA that they have developed or updated their ERP. Please visit [www.epa.gov/safewater/security](http://www.epa.gov/safewater/security) for more details regarding these statutory requirements. Please remember you are only submitting the ERP certification, not the actual ERP.

EPA has been working with states and partner organizations to provide you with a variety of tools and assistance to help meet these requirements. Complete instructions on the VA submittal and ERP certification process are available at [www.epa.gov/safewater/security/community.html](http://www.epa.gov/safewater/security/community.html). For information on the EPA's information protection protocol go to [www.epa.gov/safewater/security/agency.html](http://www.epa.gov/safewater/security/agency.html).

EPA recommends that you submit the VA and certification using an express or courier service, such as Federal Express, United Parcel Service, Airborne, etc., which provides tracking and certification of delivery. Using these services will ensure that the submission is delivered directly to the persons authorized to receive and process these items. Use the following address for express or courier service deliveries to EPA. This location is open for deliveries between 8:30 a.m. and 4:30 p.m. Eastern Time. Call the number under the address below before attempting delivery outside of those hours.

U.S. Environmental Protection Agency  
Water Resource Center (WSD-RAR)  
Room 1119 EPA West Building  
1301 Constitution Ave., NW  
Washington, D.C. 20004

Couriers are to use phone number 202-566-1729.

EPA is working with many partners to provide resources for all water utilities in the process of conducting a VA and creating or upgrading ERPs. Please visit [www.epa.gov/safewater/security](http://www.epa.gov/safewater/security) for more details regarding these resources.

EPA appreciates your continued efforts towards improving security at your water system. Please feel free to contact the EPA Water Security Division at 202-564-3779 with any questions regarding this matter.

# UNIDIRECTIONAL WATER FLUSHING

John H. Van Arsdel

M.E. Simpson Co., Inc.

Flushing programs have been implemented by Water Departments for a number of reasons, seemingly all connected to water quality issues. Most of the flushing programs were implemented as a result of customer complaints for taste and odor, as well as the sometime backflow problem that may occur.

However, Vulnerability Assessments have been conducted per the Bioterrorism Act of 2002, for Water Systems. One of the resulting criticisms has been that the distribution systems are very hard to protect (you cannot put a cop at every service or fire hydrant...). Utilities must be prepared to act in case of a contamination event within the distribution system as a result of backflow problems, or some other problem. If one were to take a look at water utilities throughout the U.S. and pose the question to a Water Superintendent what one of the worst distribution system problems could be, the answer would include contaminants in the distribution system. Even discoloration, taste and odor problems cause concern for water operators that can take a lot of time to resolve.

Utilities need to look at an assessment process for flushing. They need to first determine if they need a flushing program. Second, they need to be able to develop a flushing plan of action. Third, they need to put that plan into action. Last, they need to evaluate what they did during the program to see if all the original goals and objectives were met, and if the procedures can be improved.

There are methods of flushing that can achieve a number of goals for the water utility. However, it needs to be pointed out that there are distinct differences between the types of flushing that utilities practice. A number of utilities will start at one end of town, open hydrants and flush for a couple of minutes or until the water has cleared up, then move on to the next hydrant. Some utilities will open two or three hydrants in a row and sequentially flush hydrants by opening another hydrant, close the first hydrant, move on to the next hydrant in the sequence. Some utilities will close mainline valves to create a temporary dead end and flush the main. Here, not all hydrants are getting flushed, only the hydrants being used at the ends of the dead end mains are. The last method is the type of flushing that can have a great deal of benefit towards maintaining water quality in the distribution system. This type of flushing is called "Unidirectional Flushing".

## Determine Needs

The first step is to determine the need for a flushing program. If the utility has water quality issues that can be assessed by customer complaints or by direct sampling, then it is time to move into action. Unidirectional flushing can solve some very tough problems such as removing sediment, reducing Chlorine demand, removing biofilms, solve taste and odor problems, and possibly help reduce Disinfection by-products from accumulating in the distribution system. Additionally, it can help determine structural integrity of the system, allow utility personnel to learn system hydraulics, as well as allowing for data collection on the system so an evaluation of the system can be performed. Often, C-factors (head loss) are improved.

## Planning a Unidirectional Flushing Program

To develop a good flushing program requires planning, lots of planning! If the planning stage of the program is given considerable and proper attention, the fieldwork required to actually accomplish the program can be reduced, but it all ties back into the Planning stages. The Flushing Crew needs to gain a pretty good understanding of how their system works, and this means understanding system hydraulics. While some utilities have hydraulic models of the distribution system, which will aid in the layout of the program, a lot of utilities do not, and therefore they will need to depend on good system maps.

System maps need to be accurate and updated, because if they are not, the utility runs the risk of accidentally shutting off critical customers. This will result in phone calls from folks you may not want to have to deal with. With today's great computers and CAD programs, it would seem that there would be no excuse that a utility could not have their system maps current and updated. Problems can arise when water atlases are not kept updated and the need to be sure that a particular valve actually controls what everyone thinks it controls! There have been instances where for years everyone thought a particular water main was connected here or there, but during a Unidirectional Flushing program it was figured out that the system operated in a completely different manner than thought. This usually happens when some critical customer calls and they have no water!

Looking at the system maps allows for dead ends and loops to be identified. Critical valves can be identified that may be needed to create the "dead ends" so mains can be properly flushed. Sources of water such as wells, reservoirs, pump stations, can be identified so the flush crew has an idea of where to start, as well as where to end the program. Critical customers can be identified on the map so when the flushing program is under way, these customers can be assured that the water supply will not be interrupted.

During the project layout, the scale of the maps and size of the water main need to be considered so that proper flushing velocities are insured. Unidirectional Flushing can accomplish various goals depending on the velocities of flow obtained during the flush. Silt and debris can be flushed out with slower velocities of flow, but biofilms will need to have flow velocities set higher to insure the

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## UNIDIRECTIONAL WATER FLUSHING (continued)

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films can be dislodged from the pipe and carried out. To determine flushing amounts and times, "flushing math" is as follows:

### Unidirectional Flushing Math

This is the math formula for figuring the **volume (in Cu. Ft)** of what is in the Water main; as follows:

$$V = A \times L$$

V = Volume in cu. Ft.

A = (area in square ft.) =  $\pi \times R(\text{squared})$

R = radius of main (in feet)

$\pi = 3.14$

L = Length of main (in feet).

**Example:** 500 ft. of 12" main has how many gallons of water in it?

$$V = A \times L$$

$$V \text{ (cu. ft.)} = [3.14 \times (.5\text{ft} \times .5\text{ft.})] \times 500 \text{ ft.}$$

$$V \text{ (cu. ft.)} = [3.14 \times (.25 \text{ sq. ft.})] \times 500 \text{ ft.}$$

$$V \text{ (cu. ft.)} = .785 \text{ sq. ft.} \times 500 \text{ ft.}$$

$$V \text{ (cu. ft.)} = 392.5 \text{ cu. ft.}$$

1 cubic foot of water = 7.48 gallons of water.

$$V(\text{gals}) = 392.5 \text{ cu. ft.} \times 7.48 \text{ gals/ cu. ft.}$$

$$V(\text{gals}) = 2935.9 \text{ gals.}$$

\*Please note that the radius of the main needs to be measured in **FEET**, not in inches!

Therefore, 500 feet of 12" main has 2935.9 gallons of water in it. To flush this length of main @ 2.5 feet per second, divide 500 feet by 2.5 feet per second to get minimum time of flush (in seconds). Divide by 60 to get time in minutes.

500 feet divided by 2.5 feet per second = 200 seconds or 3.33 minutes.

2935.9 gallons divided by 3.33 minutes = 881.6 gallons per minute (for the flow rate) to get the *minimum flushing velocity* for the 12" main.

As long as your diffuser is showing this flow rate or higher for the 12" main, you should be ok. A better flow rate would be 5 feet per second or 1763.3 gallons per minute. In some cases the flow rate may need to be as high as 7.5 feet per second or 2644.8 gallons per minute to create enough turbulence in the main to scour it clean.

The objective is to completely displace the total amount of water in the main and continue flushing until the water is clear. This will help conserve the amount of water being used during the flushing program but also will allow for a complete flush. It is very important to keep a residual gauge on another hydrant on the main being flushed to make sure that during the flushing of that particular length of main, the residual pressure does not drop below 20 psi. If it does, it could mean that there is a partially closed valve, or the main may be turbuculated and closing up.

While flushing crews need to be able to calculate this in the field, a table was developed to assist crews so that they can see at a glance if they have achieved the proper flow velocity.

### Estimated Water Usage

Water usage and length of time of flushing can be estimated prior to flushing by measuring the length of the water main to be flushed and then using the radius of the main, the volume of the main was calculated. The *minimum flushing velocity* that should be used is *2.5 feet per second* according to the American Water Works Association. The following table gives the flow rates in gallons per minute and time of flush for a 500-foot length of main.

PIPE SIZE	VELOCITY @ 2.5 fps	HYDRANT PORTS	FLUSH TIME	AMOUNT
4 inch	97 gpm	1 – 2.5" dia.	3.33 min.	323.1 gals.
6 inch	220 gpm	1 – 2.5" dia.	3.33 min.	732.6 gals.
8 inch	390 gpm	1 – 2.5" dia.	3.33 min.	1298.7 gals.

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## UNIDIRECTIONAL WATER FLUSHING (continued)

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10 inch	610 gpm	1 – 2.5" dia.	3.33 min.	2031.3 gals.
12 inch	880 gpm	2 – 2.5" dia.	3.33 min.	2930.4 gals.

However, a flushing velocity of *5.0 feet per second* can be used wherever possible to try to scour the main during the flushing process. The following table shows the flow rates needed to be met to accomplish this flow velocity.

PIPE SIZE	VELOCITY @ 5.0 fps	HYDRANT PORTS	FLUSH TIME	AMOUNT
4 inch	194 gpm	1 – 2.5" dia.	3.33 min.	646.2 gals.
6 inch	440 gpm	1 – 2.5" dia.	3.33 min.	1465.2 gals.
8 inch	780 gpm	1 – 2.5" dia.	3.33 min.	2597.4 gals.
10 inch	1220 gpm	2 – 2.5" dia.	3.33 min.	4062.6 gals.
12 inch	1760 gpm	2 – 2.5" dia.	3.33 min.	5860.8 gals.

### Other Map Considerations

A good map can also identify drainage areas that may be a concern. The last thing a water crew needs to do is flush into an area where property damage becomes a problem, or drainage into a stream or creek causes a fish kill because the utility did not employ good practices of neutralizing the Chlorine from the discharge of the water during a flush. Yes, dechlorinating will be required soon, as it is required already in some states.

### Implementing the Program

Once a plan of flushing has been laid out using system maps, the next step is to insure that the valves selected for obtaining dead ends are in working order. These valves must be exercised prior to the flushing program. This requires going into the field, locating these valves, operating and exercising them, and documenting the data from the exercising. Thus, if broken valves are found, then the utility can either repair the valve, or choose another valve to use to create the dead end.

One of the benefits of operating a Unidirectional Flushing program is that the public sees that the water utility has taken a proactive approach on water quality issues. However, Public Notification will be a primary concern. This allows the utility to let the public know what steps are being taken to insure water quality. Several ways can be employed to notify the public, such as bill inserts, newspaper articles, local cable news, signs, recorded phone calls and such. All of these work well, but one method that works well are door hangers placed in the areas of flushing a few days prior to the flushing. These methods will decrease the amount of calls to the utility.

Now the crew is ready to flush. The crew needs to be aware of the proper technique of hydrant operation, as well as proper use of tools. The crew needs to have proper training regarding general operations of the water department. Safety is also a primary concern. Proper traffic safety gear needs to be worn. Traffic control is also a primary concern. This means selecting proper flushing times of the day to suit the area to be flushed. Traffic control needs to be employed so that a minimum disruption of traffic flow occurs. This also means that the proper number of people needs to be working on the crews.

One member of the crew will need to be in charge of taking care of all the data collection. This includes tracking the mains flushed, lengths of times of the flushes, and calculations of the water used. These records are needed so that during the evaluation of the program, overall system effectiveness can be assessed. Part of this record keeping will include monitoring water quality issues. Clarity, odor, and other set goals established during the planning process will need to be tracked during the flushing process. These records will need to be kept in an orderly fashion so that the next time the program is employed, the steps can be repeated, and with the historical data, long-term goals can be compared to the results. Some crews carry laptop computers in the field. This may be great in tracking the progress of the flushing program. It allows for easy access to a CAD map of the system, valves operated during the flush can be tracked, as well as tracking the hydrants used. A database can be set up for monitoring various stages of the flush. Even if a laptop computer not used, the program progression can be tracked in the field by using a large map of the system set up as to allow easy recording of what valves get closed and which hydrants get flushed. Follow the original plan as set in the planning stage, unless field conditions dictate the plan be altered in the field due to broken valves or other conditions.

Is there a proper time of year or proper time of day to perform this type of flush? This is a matter of preference. Performing flushing at night allows for less traffic to have to be controlled, but then water quality will be hard to observe. Plus, traffic at night can be downright dangerous! However, if this type of flush is done during the day, dirty water complaints may become a problem, traffic control may become tougher, and kids may be a problem! (Seems that kids are magnetized and get attracted to water flowing out of a hydrant!) Remember, this is a matter of preference. There is no set rule.

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## INDIANA SECTION AWWA METER MADNESS COMPETITION

The preliminary rounds of the Indiana Section's Meter Madness Competition will be held at each of the upcoming Fall District Meetings. Each utility is encouraged to enter one person in the competition at the district level. The winner of each district will then compete at the Annual Conference to be held in February of 2005.

The meter to be used in the 2004 / 2005 Meter Madness Competition is the Sensus 5/8 x 3/4 SR meter. To obtain a meter on which to practice, please contact EJP at (800) 438-2090 or contact Tim Dickson or Jeff Morris of M.E. Simpson Co., Inc. at (800) 255-1521.

The 2004 Meter Madness Competition was held February 17, 2004 in Indianapolis during AWWA's Annual Conference. Competition was very close again this year. The following participants were all district champs: Shane Partlow, City of Carmel; Daniel Combes, Daviess County Rural Water; Michael Sims, Logansport Municipal Utilities; Scott Ham, Silver Creek Water Corporation; Tim Sensibaugh, City of Fort Wayne Utilities; and last but not least, Brett Ransford, the returning champ from the City of Carmel.

First place went to Michael Sims of Logansport Municipal Utilities with a time of 56.22 seconds; Scott Ham of Silver Creek Water Corporation came in 2<sup>nd</sup> with a time of 57.93 seconds; and place 3<sup>rd</sup> with a time of 1 minute 4.34 seconds was Tim Sensibaugh from the City of Fort Wayne Utilities.

Michael Sims will proceed on to the national competition to be held at AWWA's Distribution System Symposium on September 26 – 29 in Chicago.

Thanks to all the contestants and to their supervisors for allowing them to participate and attend the meetings.

A big thank-you also goes to Bob Johnston and Dennis Luck of National Waterworks for supplying the 2003/2004 meters and the outstanding trophies.

Thanks, again, to everyone involved with this great competition.

## UNIDIRECTIONAL WATER FLUSHING (continued)

*(Continued from page 6)*

### Evaluation

Once the flushing program has been completed, an evaluation should be conducted to determine the overall effectiveness of the program. This should include an assessment of costs so the utility can show a cost/benefit analysis relating to manpower and use of equipment. Questions for consideration need to be addressed. Were water quality objectives met? Was any cost savings derived from this program? What were the overall positive impacts to the distribution system? What were the negative impacts to the system? Can the negative impacts be corrected? It may take some time to really see the overall impact of the unidirectional flushing program. Sometimes the results are very apparent. It will be up to each individual water department to analyze to overall results of this type of program. The next time the program is placed into action, any changes implemented can be tracked and compared to what worked or didn't work.

Good Luck!

## M.E. SIMPSON COMPANY, INC.

Valparaiso, IN                      Grayslake, IL                      Indianapolis, IN

### Fire Hydrant Testing

Fire hydrant testing will occur in this area from 8:00 a.m. to 4:00 p.m. On (date): \_\_\_\_\_ you **may** experience discolored water during this program.

We advise that you **DO NOT** do laundry during the testing dates & time.

After the testing program, **Please flush all taps in your home or business including your washing machine before using!!**

**(888) 252-1521**

**NOTICE!**



## WHAT'S UP WHAT'S NEW - IDEM (Continued)

into Hoosier homes.

"But we need to do more, in this area as well as in pollution that enters waterways indirectly through runoff," McGoff said. "In addition, small communities are struggling to meet new standards that are designed to protect drinking water quality, and we need to help them, too."

In addition to reaching out to those smaller water systems, the expanded SRF services encourage communities to broaden their infrastructure plans to include projects that restore natural flood controls, or build buffers to keep field and roadway runoff away from waterways. The three new funding initiatives are:

- ◆ The Small System Technical Assistance Fund, which offers small communities up to \$25,000 worth of technical assistance to help them design improvements for their wastewater and drinking water facilities;
- ◆ The Safe Drinking Water Standard Fund, which offers grants to help small communities comply with new EPA drinking water standards; and
- ◆ The Nonpoint Source Water Pollution Abatement Financing program that offers an additional break on interest rates for SRF Program loans to communities that also plan to help reduce pollution runoff into Indiana waters and protect drinking water sources.

Run-off pollution, known around IDEM as nonpoint source pollution, results when rainfall, snowmelt or irrigation moves over land or through the ground, picks up pollutants (fertilizer, roadway oil or soil) and deposits them into waterways or ground water.

Communities already seeking low interest loans from the SRF Program for improvement projects can earn up to an additional 0.5 percent interest rate reduction for the total cost of their drinking water or point source project when a non-point source project is included.

Eligible entities for the services include cities, towns, counties, conservancy districts, public water systems and regional water, sewer, waste and sanitary districts.

The Wastewater SRF Program has been providing below-market interest rate loans to Indiana communities since 1992, funding more than 200 projects totaling over \$1 billion to date. The Drinking Water SRF Program was implemented in 1997 and has funded more than 70 projects totaling over \$177 million to date.

For more information: [www.SRF.IN.gov](http://www.SRF.IN.gov) or [www.in.gov/idem/water/fasb/srf/index.html](http://www.in.gov/idem/water/fasb/srf/index.html).

The Indiana Department of Environmental Management ([www.in.gov/idem](http://www.in.gov/idem)) oversees and implements federal and state regulations regarding the environment. IDEM issues permits and pursues enforcement action when violations occur that would harm the health of Indiana's air, land and water. Through incentive programs and outreach projects, the agency also encourages businesses and citizens to take actions every day to protect and improve Indiana's environment.

The State Budget Agency oversees all financial aspects of the SRF program. Its primary purpose is to administer the state budget.

**Rural Water Supply Revolving Fund:** Have also learned that the Indiana Department of Natural Resources has a small loan fund aimed at helping rural public water systems under 1250 population. It is called the Rural Water Supply Revolving Fund. The Rural Water Supply Revolving Fund ([IC 14-25-11](#)) was created by the Indiana General Assembly in the 1960's as a branch of the Flood Control Revolving Fund to provide a low interest loan program to help finance rural water supply systems. Loans for this purpose are drawn from the Flood Control Revolving Fund and can be made to eligible entities having a population of no more than 1,250. In addition, eligible entities must have the authority to own, construct, enlarge, maintain, and operate a water system, and must be unable to borrow the necessary funds from the commercial money market.

**Who is eligible to use the Rural Water Supply Revolving Fund?** The Rural Water Supply Revolving Fund is available to a municipality, city, town, county, or special taxing/assessment district for the purpose of establishing and modernizing rural water supply systems. The Rural Water Supply Revolving Fund is only available to entities with a total population not exceeding 1,250 persons. The eligible entity must prove that they are unable to borrow the necessary funds from the commercial money market.

**What are the criteria for a rural water supply project?** The proposed rural water supply project is subject to approval by the Natural Resources Commission, through the Department of Natural Resources, Division of Water, the Indiana Utility Regulatory Commission, and the State Board of Finance. The proposed project must be needed for the purpose of protecting public health, safety, and general welfare.

**What are the terms of a Rural Water Supply Revolving Fund Loan?** A Rural Water Supply Revolving Fund Loan to any local unit of government cannot exceed \$150,000. A Rural Water Supply Revolving Fund Loan may be made for a period not to exceed twenty years. A Rural Water Supply Revolving Fund Loan bears a 1.5% annual interest rate for the first eight (8) years and a 5% annual interest rate thereafter. For further details or for application information, [Contact the Division of Water](#)

(Continued on page 9)

## WHAT'S UP WHAT'S NEW - IDEM (Continued)

(Continued from page 8)

Please contact IDNR if you think this is of interest to you.

### Drinking Water Operator Certification Exam

The Drinking Water Operator Certification examination was held on May 13, 2004, in Indianapolis and Warsaw with a total of 128 exams taken. There were 72 exams with a passing score of 70% or higher. The number of exams in each grade level with a passing score is as follows:

DSS	17
DSM	9
DSL	7
WT1	5
WT2	9
WT3	22
WT4	1
WT5	<u>2</u>
TOTAL	72

The examination papers are retained with an opportunity afforded to an applicant notified of having failed the examination for review of the graded examination until a date ninety (90) days prior to the next scheduled examination if the applicant submits to the commissioner a written request for review of the graded examination and a statement affirming the applicant's understanding that the examination review does not include the right to copy, by any means, the examination or any portion of it.

Please contact our office if you meet the above criteria and wish to review your examination.

**Drinking Water Fees:** The Compliance Section has been working diligently to collect all of the necessary information to complete the billing for the fees. Questionnaires were sent out some time ago and the response to these was high. There are of course some systems that did not submit the required information including tax identification number or social security number required for the billing process. The Compliance Section is now trying to make contact with these systems to obtain the necessary information. If you have not submitted the information or have received a call from the Compliance Section please provide the required information.

Keep in mind that the fee must be received within thirty (30) days after the PWS is notified of its fee. Systems that do not submit the required fee maybe subject to enforcement, delinquency charges and/or penalties. A fee is considered late if it is not paid within thirty (30) days of notification. The delinquency charge is 10 percent of the fee. Questions may be directed to the Compliance Section.

### Well Head Protection Plans: The Phase I Numbers

Total Number of Community Public Water Supply systems	
Required to prepare/submit a Well Head Protection Plan (WHPP)	675
Number of WHPP received by IDEM	626
Number of WHPP reviewed by IDEM	606
Number of systems required to submit response to initial review letter	236
Number of WHPP (Phase I) approved	306
Number of plans remaining to be reviewed by IDEM	20
Number of systems referred to Office of Enforcement (represents systems making <b>no</b> attempt to comply with the rule)	15

If you have any questions or need assistance please contact our Ground Water Section.

### Did You Know?

EPA has updated the LT1 P/B Spreadsheets (long and short forms) and they are now posted at the following website, along with the Users' Guide:

[www.epa.gov/safewater/mdbp/lt1eswtr.htm](http://www.epa.gov/safewater/mdbp/lt1eswtr.htm)



## AMERICAN WATER WORKS ASSOCIATION INDIVIDUAL MEMBERSHIP APPLICATION

FAX (303) 347-0804 Phone 1-800-926-7337/303-794-7711  
6666 W. Quincy Avenue/Denver, CO 80235  
www.awwa.org

For AWWA Use Only

How many times have you ever been a member of AWWA? \_\_\_\_\_  
 When? \_\_\_\_\_  
 Member No. \_\_\_\_\_

Please furnish your preferred mailing address below (Indicate whether business or home):  Business  Home

Mr.  Mrs.  Ms.  Dr.

First Name	Middle Initial	Last Name	Suffix
Exact Street Address		(P.O. Box or Mail Stop)	
City	State or Province	Zip or Postal Code	
Title			
Company Name		E-mail Address	
Home Phone	Business Phone	Business Fax	
Applicant's Signature			Date
Signature of AWWA Member Endorsing Application (Optional)			Endorsing Member Number

Is your company a current member of AWWA? \_\_\_\_\_ If not, please provide your company's main address if different from above:

Company Name	Main Business Address	Zip or Postal Code
City	State/Province	Zip or Postal Code

**ANNUAL DUES:**      **\$114-Active Grade Code 02**      **\$57-Operations/Administrative Grade Code 06**      **\$36-Student Grade Code 14**      **\$150-International Grade Code 03**

ANNUAL DUES      \$ \_\_\_\_\_  
 Section Assessment\*      \_\_\_\_\_  
 Multi-Section Option†      \_\_\_\_\_  
 TOTAL DUE      \$ \_\_\_\_\_

(For operator or administrative level personnel or employees of small utilities. Will not receive Journal/AWWA.)  
 PREPAYMENT OF ONE YEAR'S DUES REQUIRED  
 No action can be taken on this application until payment is received.  
 Dues amount guaranteed through December 31, 2003.

Make check payable to AWWA (U.S. funds only).  
 MasterCard     VISA     Send Invoice  
 American Express

Card No. \_\_\_\_\_ Exp. Date \_\_\_\_\_

\*Section Assessment - AWWA has 43 local sections. Your section is determined by your address. However, some sections require additional annual fees to better serve their local members. Section assessments are mandatory for applicants with addresses as shown:

ADDRESS	ACTIVE (02)	OPERATIONS (06)	STUDENT (14)
Alabama, Mississippi	\$20	\$20	-
Alberta, Manitoba, N.W. Territories, Saskatchewan	\$10	\$10	-
California, Nevada	\$17	-	-
Connecticut	\$10	-	-
Florida, Minnesota, South Carolina, Texas	\$10	\$10	-
Georgia	\$28	\$28	\$5
Illinois	\$9	\$5	-
Iowa, Idaho (western), Oregon, Washington	\$11	-	-
Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	\$50	\$20	-
Missouri	\$7	\$3	-
New Jersey	\$15	\$10	-
New York	\$15	\$8	-
Pennsylvania	\$15	\$5	-

Please find your Section Assessment fee in the table at right and enter the total on the line reading "Section Assessment."

**ALL APPLICANTS SHOULD COMPLETE**

**BUSINESS AND INDUSTRY**

A. Public Water Supply Utility—Municipally Owned  
 B. Public Water Supply Utility—Investor Owned  
 C. Governmental—Federal, State, Local  
 D. Consultant  
 E. Contractor  
 F. Private Industrial Systems or Water Wholesaler  
 G. Manufacturer of Equipment & Supplies including Representatives  
 H. Distributors of Equipment & Supplies including Representatives  
 I. Educational Institutions, Faculty and Students, Libraries, and Other Related Organizations  
 J. Fully Retired  
 K. Research Labs  
 L. Unreported

**CHECK FIELD(S) SERVED:**

5  Water Supply Only      7  Wastewater Only  
 9  Both      3  Other

**JOB TITLE**

A. Executive—Gen'l Mgr., Commissioner, Board Member, City Mgr., Mayor, President, Vice-President, Owner, Partner, Director, etc.  
 B. Management—Division Head, Section Head, Mgr., Chief Engineer, Comptroller, etc.  
 C. Engineering/non-managerial—Civil Engr., Mech. Engr., Envr. Engr., Planning Mgr., Field Engr., Systems Designer, etc.  
 D. Scientific/non-managerial—Chemist, Biologist, Biophysicist, Researcher, Analyst, etc.  
 E. Purchasing—Purchasing Agent, Procurement Specialist, Buyer, etc.  
 F. Operations—Foreman, Operator, Maintenance, Crewman, Service Rep., etc.  
 G. Marketing & Sales—non-managerial—Mkt. Analyst, Mkt. Rep., Salesman, Sales Rep., etc.  
 H. Other (describe) \_\_\_\_\_  
 I. Professorial - Teacher, Educator, etc.

Completion of this information is optional.

AWWA maintains profile data for use in developing additional programs and services to meet the diverse needs of our members.

Birth Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Race/Ethnic Identification: (check one)

1 American Indian/Alaskan Native  
 2 Asian/Pacific-Islander  
 3 African American  
 4 Hispanic  
 5 White (Non-Hispanic)  
 6 Other

Gender: (check one)

F Female       M Male

† **MULTI-SECTION MEMBERSHIP OPTION** In addition to your own section membership, you may also join other AWWA section(s). This allows you to receive information on events and activities from other local sections. If this is of interest to you, call 1-800-926-7337 for multi-section information and fees.

The following information is for USPS Standard class mailing requirements ONLY: In some AWWA sections, a portion of the section allotment equal to 50 percent or more of the domestic subscription rate charged for the section periodical will be allocated toward a subscription of that periodical. Dues allocated for each publication members receive: Journal \$30 MainStream \$6 Optflow \$8

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

### COMPLIANCE SECTION - CONTACT PERSONS

Al Lao, Chief	308-3283
Tonya Hollingsworth (AA)	308-3282
Fax	308-3340

#### TOTAL COLIFORM RULE (TCR), NITRATE/NITRITE

Linda Edwards -Community	308-3287
Joe Stapinski-Noncommunity	308-3286
Frank Velikan-Noncommunity	308-3160
David Forsee-Noncommunity	308-3288
Jane Servies-Noncommunity	308-3337

#### SOCs, VOCs, LEAD & COPPER, WAIVER PACKAGE, RADIONUCLIDES AND IOCs

Lilia Park- Lead & Copper, Waivers & Rads	308-3327
George Neely-SOCs, VOCs, IOCs	308-3291

#### INTERIM ENHANCE SURFACE WATER TREATMENT RULE (IESWTR); DISINFECTANTS & DISINFECTION BY-BYPRODUCTS RULE (DBPR); SURFACE WATER TREATMENT RULE (SWTR); TOTAL TRIHALOMETHANES (TTHMs); CONSUMER CONFIDENCE REPORTS (CCRs)

Adrian Lugo-Martinez	308-3285
----------------------	----------

#### SYSTEM INVENTORY & NEW SYSTEM NOTIFICATION

Sara Fields	308-3298
-------------	----------

#### DATA ENTRY

Janet Matthews	308-3365
Judy Kennedy (AA)	308-3321

#### DATABASE MAINTENANCE/NETWORK ADMINISTRATION/SDWIS

Wayne Wang	308-3323
------------	----------

#### CHEMISTRY LAB

Mitt Denney	308-3296
April Swift	308-3290
Sandra DeCastro	308-3295
Sara Fields	308-3298

#### IDEM Drinking Water

[www.in.gov/idem/water/dwb/index.html](http://www.in.gov/idem/water/dwb/index.html)

#### IDEM Wastewater

[www.in.gov/idem/water/compbr/comepeval/index.html](http://www.in.gov/idem/water/compbr/comepeval/index.html)

#### Mailing Address:

P.O. Box 6015  
Indianapolis, IN 46206-6015

#### Physical Address:

2525 North Shadeland Avenue  
Indianapolis, IN 46219

### WASTEWATER CONTACTS

Debbie Dubenetzky, 233-5747  
Compliance Branch Chief and  
Acting Operator Assistance &  
Pretreatment (OAPS) Section Chief

Natalie Green, 233-0479  
Wastewater Certification Coordinator

Barb McDowell, 233-6464  
Laboratory Issues &  
Exam Study Materials

Heather Tippey, 232-8791  
Wastewater Continuing Education  
Coordinator

Dylan Jones 233-0419

### OTHER NUMBERS

EPA Safe Drinking Water Hotline  
800/426-4791  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

IDEM Environmental Helpline  
800/451-6027

DNR  
877/928-3755

DNR Water Well Record on line web site:  
[www.state.in.us/dnr/water/waterwell](http://www.state.in.us/dnr/water/waterwell)

**All phone numbers are area code 317  
unless otherwise indicated.**



### Indiana Section AWWA Officers

#### Chair

Patricia Spence  
HNTB Corporation  
317-636-4682  
317-633-0512 FAX  
[pspence@hntb.com](mailto:pspence@hntb.com)

#### Chair-Elect

John Stancati  
South Bend Water Works  
574-235-5646  
574-235-9728 FAX  
[jstancat@ci.south-bend.in.us](mailto:jstancat@ci.south-bend.in.us)

#### Vice Chair

Stan Diamond  
Greeley and Hansen, LLC  
317-924-3380  
317-925-3811 FAX  
[sdiamond@greeley-hansen.com](mailto:sdiamond@greeley-hansen.com)

#### Secretary-Treasurer

Pamela Waggoner  
Veolia Water Indianapolis, LLC  
317-263-6469  
317-263-6452 FAX  
[pamela.waggoner@veoliawatarna.com](mailto:pamela.waggoner@veoliawatarna.com)

#### Past-Chair

Doug Perry  
City of Goshen  
574-534-5701  
574-534-4281 FAX  
[dougperry@goshencity.com](mailto:dougperry@goshencity.com)

#### Director

Paul Hartman  
Logansport Municipal Utilities  
574-753-6231  
574-753-9828 FAX  
[pajmi@lneti.com](mailto:pajmi@lneti.com)

#### Section Staff

Tim Bumgardner  
317-745-1124  
317-745-3136 FAX  
[timbum@aol.com](mailto:timbum@aol.com)

### District Trustees

#### Central District Trustee

Dan Hilton  
Indiana American Water Company  
317-831-3385 - Office  
317-831-9862 - Fax

#### Northeast District Trustee

John Muford  
Town of North Manchester  
260-982-2993 - Office  
260-982-7428 - Fax

#### Northwest District Trustee

Bruno Trimboli  
Mishawaka Utilities, Water Division  
219-258-1730 - Office  
219-258-1711 - Fax

#### Southeast District Trustee

Roger Maynard  
Indiana American Water Company  
812-218-1512 - Office  
812-284-3541 - Fax

#### Southwest District Trustee

Darrel Heisler  
Indiana American Water Company  
812-853-3356 - Office  
812-853-7553 - Fax

Small Systems Committee  
INDIANA SECTION AWWA

2984 Crestwood Lane  
Danville, IN 46122-8500

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[www.inawwa.org](http://www.inawwa.org)

American Water  
Works Association:  
[www.awwa.org](http://www.awwa.org)

EPA Drinking  
Water Hotline:  
[www.epa.gov/OGWDW](http://www.epa.gov/OGWDW)



## MARK YOUR CALENDARS!!

To add dates to this section,  
contact any Small Systems  
Committee Member.

**June 30, 2004** - Deadline for Vulnerability Assessments and Emergency Response Planning submittals for water systems of more than 3,000 served, but less than 50,000 served.

**July 1, 2004** - Consumer Confidence Reports due to consumers.

**July 14, 2004** - Proper Usage of Locating Equipment Workshop in Scottsburg. Contact: Odetta Cadwell of Indiana Rural Water Association at 317-402-7349 or visit [www.indianaruralwater.org](http://www.indianaruralwater.org)

**July 15, 2004** - Proper Usage of Locating Equipment Workshop in Jasper. Contact: Odetta Cadwell of Indiana Rural Water Association at 317-402-7349 or visit [www.indianaruralwater.org](http://www.indianaruralwater.org)

**July 28, 2004** - Water for People Golf Outing in Indianapolis. Contact: Dan Hood at 800-255-1521

**August 4, 2004** - Proper Usage of Locating Equipment Workshop in Decatur. Contact: Odetta Cadwell of Indiana Rural Water Association at 317-402-7349 or visit [www.indianaruralwater.org](http://www.indianaruralwater.org)

**August 5, 2004** - Proper Usage of Locating Equipment Workshop in Rensselaer. Contact: Odetta Cadwell of Indiana Rural Water Association at 317-402-7349 or visit [www.indianaruralwater.org](http://www.indianaruralwater.org)

**August 10, 2004** - Turbidity, Chlorine Interference from Iron and Manganese, Copper and Lead, and Fluoride Issues Workshop in Chandler. Contact: Odetta Cadwell of Indiana Rural Water Association at 317-402-7349 or visit [www.indianaruralwater.org](http://www.indianaruralwater.org)

**August 12, 2004** - Turbidity, Chlorine Interference from Iron and Manganese, Copper and Lead, and Fluoride Issues Workshop in Stucker Fork. Contact: Odetta Cadwell of Indiana Rural Water Association at 317-402-7349 or visit [www.indianaruralwater.org](http://www.indianaruralwater.org)

**August 25, 2004** - AWWA Southwest District Meeting in Evansville. Contact: Darrel Heisler at 812-853-3356.

**September 9, 2004** - AWWA Central District Meeting in Greencastle. Contact: Dan Hilton at 317-831-3385.

**September 10, 2004** - AWWA Southeast District Meeting in Bargersville. Contact: Roger Maynard at 812-218-1512.

**September 16, 2004** - AWWA Northeast District Meeting in Elkhart. Contact: John Mugford at 812-982-2992.

**October 8, 2004** - AWWA Northwest District Meeting in Valparaiso. Contact: Bruno Trimboli at 574-258-1652.

Please visit AWWA's website ([www.awwa.org](http://www.awwa.org)) for additional information regarding continuing education and professional development offerings. Materials and instruction are available through a variety of media, from traditional seminars to online courses, teleconferences, and webcasts.