



# Partnership for Safe Water

Working Together to Protect America's Drinking Water

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*The Partnership's mission is to improve the quality of drinking water delivered to customers of public water supplies by optimizing system operations.*

## Inside this issue:

Treatment Plant Optimization Program: New Partnership Presidents Award	Pg 2
Free Membership and Optional Fee Opportunities	Pg 3
The Partnership Alliance	Pg 2
Update from the Pennsylvania Partnership Summit	Pg 3
News from the South Carolina Partnership Committee	Pg 3
Treatment Tips: Filter Bed Expansion	Pg 4
PEAC-T Training	Pg 4
Partnership Contacts	Pg 5

## Happy Holidays!

### Year Ends With Impressive Accomplishments

2011 has been a busy one for the *Partnership for Safe Water*. The new distribution system optimization program was launched in February with 80 systems joining. This far exceeded our goals. One treatment plant received the Excellence in Water Treatment Award. A new *Presidents Award* was created to recognize those meeting the individual filter turbidity Phase IV goals. And the Partnership has been working to clarify its relationship with AWWA.

2012 looks just as exciting as we focus on many initiatives, including:

- The business relationship with AWWA should be firmly established.
- A new distribution system optimization program promotion will increase participation to result in financial self-sustainability.
- Several systems are expected to complete their distribution system self-assessments and receive recognition awards at the AWWA Annual Conference.
- And, some treatment plants should receive the *Presidents Award* for filtration excellence.

The Partnership for Safe Water is a voluntary program. It depends on the participation of utilities and many volunteers. We wish to thank all of you for your amazing efforts to improve drinking water for millions of customers throughout the U.S. Your engagement in this program either as volunteers or as participating utilities, has made a measurable improvement in the quality of drinking water.

*Happy Holidays from Bill and Debby*



*Bill Lauer (Program Manager) & Debby Qualls (Program Coordinator) are planning an exciting 2012!*

## Award-winning Plants Receive Kudos from the Partnership

The following treatment plants received Partnership awards since the last newsletter. The Partnership congratulates these plants for demonstrating their commitment to excellence.

### Excellence in Water Treatment Award

*Aurora Water, Colorado:*

- Griswold Water Treatment Plant

### Directors Award

*City of Boulder Department of Public Works, Colorado:*

- Betasso Water Treatment Plant
- Boulder Reservoir Treatment Plant

*Washington Suburban Sanitary Commission, Laurel, MD:*

- Potomac Water Treatment Plant

*Southern Nevada Water System, NV:*

- River Mountains Water Treatment Facility



## Treatment Plant Optimization Program: New Partnership *Presidents Award*

The Partnership for Safe Water Steering Committee is happy to announce the creation of a new award - the *Presidents Award*. This award recognizes Directors Award plants in good standing, which have been tenaciously pursuing optimization as demonstrated by meeting the Phase IV individual filter performance goals.

To qualify for this prestigious award, treatment plants must:

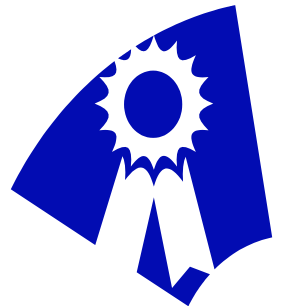
1. Be in "good standing" and be a current Directors award recipient.
2. Maintained monthly individual filter turbidity less than 0.10 NTU 95 percent of the time based on values recorded at 15-minute time intervals for the past 12-months (ending no more than two months from the application date).
3. Indicate intent to continue to make improvements, using a collaborative team approach, to attain fully optimized plant performance and achieve the *Excellence in Water Treatment Award*.

It takes considerable time and effort to meet the Phase IV individual filter turbidity goals. The Partnership wants to recognize this outstanding achievement with its *President's Award*. We hope this will help you and your staff as you continue to address action plans, move toward fully optimized treatment plant operation, and ultimately qualify for the *Excellence in Water Treatment Award*.

There is no additional charge for this award and specific award application guidelines can be found on the Partnership for Safe Water website at [www.partnershipforsafewater.org](http://www.partnershipforsafewater.org).

Applications can be submitted at any time.

Please contact Debby Qualls at: [dqualls@awwa.org](mailto:dqualls@awwa.org) or (303-347-6169) if you have any questions.



## Distribution System Optimization Program

**Join by March 31, 2012 and 2013 membership is FREE!**

The new Partnership for Safe Water distribution system optimization program has launched a new membership campaign. INTRODUCTORY members must join by March 31, 2012. New members joining during this promotion will receive 2013 membership for FREE!

Jerry Stevens, AWWA President, and Charlie Anderson, AWWA President Elect, are supporting the membership drive. Letters encouraging membership from Jerry were sent to utility members of the AWWA Board of Directors, Executive Committee, Councils, Divisions, and Committees.

Soon the promotion will be expanded to members of the other Partnership organizations: AMWA, NAWC, US EPA, ASDWA, and the Water Research Foundation. In addition, articles and notices will appear in organization publications, websites, and at technical conferences.

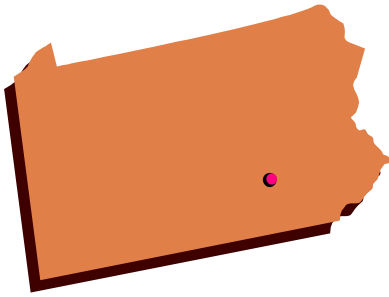
Visit the Partnership for Safe Water website at [www.partnershipforsafewater.org](http://www.partnershipforsafewater.org) for additional information and to join this valuable program.

**CHARTER members 2012 fee is OPTIONAL!**

Start-up for all new programs is challenging. This is especially true for the Partnership for Safe Water distribution system optimization program. Development of some of the program elements has taken longer than expected. This has caused a delay for some CHARTER members that are proceeding with the self-assessment phase of the program. Recognizing this, the Steering Committee has approved an **optional** 2012 fee for CHARTER members.

Utilities that opt not to pay the 2012 annual fee will remain CHARTER members and receive all of the program benefits. These utilities will begin annual fee payment again in 2013.

## Partnership News: Pennsylvania Partnership Summit:



The two day workshop attended by nearly a hundred water treatment professionals was held in Grantville, PA. The program was designed to be highly technical but flexible enough to provide time for group interaction and separate work groups. Presentations for the most

part were short and to the point, discussing issues directly related to the Partnership steps, and programs available to assist the operators as they move forward.

Several systems have been through the Partnership program steps and shared their missteps and their successes. In particular, John Bartol, who has been through the Phase III portion twice, once with two different water systems, gave everyone a unique look at the development tools they used as his staff worked through their self-analysis. He felt the program was essential in bringing the staff together on such key items as process control and filter maintenance.

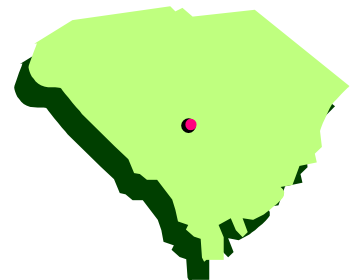
John went on to note, "The tools provided by the Partnership program were and are the reason behind the success of our recent expansion and our continued improvement." John also noted that the staff was initially apprehensive about the program, but after a few preliminary meetings they embraced the effort and benefited from the results.

There was a presentation about the Phase IV facility, Carlisle Borough. Mike McFadden discussed their experiences with the unique challenges required of a facility as they approach Phase IV status. Mike explained some of the changes they made at the plant in both equipment and operations necessary to reach their optimization goals laid out in the program. Mike felt the goals are clear, and the operators recognize what needs to be done to maintain this level of operation.

The summit was a great success and plans are already underway to have another one next year. Many attendees expressed how the information helped them move forward with the partnership program.

*- Thank you to the Pennsylvania Partnership Team for supplying this information.*

## South Carolina Partnership Committee: (15 years of optimization)



The Partnership for Safe Water (PSW) Committee started around 1995 or 1996, not long after the program itself was started. There were several utilities in South Carolina (e.g. Georgetown, Greenwood, Easley Combined) who had already joined the program, and the Executive Committee for SC AWWA was looking for an opportunity to get more operators involved in the Section. The committee started as an Ad Hoc committee comprised of existing members of the PSW program.

Some of the initial goals included facilitating better communication between operators by conducting site visits. One of the first meetings was at the Easley Combined WTP. At that time, we were also interested in promoting the program and educating utilities about what the program was and why it was beneficial for them. The committee started sponsoring seminars which described the program and how the optimization process was applied to surface water facilities.

After a couple of years of promoting the program, the focus shifted to actual training seminars. A milestone event was the two day training seminar at the Charlotte Franklin WTP. This workshop set the stage and the format for additional workshops which continue to this day in both North Carolina and South Carolina.

Since focusing on pre-filtration and filtration efficiency, the emphasis has shifted to other aspects of water treatment such as disinfection by products and distribution operations. The committee continues to sponsor sessions at the South Carolina Executive Committee and typically hosts one or two training seminars per year. There are currently between 15 and 20 members in the program from South Carolina. This represents between 20 and 30 percent of the surface water plants in the state and a large percent of the population.

*- Thank you to Porter Rivers and David Tuck for contributing this information.*



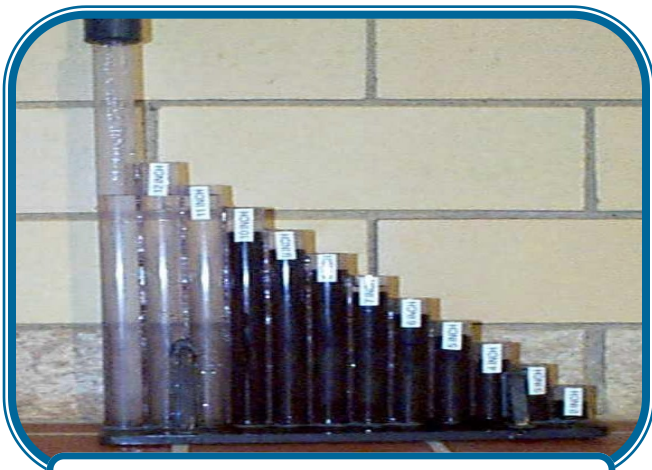
## Treatment Tips

### Filter Bed Expansion

Adequate but not excessive backwash rate is important for optimum performance. The filter needs to be clean to prevent the formation of mud balls. But not too clean so as to result in lengthy “ripening” time, and therefore a period of poor filter performance.

One way of determining the correct backwash rate is to measure the expansion of the filter media. During backwash a filter bed expands and the material is agitated to help clean off the collected particles removed from the water. In a sand filter with surface wash, the bed should expand about 37 percent. The expansion rate for an anthracite bed with surface wash should be about 25 percent.

This value can be calculated by measuring the expanded bed using the bed expansion tool. This tool is placed on the filter surface and held in place during backwash. The expanding bed deposits filter material in the tubes. The longest tube containing material is used for the calculation.



*Bed expansion tool showing anthracite in some of the tubes following backwash test.*

#### Calculation:

$$\% \text{ expansion} = \frac{(\text{inches of longest tube height}) \times (100)}{\text{inches of total filter bed depth}}$$

You may want to change the backwash rate and re-measure the value.

## PEAC—T Training

### *Phase III Report Review*

Members of the PEAC-T attended Phase III report review training during a two-day course held in Aurora, Colorado, December 7-8, 2011. Mike Barsotti, PEAC-T chair, and several vice-chairs conducted the classes.

The training concentrated on the report review procedures which are used to ensure consistency for all report evaluations.



## The Partnership is an alliance of six drinking water organizations:



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