



# Master Well Owner Network

A program of Penn State Cooperative Extension and the Penn State Institutes of the Environment.

Fall 2006

Newsletter

## In This Issue

Don't Forget to Recertify	1
Private Well Study Nearly Complete	1
Check Out This Grant Opportunity	2
MWON - Behind the Scenes	2
A Message from the MWON Coordinator	2
The Facts on E.coli in Drinking Water	3
MWON Volunteers Educate Residents Near Hershey, PA	3
Calendar of Events	4

## What is the Penn State Master Well Owner Network?

The Master Well Owner Network is a program dedicated to educating Pa residents about proper private water system construction and management. Our goal is to promote better management of private wells, springs, and cisterns throughout the state.

## Don't Forget to Recertify!

Master Well Owners that took the initial MWON training in 2004 need to recertify if you would like to remain with the program for another two years. The recertification training can be taken online at anytime through December 31, 2006. Results from the exam will be sent to you along with a new certificate within two weeks. The online training course is easy to follow and the new material covered is meant to build upon the knowledge that you learned originally.



Some topics that were revisited include sanitary well caps/grouting and drilling a new well. You do not need to have your 100 contacts to recertify, the only requirement is that you have been active in some way with the program. We encourage you to continue with the program because we need everyone's help to spread our important message! Any outreach you do helps us to reach our educational goals. Contact Stephanie if you have questions about your eligibility.

New subjects included in the recertification training include: estimating water use in the home, using low yielding wells, and water well location by fracture trace mapping.

Those Master Well Owners that do not have internet access can contact Stephanie Clemens by phone at 814-865-2250 if you would like the training materials sent to your home. Please do not hesitate to contact us with questions.

**MWON Recertification Training Online at**  
<http://mwon.cas.psu.edu/Recertification.htm>



Jim Clark, MWON volunteer and McKean County Cooperative Extension Educator, collects a water sample for the well water research project.

## Private Well Study Nearly Complete

The MWON private well owner study is nearly complete now that we have collected all 450 well water samples needed for this year. Over 130 Master Well Owner volunteers participated in collecting well samples - thanks for your help! Results from the study will be included on the MWON website in January 2007 (<http://mwon.cas.psu.edu>). This study was funded by the Center for Rural Pennsylvania and the Pennsylvania Water Resources Research Center.

Although the sample collection part of the project is complete, we are still collecting information from well owners through our online survey for private well owners throughout PA. This survey can be accessed on the Penn State Water Extension web site (shown below) through the end of 2006. Please pass this web link on to any private well owner that you know.

The online well owner survey can be found at <http://water.cas.psu.edu>

For more information or to fill out an application, visit <http://mwon.cas.psu.edu>.

## Check Out This Grant Opportunity!

### League of Women Voters of Pennsylvania Citizen Education Fund

Water Resources Education Network (WREN) Project  
Grants Available for Water Resources Education Projects

**Who:** Partnerships of organizations in Pennsylvania such as watershed associations, civic groups, community water systems, governmental entities (including municipal authorities), and other public interest organizations. All partners must play an active role in the project.

**What:** Educational projects that raise awareness about protecting the **community's drinking water source** and/or **preventing nonpoint source pollution** in the watershed. Projects must aim at building an informed citizenry who will protect water resources with actions at home, at work, and within the community, including encouraging local officials to make decisions that will promote clean water. Grant award: up to **\$5,000** per project.

**When:** Proposals must be postmarked or hand delivered no later than 4:00 pm on **4/2/07**. Successful proposals announced by 5/15/07. Funding/activity period: **7/1/07 through 6/30/08**.

**\*\*Grantees must attend Orientation Meeting in mid-June, 2007 (date and location TBA) to network with other WREN grantees and receive resources and tools. There is no cost to the grantee to attend.\*\***

To receive an Application send email to [wren@palwv.org](mailto:wren@palwv.org) or call 800 692-7281 ext 10.

Complete Application may also be downloaded from websites:  
<http://wren.palwv.org> or <http://www.drinkingwaterwise.org>

Applications postmarked or hand delivered no later than April 2, 2007 to office of League of Women Voters of Pennsylvania CEF, 226 Forster Street, Harrisburg, PA 17102-3220 (no faxed or emailed applications)



### A Message from the MWON Coordinator

*I would like to thank all of you for helping to spread our important message to homeowners throughout Pennsylvania. I hope that each of you decide to stay with the program after your two year certification has expired.*

*Our well study has been a huge undertaking that could not have been accomplished without the help we have received from our Master Well Owners. Thanks again to those of you that were involved.*

*Please contact me if you have any questions or concerns regarding MWON. I am only a phone call or an email away! Hope to hear from you sometime soon.*

*Sincerely,  
Stephanie Clemens*

## MWON - Behind the Scenes



Bill Sharpe (above) and Bryan Swistock (below)

Many of the Master Well Owners and MWON Project Partners know Stephanie Clemens, but only a few really know the other people responsible for the success of MWON. The program's creators, William Sharpe and Bryan Swistock, are the two people that work behind the scenes to make this program a success. They have worked together for years developing materials and programs for private water system owners throughout Pennsylvania.

### Getting to know Dr. William Sharpe

Bill Sharpe is a Professor of Forest Hydrology at Penn State and has been conducting outreach with Penn State Extension for over 30 years. He is famous for his water conservation efforts and his research on acidic deposition. He has been involved with several of the MWON trainings and those that have met him know that he is the "personality" behind the program.

### Getting to know Bryan Swistock

Bryan Swistock has been a Extension Associate at Penn State for over 19 years conducting various programs on private water systems and pond management. He is often the voice of the program since he is frequently heard on the radio or quoted in a newspaper during times of drought or flooding events. Bryan develops many resources that MWON volunteers use to conduct their outreach.



# The Facts on E.coli in Drinking Water

## Ask The Experts

*In each issue, experts at Penn State Cooperative Extension will discuss one issue that will help to keep private water system owners well informed.*

*If you have a question for ask the experts, please send it to [mwon@psu.edu](mailto:mwon@psu.edu).*

### **What is E.coli?**

*Escherichia coli* or *E. coli* is a type of fecal coliform bacteria commonly found in the intestines of animals and humans.

### **Is E.coli in drinking water a health concern?**

A positive *E. coli* result is much more serious than coliform bacteria alone because it indicates that human or animal waste is entering the water supply. There are hundreds of strains of *E. coli*. Although most strains are harmless and live in the intestines of healthy humans and animals, a few strains can produce a powerful toxin and can cause severe illness and death.

If *E.coli* bacteria are present, the most common symptoms are gastrointestinal upset and general flu-like symptoms such as fever, abdominal cramps and diarrhea. Symptoms are most likely in children or elderly household members. In some cases, household residents acquire immunity to waterborne bacteria that are common in their drinking water. In this case, visitors to the home that have not acquired immunity may become ill after drinking water.

### **Is there a drinking water standard for E.coli?**

*E. coli* bacteria should be totally absent from drinking water. If water tests indicate that any *E.coli* are present, an alternative drinking water source should be utilized until it is eliminated from the drinking water supply.

### **How often should the water be tested?**

Penn State Cooperative Extension recommends that all private water supplies (wells, springs and cisterns serving an individual house) be tested for total coliform bacteria every year by a state certified laboratory. If your initial water test indicates that total coliform bacteria are present, additional tests for *E. coli* bacteria may be warranted. However, if you find that you do not have any coliform bacteria in your drinking water, you do not need to test for *E.coli*.

### **What do you do if you find E.coli in your drinking water?**

If your water supply tests positive, consider the following steps to solve the problem. First, confirm the test results. Have your water retested by a state certified laboratory before you make any costly decisions.

The next step would be to try to find and eliminate the source of the *E. coli* bacteria. Check your septic system for proper functioning and remove or divert obvious sources of animal waste from around the well or spring.

If you find that you can not eliminate the source of bacteria, then treatment might be one option to consider. Several types of continuous disinfection systems are available including chlorination and ultraviolet light.

More information can be found at the web site <http://water.cas.psu.edu>.



Jon Reichel (above) and Jeremy Trexel (below)



## MWON Volunteers Educate Residents in Hershey,

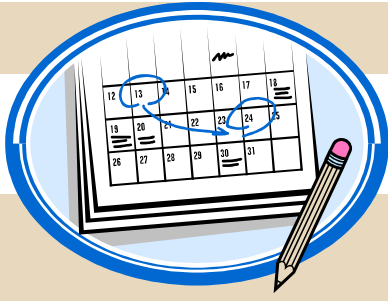
On Thursday, August 31, 2006 Tom McCarty with the Cumberland County Cooperative Extension organized a free public seminar entitled "Safe Water from Vulnerable Wells". Ann Devine, Jon Reichel, and Jeremy Trexel, Master Well Owner Network volunteers from Dauphin County helped with the programs by giving presentations and answering public questions.

The event was broken down into two separate sessions, one in the afternoon and one in the evening. Jon Reichel discussed groundwater flow patterns illustrated by the ground water flow model. Ann Devine and Jeremy Trexel discussed the importance of water testing and demonstrated shock chlorination of a well. Tom McCarty finished each session by discussing options to solve drinking water problems and he had water treatment equipment for participants to examine.

Those involved with the event reported that attendees had lot of great questions.

Ann, Jon, Jeremy, and Tom - thanks for your hard work!





## CALENDAR OF EVENTS

### November 15, 2006

- Schuylkill County Safe Drinking Water Clinic, Penn Stat Schuylkill Campus auditorium from 7 to 9 PM.

### January 2007

- Pennsylvania Ground Water Association Winter Conference

### March 24, 2007

- Delmarva MWON training in Dover, DE

### April 2007

- MWON Training Workshop in northwest PA

### May 2007

- MWON Training Workshop (location TBA)

### Fall 2007

- PA Private Water Well Symposium and MWON Statewide Conference

## MWON Program Sponsors

This project is made possible in part by the Penn State Cooperative Extension, the USDA CSREES Mid-Atlantic Regional Water Program, the Pennsylvania Department of Environmental Protection and the Pennsylvania Ground Water Association.

Funding for the MWON private well study was provided by the Center for Rural Pennsylvania and the Pennsylvania Water Resources Research Center.

## MWON Project Partners



Penn State encourages persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Stephanie Clemens at 814-865-2250 in advance of your participation or visit.

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Visit the MWON website: <http://mwon.cas.psu.edu>

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