

MASTER WELL OWNER NETWORK

A program of the Penn State College of Agricultural Sciences and Cooperative Extension

DRINKING WATER INTERPRETATION TOOL (DWIT)

Use this online tool to create a customized interpretation of complex data found on any water test report.

A screenshot of the online DWIT tool.

results. The site addresses bacterial and chemical contaminants along with aesthetic issues such as turbidity, color units and odor, and levels of corrosivity, providing a full interpretation of water quality. The "results" page breaks down the laboratory test figures into a table of information addressing each value that was entered into the interpretation tool with links to additional information for any water test results that do not meet drinking water standards.

Each year thousands of homeowners get their water tested through accredited testing labs. The resulting laboratory reports often include complex language, symbols, and standards that make it difficult to determine if the drinking water is safe to drink or use for household purposes.

Penn State Extension and the Master Well Owner Network worked with the Penn State Institutes of Energy and the Environment to create an online Drinking Water Interpretation Tool (DWIT) web tool that can help homeowners make sense of laboratory water test results after their well, spring or cistern is tested. This tool was first developed at Colorado State University and was adapted to make it more relevant to Pennsylvania's drinking water issues.

Users can enter results from any commercial water test report and the Web tool will "decode" the

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Perhaps the most helpful aspect of the results page is a short paragraph answering the question "Does sample meet water safety standards?" This section details each parameter, outlining the nature of the pollutant (bacteria, liquid or industrial solvent to name a few), its origins, how it enters a private water supply and the associated threats posed when levels exceed acceptable standards. The section also provides information on how to remove or treat contaminants.

In addition to the [Drinking Water Interpretation Tool](#), Penn State Extension has numerous other educational resources for private water system owners including an article on [Common Drinking Water Problems and Solutions](#). This site offers numerous fact sheets, videos, and other resources on everything from water testing to choosing a well location, safeguarding your well from contaminants and properly solving drinking water problems.

Authors: Bryan Swistock, Former Senior Extension Associate; Water Resources Coordinator

Article link: <https://extension.psu.edu/drinking-water-interpretation-tool-dwit>

Upcoming Event: Private Water Supply Education Webinar & Water Testing



Do you live in one of the more than one million homes and farms in Pennsylvania that get their drinking water from a private well or spring? Do you know what is in your drinking water and how to keep it safe for you and your family? Would you like to have your water tested for free? The Private Water Supply Education and Water Testing event is designed for people who manage a private drinking water supply. We'll cover how to test and protect your well or spring and when water treatment might make sense. We

will also discuss well and spring system inspection and maintenance so you know how to protect your family, your property, and the groundwater we share. This event is for residents of Pennsylvania who use a private water supply (well, spring, cistern) in their primary residence.

When: Thursday, June 29, 2023 (2:00 PM - 3:00 PM ET)

Registration deadline: Thursday, June 29, 2023, 3:00 PM

Registration link: <https://extension.psu.edu/private-water-supply-education-and-water-testing>.

To participate in this program, you must meet the following requirements:

- In order to qualify for free water testing, registrants must register and attend the live educational virtual event.

- Have primary residence (no camps or summer homes) with a private water supply that is either a well, spring, or cistern.

Only one test is permitted per household. Water testing supplies will be distributed to participants after attending the event. Using a pre-paid mailer, participants must return their water samples by a specified date.

Participants will be provided with a copy of the publication "Water Tests: What Do the Numbers Mean?"

The following parameters will be tested: bacteria, pH, nitrate, manganese, lead, copper, barium, sodium, and arsenic. All these tests are related to potential health risks and can only be detected through water testing. A Pennsylvania Department of Environmental Protection Accredited Laboratory will do all testing.

Funding for this program was possible by the Pennsylvania Department of Health cooperative agreement with CDC Environmental Health Capacity building initiative (Grant #1NUE1EH001414-01-00) and support from the Master Well Owner Network grant from the Pennsylvania Department of Environmental Protection.

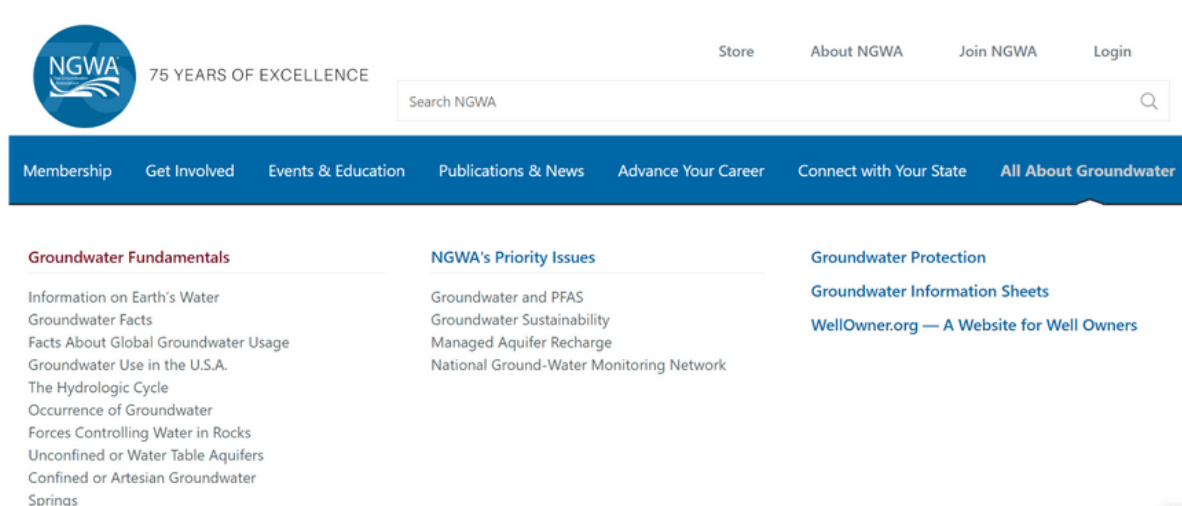
This event is being offered at no charge to participants. Registration is required to receive the link to access the webinar. Registrants will also receive access to the webinar recording.

The Pennsylvania State University encourages qualified 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 Penn State Extension at 1-877-345-0691 in advance of your participation or visit.

Resource Highlight: National Groundwater Association

<https://www.ngwa.org/what-is-groundwater/About-groundwater>

The National Groundwater Association lists a variety of resource links on its All About Groundwater page to help people better understand the basics around groundwater .



Request from Penn State University Researchers for Participants in New Study

Hi. I'm Nicole, a third-year graduate student in Penn State's Environmental Engineering Department. My research looks at the interactions between salt and radium in groundwater. I am looking for groundwater well owners who are interested in participating in a study on radium and salinity.

The salts that we apply on our roads make their way into the ground. These salts could potentially release trapped radium from the rocks into the groundwater. We will be collaborating with homeowners to sample private wells to better understand the relationship between radium and salinity and provide important water quality information about their well.

Participants will be asked to fill out a form on our website. We will send a group of well owners' materials so they can collect samples of their groundwater. Participants will collect small amounts (1 gallon or less) of water. This will be a time commitment of around 5 to 10 minutes a day, over the course of three days. After collecting the samples, participants will mail back samples in an envelope (postage and envelope provided). The materials participants collect and mail back to Penn State will allow us to measure radium and salinity. We will provide results to the participants as soon as they are available. Please note this could take several months.

This link explains the project and provides more guidance on the sampling procedure:
<https://sites.psu.edu/citizenscience/>

This is the link to the well owner survey:
https://pennstate.qualtrics.com/jfe/form/SV_b7KXXEstkmcey6W



Volunteer Spotlight: Donald Horn

Don Horn became a Master Watershed Steward in 2022 and joined the MWON program earlier this year. Since joining the MWON program in March, he has already sought out opportunities to share his newly gained knowledge with the Cumberland community. He answered a couple of questions for us about his motivations and experience with these two volunteer programs.

What made you join the Master Watershed Steward program?

Recently I joined the Friends of Michaux State Forest. During meetings I often did not understand exactly what the Foresters were talking about. So I started looking for answers. This is when I found the Penn State Extension website and found the answers to many of my questions. Not just answers but the opportunity to increase my knowledge through free or low-cost training and how I could help with local conservation and environmental issues.



Don Horn presenting MWON content at an event in Cumberland County on June 2, 2023.

Photo credit: Mark Spicka

What was your motivation for extending your knowledge and joining the MWON program?

Most of my youth was oriented around the outdoors and our responsibilities to maintain what God has provided us. Just not for myself but for future generations. Our water supply and many of the homes and farms in our area were wells, springs and cisterns. I remember the issues we dealt with such as droughts and/or contamination. Since most of my newly obtained knowledge focused on water conservation it was only logical to advance and share this knowledge with others.

Anything you'd like to add about becoming an MWON volunteer and reaching residents with this information?

There are many questions I do not know the answers to but the resources supplied by Extension are many. I find others that can help or direct individuals to someone more capable than me. There are many people looking for assistance, and getting them headed in the correct direction is rewarding. Lastly, I have met some wonderful individuals along the way and enjoy learning and sharing the information they have conveyed to me.

Nominate a volunteer for our next spotlight by emailing nkm5342@psu.edu.

Penn State Ag Progress Days

Location

Russell E. Larson Agricultural Research Center
2710 W. Pine Grove Road
Pennsylvania Furnace, PA 16865

Dates

August 8, Tuesday 9:00 a.m. - 5:00 p.m.
August 8, Wednesday 9:00 a.m. - 7:00 p.m.
August 10, Thursday 9:00 a.m. - 4:00 p.m.

Penn State's Ag Progress Days, held annually during three days in August, is Pennsylvania's largest outdoor agricultural exposition. With over 400 exhibitors from the United States and Canada, there is something for everyone to enjoy at no cost, as parking and admission are free. The show is hosted by Penn State's College of Agricultural Sciences and showcases educational programs, current research, and the latest innovations in agricultural equipment and technology.

What is the Master Well Owner Network?

The Penn State Master Well Owner Network (MWON) is a program dedicated to educating PA residents about the proper construction and management of private water systems. This program aims to educate private water system owners and promote better management of private wells, springs, and cisterns throughout the state.

MWON Sponsors

This project is made possible in part by Penn State Extension, the Pennsylvania Department of Environmental Protection and the Pennsylvania Ground Water Association.

Important Websites

Master Well Owner Network

<http://extension.psu.edu/water/mwon>

Penn State Extension Drinking Water

<http://extension.psu.edu/water/drinking-and-residential-water>

PA Ground Water Association

<http://www.pgwa.org/>

National Ground Water Association

<http://www.wellowner.org/>

Penn State Drinking Water Interpretation Tool

<http://dwit.psiee.psu.edu/>

Penn State Resources for Well and Spring Owners

<https://extension.psu.edu/resources-for-water-well-spring-and-cistern-owners>

This publication is available in alternative format upon request.

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