

# KENTUCKY WATER WELL DRILLER'S QUARTERLY

Spring 2017  
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## **Notes from Water Well Drillers' Certification Program Coordinator**

**Scotty Robertson**

The annual Kentucky Groundwater Association held their annual tradeshow and workshop on March 2<sup>nd</sup> and 3<sup>rd</sup>, 2017 in Louisville, Kentucky. The annual tradeshow and workshop was a rousing success this year. There were a dozen or so vendors and the number of drillers in attendance increased significantly due in part to good weather that we had, and in despite of the late start the association had in notifying its membership. The Holiday Inn East has finished its remodeling and the lodging and meals provided were great. The Kentucky Division of Water put on a presentation that addressed "Developing Groundwater Protection Plans for Water Well Drillers" and held a roundtable discussion on such topics as certification of drillers that install vertical boreholes for closed loop geothermal systems, an assistant or apprentice driller program, and certification reciprocity between Kentucky and other states. The Division of Water prepared a report for the Kentucky Groundwater Association that summarizes the opinions of the certified drillers that attended the discussion, and it is expected that the report will be posted on their website at <http://kygwa.org/>.

The KYGWA also presented awards and recognized members for the work they had done with the association this year. They also surprised and honored me when they presented me with an Estwing Special Edition Rock Hammer with my name engraved on the handle, for assisting with preparations to this year's tradeshow. The hammer is now proudly displayed at my desk for all to see. As a geologist, a fine rock hammer, like the one presented to me, is the ultimate award. I greatly appreciate being bestowed with this honor and award, thank you all.



## **Groundwater Section Changes**

**David Jackson**

There has been several staffing changes within the Groundwater Section. Emily Denlinger a Geologist II, who was working with the Ambient Groundwater Monitoring Network Program resigned from here position with the Groundwater Section in December of 2016 to pursue a similar position with the Ohio EPA. Sean Vanderhoff, a Geologist I, transferred from the section in June to accept an Environmental Scientist position with the DOW Louisville Regional Office

Wei Ji recently joined the Groundwater Section of the Watershed Management Branch as a Geologist II where she will be primarily working with the Ambient Groundwater Monitoring Network Program. Wei has a B.S. Degree in Geology from the University of North Carolina – Chapel Hill and a M.S. Degree in Earth and Environmental Sciences from the University of Kentucky. Wei conducted her graduate research on how sedimentation is impacted by growth faulting in the coastal wetlands of Texas.

Most recently, Wei worked as a teaching assistant at the University of Kentucky. Wei was born on mainland China, and moved to the United States at a very early age where her family settled in Owensboro, Kentucky. She is fluent in Mandarin Chinese and was recently naturalized as a U.S. citizen. Wei enjoys working with her hands, building Legos, tinkering with her personal computer, which she built herself, and playing computer games.



## **NGWA Exam Candidates will be able to Register and Schedule Online Beginning in May 2017**

**Groundwater Staff**

The NGWA is working with an exam proctor, PSI Services, to enable exam candidates to register and schedule exams online. Exams are taken as part of NGWA's Voluntary Certification Program for certification in the Commonwealth of Kentucky. Candidates for exams will be able to call to schedule their exams, but there will be a new phone number for scheduling. Candidates should call (800) 733-9267 beginning May 4, 2017. Exams may be scheduled on line at [www.psiexams.com](http://www.psiexams.com).

Exams will continue to be offered year-round at PSI test centers nationwide. There will be an expanded number of available test centers in some area. Any questions regarding the

change may be directed to the NGWA Industry Practices Administrator via email at [industrypractices@ngwa.com](mailto:industrypractices@ngwa.com) or call (800) 551-7379, ext. 1511.

## **Water Well Driller Certification Program Board Meeting**

### **Groundwater Staff**

The last meeting of the Water Well Driller Certification Board was held May 26<sup>th</sup>, 2017 at the Blue Lick Battlefield State Resort Park, near Carlisle, Kentucky.

The proposed amendment to allow certification of drillers who install vertical boreholes for closed loop geothermal systems was postponed until the next meeting of the Kentucky General Assembly. The Kentucky Groundwater Association is preparing supporting documentation in preparation of the submittal of the proposed amendment. It was also recommended by the legislative liaison for the bill sponsor, that KYGWA have as many supporters as possible present for the meeting once the proposed amendment is introduced into committee.

Results of the roundtable discussion conducted at the Annual Tradeshow and Driller Workshop was presented to the board for comment. The results of the roundtable discussion which concerned KYGWA membership's attitudes toward geothermal drilling and the apprenticeship or assistant driller program will be presented to the KYGWA for support of their draft legislation initiatives.

The next meeting of the Water well Drillers certification program's board is scheduled for July 28, 2017 at The Breaks Interstate State Park at 09:00 AM EST. On the agenda will be old and new business including the amendments previously mentioned. All board meetings are open to the public and all drillers are encouraged to attend. If you would like to attend please contact Scotty Robertson or Tekoyia Brown to make arrangements.

## **Driller Certification Renewal Time Again**

### **Groundwater Staff**

The annual driller certification period began June 1, 2017 and continues through August 31, 2017. During this time frame, we highly recommend that you renew your certification online. In order to renew on line, your liability insurance, surety bond and five hours of training must be up to date in DOW's database. The online ePay certification will not work if the database has not been updated with the required information.

If you attended the Kentucky Groundwater Association Tradeshow in March 2017 and turned in your proof of training card, DOW has updated your training information in our database. However, if you have not sent in an updated copy of your Certificate of Insurance as having liability insurance, you must do so before you can renew on line.

You can renew online by going to <http://water.ky.gov> and choose **Programs > Well Drillers Certification Program**. Again, you will not be able to renew online if your training,

insurance, or bond is not current. Look for the ePay link on the webpage, as shown below, to begin the online certification process. If you are having trouble paying online, please contact Scotty Robertson at [scotty.robertson@ky.gov](mailto:scotty.robertson@ky.gov) or 502-782-7054.



## **Wellhead Protection**

### **Groundwater Staff**

One of the best management practices a well owner can do is to regularly do a visual check of the wellhead (the portion of the well above the ground surface) and of the area around the wellhead. By doing so, one may detect potential issues before they become problems that could jeopardize the water quality supplied by the well.

Here is a checklist:

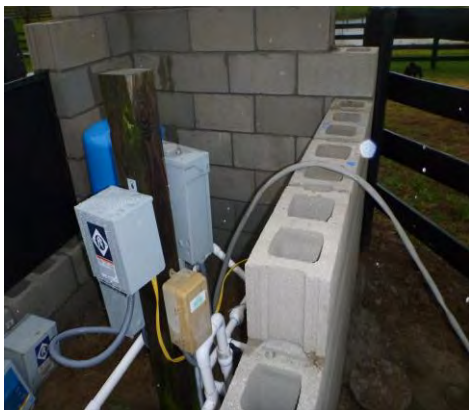
1. **Check the general condition of the casing for cracks or defects. Check if the casing extends at least 4 inches above ground. Is there a tight seal between the well casing and the ground around the well? If not, contact a Kentucky certified water well driller for assistance to repair the well.**
2. **Well cap (cap on top of casing) Check the condition of the cap and any seals present. Insure that it is securely attached, and that it will keep out insects and rodents. If not, contact a Kentucky certified water well driller for assistance to repair it.**



3. A certified water well driller can evaluate other considerations for the condition of the well. A compromised wellhead (cap) may allow an entry way for ants, bees, spiders, field mice, earwigs or other critters into the well and water supply.



4. Check all electrical connections and conduits (if present). Look to visually verify that all electrical connections are secure and conduits are intact. If not, contact a Kentucky certified water well driller or licensed electrician to investigate and repair or replace as needed.



5. Survey the area above ground surrounding the well for potential sources of contamination and physical dangers. Look for chemicals such as paint, fertilizer, pesticides, or motor oil—remove these if possible.



6. Maintain at least 50 feet between the well and any kennels, feeding areas, or livestock operations, remove these if possible.



7. **Ensure a proper distance is maintained from buildings, waste systems, or chemical storage areas (including fuel tanks). If there is any concern, contact your certified water well driller or your local health department. The table below specifies set back requirements for water well installations:**

Lateral Sources of Contamination	Minimum Distances
Leaching Pit	100 Feet
Petroleum Storage Tank	100 Feet
Grave or Cemetery	75 Feet
Manure Pile, Animal Waste Storage, or Confined Animal Feeding Operation	75 Feet
Wastewater Treatment Disposal System	75 Feet
Side Wall of Lateral Trench, Bed, or Lagoon	70 Feet
Geothermal – Closed Loop, Un-grouted	70 Feet
Water Supply Well	50 Feet
Septic Tank or Sewer Line	50 Feet
Livestock Pen, Corral, or Stable	50 Feet
Surface Water Body	25 Feet
Geothermal-Closed Loop, Grouted; Abandoned Water Well Grouted	20 Feet
Property Lines, Utility Lines, or Roadway Right of Way	10 Feet

**The location of the well can be critical to water quality, including the degree to which your water is considered safe to use as a drinking water source. Proper location of a well can help minimize the potential for health risks to your drinking water supply.**

**A local certified water well driller likely will have experience in the area and should know about any naturally occurring or manmade contamination in the area groundwater. Also, the county health department should be able to tell**

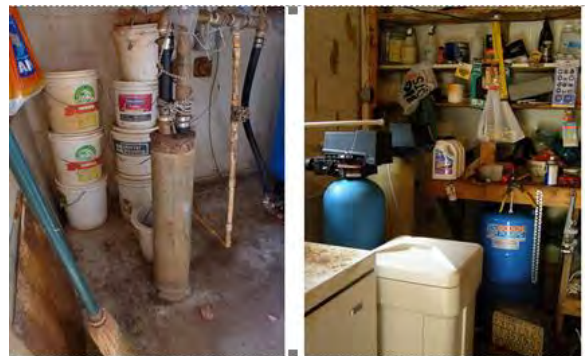
**you about any health risks related to the groundwater.**



8. **Any growth of weeds, trees, shrubs, or grasses with root systems within approximately 10 feet of the well should be physically removed. Avoid the use of chemicals or herbicides near the wellhead.**



9. **Be conscious of any other potential threats to the wellhead—garages, ATVs, sledding hills, debris, dirt, surface water, fuels and chemicals (including fertilizers), and runoff water from kennels, pastures, or feedlots.**



- 10. Be sure the ground surrounding the wellhead is sloping away from the well to divert surface runoff.**



- 11. If the slope does not promote drainage away from the well casing, consider extending the height of the well casing. A certified water well driller can extend the height of the casing, if needed.**



- 12. If the well is equipped with a vented well cap, check for the presence of the vent screen in the well vent, and clear away any debris that has accumulated on the vent screen. Check the condition of the vent screen to ensure it can prevent insects and animals from entering.**



- 13. If the well is located within a well house or other structure, make sure the water well and well house is properly vented. Buildup of methane or hydrogen sulfide gases that are both flammable and explosive can occur in enclosed spaces.**



- 14. If the wellhead is buried or in a pit it should be brought into compliance with current regulations by a certified water well driller, the wellhead should be brought above ground level.**



15. If your well is located in a low-lying area prone to flooding, you should consider having your certified water well driller raise the well casing to at least 24 inches above the historic record flood level, properly sealing the wiring conduit and providing casing bumper protection if floating debris is a concern. Another option is to construct a new well at a location outside the flood-prone area.



16. The well should not be in a roadway or driveway. If the well is within close proximity to a roadway or driveway, it should be properly marked to avoid being hit by vehicles. You can protect your well by placing bumper posts near the well's vulnerable position(s) to increase visibility.



17. Special care should be observed if your well is located near a driveway when it snows. Wells easily disappear below snow cover and are easily overlooked when pushing snow takes place.



## Quick Links

- Drillers Directory: <http://water.ky.gov/groundwater/Documents/GWDrillersDirectory.pdf>
- Forms and Application: <http://water.ky.gov/groundwater/Pages/FormsApplications.aspx>
- Training Resources: <http://water.ky.gov/groundwater/Documents/training%20resources.pdf>

## Division of Water-Well Drillers Program

<http://water.ky.gov/groundwater/Pages/WellDrillersProgram.aspx>

<http://water.ky.gov/>

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