

Testimony of
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Public Hearing of the House Consumer Affairs Committee
Water Well Construction Standards Legislation - HB 48
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Good morning Chairman Godshall, Chairman Daley and members of the committee. Thank you for inviting me to present testimony before the committee on HB 48 regarding Water Well Construction Standards.

According to the October 2011 study done by the Center for Rural Pennsylvania, a bipartisan, bicameral legislative agency that serves as a resource for rural policy within the Pennsylvania General Assembly, it is estimated that there are one million private water wells in Pennsylvania with over three million residents using these wells as a primary water supply. Approximately 13,000 to 15,000 new residential water wells are drilled in Pennsylvania every year and, when geothermal wells are taken into consideration, the total number of wells drilled annually increases to approximately 20,000. Accordingly, Pennsylvania is second only to Michigan in the number of residential water wells. Yet, the National Ground Water Association, as well as the Center for Rural Pennsylvania study, states that Pennsylvania and Alaska are the only two States that do not have statewide construction standards established for private water wells.

In the absence of statewide standards, smaller government units may take responsibility. For example, three counties have developed and implemented well construction standards: Bucks, Chester, and Montgomery. Within the last five years, several municipalities in the central region of the state passed well bore ordinances, which capture both water well construction and geothermal well construction, joining a handful of municipalities across the state that have enacted similar measures. More recently, Adams County developed construction standards as part of a model municipal well construction ordinance that four municipalities have already used to either develop a new ordinance or revise an existing one.

Contamination of private wells can occur naturally or through human impacts. For example, leaching of elements like iron or arsenic from bedrock occurs naturally, while leaching of bacteria from a septic system is a result of human influence. Treatment systems are available to address most types of contamination. However, the first line of defense should be prevention. A properly sited and constructed well can prevent most human influences, such as contaminated surface water, from contaminating groundwater.

Each well creates an opportunity for surface water pollution to find its way into groundwater and for pollution to travel underground from one aquifer to another. National and statewide studies by USGS report approximately 15 to 50 percent of private water systems fail a minimum of one safe drinking water standard.¹ Further, two studies published by the Center for Rural Pennsylvania indicated that at least 40 percent of private water wells surveyed in Pennsylvania exhibited a failure of some Safe Drinking Water Act parameter.² In addition, improperly

constructed private wells within wellhead protection areas for community water system wells have been identified as potential threats to the quality of source-water aquifers.

Pennsylvania is fortunate to have an ample, clean supply of water. We should have adequate measures in place to help protect that valuable resource. Proper well construction would be one piece of the puzzle to providing further protection of groundwater.

DEP believes that HB 48 is a step in the right direction towards establishing statewide standards for water well construction. Previous legislative attempts to establish water well construction standards have proven unsuccessful. Legislation was introduced in the House of Representatives in 2001 and opponents mounted a large campaign stating that the legislation would give DEP the power to put meters on homeowner's wells and charge for the water use, and that DEP inspectors would be trespassing on citizen's properties demanding compliance. This was not the case, but it resulted in a large letter writing campaign to legislators that stopped the legislation from proceeding forward. So from the start, DEP wants to be clear what this legislation is and is not.

This legislation does not give DEP or the Commonwealth the authority to charge a fee for private water usage. It does not give the power to install water meters on private wells. It does not grant the power for DEP or the Commonwealth to shut a person's well off or regulate the amount of water a private well owner can use.

What this legislation does do is establish the basis for water well construction standards to be developed through a public rulemaking process, thereby closing potential sources of contamination to groundwater.

In addition to identifying what this legislation is and isn't, it is also important to look at what is already in place and what is needed to improve the well drillers program going forward. Currently, under Act 610 of 1956, the Well Driller's Licensing Act, water well drillers are required to register for a license with the Department of Conservation and Natural Resources (DCNR) and also submit a well completion record to DCNR. However, there are no minimum requirements to obtain a license. One just needs to fill out the form and purchase a drilling rig and they can go to work.

DEP respectfully recommends that the legislation consider how including minimum requirements for licensing, along with continuing education requirements, could protect consumers. There are many good operators in the Commonwealth and we should utilize them as a resource to assist in the further development of Pennsylvania's well driller program.

In order to develop a program that effectively administers water well construction and protection standards, DEP also suggests that the legislation provide the agency with appropriate regulatory authority to establish basic permitting or registration standards, and allow for a funding mechanism to provide the necessary resources to implement the program.

Again, Pennsylvania is very fortunate to have an ample, clean supply of both surface water and groundwater. Legislation that establishes water well construction standards raises the bar on the

importance and competence of the professionals in the industry, and provides adequate resources to ensure compliance will help protect our valuable water resources for generations to come.

DEP certainly supports the intent and general concept of this bill but believes some additional considerations would improve the clarity, intent, and effectiveness of the bill and viability of any resulting water well construction program.

Thank you for allowing me to present testimony before the committee on behalf of DEP and I would be happy to answer any questions you may have.

¹ Low, D.J. et al, 2008, Selected Groundwater Quality Data in Pennsylvania – 1979-2006: USGS Data Series 314.

- Of the 4,674 samples in the microorganism group, 50.2% had water that exceeded an MCL.
- For major ions, 27.7% exceeded an MCL

Dubrovsky, N.M. et al, 2010, The Quality of Our Nation's Waters – Nutrients in the Nation's Streams and Groundwater, 1992-2004: USGS Circular 1350.

- Nitrate concentrations exceeded the MCL in samples from 7% of 2,388 domestic wells.
- In addition, the water from one or more wells sampled in 57% of all agricultural, urban and major aquifer studies had concentrations of nitrate exceeding the MCL.
- Nitrate exceeded background concentrations in 64% of shallow wells (<100 feet) in agricultural and urban areas. More than 20% of 406 shallow domestic wells located in agricultural areas exceeded the MCL. p. 10

Lindsey, B.D. et al, 2014, The Quality of Our Nation's Waters – Water Quality in the Principal Aquifers of the Piedmont, Blue Ridge and Valley and Ridge Regions, Eastern U.S., 1993-2009: USGS Circular 1354.

- Untreated groundwater from nearly one-third of the drinking water supplies samples failed at least one test typically used by health officials to determine if water is safe to drink. p. 1
- E. coli bacteria were detected in 50% of the drinking water sources sampled in the Piedmont and Blue Ridge carbonate-rock aquifers and the Valley and Ridge carbonate-rock aquifers. p. 4-5.

² Boyer, Elizabeth W., et al, 2012, The Impact of Marcellus Gas Drilling on Rural Drinking Water Supplies

- "Approximately 40 percent of the water wells failed at least one Safe Drinking Water Act water quality standard, most frequently for coliform bacteria, turbidity and manganese, before gas well drilling occurred." p. 4.

Swistock, Bryan R., et al, 2009, Drinking Water Quality in Rural Pennsylvania and the Effect of Management Practices

- "Approximately 41 percent of the wells tested failed to meet at least one of the health-based drinking water standards." p. 11.