

**COMMITTEE ON CONSUMER AFFAIRS  
HOUSE OF REPRESENTATIVES  
COMMONWEALTH OF PENNSYLVANIA**

**Informational Hearing on House Bill 48**

**May 12, 2015**

**TESTIMONY OF THE  
PENNSYLVANIA COUNCIL OF PROFESSIONAL GEOLOGISTS  
MARK B. IOOS, P.G.,  
MEMBER, BOARD OF DIRECTORS  
AND CHAIR OF GOVERNMENT AFFAIRS COMMITTEE**

My name is Mark Ioos, P.G. I am a Pennsylvania-licensed professional geologist, am a member of the Board of Directors of the Pennsylvania Council of Professional Geologists ("PCPG"), and am currently serving as the chair of the government affairs committee of the organization. I am here today with Joe McNally, P.G., and Paul White, P.G., both professional geologists and members of the PCPG.

The Pennsylvania Council of Professional Geologists (PCPG) is a diverse group representing over 60 leading professional geologic/geotechnical consulting firms and more than 580 geologists and allied scientists who advocate the use of sound science in the: (a) responsible exploration and development of natural resources; (b) formulation of public policy; (c) protection of human health and the environment; (d) establishment and evaluation of environmental regulatory programs; and (e) the dissemination of accurate information. Many of PCPG's members provide environmental consulting services to public and private entities concerning water resource development, protection of public and private water supplies, and the investigation and remediation of groundwater quality problems in the Commonwealth. I am here today on behalf of PCPG to express PCPG's support of House Bill 48 (Godshall-R) and to provide recommendations concerning the bill. The views I express today are in my capacity as a member of the Board of Directors of PCPG and are not those of my employer.

PCPG has long recognized the need for private water well construction regulations to protect human health and safety and Pennsylvania's valuable water resources. Accordingly, PCPG has consistently advocated for the development of private water well construction standards in the Commonwealth and strongly supports House Bill 48 (Godshall-R) which bill was referred to the House Committee on Consumer Affairs on January 21, 2015. PCPG respectfully requests the committee's consideration of this very important health and safety and water resources protection legislation.

More than 3 million rural and suburban residents in Pennsylvania rely on a private well for drinking water and about 20,000 new wells are drilled each year in the Commonwealth.<sup>1</sup> Among our sister states, only Michigan has a larger population served by private water supplies. Yet Pennsylvania is one of only a few states that do not have statewide regulations concerning private well location, construction, testing, and treatment. Some local governments in

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<sup>1</sup> *Drinking Water Quality in Rural Pennsylvania and the Effect of Management Practices*, Bryan R. Swistock, M.S., Stephanie Clemens, M.S. and William E. Sharpe, Ph.D., School of Forest Resources and Institutes of Energy and the Environment, Pennsylvania State University, sponsored by a grant from the Center for Rural Pennsylvania, a legislative agency of the Pennsylvania General Assembly (January 2009).

Pennsylvania (county or municipal) have developed and implemented well permitting, construction and/or testing requirements, but no uniform statewide standards exist.

Poorly constructed water wells pose a human health and safety risk not only to those persons that rely on them for water supply, but to others as well. Poorly constructed wells can be pathways for the introduction and spread of contaminants to human and ecological receptors through local aquifers, surface waters, and other water resources of the Commonwealth. Common contaminants related to poor well construction include, but are not limited to nitrate-nitrogen, volatile organic compounds (VOCs), and coliform bacteria.

Past studies show that the lack of statewide water well construction standards adversely affects Pennsylvania residents. The January 2009 study funded by the Center for Rural Pennsylvania found that of approximately 622 homeowner wells studied:

- Only 16% had a sanitary well cap to prevent the introduction of surface contaminants;
- Roughly 9% of the wells had missing well caps or miscellaneous types of caps (coffee cans, concrete, ceramic, etc.);
- Only 18% were found to have cement or grout around the casing to prevent the introduction of surface contaminants;
- Of the five recommended well construction features, 54% were found to have two or fewer of the recommended features; and
- Roughly 41% of the wells tested failed to meet at least one of the health-based drinking water standard, coliform bacteria being the most frequently detected contaminant.

A more recent study funded by the Center for Rural Pennsylvania found similar results.<sup>2</sup> Of the 233 homeowner wells in the 2012 study:

- Only 20% of the wells had a sanitary well cap;
- 13% percent had no visible casing above ground;
- Only 8% had an obvious grout seal; and
- Approximately 40% had at least one pre-existing water quality problem, most frequently the presence of coliform bacteria.

Based upon the information collected, the 2012 study concluded that “Most of the private water wells in this study lacked recommended construction standards, presumably reflective of the lack of statewide water well construction regulations, which likely contribute to impairments of certain water quality standards.” This finding implies that the adoption of statewide water well construction regulations will be in the best interest of the citizens of this Commonwealth by protecting the water quality in new private wells.

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<sup>2</sup> *The Impact of Marcellus Gas Drilling on Rural Drinking Water Supplies*, by Elizabeth W. Boyer, Ph.D., Bryan R. Swistock, M.S., James Clark, M.A., Mark Madden, B.S., and Dana E. Rizzo, M.S., Pennsylvania State University, funded by a grant from the Center for Rural Pennsylvania (March 2012).

PCPG also notes that the importance of water well construction standards for water resource protection and human health/safety is supported by the recommendations of two independent statewide advisory committees. In December 2008, the Statewide Water Resources Committee listed first among its recommended legislative priorities for implementing the State Water Plan: "Enact legislation...to establish statewide private water well construction standards." Additionally, the July 2011 Marcellus Shale Advisory Commission report (unanimously adopted) recommended, among its comprehensive strategic proposals for the responsible and environmentally sound economic development: "The Commonwealth should enact legislation establishing construction standards for new private water wells to ensure the delivery of safe drinking water to its residents." Again, these two independent statewide advisory committees recognized the importance of protecting public health, safety, and environmental resources by implementing statewide water well construction standards.

Given the important human health and safety and water resource protection considerations, PCPG recommends that House Bill 48 apply to any and all new water wells drilled and/or constructed in the Commonwealth, including, without limitation, irrigation wells, industrial supply, production or process water wells, groundwater dewatering wells, and water wells installed for the purpose of investigating or remediating groundwater quality problems; excluding, however, those water wells for which well construction standards are already established under the authority of existing legislation such as the Oil and Gas Act or the Safe Drinking Water Act. Improperly constructed, any of the aforementioned types of water wells have the potential to allow for the introduction or spread of contaminants to human and/or ecological receptors and/or through groundwater.

PCPG understands that House Bill 48 is intended to provide the Department of Environmental Protection ("DEP") with the authority to develop, and the Environmental Quality Board ("EQB") with the authority to adopt rules and regulations to establish statewide private water well construction and decommissioning standards to be met by water well drillers and water well owners. PCPG recommends that such rules and regulations be generally consistent with water well construction standards established or recommended by the National Ground Water Association ("NGWA").

The adoption of statewide water well construction regulations in previous legislative sessions has faced opposition in regards to concerns over potential metering and fees of water usage in private wells. Consistent with Section 3118(b)(5) of Act 220 of 2002, known as the Water Resources Planning Act, which specifically prohibits the DEP or the EQB from metering homeowner wells, House Bill 48 does not authorize metering or impose fees on water use from existing or future private wells, but rather is constrained in its scope to just the development of construction and decommissioning standards for private water wells.

For the Committee's consideration, PCPG has one general comment regarding House Bill 48, which is included as Attachment "A" to this testimony. Our comment requests that the DEP and the EQB consider including language in any future regulations specifying that a Professional Geologist be consulted in those situations where an interpretation of geologic information is performed with respect to selecting water well locations, logging, reporting, or decommissioning activities.

As noted above, PCPG believes water well construction standards are necessary to protect human health and safety and the Commonwealth's valuable water resources and thanks the Committee for considering PCPG's statement of support and comments on House Bill 48.

If you have any questions concerning any of the above or need any additional information, please do not hesitate to contact me.

Respectfully Submitted,

**Pennsylvania Council of Professional Geologists**

A handwritten signature in black ink that reads "Mark B. Loos". The signature is written in a cursive style with a large, stylized 'M' and 'L'.

Mark B. Loos, P.G.  
Chair of Government Affairs Committee

**Attachment "A"**

**PCPG Comments on House Bill 48**

1. Pursuant to the Engineer, Land Surveyor and Geologist Registration Law, Act 367 of 1945, as amended, to safeguard life, health or property and to promote the general welfare, unless otherwise exempted under Act 367 it is unlawful for any person to practice or to offer to practice geology in this Commonwealth, unless he or she is licensed and registered under the laws of this Commonwealth as a professional geologist. Accordingly, to the extent that House Bill 48 requires or involves the "practice of geology" with respect to activities required under HB 48, PCPG recommends that the legislation and regulations adopted pursuant to the legislation, require that any such activities that constitute the "practice of geology", unless otherwise exempted under Act 367, be performed under the responsible charge of, and as applicable, documents and/or reports be sealed by, a professional geologist licensed and registered in this Commonwealth.