



PCPG

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January 5, 2011

Via First Class U.S. Mail

The Hon. Robert W. Godshall
Chairman
House Consumer Affairs Committee
150 Main Capitol Building
P.O. Box 202053
Harrisburg, PA 17120-2053

Re: House Bill 1855 – Water Well Construction Standards

Dear Chairman Godshall:

The Pennsylvania Council of Professional Geologists (PCPG) is a diverse group of over 450 licensed geologists and professional 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.

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 1855 (Miller-R) which bill was referred to the House Consumer Affairs Committee on December 7, 2011. 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.¹ Among our sister states, only Michigan has a larger population served by private water supplies. Yet Pennsylvania is one of only two states that do not have statewide regulations concerning

¹ *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).

private well location, construction, testing and treatment. Some local governments in 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 valuable water resources of the Commonwealth. Common contaminants related to poor well construction include, but are not limited to, nitrates 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, cement, 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.² Of the 233 homeowner wells in the 2011 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

² *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 (October 2011).



- Approximately 40% had at least one pre-existing water quality problem, most frequently the presence of coliform bacteria.

According to the 2011 study “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.”

PCPG also notes that the importance of water well construction standards for water resource protection and human health and safety is reflected in 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 development of Marcellus Shale: “The Commonwealth should enact legislation establishing construction standards for new private water wells to ensure the delivery of safe drinking water to its residents.”

Given the important human health and safety and water resource protection considerations, PCPG recommends that House Bill 1855 apply to any and all 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 1855 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”). Consistent with Section 3118(b)(f) of Act 220 of 2002, known as the Water Resources Planning Act, which section prohibits DEP or the EQB from requiring the metering of homeowner wells, House Bill 1855 does not authorize any metering of homeowner wells, rather, it’s scope is appropriately limited to development of construction and decommissioning standards for private water wells.

For the Committee’s consideration, PCPG has a few general comments on the proposed text of House Bill 1855, which comments are included as Attachment “A” to this letter. As noted above, PCPG believes water well construction standards are necessary to protect human

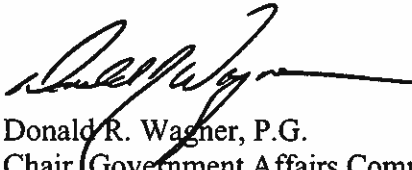


health and safety and the Commonwealth's valuable water resources and thanks the Committee for considering PCPG's statement of support and comments on House Bill 1855.

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

Sincerely,

Pennsylvania Council of Professional Geologists



Donald R. Wagner, P.G.
Chair, Government Affairs Committee

cc: Joseph Preston, Jr. – Democratic Chair
Representative Miller
Louis F. Vittorio, Jr., P.G. – President, PCPG



Attachment "A"

PCPG Comments on House Bill 1855

1. PCPG recommends that the scope of House Bill 1855 cover all private water wells the construction or decommissioning of which are not otherwise regulated under the authority of existing legislation. Water wells are drilled and constructed for a wide variety of purposes, including but not limited to potable supply, irrigation and commercial agricultural, industrial process, production and/or cooling water, groundwater dewatering, groundwater investigation or remediation, geothermal heat pumps, etc. Because each of these types of wells has the potential to serve as a conduit for the introduction or spread of contaminants into subsurface groundwater, PCPG believes House Bill 1855 should include all private water wells within its scope. The current definition of "water well" may need revision to ensure all such wells are included within the scope of the term.
2. As currently defined, a "water well owner" is the person who owns the land on which the water well is located. While that definition seems appropriate for most circumstances, PCPG notes that in some circumstances, the well owner may not be the owner of the land on which the well is located. By way of example, frequently during the investigation of a groundwater quality issue, persons responsible for investigating a source property may have need to install a groundwater monitoring or remediation well on a nearby property (after obtaining the landowner's permission). In that instance, the owner of the well would more reasonably be the person responsible for the investigation and/or remediation, not necessarily the owner of the land on which the monitoring or remediation well is located.
3. House Bill 1855 does not reference any specific standards or guidelines to be used as a reference in promulgating the private water well regulations. PCPG recommends that House Bill 1855 include a provision that the private well construction standards should be generally consistent with construction standards recommended by the National Ground Water Association.
4. 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, 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 1855 requires or involves the "practice of geology" with respect to water well location, logging, construction, reporting or decommissioning activities, PCPG recommends that the legislation or regulations adopted pursuant to the legislation require that any such activities that constitute the "practice of geology" 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. Well drilling and completions should be performed by a well drilling contractors licensed and registered in this Commonwealth.



5. PCPG is aware that at the local government level, some municipalities or counties have existing ordinances related to water well permitting, construction and/or testing and that the experience and insight of the local governments and existing permitting/construction standard ordinances may provide valuable assistance to the DEP when formulating statewide water well construction standards. However, consideration should be given as to the effect of House Bill 1855 on existing local government ordinances, at least to the extent any such ordinances are inconsistent with regulations ultimately promulgated under Section 3304 of the bill.

