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PENNSYLVANIA DEPARTMENT OF THE AUDITOR GENERAL
BUREAU OF SPECIAL PERFORMANCE AUDITS

Shale Gas Development and Water Quality Complaints—

A Citizen's Guide

Introduction and overview

As highlighted in our performance audit of the Department of Environmental Protection's (DEP) monitoring of shale gas development, dealing with alleged impacts to water supplies can be a confusing and emotional process.

Pennsylvania has the second highest number of private wells in the nation. However, Pennsylvania has no regulations on how private water wells are to be constructed and maintained. Research has shown that generally 40 percent of private water wells in Pennsylvania fail to meet at least one of the standards under the federal Safe Drinking Water Act.

Pennsylvania law provides remedies to those whose water supplies have been impacted from oil and gas activities; however, individuals need to take certain steps to ensure that these statutory remedies are put in place if a potential problem to their water supply presents itself.

This document is designed to help citizens who live in shale gas development areas understand some of the statutory and regulatory ramifications in dealing with water supply complaints, which may be caused by shale gas development.

This document is not intended to provide legal advice. Please consult with an attorney if you believe your situation may have legal ramifications.

Clean, pure water is a constitutional right to all Pennsylvanians. If you live near shale gas development activities, the following information may be helpful to you.

Should I let a gas well operator test my water?

Yes. Under Pennsylvania law, a gas well operator has a presumed liability—meaning that the gas well operator is automatically presumed responsible for contaminating a water supply—within a certain distance of the well bore and certain timeframes, unless predrill water quality samples show a preexisting condition.

The distance depends on whether the well is a conventional or unconventional well; therefore, it is imperative that citizens be aware of the type of well being drilled near their water supply.

For conventional wells (i.e., those gas wells that are typically shallower) the presumption of liability is 1,000 feet and 6 months after drilling.

For unconventional wells (i.e., those using horizontal drilling and tapping shale gas), the distance is 2,500 feet and one year after drilling, stimulating, alteration, or completion.

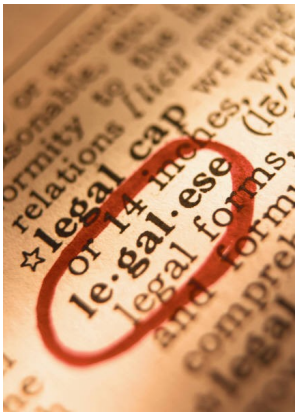
While gas well operators are presumed liable within these distance and time thresholds, that presumption is negated if a water supply owner refuses to allow the gas well operator to test the water before drilling commences. Therefore, it is imperative that water supply owners allow gas well operators to have access to the water supply to take predrill samples.

Inside this document:

What must DEP do	2
How to stay informed	2
What changes to look for	2
Who to contact with problems	3
What information to keep	3
Complaint identification numbers	3
Where to go for more information	4

What must DEP do about potential impacts to water quality from drilling?

Under Act 13 of 2012, any landowner or water purveyor who believes that their water supply has been adversely impacted by drilling, alteration, or operation of an oil or gas well may notify the Department of Environmental Protection and request an investigation. After DEP receives notification, DEP has 10 days to respond to your complaint. DEP must make a "determination" within 45 days following notification. A determination simply means that the water supply either was (or was not) adversely impacted by the drilling, alteration, or operation of an oil or gas well.



Our report found that DEP was not always timely in making its determination. DEP's investigation can be quite lengthy if the contamination is related to stray gas migrating to your water supply. These investigations may go on for months, due in part to DEP's need to conduct specialized isotopic testing to determine the exact source of the stray gas. If DEP does not make its determination within 45 days, you should contact the DEP inspector who is assigned to your case and inquire about the investigation's status. Whenever possible, have these notes committed in writing (e-mail can be helpful in this regard).

During the complaint investigation, the operator may offer to supply you with an alternative water source. In no way should accepting this water source delay DEP's investigation or your rights to clean water.

Stay informed on drilling operations—and how to do it.

Drilling information is presented on DEP's website, but to get the most accurate information, you may need to conduct a file review at one of DEP's district offices.

DEP posts a great deal of information about oil and gas activity on its website; however, as we found in our audit report, locating the specific information can be cumbersome and difficult.

Because the operators presumed liability only extends for a certain period after drilling, it is important to know the exact dates relevant activity took place on the well site.

Users should use DEP's "eFACTS on the web" from DEP's website for information on permits and inspections. Users will need to know the name of the company or some other information like county or municipality to identify the appropriate eFACTS key identifier fields.

Users should exercise caution in accessing any information from DEP's website as the information may not be accurate and may not be representative of actual conditions. DEP frequently posts data it obtains directly from operators without checking to see if the data is valid and reliable. In particular, drilling dates (or spud dates) may be inaccurate on DEP's website. As we found in our audit work, the only way to really know when critical drilling activity occurred on a site is to conduct a file review at the applicable district oil and gas office or to speak with an operator's representative.

What changes should I look for in my water?

The United States Geological Survey's Water Science School defines water quality as a measure of the suitability of water for a particular use based on selected physical, chemical, and biological characteristics. Obviously, water which we consume we want to be of the best quality!

The only accurate and reliable way to notice changes in water quality is to have your water supply periodically tested by a certified water testing laboratory. Home test kits, while helpful in providing an indication of a potential problem, are not accepted as proof of a water quality impact.

Any changes to the color, taste, or appearance of the water could be a concern; however, some changes are naturally occurring and are not indicative of a problem resulting from shale gas drilling or related activities. Additionally, if your well water runs dry or is unable to produce a sufficient volume of water, you should report your concerns to DEP, after first looking for other plausible answers, e.g., a faulty pump, electrical issue, etc.

Other changes to look for include water that is bubbling, which might indicate an issue with methane gas impacting the water supply. This occurrence is more common in the Northeast areas of the state, but can occur anywhere.

If I notice changes in my water quality, who do I contact—the operator, DEP, the EPA?

The first contact should be to the applicable DEP oil and gas district office. If you are unsure which office to contact, call DEP's statewide hotline at **1-866-255-5158.**

Many homeowners contact the operator directly to report a problem—which is also an option—but complainants should know that Pennsylvania law requires operators to notify DEP about any water supply complaints they receive within 24 hours of receipt of the complaint.

Since the operator is going to notify DEP anyway, it makes most sense to register your concerns with DEP. That way, DEP has a record of the complaint and can take steps to address your concerns in a timely manner.

Some homeowners may be hesitant to contact DEP for fear of retribution by the operator or others.

DEP treats all complaints confidentially and will take steps to protect your identity. It is important for DEP to know what possible issues are at play with your water supply, as other supplies may also be impacted.

Complaints can also be registered with the Environmental Protection Agency (EPA), but the EPA delegates many issues to the states. Consequently, the EPA may refer your complaint to DEP for investigation.

Complainants should never fear registering a complaint with DEP or an operator. Pennsylvania's Constitution mandates clean water, and if your water supply has been impacted from oil and gas activity, possible remedies are available to you.

You may want to consider consulting with a private attorney for additional guidance.

The more information you keep about your water well the better—such information will be helpful in resolving any potential issues.

What information do I need to keep on file?

Any information on previous water tests will be extremely helpful in resolving your complaint.

Homeowners should keep copies of these tests, as well as any well drilling records and information on the depth of your water well. The type of well construction and the approximate location to nearby gas drilling activity will help in the investigation. Additional information on the type of water pump being used and any water treatment records will also be helpful.

You should try to keep records that are as detailed as possible about your water supply. All of this information will be helpful to DEP in investigating your complaint.

Finally, complainants should demand that DEP provide them with written investigation results of their investigation. Specifically, request that DEP provide you with the following information: what did DEP do to address your complaint and what DEP concluded—and why.

If you file a complaint with DEP—know your complaint identification number.

When a complainant registers a complaint with a DEP district office that complaint is inputted into DEP's complaint tracking system (CTS) and is assigned a complaint identification number. Our audit found weaknesses with the CTS system, which stemmed primarily from DEP's inconsistent use of the system.

It is important that when registering a complaint with DEP, you ask the customer service representative for your complaint identification number, which is generally a six digit number. Use this number every time you contact DEP as it will ensure that your concerns are noted and not mixed with other complaints. Also, complainants can request a copy of a "CTS 112 report" which will give additional information on the actions taken by the DEP inspector in resolving your complaint.

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Auditor General DePasquale Calls for Audit of DEP's Monitoring of Potential Water Quality Impact from Shale Gas Development

Eugene A. DePasquale became the 51st Auditor General on January 15, 2013. As the state's chief fiscal watchdog, DePasquale is committed to seeing that taxpayer dollars are spent properly and effectively.

Auditor General DePasquale is focusing audits on areas that will improve the lives of all Pennsylvanians and prepare our state for a brighter future. He is also ensuring transparency and accountability in state government.

Upon taking office in January 2013, one of Auditor General DePasquale's first actions was to initiate a performance audit of the Department of Environmental Protection (DEP) and its ability to protect water quality in the wake of the commonwealth's shale gas boom. General DePasquale's performance audit involved months of analysis of DEP's internal procedures and practices. General DePasquale's audit highlighted glaring weaknesses in DEP's systems and procedures, which has brought about new discussions of how the commonwealth must monitor shale gas development into the future. You can read the Department's full report by accessing our website.

You can also follow the Department of the Auditor General on social media. Facebook: Pennsylvania Auditor General or on Twitter at @PaAuditorGen.

Where can I go for further information?

DEP's oil and gas district offices can be reached at:

Meadville
(814-332-6945)

Pittsburgh
(412-442-4000)

Williamsport
(570-327-3636)

Additional information on private water wells and drinking water standards is available from (press ctrl+click):

Centers for Disease Control and Prevention, http://www.cdc.gov/healthywater/drinking/private/wells/

SAFER PA, PA Water Well Handbook., http://www.saferpa.org/Documents/Reports/PA-Water-Well-Handbook-01-15-2014_WebOptimized_FINAL.pdf

PSU College of Ag. Sciences, Penn State Extension, http://extension.psu.edu/natural-resources/water

US Environmental Protection Agency, http://water.epa.gov/drink/

Penn State Institutes of Energy and the Environment, Drinking Water Interpretation Tool, http://www.psiee.psu.edu/water/dwit.asp

NSF, Home Drinking Water Quality and Treatment, http://www.nsf.org/consumer-resources/health-and-safety-tips/water-quality-treatment-tips/

Susquehanna River Basin Commission, http://www.srbc.net/

US Geological Survey, http://www.usgs.gov/water/

DEP, Bureau of Safe Drinking Water, http://www.portal.state.pa.us/portal/server.pt/community/bureau_of_safe_drinking_water/20891

National Groundwater Association, http://wellowner.org/basics/

LEGAL DISCLAIMER - This *Citizen's Guide* was compiled by the staff of the Department of the Auditor General (Department). Pennsylvania law prohibits the Department from providing any legal advice to citizens or pre-audit advice to potential state or local auditees. This document is not intended as legal advice or representation nor should you consider or rely upon it as such. Finally, while we have provided information that is useful and up-to-date as of the issuance date, because the law may change and there is ongoing litigation, the information may not be current and valid at any given time in the future. **Therefore, please consult with a private attorney if you believe that any circumstances you are experiencing as a result of shale gas development may have legal implications.**